

## Time Line of Information, Science, Media

### 2.5 million BC to 1000 AD

**note: BC = Before Christ**

**BCE = Before the Common Era (used by secularist)**

### The First Industrial Complex Circa 2,500,000 BCE – 1,000 CE or AD



Olduvai Gorge (View Larger)

At [Olduvai Gorge](#), a steep-sided ravine in the [Great Rift Valley, Tanzania](#), prehistoric [hominins](#) of the [Lower Paleolithic](#) manufactured [stone tools](#).

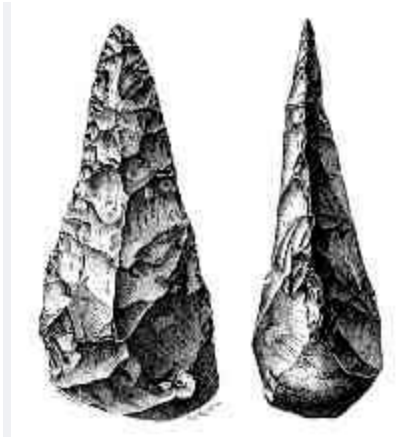
These rough flake tools, discovered in the twentieth century CE, are characterized as [Oldowan](#). They are also characterized as Mode 1 industries.

"The earliest archaeological deposit, known as Bed I, has produced evidence of campsites and living floors along with stone tools made of [flakes](#) from local basalt and quartz. Since this is the site where these kinds of tools were first discovered, these tools are called Oldowan. It is now thought that the Oldowan toolmaking tradition started about 2.6 million years ago. Bones from this layer are not of modern humans but primitive [hominid](#) forms of [Paranthropus boisei](#) and the first discovered specimens of [Homo habilis](#)" (Wikipedia article on Olduvai Gorge, accessed 04-04-2009).

"Oldowan tool use is estimated to have begun about 2.5 million years ago (mya), lasting to as late as 0.5 mya. For about 1 million years exclusively Oldowan sites are found. After 1.5 mya Acheulean sites make their appearance in the archaeological record, but this does not mean Oldowan sites are no longer found. It is thought that Oldowan tools were produced by several species of hominins ranging from [Australopithecus](#) to early [Homo](#). 'Oldowan' therefore does not properly refer to a culture, but to a very simple tradition of tool manufacture that was in use for a long time" (Wikipedia article on Oldowan, accessed 04-04-2009).

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### Acheulean or Mode 2 Industries Circa 1,650,000 BCE – 100,000 BCE



A flint biface, discovered in Saint-Acheul, France. (View Larger)

During the [Lower Paleolithic](#) era prehistoric [hominins](#) manufactured stone tools, characterized scientifically as [Acheulean](#) (Acheulian), across Africa and much of West Asia and Europe. Acheulean tools are typically found with [Homo erectus](#) remains.

"The Mode 2 (eg Acheulean or Biface) toolmakers also used the Mode 1 flake tool method but supplemented it by also using wood or bone implements to pressure flake fragments away from stone cores to create the first true hand-axes. The use of a soft hammer made from wood or bone also resulted in more control over the shape of the finished tool. Unlike the earlier Mode 1 industries, the core was prized over the flakes that came from it. Another advance was that the Mode 2 tools were worked symmetrically and on both sides (hence the name [Biface](#)) indicating greater care in the production of the final tool" (Wikipedia article on Stone tool, accessed 04-04-2009).

"Providing calendrical dates and ordered chronological sequences in the study of early stone tool manufacture is difficult and contentious. [Radiometric dating](#), often [potassium-argon dating](#), of deposits containing Acheulean material is able to broadly place the use of Acheulean techniques within the time from around 1.65 million years ago to about 100,000 years ago. The earliest accepted examples of the type, at 1.65 m years old, come from the [West Turkana](#) region of Kenya although some have argued for its emergence from as early as 1.8 million years ago.

"In individual regions, this dating can be considerably refined; in Europe for example, Acheulean methods did not reach the continent until around one million years ago and in smaller study areas, the date ranges can be much shorter. Numerical dates can be misleading however, and it is common to associate examples of this early human tool industry with one or more glacial or interglacial periods or with a particular early species of human. The earliest user of Acheulean tools was [Homo ergaster](#) who first appeared almost 2 million years ago. Not all researchers use this formal name however and instead prefer to call these users early [Homo erectus](#). Later forms of early humans also used Acheulean techniques . . . .

"It was the dominant technology for the vast majority of human history and more than one million years ago it was Acheulean tool users who left Africa to first successfully colonize [Eurasia](#). Their distinctive oval and pear-shaped [handaxes](#) have been found over a wide area and some examples attained a very high level of sophistication suggesting that the roots of human art, economy and social organisation arose as a result of their development. Although it developed in Africa, the industry is named after the [type site](#) of [Saint Acheul](#), now a suburb of [Amiens](#) in northern France, where some of the first examples were identified in the 19th century" (Wikipedia article on Achulean, accessed 04-04-2009).

♦ "These kinds of Acheulean artifacts, as they are known, have been found in Africa dating back about 1.5 million years. But in Europe, the oldest hand axes that had been found dated to only half a million years ago. Scientists have wondered why it took so long for early humans with such refined toolmaking to show up in Europe.

"Now research from two sites in southeastern Spain provides an answer: it didn't take that long, after all.

"Using paleomagnetic dating, Gary R. Scott and Luis Gibert of the Berkeley Geochronology Center in California have determined that rather than being about 200,000 years old, the two sites, Solano del Zamborino and Estrecho del Quípar, are about 760,000 and 900,000 years old, respectively."

"Dr. Gibert said the finding, which was published in *Nature*, adds to mounting evidence that humans migrated to Europe from Africa earlier than previously thought.

"The question is, which route did they follow?' he said. Rather than coming through the Middle East and then westward, Dr. Gibert said he is convinced they came across at Gibraltar. 'We think the Gibraltar straits were a permeable barrier,' he said. 'It's a provocative interpretation, but I think there is enough information to support it' " (<http://www.nytimes.com/2009/09/08/science/08obaxe.html?scp=1&sq=stone%20tools&st=cse>, accessed 09-12-2009).

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## The Earliest Use of Pigments Circa 400,000 BCE – 350,000 BCE



A sample of geothite, or brown ochre. (View Larger)

Naturally occurring [pigments](#) such as [ochres](#) and [iron oxides](#) were used as colorants since prehistoric times. Archaeologists uncovered evidence that early humans used paint for aesthetic purposes such as body decoration. Pigments and paint grinding equipment believed to be between 350,000 and 400,000 years old were reported in a cave at Twin Rivers, near Lusaka, [Zambia](#).

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## Early Humans Use Heat-Treated Stone for Tools Circa 162,000 BCE – 70,000 BCE

Kyle S. Brown, a doctoral student at the University of Cape Town, and colleagues publish "[Fire as an Engineering Tool of Early Modern Humans](#)," *Science*, 14 August 2009: **325**, 859-62.

"The controlled use of fire was a breakthrough adaptation in human evolution. It first provided heat and light and later allowed the physical properties of materials to be manipulated for the production of ceramics and metals. The analysis of tools at multiple sites shows that the source stone materials were systematically manipulated with fire to improve their flaking properties. Heat treatment predominates among silcrete tools at ~72 thousand years ago (ka) and appears as early as 164 ka at Pinnacle Point, on the south coast of South Africa. Heat treatment demands a sophisticated knowledge of fire and an elevated cognitive ability and appears at roughly the same time as widespread evidence for symbolic behavior" (*Science*).

Brown *et al* report finding stone tools that show signs of being heated to about 600 degrees Fahrenheit. Heat-treating, most likely by burying a stone under a fire, made a stone easier to knap, or shape into a tool by striking it with another stone.

"Archaeologists were studying several sites on the South African coast, with artifacts dating from 72,000 to 164,000 years ago that would have been made by modern humans from the African Middle Stone Age. Mr. Brown, an archaeological knapper who tries to replicate ancient tools, said they noticed that blades found at the site, made from a stone called silcrete, did not match silcrete obtained from outcroppings in the area. 'We realized we were missing something,' he said.

"They experimented by heat-treating some of the stone themselves. 'When we pulled it out of the fire and flaked it, it did look like the kind of stone we were finding at our site,' Mr. Brown said. Their findings are published in Science.

"The researchers had to show that the tools they found were intentionally heated to improve workability, not accidentally through a bushfire or other means. They found tools in areas where there was no evidence of burning. And they conducted tests on some of the artifacts, including one that showed that flaked surfaces had a glossiness that occurs only when the stone has been heated, proving that the stones were heated first and then worked into tools" ([http://www.nytimes.com/2009/08/18/science/18obfire.html?\\_r=1&hpw](http://www.nytimes.com/2009/08/18/science/18obfire.html?_r=1&hpw)).

♦ "The find also adds weight to the argument that modern humans were acting in sophisticated ways long before they came to Europe about 35,000 years ago--and that they were engaged in far more complex behavior than were the Neandertals who lived at the same time, says anthropologist Alison Brooks of George Washington University in Washington, D.C. 'This is another piece of evidence that modern humans had made a lot of discoveries that Neandertals had not' " (<http://sciencenow.sciencemag.org/cgi/content/full/2009/813/1>).

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## Probably the Earliest Known Examples of Paleolithic Art Circa 70,000 BCE



Pieces of ochre rock [decorated with geometric patterns](#) found at [Blombos Cave](#) in South Africa, nearly 200 miles from Cape Town, [in 2002](#), have been dated to the [Middle Stone Age](#), equivalent to the European Middle Paleolithic, or roughly 70,000 BCE. These may be the earliest known examples of paleolithic art.

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## The Earliest Examples of Figurative Art Circa 38,000 BCE – 33,000 BCE



The Venus of Schelklingen.

"Despite well over 100 years of research and debate, the origins of art remain contentious. In recent years, abstract depictions have been documented at southern African sites dating to approx 75 kyr [75,000 years] before present (bp) and the earliest figurative art, which is often seen as an important proxy for advanced symbolic communication, has been documented in Europe as dating to between 30 and 40 kyr [30-40,000 years before present]. Here I report the discovery of a female mammoth-ivory figurine in the basal Aurignacian deposit at Hohle Fels Cave in the Swabian Jura of southwestern Germany during excavations in 2008. This figurine was produced at least 35,000 calendar years ago, making it one of the oldest known examples of figurative art. This discovery predates the well-known Venuses from the Gravettian culture by at least 5,000 years and radically changes our views of the context and meaning of the earliest Palaeolithic art" (Nicholas J. Conard, "[A female figurine from the basal Aurignacian of Hohle Fels Cave in southwestern Germany](#)," *Nature*, **459**, 248-252 (14 May 2009) | doi:10.1038/nature07995).

**You can watch a Nature video presentation** on this discovery by American archaeologist Nicholas Conard from the department of Early Prehistory and Quaternary Ecology, University of Tübingen, at: <http://www.nature.com/nature/videoarchive/prehistoricpinup/>, (accessed 05-14-2009.)

The small figurine has been called *The Venus of Schelklingen* (*Venus of Hohle Fels*). was found near Schelklingen, Germany. Belonging to the early [Aurignacian](#), at the very beginning of the [Upper Paleolithic](#) and the earliest presence of [Homo sapiens \(Cro-Magnon\)](#) in Europe, "the discovery of the [Venus of Schelklingen](#) pushes back the date of the oldest prehistoric sculpture, and the oldest known figurative art altogether, by several millennia, establishing that works of art were being produced throughout the Aurignacian.

"The figurine was discovered in September 2008 in a cave called [Hohle Fels](#) (Swabian German for "hollow rock") near Schelklingen, some 15 kilometres (9 mi) west of Ulm, Baden-Württemberg, Germany, by a team from the University of Tübingen led by Prof. Nicholas Conard, who reported their find in Nature.

"The figurine, made of a mammoth tusk, is a representation of the female body, putting emphasis on the vulva and the breasts, and is consequently assumed to be an amulet related to fertility. In place of the head, the figurine has a perforation so that it could be worn as a pendant. Archaeologist John J. Shea suggests it would have taken "tens if not hundreds of hours" to carve. The figurine was found in the cave hall, about 20 metres (66 ft) from the entrance, and about 3 metres (10 ft) below the current ground level. It was broken into fragments, of which six have been recovered, with the left arm and shoulder still missing" (Wikipedia article on Venus of Schelklingen, accessed 05-14-2009).

- In 2003 Nicholas Conard reported the discovery of a [carved waterbird](#) looking something like a diving cormorant, and a [carved horse head](#) from the same Hohle Fels cave. These are thought to date from 31,000 to 28,000 BCE:

N.J. Conard, "Palaeolithic ivory sculptures from southwestern Germany and the origins of figurative art," *Nature* **426** (2003) 830–832.

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## The Oldest Known Mathematical Artifact 35,000 BCE



A map of Swaziland, including the Lebombo Mountains to the East.

The [Lebombo bone](#), the oldest known mathematical artifact, is a [tally stick](#) with 29 distinct notches that were deliberately cut into a baboon's fibula. It was discovered within the Border Cave in the [Lebombo Mountains](#) of [Swaziland](#).

The Lebombo bone resembles the calendar sticks still used by [Bushmen](#) in [Namibia](#).

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## The Earliest Musical Instruments Circa 33,000 BCE



A flute, found in the hills west of Ulm Germany, that is believed to be 35,000 years old.

A bone flute with five finger holes, carved from the hollow bone of a [gryphon \(griffon\) vulture](#), and found in 2009 at [Hohle Fels Cave](#) in the hills west of Ulm, Germany, is the most complete of the musical instruments so far recovered from the caves in the region. A three-hole flute carved from mammoth ivory was uncovered from another cave in the area, as well as two flutes made from the wing bones of a mute swan.

"In [an article published online by the journal \*Nature\*](#), Nicholas J. Conard of the University of Tübingen, in Germany, and colleagues wrote, "These finds demonstrate the presence of a well-established musical tradition at the time when modern humans colonized Europe."

"Although radiocarbon dates earlier than 30,000 years ago can be imprecise, samples from the bones and associated material were tested independently by two laboratories, in England and Germany, using different methods. Scientists said the data agreed on ages of at least 35,000 years old.

"Dr. Conard, a professor of archaeology, said in an e-mail message from Germany that 'the new flutes must be very close to 40,000 calendar years old and certainly date to the initial settlement of the region.'

"Dr. Conard's team said that an abundance of stone and ivory artifacts, flint-knapping debris and bones of hunted animals were found in the sediments with the flutes. Many people appeared to have lived and worked there soon after their arrival in Europe, assumed to be around 40,000 years ago and 10,000 years before the native Neanderthals were to become extinct"

(<http://www.nytimes.com/2009/06/25/science/25flute.html?scp=1&sq=nicholas%20j%20conard&st=cse>).

You can listen to a melody played on a replica of a prehistoric flute at [The New York Times](#) link.

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## **Making Materials from Flax Fibers Circa 32,000 BCE – 28,000 BCE**



Wild flax fibers discovered in Dzudzuana Cave. (View Larger)

Eliso Kvavadze, [Ofer Bar-Yosef](#) and 5 co-authors publish "[30,000-Year-Old Wild Flax Fibers](#)," *Science* 11 September 2009, **325**, no. 5946, 1359; DOI: 10.1226/Science.1175404.

The abstract reads:

"A unique finding of wild flax fibers from a series of Upper Paleolithic layers at Dzudzuana Cave, located in the foothills of the Caucasus, Georgia, indicates that prehistoric hunter-gatherers were making cords for hafting stone tools, weaving baskets, or sewing garments. Radiocarbon dates demonstrate that the cave was inhabited intermittently during several periods dated to 32 to 26 thousand years before the present (kyr B.P.), 23 to 19 kyr B.P., and 13 to 11 kyr B.P. Spun, dyed, and knotted flax fibers are common. Apparently, climatic fluctuations recorded in the cave's deposits did not affect the growth of the plants because a certain level of humidity was sustained."

The flax fibers were discovered following examination of clay extracted from the cave deposits, leading the archaeologists to speculate that they were the remains of manufactured items which long since disintegrated:

"Some of the fibers were twisted, indicating they were used to make ropes or strings. Others had been dyed. Early humans used the plants in the area to color the fabric or threads made from the flax.

"The items created with these fibers increased early humans chances of survival and mobility in the harsh conditions of this hilly region. The flax fibers could have been used to sew hides together for clothing and shoes, to create the warmth necessary to endure cold weather. They might have also been used to make packs for carrying essentials, which would have increased and eased mobility, offering a great advantage to a hunter-gatherer society

" 'This was a critical invention for early humans. They might have used this fiber to create parts of clothing, ropes, or baskets—for items that were mainly used for domestic activities,' says Bar-Yosef.

" 'We know that this is wild flax that grew in the vicinity of the cave and was exploited intensively or extensively by modern humans.'

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## Information Recorded in Cave Paintings Circa 30,000 BCE

Much of the earliest recorded [information](#) consists of paleolithic [cave paintings](#) and Cro-Magnon [mobiliary art](#), including bones with [talley marks](#). The purposes of this art may never be fully understood.



Chauvet Cave

[In 1970 [Alexander Marshack](#) published his innovative *Notation dans les gravures du Paléolithique Supérieur*. He argued that talley marks on certain bones represented a system of proto-writing, and proposed the controversial theory that notches and lines carved on certain Upper Paleolithic bone plaques were in fact

notation systems, specifically lunar calendars notating the passage of time. Using microscopic analysis, Marshack showed that seemingly random or meaningless notches on bone were sometimes interpretable as structured series of numbers. Marshack expanded upon these ideas in his book, *The Roots of Civilization* (1972).]

◆ The oldest cave paintings confirmed by radiocarbon dating are in the [Chauvet Cave](#) discovered in the Ardèche region of France in 1994. Paintings in the Chauvet Cave date as early as 30,000 BCE. Because many cave paintings are in deep caves, often in inaccessible locations, it has been suggested that they may not have been for public display, but might have been revealed to *cognoscenti* by elders of a tribal community.

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## **The Earliest Zoomorphic / Anthropomorphic Sculpture Circa 30,000 BCE**





The 'Lion Man,' preserved in the Ulmer Museum in Ulm, Germany. (View a full-scale image.)

The so-called [Lionheaded Figurine](#), a [zoomorphic](#) /[anthropomorphic](#) sculpture 29.6 cm high, 5.6 cm wide and 5.9 cm thick, carved out of mammoth ivory, was discovered in 1939 in a cave named [Stadel-Höhle im Hohlenstein](#) in the Lonetal, [Swabian Alb](#), Germany.

"Due to the beginning of the Second World War, it was forgotten and only rediscovered thirty years later. The first reconstruction revealed a humanoid figurine without head. During 1997 through 1998 additional pieces of the Sculpture were discovered and the head was reassembled and restored."

"The sculpture shares certain similarities with French cave wall paintings, which also show hybrid creatures. The French paintings, however, are several thousand years younger than the German sculpture.

"After this artifact was identified, a similar, but smaller, lion-headed sculpture was found, along with other animal figures, in another cave in the same region of Germany. This leads to the possibility, that the lion-figure played an important role in the mythology of humans of the early Upper Paleolithic" (Wikipedia article on Lion man, accessed 05-14-2009).

The figurine is preserved in the Ulmer Museum in Ulm, Germany, which maintains a website for the figurine, with a video at this link: [http://www.loewenmensch.de/lion\\_man.html](http://www.loewenmensch.de/lion_man.html), accessed 05-14-2009).

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## The Oldest Known Ceramic Figurine 29,000 BCE – 25,000 BCE



The Venus of Dolní Věstonice. (View Larger)

The [Venus of Dolní Věstonice](#) (Czech: Věstonická Venuše), a [ceramic Venus figurine](#), found at a Paleolithic site in the Moravian basin south of Brno, is, together with a few others from nearby locations, the oldest known ceramic in the world, predating the use of fired clay to make pottery. It is 111 millimeters (4.4 inches) tall, and 43 millimeters (1.7 inches) at its widest point, and is made of a clay body fired at a relatively low temperature.

"The palaeolithic settlement of [Dolní Věstonice](#) in Moravia, then Czechoslovakia, now Czech Republic has been under systematic archaeological research since 1924, initiated by [Karel Absolon](#). In addition to the Venus figurine, figures of animals - bear, lion, mammoth, horse, fox, rhino and owl - and more than 2,000 balls of burnt clay have been found at Dolní Věstonice.

"The figurine was discovered on July 13, 1925 in a layer of ash, broken into two pieces. Once on display at the Moravian Museum in Brno, it is now protected and only rarely accessible to the public. Last time it was exhibited in the National Museum in Prague from 2006-10-11 till 2007-09-02 as a part of the exhibition Lovci

mamutů (The Mammoth Hunters). Scientists periodically examine the statuette. A tomograph scan in 2004 found a fingerprint of a child estimated at between 7 and 15 years of age, fired into the surface; the child who handled the figurine before it was fired is considered by Králík, Novotný and Oliva (2002) to be an unlikely candidate for its maker" (Wikipedia article on Venus of Dolní Vestonice, accessed 05-14-2009).

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## The Ishango Bone 25,000 BCE – 20,000 BCE



Mathematics began with the earliest records of attempts to quantify time. The [Ishango Bone](#), a notched [tally stick](#) discovered in the Congo (Zaire) in 1960 by Jean de Heinzelin de Braucourt, and now preserved in the Royal Belgian Institute of Natural Sciences, represents, according to [Alexander Marschak](#), a six-month lunar calendar. It is among the earliest known mathematical objects. [Other lunar calendars](#) from about the same date have been discovered on other bones such as the [Isturitz Baton](#), and possibly in cave paintings in [Lascaux](#) and elsewhere.

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## The Earliest Representation of Spun Thread 25,000 BCE



A modern replica of the Venus of Lespugue. (View Larger)

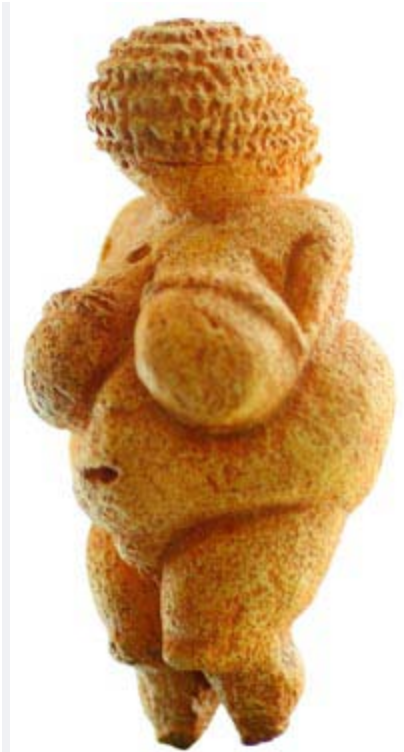
The [Venus of Lespugue](#), an ivory Venus figurine discovered by René de Saint-Périer in 1922 in the Rideaux cave of Lespugue (Haute-Garonne) in the foothills of the [Pyrenees](#), is approximately 6 inches (150 mm) tall. It is preserved at the [Musée de l'Homme](#).

"According to textile expert Elizabeth Wayland Barber, the statue displays the earliest representation found of spun thread, as the carving shows a skirt hanging from below the hips, made of twisted fibers, frayed at the end" (Wikipedia article on Venus of Lespugue, accessed 05-14-2009).

Barber, *Women's Work: The First 20,000 Years: Women, Cloth, and Society in Early Times* (1994) 44.

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## **The Venus of Willendorf Circa 24,000 BCE – 22,000 BCE**



The Venus of Willendorf. (View Larger)

The [Venus of Willendorf](#), an 11.1 cm (4 3/8 inches) high statuette of a female figure, was discovered in 1908 by archaeologist [Josef Szombathy](#) at a paleolithic site near Willendorf, a village in Lower Austria near the city of Krems. It is preserved in the [Naturhistorisches Museum](#), Vienna.

For a long time this sculpture, carved from an oolitic limestone not local to its area, and tinted with red ochre, was thought to be the earliest sculpture of a human.

Since the figure's discovery and naming, several similar statuettes and other forms of art have been discovered, including earlier examples. They are collectively referred to as Venus figurines, although they pre-date the mythological figure of Venus by thousands of years. The purposes of these carvings have been subject to much speculation.

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## One of the Earliest Known Realistic Representations of a Human Face Circa 23,000 BCE



The Venus of Brassempouy. (View Larger)

The [Venus of Brassempouy](#) or *La Dame de Brassempouy*, a fragmentary ivory figurine from the [Upper Palaeolithic, Gravettian industry](#), discovered in the Grotte du Pape at [Brassempouy](#), France in 1892, by [Édouard Piette](#), is one of the earliest known realistic representations of a human face.

"She is 3.65 cm high, 2.2 cm deep and 1.9 cm wide. Her face is triangular and seems tranquil. While forehead, nose and brows are carved in relief, the mouth is absent. A vertical crack on the right side of the face is linked to the internal structure of the ivory. On the head is a checkerboard-like pattern formed by two series of shallow incisions at right angles to each other; it has been interpreted as a wig, a hood, or simply a representation of hair.

"Even though the head was discovered so early in the development of modern archaeology that its context could not be studied with all the attention it would have deserved, there is no doubt that the Venus of Brassempouy belonged to an Upper Palaeolithic material culture, the Gravettian (29,000–22,000 BP), more precisely the Middle Gravettian, with "Noailles" burins circa 26,000 to 24,000 BP.

"She is more or less contemporary with the other Palaeolithic Venus figurines, such as those of Lespugue, Dolní Věstonice, Willendorf, etc. Nonetheless, she is distinguished among the group by the realistic character of the representation" (Wikipedia article on Venus of Brassempouy, accessed 05-14-2009).

The Venus of Brassempouy is preserved in the [Musée d'Archéologie nationale](#), Saint-Germain-En-Laye.

Randall White, "[The women of Brassempouy: A century of research and interpretation](#)," *Journal of Archaeological Method and Theory* 13.4, December 2006:251ff.

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## Cylcons Circa 18,000 BCE



"There are no certain ways to date individual cylcons. The oldest cylcon/message stone found in a dateable archaeological context is about 20,000 years old. The simple line motifs of the oldest cylcons represent the earliest art of the Aborigines, from a very early period of occupation. In Australian nomenclature this is the colonizing period, or early Stone Age, ca. 50,000/40,000-3,000 BC. With the earliest rock-carvings and paintings, the cylcons represent the oldest form of communication and art; and they represent the oldest religion still observed. Only 2 Aborigines have been able to communicate their name of the cylcons: Yurda, and Wommagnaragnara (Heart of the snake), respectively. Other uses as tallies are possible, such as counting of dead people, warriors, emus, measures of nardo seeds, or mapping purposes counting day-marches in various directions. Later the use could also change to other magic rituals, some involving the chipping off smaller flakes, and the practical use for pounding and crushing. Much more research is needed before the cylcons' real age and significance can be properly understood and appreciated.

"The term cylcon is derived from the title of R. Ethridge's publication: *The Cylindro-conical and Stone Implements of Western New South Wales and their significance*. Ethnological Series No. 2, *Memoirs of the Geological Survey of New South Wales*, 1916:1-41" (<http://www.schoyencollection.org/religionsLiving.html>, accessed 03-06-2009)

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## Perhaps the Oldest Map in the World 10,000 BCE

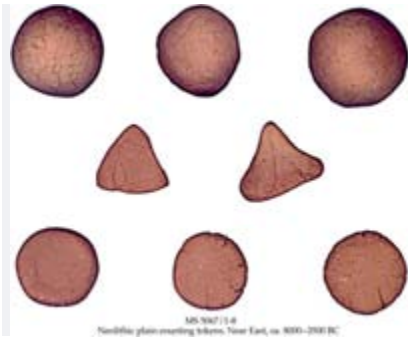


Map-making appears to predate written language. What may be [the oldest map in the world](#), discovered in Ukraine in 1966, may date from about this time. Inscribed on a mammoth tusk, the map was found in Mezhirich, Ukraine. It has been interpreted to show dwellings along a river.

Filed under: [Cartography](#) / [Geography](#) / [Voyages](#) / [Travels](#), [Survival of Information](#), [Writing](#) / [Palaeography](#) / [Calligraphy](#) | [Bookmark or share this entry](#) »

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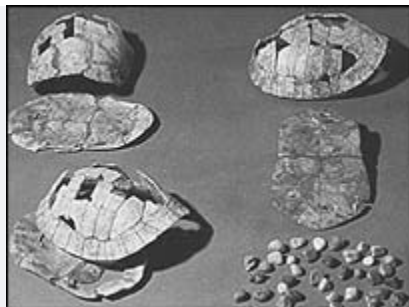
## Neolithic Tokens Replace Paleolithic Tally Sticks Circa 8,000 BCE



According to one theory about the origins of counting and writing developed by [Denise Schmand-Besserat](#), around 8000 BCE the Palaeolithic notched tallies representing the simplest form of counting — in one-to-one correspondence — were superseded by Neolithic tokens in various geometric forms suited for concrete counting. This invention is thought to have been used for about 5000 years prior to the use of abstract numbers which led to writing about 3500 BCE, and then to mathematics about 2600 BCE. Tokens followed basic geometric forms, such as spheres, tetrahedrons, cones, cylinders, discs, quadrangles, triangles. They were first kept in baskets, leather pouchs, clay bowls, and later within clay bullas.

Filed under: [Mathematics](#) / [Logic](#), [Prehistory](#), [Writing](#) / [Palaeography](#) / [Calligraphy](#) | [Bookmark or share this entry](#) »

## Possibly the Earliest Attempt at Writing Circa 6,600 BCE



In April 2003 Dr. Garman Harbottle of the Brookhaven National Laboratory in Upton, New York, and a team of archaeologists at the University of Science and Technology of China, in Anhui province, announced that signs carved into what appeared to be 8600 year-old-tortoise shells [may be the earliest written words](#).

**Other authorities urge caution regarding the dating of this material.** The symbols may have been recorded in the late Stone Age or Neolithic Age. The symbols also bear similarities to the [oracle bone script](#) used

thousands of years later during the Shang dynasty, and noticed in this database, but it is unclear whether these symbols were part of an actual writing system. The BBC reported:

"The archaeologists have identified 11 separate symbols inscribed on the tortoise shells.

"The shells were found buried with human remains in 24 Neolithic graves unearthed at Jiahu in Henan province, Western China.

"The site has been radiocarbon dated to between 6,600-6200 BC"

(<http://news.bbc.co.uk/2/hi/science/nature/2956925.stm>, accessed 07-11-2009).

Filed under: [Archaeology](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## A Wallpainting that Could be a Landscape or a Map Circa 6,200 BCE



A wallpainting, located in Catal Hoyuk, that might be the earliest landscape painting yet discovered, or a map. ([View Larger](#))

Catal Huyuk, or [Çatalhöyük](#), a very large [Neolithic](#) and [Chalcolithic](#) settlement in southern [Anatolia](#), of which the lowest layers date from around 7500 BCE, is the largest and best preserved Neolithic site found to date. It was first discovered in 1961.

A wallpainting found at this site may be the [earliest landscape painting](#) known, or it may be a map. However, some archaeologists have suggested that it is more likely a painting of a leopard skin instead of a landscape including a volcano, or a decorative geometric design instead of a map. The painting is preserved in the [Museum of Anatolian Civilizations](#) in Ankara.

Filed under: [Archaeology](#), [Art](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## Origins of Hieroglyphs Circa 3,600 BCE – 3,200 BCE



It is thought that [Egyptian hieroglyphs](#) evolved from symbols drawn on pottery produced by the [Gerzean culture](#) in Egypt.

Filed under: [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## Horse Domestication Revolutionizes Transportation, Communication, and Warfare Circa 3,500 BCE





The Botai culture originated from the Akmola province of Kazakhstan, highlighted in green. (View Larger)

Horse domestication revolutionized transportation, accelerated communication, and transformed warfare in prehistory. Yet the identification of early domestication processes has been problematic.

In a paper published in the journal *Science* on March 6, 2009 archaeologist Alan K. Outram and seven co-authors published "three independent lines of evidence demonstrating domestication in the [Eneolithic Botai Culture of Kazakhstan](#), dating to about 3500 B.C.E. Metrical analysis of horse metacarpals shows that Botai horses resemble Bronze Age domestic horses rather than Paleolithic wild horses from the same region. Pathological characteristics indicate that some Botai horses were bridled, perhaps ridden. Organic residue analysis, using  $\delta^{13}\text{C}$  and  $\delta\text{D}$  values of fatty acids, reveals processing of mare's milk and carcass products in ceramics, indicating a developed domestic economy encompassing secondary products" (<http://www.sciencemag.org/cgi/content/abstract/323/5919/1332>, accessed 03-06-2009).

Prior to discovery of this evidence horse domestication was thought to have occurred around 2500 BCE.

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◆ Before horses were domesticated it appears that prehistoric people mainly killed horses for food. One of the most celebrated collections of horse and reindeer bones was found beneath the precipice at the paleolithic site of [Solutré](#) in France. Though prehistoric people primarily hunted the reindeer for food and other necessities of life, an explanation for the immense deposit of bones at Solutré is that prehistoric people stampeded reindeer and horses over the cliff as a means of killing them.

Filed under: [Archaeology](#), [Communication](#), [Food / Wine / Cookery / Diet](#), [Prehistory](#), [Technology](#) | [Bookmark or share this entry](#) »

## Writing Begins as a System of Pictographs Circa 3,300 BCE – 2,900 BCE



Created by the [Sumerians](#) about 3000 BCE (with predecessors reaching to the late 4th millennium or about the period of [Uruk IV](#); 3300-3100 BCE), [cuneiform](#) writing began as a system of [pictographs](#) written with [styli](#) in clay tablets.

"Writing emerged in the context of temple bureaucracy in the cities of the southern Iraqi marshes some time in the late fourth millennium BC. A tiny number of accountants used word signs (usually pictograms) and number signs to account for institutional assets — land, labor, animals — and their secondary products. They wrote on refined clay tablets, about the size of a credit card but around 1 cm thick, incising the signs for the objects they were recording with a pointed stylus and impressing the numbers with a cylindrical one. The front surface of the tablet was marked out into boxes, each one containing a single unit of accounting, logically ordered, with the results of calculations (total wages, predicted harvests, and so on) shown on the back. This writing was barely language-specific — it represented concrete nouns, numbers and little else, with only occasional clues to pronunciation and none at all to word order — and was known only to a handful of expert users. Its

functionality was as yet so limited that it was used only to keep accounts, or to practice writing the words, numbers, and calculations needed for accountancy" (Robson, "The Clay Tablet Book in Sumer, Assyria, and Babylonia," Elliot & Rose [eds.] *A Companion to the History of the Book* [2007] 67-68.)

Over time, the pictographs became simplified and more abstract.

Filed under: [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## **One of the Earliest Surviving Examples of Narrative Relief Sculpture and Egyptian Hieroglyphs Circa 3,200 BCE**



The [Narmer Palette](#), one of the earliest surviving examples of narrative relief sculpture, was found during excavations at [Hierakonpolis](#) (modern Kawm al-Ahmar) in the 1890s. It is also one of the earliest surviving records of Egyptian [hieroglyphs](#).

The Narmer Palette is preserved in the [Museum of Egyptian Antiquities](#), Cairo.

Filed under: [Archaeology](#), [Art](#), [Linguistics / Translation / Speech, Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## **One of the Earliest Surviving Works of Narrative Relief Sculpture, Looted in the Iraq War Circa 3,200 BCE – 3,000 BCE**



A side-view of the Warka Vase, before the invasion of Iraq. (View Larger)

The [Warka Vase](#), also called the Uruk Vase, [a carved alabaster stone vessel](#), is one of the earliest surviving works of narrative relief sculpture. It was found in the temple complex of the Sumerian goddess [Inanna](#) in the ruins of the ancient city of Uruk, located in the modern Al Muthanna Governorate, in southern Iraq.

"The vase was discovered as a collection of fragments by German Assyriologists in their sixth excavation season at Uruk in 1933/1934. The find was recorded as find number W14873 in the expedition's field book under an entry dated 2 January 1934, which read "Großes Gefäß aus Alabaster, ca. 96 cm hoch mit Flachrelief" ("large container of alabaster, circa 96 cm high with flat-reliefs"). The vase, which showed signs of being repaired in antiquity, stood 3 feet, ¼ inches (1 m) tall. Other sources cite it as having been a slightly taller 106cm, with an upper diameter of 36cm. . . .

"The vase has three registers - or tiers - of carving. The bottom register depicts the vegetation in the [Tigris](#) and [Euphrates](#) delta, such as the natural reeds and cultivated grain. Above this vegetation is a procession of animals, such as oxen and sheep presented in a strict profile view. The procession continues in the second register with nude males carrying bowls and jars of sacrificial elements, such as fruit and grain. The top register is a full scene, rather than a continuous pattern. In this register, the procession ends at the temple area. [Inanna](#), one of the chief goddesses of Mesopotamia and later known as [Ishtar](#) in the Akkadian pantheon, stands, signified by two bundles of reeds behind her. She is being offered a bowl of fruit and grain by a nude figure. A figure in ceremonial clothing - presumably a chieftain/priest - stands nearby with the procession approaching him from behind.



A comparison of the Warka Vase before (left) and after (right) it sustained damage as a result of the invasion of Iraq. (View Larger)

"The Warka Vase was one of the thousands of artifacts which were looted from the National Museum of Iraq during the 2003 Invasion of Iraq. In April 2003 it was forcibly wrenched from the case where it was mounted, snapping at the base (the foot of the vase remaining attached to the base of the smashed display case. The vase was later returned during an amnesty to the Iraq Museum on June 12, 2003 by three unidentified men in their early twenties, driving a red Toyota vehicle. As reported by a correspondent for *The Times* newspaper, "As they struggled to lift a large object wrapped in a blanket out of the boot, the American guards on the gate raised their weapons. For a moment, a priceless 5,000-year-old vase thought to have been lost in looting after the fall of Baghdad seemed about to meet its end. But one of the men peeled back the blanket to reveal carved alabaster pieces that were clearly something extraordinary. Three feet high and weighing 600lb intact, this was the Sacred Vase of Warka, regarded by experts as one of the most precious of all the treasures taken during looting that shocked the world in the chaos following the fall of Baghdad. Broken in antiquity and stuck together, it was once again in pieces.

"Soon after the vase's return, broken into 14 pieces, it was announced that the vase would be restored. A pair of comparison photographs, released by the Oriental Institute, Chicago, showed significant damage (as of the day of return, 12 June 2003) to the top and bottom of the vessel.

"The current condition of the Warka Vase (museum number IM19606) is not known. In June 2007, The Guardian newspaper reported that widespread looting of antiquities is ongoing in Iraq and that the director of the Iraq Museum, Donny George, fled in August 2006 after receiving death threats. The museum's entrances have been bricked up, the building surrounded by concrete walls, and the museum's staff do not have access" (Wikipedia article on Warka Vase, accessed 07-11-2009).

Filed under: [Archaeology](#), [Art](#), [Destruction / Looting of Information](#) | [Bookmark or share this entry »](#)

## The Word Bibliography is Derived from a Greek Word for Papyrus Circa 3,100 BCE – 3,050 BCE



The pith of the [Papyrus](#) plant was used in Egypt at least as far back as the [First dynasty](#), for boats, mattresses, mats and as a writing surface. The Egyptian word papyrus, meaning "that of the king," may indicate a [Pharonic](#) monopoly in the period.

"The English word *papyrus* derives, via Latin, from Greek πάπυρος *papyros*. Greek has a second word for *papyrus*, βύβλος *byblos* (said to derive from the name of the Phoenician city of [Byblos](#)). The Greek writer [Theophrastus](#), who flourished during the 4th century BC, uses *papuros* when referring to the plant used as a foodstuff and *bublos* for the same plant when used for non-food products, such as cordage, basketry, or a writing surface. The more specific term βίβλος *biblos*, which finds its way into English in such words as

*bibliography, bibliophile, and bible*, refers to the inner bark of the papyrus plant. *Papyrus* is also the etymon of *paper*, a similar substance."

Filed under: [Bibliography](#), [Paper / Papyrus / Parchment / Vellum](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## The Earliest Autograph Signatures Circa 3,100 BCE



Pictographic lexical lists written in ancient Sumerian pictographic script on clay tablets are the earliest literature known, and also the earliest known evidence of school and learning.

An example preserved in the [Schoyen Collection \(MS 2429/4 MS 2429/4\)](#) is a lexical list of 41 titles and professions, starting: Nam Gist Sita (Lord of the Mace), signed by the scribe Gar.Ama.

The scribal signatures on this tablet and other lexical lists are the earliest autograph signatures extant.

Filed under: [Education / Reading / Literacy](#), [Linguistics / Translation / Speech](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## Education in the Bronze Age in the Middle East Circa 3,000 BCE – 1,200 BCE



Hammurabi (1792-1750 BCE), the most famous of the early Babylonian kings. (View Larger)

"In the Bronze Age (c. 3000-1200 BC in the Middle East) the production and transmission of literate knowledge was cited in scribal schools. No doubt temples, courts and other places were also centers of intellectual and cultural exchange at this time, but they have not yet been identified and analyzed as such through the archaeological record. Second-millennium schools, on the other hand, have been carefully studied in recent years, enabling us to look at them in the light of book history. For instance, in the early 1950s over a thousand tablets, mostly in fragments, were excavated from 'House F,' a small urban house in [Nippur](#) near modern Najaf. According to the datable household documents found in it, House F was used as a scribal school in the 1750s BC, immediately after the reign of [Hammurabi](#) (1792-1750 BC) the most famous of the early Babylonian kings.

"About half of the tablets in House F are the by-products of an elementary scribal education. They take the trainee from learning how to use a stylus to make horizontal, vertical, and diagonal wedges on the tablet to writing whole sentences in literary Sumerian. The students doubtless learned to make their own tablets too, because in the corner of the tiny courtyard was a bitumen-lined basin filled with a mixture of fresh tablet clay and crumpled up tablets waiting to be recycled. Both the elementary exercises and the tablets themselves were standardized, with format and content closely related to pedagogical function" (Robson, "The Clay Tablet Book in Sumer, Assyria, and Babylonia," Eliot & Rose [eds.], *A Companion to the History of the Book* [2007] 71).

It is thought that the tablets from House F survived because they were reused as building material.

Filed under: [Education](#) / [Reading](#) / [Literacy](#). [Survival of Information](#). [Writing](#) / [Palaeography](#) / [Calligraphy](#) | [Bookmark or share this entry](#) »

## The Oldest Known Papyrus Roll - Blank Circa 2,900 BCE



The hieroglyphic name of Hemaka, highlighted in red.

"The ancient Egyptians had used rolls made of papyrus from the early days of the [Old Kingdom](#). The oldest known papyrus roll was found in the tomb of [Hemaka](#) in Saqqara, and dates to the 1st dynasty, around 2900 BC. The hieroglyph for 'papyrus roll' existed already in inscriptions from this period. The 1st dynasty roll was blank; the oldest examples with writing dated from the 4th and 5th dynasties" (Roemer, "The Papyrus Roll in Egypt, Greece, and Rome," Eliot & Rose (eds) *A Companion to the History of the Book* [2007] 84).

Filed under: [Paper](#) / [Papyrus](#) / [Parchment](#) / [Vellum](#) | [Bookmark or share this entry](#) »

## The First Securely Datable Mathematical Table in World History Circa 2,600 BCE

"The first securely datable mathematical table in world history comes from the Sumerian city of Shuruppak, c. 2600 BCE. The table is ruled into three columns on each side with ten rows on the front or obverse side. The first columns of the obverse list length measures from c. 3.6km to 360 m in descending units of 360 m, followed by the Sumerian word sa ('equal' and/ or 'opposite') while the final column gives their products in area measure. Only six rows are extant or partially preserved on the reverse. They continue the table in smaller units, from 300 to 60 m in 60 m steps, and then perhaps (in the damaged and missing lower half) from 56 to 6 m in 6 m steps. While the table is organized along two axes, there is just one axis of calculation, namely, the horizontal multiplications. Around a thousand tablets were excavated from Shuruppak, almost all of them from houses and buildings which burned down in a city-wide fire in about 2600 BCE, but sadly we have no detailed context for this table because its excavation number was lost or never recorded." (Eleanor Robson, "Tables and tabular formatting in Sumer, Babylonia, and Assyria, 2500 BCE-50," Campbell-Kelly *et al* [eds]. *The History of Mathematical Tables from Sumer to Spreadsheets* [2003] 27-29).

Filed under: [Data Processing / Computing](#), [Mathematics / Logic](#) | [Bookmark or share this entry »](#)

## The Abu Salbikh Tablet Lost in the Iraq War Circa 2,500 BCE



The *Instructions of Shuruppak*, one of the earliest surviving literary works, is a Sumerian "[wisdom](#)" text. This was a genre of literature common in the Ancient Near East intended to teach proper piety, inculcate virtue and preserve community standing.

The text was set in great antiquity by its incipit: "In those days, in those far remote times, in those nights, in those faraway nights, in those years, in those far remote years." The precepts were placed in the mouth of a king "[Shuruppak](#), son of [Ubara-Tutu](#)." Ubara-Tutu was the last king of [Sumer](#) before the [universal deluge](#).

The oldest known copy of the *Instructions of Shuruppak* is the Abu Salabikh Tablet found at [Abu Salabikh](#), near the site of ancient [Nippur](#) in [Central Babylonia](#) (now southern Iraq). Abu Salabikh marks the site of a small Sumerian city of the mid third millennium BCE. It was excavated by an American expedition from the Oriental Institute of Chicago in 1963 and 1965, and was a British concern for the British School of Archaeology in Iraq (1975–89), after which excavations were suspended with the Iraqi invasion of Kuwait in 1990.

"The city, built on a rectilinear plan in [Early Uruk times](#), revealed a small but important repertory of [cuneiform](#) texts on some 500 tablets, of which the originals were stored in the [Iraq Museum](#), Baghdad, and were largely

lost when the museum was looted in the early stages of the [Second Iraq War](#); fortunately they had been carefully published."

Filed under: [Archaeology](#), [Book History](#), [Destruction / Looting of Information](#), [Education / Reading / Literacy](#), [Museums](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## The Oldest Known Religious Texts Circa 2,400 BCE – 2,300 BCE



Pyramid texts located in Teti I's pyramid. (View Larger)

A collection of [ancient Egyptian](#) religious texts from the time of the [Old Kingdom](#). The [Pyramid Texts](#) are the oldest known religious texts. Written in [Old Egyptian](#), they were carved on the walls and [sarcophagi](#) of the [pyramids](#) at [Saqqara](#) during the [5th](#) and [6th Dynasties](#) of the [Old Kingdom](#). They provide the earliest comprehensive view of the way in which the ancient Egyptians understood the structure of the universe, the role of the gods, and the fate of human beings after death. Their importance lies in their antiquity and in their endurance throughout the entire intellectual history of ancient Egypt.

"The oldest of the texts date to between 2400-2300 BCE. Unlike the [Coffin Texts](#) and [Book of the Dead](#) into which parts of the pyramid texts later evolved, the pyramid texts were reserved only for the pharaoh and were not illustrated. The pyramid texts mark the first written mention of the god [Osiris](#), who would become the most important deity associated with afterlife.

"The spells, or "utterances", of the pyramid texts are primarily concerned with protecting the pharaoh's remains, reanimating his body after death, and helping him ascend to the heavens, which are the emphasis of the afterlife during the [Old Kingdom](#). The spells delineate all of the ways the pharaoh could travel, including the use of ramps, stairs, ladders, and most importantly flying. The spells could also be used to call the gods to help, even threatening them if they did not comply" (Wikipedia article on Pyramid Texts, accessed 01-20-2009).

Filed under: [Religious Texts / Religion](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## The Earliest Known Dictionaries Circa 2,300 BCE





The Urra=hubullu, currently preserved at the Louvre Museum in Paris. (View Larger)

The oldest known dictionaries are cuneiform tablets from the [Akkadian empire](#) with bilingual wordlists in [Sumerian](#) and [Akkadian](#) discovered in [Ebla](#) in modern Syria.

The [Urra=hubullu](#) glossary, a major Babylonian glossary or encyclopedia from the second millennium BCE, preserved in the Louvre, is an outstanding example of this early form of wordlist.

"The canonical version extends to 24 tablets. The conventional title is the first gloss, ur5-ra and ḫubullu meaning "interest-bearing debt" in Sumerian and Akkadian, respectively. One bilingual version from Ugarit [RS2.(23)+] is Sumerian/Hurrian rather than Sumerian/Akkadian.

"Tablets 4 and 5 list naval and terrestrial vehicles, respectively. Tablets 13 to 15 contain a systematic enumeration of animal names, tablet 16 lists stones and tablet 17 plants. Tablet 22 lists star names.

"The bulk of the collection was compiled in the Old Babylonian period (early 2nd millennium BC), with pre-canonical forerunner documents extending into the later 3rd millennium" (Wikipedia article on Urra=hubullu, accessed 05-08-2009).

Filed under: [Archaeology](#), [Book History](#), [Linguistics / Translation / Speech](#) | [Bookmark or share this entry](#) »

## **The Earliest Printing was Stamped into Soft Clay Circa 2,291 BCE – 2,254 BCE**



MS 5106 of the Schoyen Collection, a brick printing block with a large loop handle from the period of Naram-Sin. (View larger)

The earliest printing was the stamping of inscriptions into the soft clay of bricks before firing, done under the rule of the Sumerian king [Naram-Sin of Akkad](#) (also transcribed *Narām-Sîn*, *Naram-Suen*), who built the Temple of [Inanna](#). Prior to Naram-Sin the inscriptions on the bricks were written by hand.

[MS 5106 in the Schoyen Collection](#) is a brick printing block, 13x13x10 cm, 3 lines in a large formal cuneiform script with large loop handle from the period of Naram-Sin.

Only two other brick printing blocks of Naram-Sin are known: one intact with a cylindrical handle in Istanbul, and a tiny fragment in British Museum.

Filed under: [Archaeology](#), [Printing / Typography](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## **One of the Oldest Known Ancient Mesopotamian Medical Texts 2,112 BCE – 2,004 BCE**



A reproduction of one of the oldest known Mesopotamian medical texts, dating from the Ur III period. (View Larger)

One of the oldest known ancient Mesopotamian medical texts is a collection of 15 prescriptions, written in Sumerian, on a clay tablet, which dates from the [Ur III period](#), or Sumerian Renaissance. It was excavated at the site of the ancient city of [Nippur](#) in Mesopotamia (modern Iraq), and is preserved in the University of Pennsylvania Museum of Archaeology and Anthropology.

On May 29, 2009 a reproduction of this tablet, [illustrated at this link](#), was available from the museum shop. The description of that reproduction dated the tablet to 2400 BCE.

Filed under: [Archaeology](#), [Medicine](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## **The Oldest Known Tablet Containing a Legal Code 2,100 BCE – 2,050 BCE**



The Code of Ur-Nammu.

"[The Code of Ur-Nammu](#) is the oldest known tablet containing a law code surviving today. It was written in the [Sumerian language](#) ca. 2100-2050 BC. Although the preface directly credits the laws to king Ur-Nammu of Ur (2112-2095 BC), some historians think they should rather be ascribed to his son Shulgi.

"The first copy of the code, in two fragments found at [Nippur](#), was translated by [Samuel Kramer](#) in 1952; owing to its partial preservation, only the prologue and 5 of the laws were discernible. Further tablets were found in Ur and translated in 1965, allowing some 40 of the 57 laws to be reconstructed. Another copy found in Sippar contains slight variants.

"Although it is known that earlier law-codes existed, such as the Code of [Urukagina](#), this represents the earliest legal text that is extant. It predated the Code of Hammurabi by some three centuries.

"The laws are arranged in casuistic form of if- (crime), then- (punishment) — a pattern to be followed in nearly all subsequent codes. For the oldest extant law-code known to history, it is considered remarkably advanced, because it institutes fines of monetary compensation for bodily damage, as opposed to the later [lex talionis](#) ('eye for an eye') principle of Babylonian law; however, the capital crimes of murder, robbery, adultery and rape are punished with death.

"The code reveals a glimpse at societal structure during the '[Sumerian Renaissance](#)'. Beneath the lu-gal ('great man' or king), all members of society belonged to one of two basic strata: The 'lu' or free person, and the slave (male, arad; female geme). The son of a lu was called a dumu-nita until he married, becoming a 'young man' (gurus). A woman (munus) went from being a daughter (dumu-mi), to a wife (dam), then if she outlived her husband, a widow (nu-ma-su) who could remarry" (Wikipedia article on Code of Ur-Nammu, accessed 02-04-2009).

Filed under: [Archaeology](#), [Book History](#), [Law / Copyrights / Patents](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## **Possibly the Earliest Document Written on Papyrus Circa 2,000 BCE**



A section of the Prisse Papyrus, which is believed to be the earliest known document written on papyrus. (View Larger)

The [Prisse Papyrus](#), dating from the Egyptian [Middle Kingdom](#), has been called the earliest known document written on papyrus. It contains the last two pages of the Instruction addressed to Kagemni, who purportedly served under the [4th Dynasty](#) king [Sneferu](#), and is a compilation of moral maxims and admonitions on the practice of virtue. The conclusion of the Instruction addressed to Kagemni is followed by the only complete surviving copy of the [Instruction of Ptahhotep](#).

The papyrus was obtained by the French orientalist [Achille Constant Théodore Émile Prisse d'Avennes](#) at Thebes in 1856. It is preserved in the Bibliothèque nationale de France.

Hunter, *Papermaking: The History and Technique of an Ancient Craft* (1947) 464.

Filed under: [Book History](#), [Paper / Papyrus / Parchment / Vellum](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## "The World's First Typewritten Document" - James Chadwick Circa 2,000 BCE – 1,700 BCE



Sides A (left) and B (right) of the Phaistos Disc. (View Larger)

The [Phaistos Disc](#), a disc of fired clay from the [Minoan](#) Palace of [Phaistos](#) on the island of Crete, was discovered in 1908 by the Italian archaeologist [Luigi Pernier](#), and remains the most famous document found in Crete.

"It is about 15 cm (5.9 in) in diameter and covered on both sides with a spiral of stamped symbols. Its purpose and meaning, and even its original geographical place of manufacture, remain disputed, making it one of the most famous mysteries of archaeology. This unique object is now on display at the archaeological museum of [Heraklion](#) in Crete" (Wikipedia article on Phaistos Disc, accessed 07-26-2009).

Because of the unique features of the disc, and the mysteries surrounding its origin, many people have doubted its authenticity, but no one has yet been able to prove conclusively that it is a forgery.

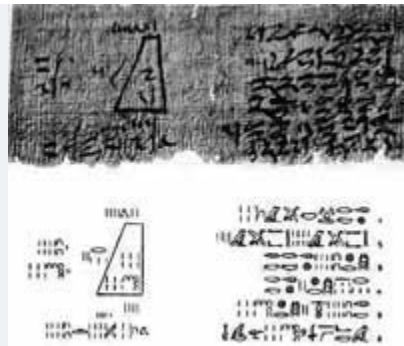
"The disk has the distinction of being the world's first typewritten document. It was made by taking a stamp or punch bearing the sign to be written in a raised pattern, and impressing this on the wet clay. The maker therefore needed to have as many stamps as there were signs in the script. It has the advantage that even complicated signs can be quickly written, and every example of the same sign is identical and easy to read. The disadvantage is that a considerable outlay of time and effort is required to make the set of stamps before any document can be produced. It is therefore evident that the system was not created solely for a single document; its maker must have intended to reproduce a large number of documents, though it remains some way from being an anticipation of printing.

"It is therefore all the more remarkable that after more than eighty years of excavation not another single scrap of clay impressed with these stamps had been found at Phaistos, or at any other site in Crete or elsewhere. It would be very surprising if there were not somewhere more examples of the script waiting to be found, but the disk remains so far unique, and the suspicion must arise that it was an isolated object brought from some other area.

"This impression of foreign origin can be supported by two arguments. The work of cutting the stamps, whether made directly or perhaps more likely by making moulds into which metal was poured, is a technique very similar to gem-engraving. We might therefore expect the signs to bear a stylistic resemblance to those engraved on seal-stones. In fact the style of art is noticeably different. Secondly, some of the objects depicted by the signs have a distinctly foreign appearance to those familiar with Minoan art" (Chadwick, *Linear B and Related Scripts* [1987] 57-58).

Filed under: [Archaeology](#), [Art](#), [Forgeries / Hoaxes / Crimes](#), [Linguistics](#) / [Translation](#) / [Speech](#), [Printing](#) / [Typography](#), [Writing](#) / [Palaeography](#) / [Calligraphy](#) | [Bookmark or share this entry](#) »

## The Older of the Two Best-Known Mathematical Papyri Circa 2,000 BCE



Several problems from the Moscow Mathematical Papyrus. (View Larger)

[The Moscow Mathematical Papyrus](#), the older of the two best-known mathematical papyri along with the larger [Rhind Mathematical Papyrus](#) (noticed in this database), is also called the Golenischev Mathematical Papyrus after its first owner, Egyptologist [Vladimir Goleniščev](#), who in 1909 sold his huge collection of Egyptian artifacts to [Pushkin State Museum of Fine Arts](#) in Moscow, where the papyrus is preserved today.

"Based on the palaeography of the hieratic text, it probably dates to the [Eleventh dynasty of Egypt](#). Approximately 18 feet long and varying between 1 1/2 and 3 inches wide, its format was divided into 25 problems with solutions by the Soviet Orientalist Vasily Vasilievich Struve in 1930" (Wikipedia article on [Moscow Mathematical Papyrus](#), accessed 09-11-2009).

Filed under: [Mathematics](#) / [Logic](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Oldest Surviving Illustrated Papyrus Roll Circa 1,980 BCE



Fragments of the Ramesseum Papyrus.

The Dramatic Ramesseum Papyrus (also known [Ramesseum Papyrus](#)) is the oldest known surviving illustrated papyrus roll. It measures about 7 feet by about 10 inches, and was found in 1895-96 by the English Egyptologist J.E. Quibell, excavating on behalf of the Egyptian Research Account in the [Ramesseum](#), in West Thebes.

"It contains a ceremonial play written to celebrate the accession to the throne of [Senusret I](#) of the [Twelfth Dynasty](#). . . . The text of the roll is in [linear hieroglyphs](#) written in narrow, vertical columns. The text occupies the top four-fifths of the scroll and the illustrations the bottom. the scenes are arranged in a manner similar to a modern comic strip with the Pharaoh, in the role of [Horus](#), appearing multiple times. Scenes are divided from

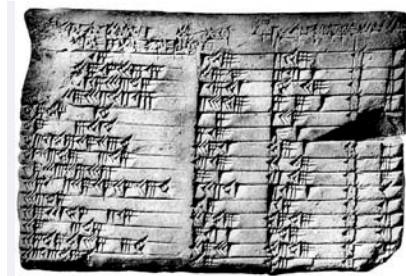
each other by vertical lines. The drawing style is so simple that the figures are little more than enlarged hieroglyphs" (Wikipedia article on Dramatic Ramesseum Papyrus, accessed 01-20-2009).

"This *hieroglyphic figure style*, as one might call it, suggests that we are not too far away in time from the beginning of papyrus roll illustration as a new branch of art, although it must be remembered that this roll is unique both as to its text and as to the period in which it was made" (Weitzmann, *Illustrations in Roll and Codex. A Study of the Origin and Method of Text Illustration* [1970] 58).

Diringer, *The Illuminated Book: Its History & Production* (1967) 27.

Filed under: [Book History](#), [Book Illustration](#) | [Bookmark or share this entry](#) »

## The Most Famous Document of Babylonian Mathematics Circa 1,822 BCE – 1,784 BCE



Plimpton 322 (View Larger)

Probably the most famous original document of [Babylonian mathematics](#) is [Plimpton 322](#), a partly broken clay tablet, approximately 13cm wide, 9cm tall, and 2cm thick. New York publisher [George A. Plimpton](#) purchased the tablet from archaeological dealer, Edgar J. Banks about 1922, and bequeathed it with the rest of his collection to Columbia University in the mid 1930s. According to Banks, the tablet came from Senkereh, a site in southern Iraq, corresponding to the ancient city of [Larsa](#).

This tablet has a table of four columns and 15 rows of numbers in [cuneiform script](#), and has been called the only true mathematical table surviving from the period.

Though the tablet was formerly thought to have been a listing of [Pythagorean triples](#), [Eleanor Robson](#) rejected earlier mathematical misconceptions of the tablet and pointed out that historical, cultural and linguistic evidence all reveal that the tablet is more likely "a list of regular reciprocal pairs."

Robson, "[Words and Pictures. New Light on Plimpton 322.](#)" *American Mathematical Monthly* **109** (2001) 105-121.

Filed under: [Accounting / Business Machines](#), [Archaeology](#), [Mathematics / Logic](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Oldest Known Medical Papyrus Circa 1,800 BCE



The [Kahun Gynaecological Papyrus](#) (also Kahun Papyrus, Kahun Medical Papyrus, or UC 32057) is the oldest known medical text on papyrus. It was found at [El-Lahun](#) by [Flinders Petrie](#) in 1889 and first translated by F. Ll. Griffith in 1893 and published in *The Petrie Papyri: Hieratic Papyri from Kahun and Gurob*.

The papyrus concerns women's complaints—gynaecological diseases, fertility, pregnancy, and contraception. "The text is divided into thirty-four sections, each section dealing with a specific problem and containing

diagnosis and treatment, no prognosis is suggested. Treatments are non surgical, comprising applying medicines to the affected body part or swallowing them. The womb is at times seen as the source of complaints manifesting themselves in other body parts."

Filed under: [Book History](#), [Manuscripts & Manuscript Copying](#), [Medicine](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## Thousands of Cuneiform Tablets Document Babylonian Mathematics 1,800 BCE – 1,600 BCE



YBC 7287, a Babylonian mathematical tablet preserved at Yale, circa 1800-1600 B.C.E. (View Larger)

In contrast to the scarcity of original sources for [Egyptian mathematics](#), preserved on the relatively fragile medium of papyrus, our knowledge of [Babylonian mathematics](#) is derived from several thousand extremely durable clay tablets written in Cuneiform script excavated since the beginning of the nineteenth century. "The majority of recovered clay tablets date from 1800 to 1600 BC, and cover topics which include fractions, algebra, quadratic and cubic equations, the Pythagorean theorem, the calculation of Pythagorean triples and possibly trigonometric functions."

Filed under: [Mathematics / Logic](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## The Code of Hammurabi Circa 1,760 BCE



The upper part of the stele containing the Code of Hammurabi. (View Larger)



The [Code of Hammurabi](#) is the best-preserved ancient law code. It was enacted by the sixth Babylonian king, [Hammurabi](#), and inscribed on stelae displayed in temples around the [Babylonian Empire](#). Of these only one example survives, inscribed on a seven foot, four inch tall basalt stone slab or stele, preserved in the Louvre.

"The stele containing the Code of Hammurabi was discovered in 1901 by the Egyptologist Gustav Jéquier, a member of the expedition headed by [Jacques de Morgan](#). The stele was discovered in what is now [Khūzestān](#), Iran (ancient Susa, Elam), where it had been taken as plunder by the Elamite king Shutruk-Nahhunte in the 12th century BC. . . .

"At the top of the stele is a bas-relief image of a Babylonian god (either Marduk or Shamash), with the king of Babylon presenting himself to the god, with his right hand raised to his mouth as a mark of respect.[1] The text covers the bottom portion with the laws written in Akkadian language cuneiform script. The text has been broken down by translators into 282 laws, but this division is arbitrary, since the original text contains no divisional markers" (Wikipedia article on Code of Hammurabi, accessed 02-04-2009).

The Code of Hammurabi applied to medical practice as it mentioned "fees payable to a physician following successful treatment; these varied according to the station of the patient. Similarly, the punishment for the failure of an operation is set out. At least this shows that in Babylon 4000 years ago the medical professional had advanced far enough in public esteem to warrant the payment of adequate fees" (J. Norman [ed], *Morton's Medical Bibliography* 5th ed [1991] no. 1).

On 02-04-2009 I was able to access a special video and sound presentation in English on the Code of Hammurabi stele from the Louvre website [at this link](#).

Filed under: [Archaeology](#), [Law / Copyrights / Patents, Medicine](#) | [Bookmark or share this entry »](#)

## The Earliest Surviving Recipes Circa 1,700 BCE



YBC 4644, one of three tablets in Yale's collection inscribed with ancient recipes.

We have a general knowledge of the foodstuffs that comprised the diets of the Egyptians, Hittites, Phoenicians, and Hebrews, but lack recipes from those ancient cultures.

Among Yale University's collection of cuneiform tablets are three tablets, each containing a recipe collection—a total of 35 recipes. Composed in the middle of the Old Babylonian period, they are the world's oldest cookbooks. The tablets were deciphered and translated by [Jean Bottéro](#) and Teresa Lavender Fagan in *The Oldest Cuisine in the World: Cooking in Mesopotamia* (2004). The recipes are difficult to understand for several reasons:

"broken and damaged passages, obscure colloquial Akkadian, unknown vocabulary and technical language. In fact, some of the cooking ingredients are still completely unknown to us; and others, which have been identified, have passed from modern use, so we cannot appreciate what they really are. Add to this the fact that the cooking procedures are not precise, and neither cooking times nor quantities of ingredients are given, then one can appreciate the obstacle of reproducing the recipes accurately and faithfully. Nevertheless, the lack of specificity provides some leeway and leaves room for interpretation, without, hopefully, sacrificing authenticity.

"All of the recipes have one thing in common: every one of the finished dishes relies on combinations of meat, fowl, vegetables, or grain cooked in water. Cooking in water was an enormous innovation. From other kinds of

evidence, we know that before this time entirely different cooking methods were used, like the use of radiant heat in an oven; indirect heat in hot ashes; and direct exposure to flame, as in broiling, grilling, or spit roasting. Cooking in liquid represented a giant step forward in terms of taste and sophistication. It created a richness and diversity of flavor that could not be achieved in the more ancient roasted, grilled, and broiled food" ([http://homepage.mac.com/toke\\_knudsen/cuneiform\\_cuisine/Personal84.html](http://homepage.mac.com/toke_knudsen/cuneiform_cuisine/Personal84.html), accessed 06-15-2009).

Filed under: [Book History](#), [Food / Wine / Cookery / Diet](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## “Accurate Reckoning for Inquiring into Things, and the Knowledge of All Things, Mysteries . . . All Secrets” Circa 1,650 BCE



The Rhind Mathematical Papyrus. (View Larger)

Dating from the [Second Intermediate Period](#) of Egypt, the [Rhind Mathematical Papyrus](#) is the most significant document of Egyptian mathematics. It was copied by the scribe [Ahmes](#) from a now-lost text from the reign of [Amenemhat III \(12th dynasty\)](#). The manuscript is 33 cm tall and over 5 meters long, and is written in hieratic script. It is dated Year 33 of the [Hyksos](#) king [Apophis](#) and also contains a separate later Year 11 on its verso likely from his successor, [Khamudi](#).

"In the opening paragraphs of the papyrus, Ahmes presents the papyrus as giving 'Accurate reckoning for inquiring into things, and the knowledge of all things, mysteries...all secrets'."

[Alexander Henry Rhind](#), a Scottish antiquarian, purchased the papyrus in 1858 in [Luxor, Egypt](#). It was apparently found during illegal excavations in or near the [Ramesseum](#). The British Museum acquired it in 1864 along with the [Egyptian Mathematical Leather Roll](#), also owned by Rhind.

Filed under: [Book History](#), [Manuscripts & Manuscript Copying](#), [Mathematics / Logic](#), [Science](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Oldest Surgical Treatise Circa 1,600 BCE



The [Edwin Smith Papyrus](#), the most detailed and sophisticated of the extant medical papyri, is the only surviving copy of part of an ancient Egyptian textbook on trauma surgery, and is the world's oldest surgical treatise. Written in the [hieratic](#) script of the ancient [Egyptian language](#), it is based on material from a thousand years earlier. It consists of a list of 48 traumatic injury cases, with a description of the physical examination, treatment and prognosis of each. It is preserved in the New York Academy of Medicine.

"The text begins by addressing injuries to the head, and continues with treatments for injuries to neck, arms and torso, where the text breaks off. Among the treatments are closing wounds with sutures (for wounds of the lip, throat, and shoulder), preventing and curing infection with honey and mouldy bread, and stopping bleeding

with raw meat. Immobilisation was often advised for head and spinal cord injuries, which is still in practice today in the short-term treatment of some injuries. The use of magic for treatment is resorted to in only one case (Case 9).

"The [papyrus](#) also describes anatomical observations in exquisite detail. It contains the first known descriptions of the cranial sutures, the meninges, the external surface of the brain, the cerebrospinal fluid, and the intracranial pulsations. The papyrus shows that the heart, vessels, liver, spleen, kidneys, ureters and bladder were recognized, and that the blood vessels were known to be connected to the heart. Other vessels are described, some carrying air, some mucus, while two to the right ear are said to carry the breath of life, and two to the left ear the breath of death. The physiological functions of organs and vessels remained a complete mystery to the ancient Egyptians."

Filed under: [Manuscripts & Manuscript Copying](#), [Medicine](#), [Robotics](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Largest Surviving Medical Treatise from Ancient Mesopotamia Circa 1,600 BCE

Because of the durability of clay tablets relative to the fragility of papyrus more original source material regarding Mesopotamian medicine survived than from ancient Greece or Rome. The quantity and quality of medical documents from ancient Egypt are more difficult to compare to Mesopotamian records than those of Greece or Rome, since, in addition to the medical papyri which survived in the hospitable climate of Egypt, Egyptian mummies represent a unique source of paleopathological information.

The surviving Mesopotamian medical records consist of roughly 1000 cuneiform tablets, of which 660 medical tablets from the library of [Ashurbanipal](#) are preserved in the British Museum. About 420 tablets from other sites also survived, including the library excavated from the private house of a medical practitioner (an [asipu](#)) from Neo-Assyrian [Assur](#), and some Middle Assyrian and Middle Babylonia texts.

Most of these Mesopotamian medical tablets were not discovered until the nineteenth century, and because of difficulties with translation of [cuneiform script](#), many of these tablets were not understood by scholars until recently. Another factor that must be taken into consideration is that since these tablets survived by unintended burial rather than by manuscript copying, and they were not preserved until comparatively recently in conventional libraries or museums, the medicine they record did not necessarily play a conventional role in the Western medical tradition. What influence their contents might have had on the practice of later physicians remains unclear.

The medical texts from Ashurbanipal's library were first transliterated and published in facsimile by Reginald Campbell Thompson as *Assyrian Medical Texts. From the Originals in the British Museum* (1923). Franz Kocher later published six volumes called *Die babylonisch-assyrische Medizin in Texten und Untersuchungen* (1963-1980), the first four volumes of which contain the tablets found from sites other than Assurbanipal's library. "The remaining two volumes of Kocher's work augment Campbell Thompson, providing new joins of broken fragments and much material uncovered in the British Museum. At least one more volume of Nineveh texts has been announced. In addition, the series Spaet *Babylonische Texte aus Uruk* contains some 30 medical texts not included in Kocher's work. The vast majority of these tablets are prescriptions, but there are a few series of tablets that contained entries that were directly related to one another, and these have been labeled 'treatises' " ([Nancy Demand, \*The Asclepion\*](#), accessed 05-30-2009).

More recently the texts of many of the Mesopotamian medical tablets were translated and analyzed from the medical point of view by Assyriologist/cuneiformist, JoAnn Scurlock and physician/medical historian Burton R. Anderson as [Diagnoses in Assyrian and Babylonian Medicine](#) (2005).

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•The largest surviving medical treatise from ancient Mesopotamia is known as the [Treatise of Medical Diagnosis and Prognoses](#).

"The text of this treatise consists of 40 tablets collected and studied by the French scholar R. Labat. Although the oldest surviving copy of this treatise dates to around 1600 BCE, the information contained in the text is an amalgamation of several centuries of Mesopotamian medical knowledge. The diagnostic treatise is organized in head to toe order with separate subsections covering convulsive disorders, gynecology and pediatrics. It is unfortunate that the antiquated translations available at present to the non-specialist make ancient Mesopotamian medical texts sound like excerpts from a sorcerer's handbook. In fact, as recent research is showing, the descriptions of diseases contained in the diagnostic treatise demonstrate a keen ability to observe and are usually astute. Virtually all expected diseases can be found described in parts of the diagnostic treatise,

when those parts are fully preserved, as they are for neurology, fevers, worms and flukes, VD and skin lesions. The medical texts are, moreover, essentially rational, and some of the treatments, as for example those designed for excessive bleeding (where all the plants mentioned can be easily identified), are essentially the same as modern treatments for the same conditions" ([Nancy Demand, \*The Aesclepiion\*](#), accessed 05-30-2009).

Filed under: [Archaeology](#), [Book History](#), [Medicine](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Most Extensive Record of Ancient Egyptian Medicine Circa 1,550 BCE



Papyrus Ebers (View Larger)

Written in [Hieratic](#), the 110 page [Papyrus Ebers](#) is the most extensive surviving record of ancient Egyptian medicine. "It contains many incantations meant to turn away disease-causing demons and there is also evidence of a long tradition of empirical practice and observation.

"The papyrus contains a treatise on the heart. It notes that the heart is the center of the blood supply, with vessels attached for every member of the body. The Egyptians seem to have known little about the kidneys and made the heart the meeting point of a number of vessels which carried all the fluids of the body — blood, tears, urine and sperm.

"Mental disorders are detailed in a chapter of the papyrus called the Book of Hearts. Disorders such as depression and dementia are covered. The descriptions of these disorders suggest that Egyptians conceived of mental and physical diseases in much the same way.

"The papyrus contains chapters on contraception, diagnosis of pregnancy and other gynaecological matters, intestinal disease and parasites, eye and skin problems, dentistry and the surgical treatment of abscesses and tumors, bone-setting and burns."

Edwin Smith, who also owned the [Edwin Smith Papyrus](#), bought the Ebers Papyrus in 1862. It was said to have been found between the legs of a mummy in the Assassif district of the [Theban necropolis](#). It remained in Smith's collection until at least 1869 when it was offered for sale in the catalog of an antiquities dealer, described as "a large medical papyrus in the possession of Edwin Smith, an American farmer of [Luxor](#)." It was purchased in 1872 by the German Egyptologist and novelist [Georg Ebers](#), and is preserved in the University of Leipzig Library.

Filed under: [Book History](#), [Collecting Books](#), [Manuscripts](#), [Art](#), [Manuscripts & Manuscript Copying](#), [Medicine](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## Egyptian Scribal Palettes with Ink Wells and Brushes Circa 1,550 BCE – 1450



Two Egyptian scribal palettes preserved in the British Museum. (View Larger)

The Egyptian hieroglyphic sign for 'write' was formed from an image of the scribal palette and brush case. Statues of scribes are sometimes shown with a papyrus across their knees and a palette—the scribe's trademark—over one shoulder. Two examples of the scribal palettes are preserved in the [British Museum \(EA 12784, EA 5512\)](#).

"From the late Old Kingdom on, the basic palette was made of a rectangular piece of wood, with two cavities at one end to hold cakes of black and red ink. Carbon was used to make the black ink and iron-rich red ochre to make the red. Both pigments were mixed with gum so that they congealed rather than turned to dust when they dried. The cakes of ink were moistened with a wet brush, rather like modern watercolours or Chinese ink. Brush-pens were made of rushes, the tip cut at an angle and chewed to separate the fibres. These were kept in a slot in the middle of the palette.

"Black was the normal colour for writing. Red was used to mark the start of a text, or to highlight key words and phrases, like quantities in medicines, or for the names of demons in religious papyri. More colours were needed for illustrations, such as those in the Book of the Dead"

([http://www.britishmuseum.org/explore/highlights/highlight\\_objects/aes/t/two\\_scribal\\_palettes\\_with\\_ink.a\\_spx](http://www.britishmuseum.org/explore/highlights/highlight_objects/aes/t/two_scribal_palettes_with_ink.a_spx), accessed 07-11-2009).

Filed under: [Archaeology](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## Wooden Writing Board Containing Text of the Words of Khakheperresoneb Circa 1,500 BCE



EA 5645 of the British Museum: the Words of Khakheperresoneb written on a wooden writing board. (View Larger)

In addition to papyrus, wood was used as a writing medium in the ancient world, though far fewer examples have survived than writing on papyrus, clay, or stone. An example of an ancient Egyptian wooden writing board is that containing text of the words of Khakheperresoneb preserved in the [British Museum \(EA 5645\)](#).

"The main uses of writing boards in ancient Egypt included writing practice. This board is made from wood overlaid with gesso to provide a surface for writing, which could then be easily erased when required. Fortunately, this board was not erased, since it is the major source for one of the literary texts of the Middle Kingdom (2040-1750 BC): the Words of Khakheperresoneb.

"The name of the author, Khakheperresoneb, is based on one of the royal names of King Senwosret II of the Twelfth Dynasty (about 1844-1837 BC). This suggests that the original text was composed in the late Twelfth Dynasty some two hundred years earlier than this copy. It was common for works of literature that were considered to be classics to be repeatedly copied in their entirety or in sections in the New Kingdom (about 1550-1-70 BC). The small red dots in the text are termed 'verse points' and mark the ends of lines of verse"

([http://www.britishmuseum.org/explore/highlights/highlight\\_objects/aes/w/wooden\\_writing\\_board\\_and\\_text.aspx](http://www.britishmuseum.org/explore/highlights/highlight_objects/aes/w/wooden_writing_board_and_text.aspx), accessed 07-11-2009).

Filed under: [Archaeology](#), [Book History](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## Wooden Drawing Board with a figure of Thutmose III Circa 1,450 BCE



An ancient Egyptian wooden drawing board inscribed with a picture of Thutmose III. It is preserved in the British Library as EA 5645. ([View Larger](#))

A wooden drawing board from ancient Egypt with a figure of [Thutmose III](#), preserved in the [British Museum \(EA 5601\)](#), documents how Egyptian artists used various media for practicing or creating their designs.

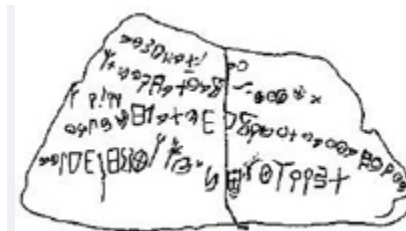
"The most common [surviving examples] are ostraka (flakes of stone or potsherds used as drawing or writing pads), but several wooden drawing boards have survived. The surface was coated with gesso and then smoothed; it could then be cleaned and reused. The figure of Thutmose III on this board was perhaps a preliminary drawing that was later to be transferred to a tomb or temple wall, while the other drawings were presumably practice hieroglyphs.

"This object is significant because the design has been laid out on a grid. From the Old Kingdom (about 2613-2160 BC) onwards, a system of guidelines, later developed into a squared grid, was used to ensure the correct proportions of the figures. Before the Late Period, standing figures were generally laid out on a vertical grid of eighteen squares measured to the figure's hairline, and seated figures on one of fourteen. The horizontal lap of the seated figure accounts for the missing four squares. Grids were drawn onto the walls and even onto the stone of statues. When the scene was finished the lines were either cut away or painted out. Hence unfinished walls and practice sketches where the grid remains intact, like this one, are of immense value"

([http://www.britishmuseum.org/explore/highlights/highlight\\_objects/aes/w/wooden\\_drawing\\_board\\_with\\_a\\_fi.aspx](http://www.britishmuseum.org/explore/highlights/highlight_objects/aes/w/wooden_drawing_board_with_a_fi.aspx), accessed 07-11-2009).

Filed under: [Archaeology](#), [Art](#) | [Bookmark or share this entry](#) »

## The Proto-Canaanite Alphabet 1,450 BCE – 1,050 BCE



The Ostrakon from 'Izbet Sartah (1200–1000 BCE) showing characters of the Proto-Canaanite alphabet.

"The [Proto-Canaanite alphabet](#) is a consonantal alphabet of twenty-two [acrophonic](#) glyphs, found in Levantine texts of the Late Bronze Age (from ca. the 15th century BC), by convention taken to last until a cut-off date of 1050 BC, after which it is called [Phoenician](#). About a dozen inscriptions written in Proto-Canaanite have been discovered in modern-day Israel and Lebanon.

"While a descendant script from the [Egyptian hieroglyphs](#), it is also the parent script of Phoenician, itself the ancestor of nearly every alphabet in use today, from Arabic, Greek, Hebrew, [Roman](#), and [Berber](#) in the West to [Thai](#), [Mongol](#), and perhaps [Hangul](#) in the East. The Hebrew alphabet remains the closest to its predecessor, as

only the form of the letters has been modified—unsurprising, since Hebrew is a [Canaanite language](#) and had, in its original pronunciation, roughly the same set of consonants as the dialect that the alphabet was devised for."

Filed under: [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## Archive of Egyptian Diplomatic Correspondence Written in the Diplomatic Language, Akkadian Cuneiform Circa 1,360 BCE – 1,330 BCE



ME E29785 of the British Museum: A letter from Burnaburiash, a king of the Kassite dynasty of Babylonia, to Amenhotep IV. The tablet is one of the Amarna Letters. (View Larger)

[The Amarna Letters, or Correspondence](#), an archive of mostly diplomatic correspondence written on clay tablets, between the Egyptian administration and its representatives in [Canaan](#) and [Amurru](#) during the [New Kingdom](#), was found in [Upper Egypt](#) at [Amarna](#), the modern name for the Egyptian capital of Akhetaten (Akhetaton), founded by pharaoh [Akhenaten](#) (Akhnaton), during the Eighteenth dynasty of Egypt.

"The Amarna letters are unusual in Egyptological research, being mostly written in Akkadian cuneiform, the writing system of ancient Mesopotamia rather than ancient Egypt. The known tablets currently total 382 in number, 24 further tablets having been recovered since the Norwegian Assyriologist [Jørgen Alexander Knudtzon's](#) landmark edition of the Amarna correspondence, *Die El-Amarna-Tafeln* in two volumes (1907 and 1915).

"These letters, consisting of cuneiform tablets mostly written in Akkadian – the regional language of diplomacy for this period – were first discovered by local Egyptians around 1887, who secretly dug most of them from the ruined city (they were originally stored in an ancient building archaeologists have since called the [Bureau of Correspondence of Pharaoh](#)) and then sold them on the antiquities market. Once the location where they were found was determined, the ruins were explored for more. The first archaeologist who successfully recovered more tablets was [William Flinders Petrie](#) in 1891–92, who found 21 fragments. Émile Chassinat, then director of the French Institute for Oriental Archaeology in Cairo, acquired two more tablets in 1903. Since Knudtzon's edition, some 24 more tablets, or fragments of tablets, have been found, either in Egypt, or identified in the collections of various museums.

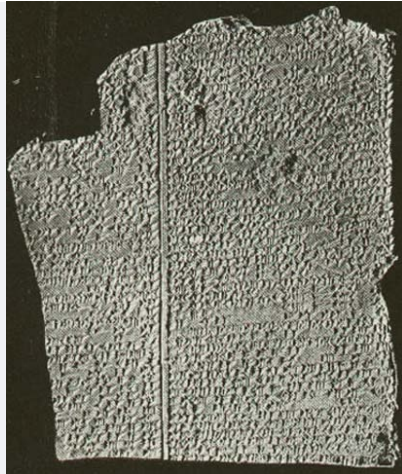
"The tablets originally recovered by local Egyptians have been scattered among museums in Cairo, Europe and the United States: 202 or 203 are at the [Vorderasiatisches Museum](#) in Berlin; 80 in the British Museum; 49 or 50 at the [Egyptian Museum](#) in Cairo; seven at the Louvre; 3 at the [Pushkin Museum](#); and 1 is currently in the collection of the [Oriental Institute](#) in Chicago.

"The full archive, which includes correspondence from the preceding reign of [Amenhotep III](#) as well, contained over three hundred diplomatic letters; the remainder are a miscellany of literary or educational materials. These tablets shed much light on Egyptian relations with Babylonia, Assyria, the Mitanni, the Hittites, Syria, Canaan, and Alashiya (Cyprus). They are important for establishing both the history and chronology of the period. Letters from the Babylonian king [Kadashman-Enlil I](#) anchor the timeframe of Akhenaten's reign to the mid-14th century BC. Here was also found the first mention of a Near Eastern group known as the [Habiru](#), whose possible connection with the [Hebrews](#) remains debated. Other rulers include [Tushratta](#) of [Mittani](#), [Lib'ayu](#) of Shechem, [Abdi-Heba](#) of Jerusalem and the quarrelsome king [Rib-Hadda](#) of [Byblos](#), who in over 58

letters continuously pleads for Egyptian military help" (Wikipedia article on Amarna letters, accessed 09-01-2009).

Filed under: [Archaeology](#), [Archives](#), [Linguistics / Translation / Speech](#), [Social / Political](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## The Epic of Gilgamesh Circa 1,300 BCE – 1,000 BCE



The Gilgamesh tablet (View larger)

The most complete and "standard" Akkadian version of the [Epic of Gilgamesh](#), one of the earliest known works of literary fiction, was written in standard Babylonian, a dialect of [Akkadian](#) that was only used for literary purposes, and compiled out of older legends by [Sin-liqe-unninni](#) sometime between 1300 and 1000 BCE.

The Epic was recorded on twelve cuneiform tablets. These were among about 1200 tablets from the library of [Ashurbanipal](#) in [Nineveh](#) discovered by British archaeologist [Austen Henry Layard](#) in 1849, and noticed in this database. The deciphering of the twelve tablets in 1872 by [George Smith at the British Museum](#) caused this epic to be rediscovered by the world. The tablets are preserved in the British Museum.

Filed under: [Archaeology](#), [Fiction](#), [Science Fiction](#), [Drama](#), [Poetry](#), [Libraries](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## Self-Portrait of an Egyptian Scribe with his Autograph Signature Circa 1,292 BCE – 1,069 BCE



A self-portrait of the scribe Sesh, arms raised in the presentation of a papyrus scroll and possibly a writing palette. Preserved in the Schoyen Collection as MS 1695. (View Larger)



A sketch in rust-red drawn on a limestone [ostrakon](#) represents the self-portrait of the scribe, Sesh, wearing a knee-length kilt, his arms raised to present a papyrus roll and possibly a writing palette. The sketch is signed with the hieroglyph of "scribe", consisting of a palette with wells for red and black ink, shoulder strap, water pot and reed pen. Measuring 11 x 12 cm, it was created in [Deir-el-Medina](#), Western Thebes, 19th or 20th dynasty, and excavated there, circa 1975. It is preserved in the [Schøyen Collection \(MS 1695\)](#).

Deir-el-Medina was occupied by the community of workmen who constructed and decorated the tombs in the [Valley of the Kings](#) and the [Valley of the Queens](#). Many pieces, mostly dating from the 19th and 20th Dynasties were recovered from this site—mostly detailed drafts for specific details of a tomb's decoration.

Filed under: [Archaeology](#), [Art](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## The Only Ancient Egyptian Document that Mentions Israel 1,209 BCE – 1,208 BCE



The Merneptah Stele (View Larger)

In 1896 [W. M. Flinders Petrie](#) discovered the [Merneptah Stele](#) -- also known as the *Israel Stele* or *Victory Stele of Merneptah* -- in the first court of Merneptah's [mortuary temple](#) at [Thebes](#). It is inscribed on the reverse of a large granite [stele](#) originally erected by the Ancient Egyptian king [Amenhotep III](#), but later inscribed by [Merneptah](#) who ruled Egypt from 1213 to 1203 BC. The black granite stele primarily commemorates a victory in a campaign against the [Libu](#) and [Meshwesh Libyans](#) and their [Sea People](#) allies, but its final two lines refer to a prior military campaign in [Canaan](#) in which Merneptah states that he defeated [Ashkelon](#), [Gezer](#), Yanoam and Israel among others. It is preserved in the [Museum of Egyptian Antiquities](#) in Cairo.

"The stele has gained much fame and notoriety for being the only Ancient Egyptian document generally accepted as mentioning "Isrir" or "Israel". It is also, by far, the earliest known attestation of Israel. For this reason, many scholars refer to it as the "Israel stele". This title is somewhat misleading, however, because the stele was clearly not focused on Israel per se— in fact, it mentions Israel only in passing. There is only a single line about Israel: "Israel is wasted, bare of seed" or "Israel lies waste, its seed no longer exists" and very little about the region of Canaan. Israel was simply grouped together with three other defeated states in Canaan (Gezer, Yanoam and Ashkelon) in the stele. Merneptah inserts just a single stanza to the [Canaanite](#) campaigns but multiple stanzas to his defeat of the Libyans. The line referring to Merneptah's Canaanite campaign reads:

*Canaan is captive with all woe. Ashkelon is conquered, Gezer seized, Yanoam made nonexistent; Israel is wasted, bare of seed."*

(quoted from the Wikipedia article on the Merneptah Stele, accessed 11-29-2008).

Filed under: [Archaeology](#), [Military / Warfare](#), [Social / Political](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## Oracle Bone Script Circa 1,200 BCE – 1,050 BCE



"The oldest Chinese inscriptions that are [indisputably writing](#) are the [Oracle bone script](#) ([Chinese](#): 甲骨文; [pinyin](#): jiǎgǔwén; literally 'shell-bone-script'). These were identified by scholars in 1899 on pieces of bone and turtle shell being sold as medicine, and by 1928, the source of the [oracle bones](#) had been traced back to modern Xiǎotún (小屯) village at [Ānyáng](#) in [Hénán](#) Province, where official archaeological excavations in 1928–1937 discovered 20,000 oracle bone pieces, about 1/5 of the total discovered. The inscriptions were records of the divinations performed for or by the royal Shāng household. The oracle bone script is a well-developed writing system, attested from the late [Shang Dynasty](#) (1200–1050 BC). Only about 1,400 of the 2,500 known oracle bone script logographs can be identified with later Chinese characters and thus deciphered by paleographers."

"The late Shāng oracle bone writings, along with a few contemporary characters in a different style cast in bronzes, constitute the earliest significant corpus of Chinese writing, which is essential for the study of Chinese etymology, as Shāng writing is directly ancestral to the modern Chinese script. It is also the oldest member and ancestor of the [Chinese family of scripts](#).

"The oracle bone script of the late Shāng appears archaic and pictographic in flavor, as does its contemporary, the Shāng writing on bronzes. The earliest oracle bone script appears even more so than examples from late in the period (thus some evolution did occur over the roughly 200-year period). Comparing oracle bone script to both Shāng and early Western Zhōu period writing on bronzes, oracle bone script is clearly greatly simplified, and rounded forms are often converted to rectilinear ones; this is thought to be due to the difficulty of engraving the hard, bony surfaces, compared with the ease of writing them in the wet clay of the molds from which the bronzes were cast. The more detailed and more pictorial style of the bronze graphs is thus thought to be more representative of typical Shāng writing (as would have normally occurred on bamboo books) than the oracle bone script forms, and it is this typical style which continued to evolve into the Zhōu period writing and then into the seal script of the Qín state in the late Zhōu period.

"It is known that the Shāng people also wrote with brush and ink, as brush-written graphs have been found on a small number of pottery, shell and bone, and jade and other stone items, and there is evidence that they also wrote on bamboo (or wooden) books just like those which have been found from the late Zhōu to Hàn periods,

because the graphs for a writing brush (聿 yù) and bamboo book (冊 cè, a book of thin vertical slats or slips with horizontal string binding, like a Venetian blind turned 90 degrees) are present in the oracle bone script. Since the ease of writing with a brush is even greater than that of writing with a stylus in wet clay, it is assumed that the style and structure of Shāng graphs on bamboo were similar to those on bronzes, and also that the majority of writing occurred with a brush on such books. Additional support for this notion includes the reorientation of some graphs, by turning them 90 degrees as if to better fit on tall, narrow slats; this style must have developed on bamboo or wood slat books and then carried over to the oracle bone script. Additionally, the writing of characters in vertical columns, from top to bottom, is for the most part carried over from the bamboo books to oracle bone inscriptions. In some instances lines are written horizontally so as to match the text to divinatory cracks, or columns of text rotate 90 degrees in mid stream, but these are exceptions to the normal pattern of writing, and inscriptions were never read bottom to top. The vertical columns of text in Chinese writing are traditionally ordered from right to left; this pattern is found on bronze inscriptions from the Shāng dynasty onward. Oracle bone inscriptions, however, are often arranged so that the columns begin near the centerline of the shell or bone, and move toward the edge, such that the two sides are ordered in mirror-image fashion" (Wikipedia article on Oracle bone script, accessed 07-11-2009).

Filed under: [Archaeology](#), [Book History](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## Diseases of the Anus and Headaches 1,200 BCE



The Chester Beatty Medical Papyrus. (View Larger)

A fragment of a papyrus on diseases of the anus and magical incantations against headaches, The [Chester Beatty Medical papyrus](#) was written in the 13th-12th centuries BCE in hieratic script.

Filed under: [Medicine](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## Imperial Purple 1,200 BCE



Tyrian Purple.

[Tyrian Purple](#), or royal purple, imperial purple or imperial dye — a purple-red dye made from the mucus of one of several species of [Murex snail](#) — was first produced by the [Phoenicians](#) in the city of [Tyre](#) for use as a fabric dye around this time. It's production was continued by the Greeks and Romans until the fall of Constantinople in 1453. The pigment was expensive and complex to produce, and items colored with it became associated with power and wealth. The Greek historian [Theopompus](#), writing in the 4th century BCE, reported that "purple for dyes fetched its weight in silver at [Colophon](#) [in Asia Minor]."

Filed under: [Technology](#) | [Bookmark or share this entry](#) »

## The Earliest Chinese Inscriptions in Bronze Circa 1,200 BCE – 1,045 BCE



A bronze guang, or ritualistic wine vessel, of the Shang dynasty. (View Larger)

The earliest Chinese inscriptions in bronze date from the late [Shang](#) period (c. 1200-1045 BCE), the same period in which the oracle bone inscriptions, noticed in this database, were produced.

"Discovered at [Anyang](#) in Henan province and at sites in the central [Yangzi](#) region, Shang bronze objects belonged to members of the royal family and the political elite. Under [Zhou](#) rule (104-221 BC) this social level of ownership continued and even widened. In existence today are probably over ten thousand inscribed vessels, weapons, bells and other bronze objects made before the [Qin](#) unification of 221 BC.

"Inscriptions on most weapons are prominent and easily visible. By contrast, inscriptions on vessels of the Shang, and the following Western Zhou period (1045-770 BC) were usually placed on the vessels' interior surfaces, where they are much less clearly seen. . . .

"Precise practices at different bronze foundries varied, but nearly all inscriptions were prepared on a clay mould and cast from this on to the metal surface of an object. Most inscriptions are countersunk and positive. That is, characters do not rise above the surrounding metal surface, and the text is not a form of mirror-writing (a negative inscription). Inscriptions in relief were occasionally cast, but they became widespread only in association with ironwork in a much later period. Negative inscriptions are extremely rare. Texts were usually arranged in columns reading from right to left.

"In order to obtain a positive inscription the surface of the mould had to be prepared with the text in a negative form. To do this, the text was written with a stylus on the surface of wet clay. When hardened, this positive version could be pressed into a new supply of wet clay to provide a negative relief. Next, the hardened clay of the second version in negative could be trimmed and fitted as a block into an excavation on the mould core of the whole vessel. The mould and this fitting were then ready to receive the molten metal, which would re-form the inscription back into positive appearance. This method comprises the fewest transfer operations needed to cast a countersunk, positive inscription and allows for the text to be written out freehand in the same form that it will assume in metal.

"Bronze inscriptions are thus preservations of calligraphy in the medium of clay. Writing in wet clay offered a wide range of possibilities for variation and liveliness, and even quite early inscriptions show a concern for style" (Oliver Moore, *Chinese* [2000] 33, 36).

Filed under: [Archaeology](#), [Art](#), [Technology](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## The Longest Known Egyptian Papyrus Circa 1,186 BCE – 1,155 BCE



A papyrus of the 'Discourse of the Gods' section of the Great Harris Papyrus, showing Ramesses III before the Triad of Thebes. (View Larger)

[Papyrus Harris I](#), also known as the Great Harris Papyrus, and officially designated as Papyrus British Museum 9999, extends to a length of 41 meters. It is the longest papyrus ever found in Egypt, and includes 1500 lines of text.

The Great Harris Papyrus was found in a tomb near Medinet Habu, across the Nile river from Luxor, Egypt. It was purchased by collector and merchant [Anthony Charles Harris](#) in 1855. The [hieratic](#) text of the papyrus consists of a list of temple endowments and a brief summary of the entire reign of king [Ramesses III](#), second Pharaoh of the [Twentieth dynasty](#).

The papyrus entered the collection of the British Museum in 1872.

## The Oldest Known Evidence of the Phoenician Alphabet Circa 1,000 BCE



The [Ahirom Sarcophagus](#), discovered by the French archaeologist [Pierre Montet](#) in 1923 in Jbeil, Lebanon (the historic [Byblos](#)), is the oldest known evidence of the [Phoenician alphabet](#). It is preserved in the [National Museum of Beirut](#).

"Phoenician became one of the most widely used writing systems, spread by Phoenician merchants across the Mediterranean world, where it was assimilated by many other cultures and evolved. Many modern [writing systems](#) thought to have descended from Phoenician cover much of the world. The [Aramaic alphabet](#), a modified form of Phoenician, was the ancestor of the modern [Arabic](#) and [Hebrew scripts](#), as well as the [Brāhmī script](#), the parent writing system of most modern [abugidas](#) in [India](#), [Southeast Asia](#), [Tibet](#), and [Mongolia](#). The [Greek alphabet](#) (and by extension its descendants such as the [Latin](#), the [Cyrillic](#) and the [Coptic](#)), was a direct successor of Phoenician, though certain letter values were changed to represent vowels" (Wikipedia article on Phoenician alphabet, accessed 08-06-2009).

The low relief carved panels of the Ahirom Sarcophagus

"make it 'the major artistic document for the [Early Iron Age](#)' in Phoenicia. Associated items dating to the [Late Bronze Age](#) either support an early dating, in the thirteenth century BC or attest the reuse of an early shaft tomb in the eleventh century BC. The major scene represents a king seated on a throne carved with winged sphinxes. A priestess offers him a lotus flower. On the lid two male figures confront one another with addorsed [back to back] seated lions between them, read by Glenn Markoe as a reference to the father and son of the inscription. Egyptian influence that is a character of Late Bronze Age art in northwest Canaan is replaced here by Assyrian influences in the rendering of figures and the design of the throne and a table" (Wikipedia article on Ahirom, accessed 08-062009).

Filed under: [Archaeology](#), [Art](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## Possibly the Earliest Hebrew Inscription Circa 1,000 BCE



An [ostrakon](#) shard found in October 2008 about 20 miles southwest of Jerusalem at the [Elah Fortress](#) in [Khirbet Qeiyafa](#), the earliest known fortified city of the biblical period of Israel, and written in ink in [Proto-Canaanite](#) script, could be the earliest known Hebrew inscription, according to biblical archaeologist [Yosef Garfinkel](#). Other scholars urge caution in accepting that interpretation. The shard is one of only a dozen or so examples of Proto-Canaanite that have survived.

"The Israelites were not the only ones using proto-Canaanite characters, and other scholars suggest it is difficult - perhaps impossible - to conclude the text is Hebrew and not a related tongue spoken in the area at the time. Garfinkel bases his identification on a three-letter verb from the inscription meaning to do, a word he said existed only in Hebrew.

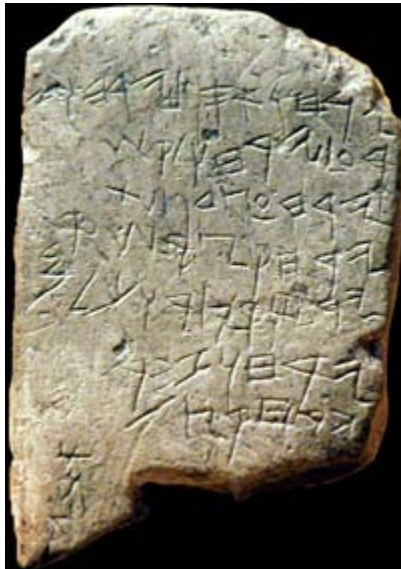
"That leads us to believe that this is Hebrew, and that this is the oldest Hebrew inscription that has been found," he said.

"Other prominent Biblical archaeologists warned against jumping to conclusions.

"Hebrew University archaeologist Amihai Mazar said the inscription was very important, as it is the longest proto-Canaanite text ever found. But he suggested that calling the text Hebrew might be going too far" (<http://www.haaretz.com/hasen/pages/1032929.html>, accessed 08-30-2009).

Filed under: [Archaeology](#), [Linguistics](#) / [Translation](#) / [Speech](#), [Survival of Information](#), [Writing](#) / [Palaeography](#) / [Calligraphy](#) | [Bookmark or share this entry](#) »

## The Gezer Calendar Circa 950 BCE



A tablet of soft limestone inscribed in a [paleo-Hebrew](#) script, the [Gezer Calendar](#) is one of the oldest known examples of [Hebrew](#) writing, dating to the 10th century BCE. It was discovered in excavations of the Biblical city of [Gezer](#), 30 miles northwest of Jerusalem, by [R.A.S. Macalister](#) in his excavations between 1902 and 1907, and it is preserved in the [Museum of the Ancient Orient in Istanbul](#).

"The calendar describes monthly or bi-monthly periods and attributes to each a duty such as harvest, planting or tending specific crops.

"It reads:

"Two months of harvest

"Two months of planting

"Two months are late planting

"One month of hoeing

"One month of barley-harvest

"One month of harvest and festival

"Two months of grape harvesting

"One month of summer fruit

"Scholars have speculated that the calendar is either a schoolboy's memory exercise or perhaps the text of a popular folk song, or child's song. Another possibility is something designed for the collection of taxes from farmers."

Filed under: [Archaeology](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## Perhaps the Oldest European Alphabet Circa 800 BCE



A writing tablet in Greek/Phoenician dating from this time may be

"the oldest European alphabet, the oldest writing tablet extant, and part of the world's oldest book in codex form. The other old writing tablets are 2 from Nimrod, one ivory, the other walnut wood, dated 707 - 705 BC., in addition to a 8th c. BC Neo-Hittite wood tablet. (Roberts/Skeat: *The Birth of the Codex*, pp. 11-12.) Apart from the present MS the oldest Greek inscription of any length is the Dipylon oinochoe from Athens, ca. 740 BC. The oldest short inscriptions are dated ca. mid 8th c. BC. A tablet originally bound with the present ones is: "The Würzburger Alphabettafel", published by A. Henbeck: *Würzburger Jahrbücher für Altertumswissenschaft*, 12, pp. 7-20, 1986. The codex originally consisted of at least 5 tablets. . . . The Alphabet is repeated over and over, and contains the North Semitic (Phoenician) number of letters (22), ayin/aleph to taw/tau in Phoenician and Greek order, written in continuous retrograde lines. It represents the earliest and most complete link between Greek letter forms and the North Semitic parent forms. . . ." ([Schoyen Collection MS 108](#)).

Filed under: [Book History](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

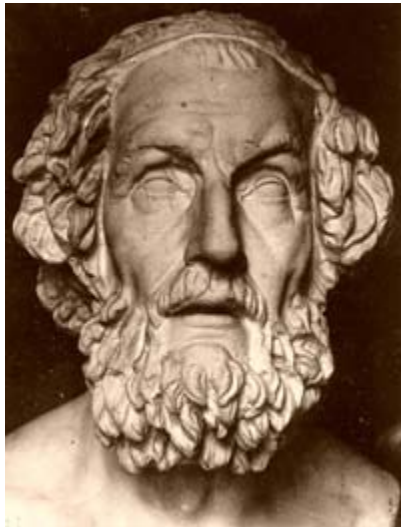
## The First Olympic Games 776 BCE

Date of the first [Olympic games](#), according to ancient Greek records, which also represent the adoption in Greece of the [Phoenician alphabet](#), from which all other Western alphabets are descended.

The date is based on inscriptions, found at [Olympia](#), of the winners of a foot race held every four years, starting in 776 BCE.

Filed under: [Archaeology](#), [Games / Simulations](#), [Linguistics / Translation / Speech](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## Standardization of the Homeric Texts Begins Circa 750 BCE



Many scholars believe that the [Iliad](#) is the oldest extant work of literature in the ancient Greek language, making it one of the first works of ancient Greek literature. It is believed that the [Odyssey](#), sequel to the Iliad, was composed after the Iliad. Both [epic poems](#), products of the oral tradition, may have undergone a process of standardization and refinement out of older material around 750 BCE. The standardization of the [Homeric](#) texts may have been caused by the Athenian tyrant [Peisistratos](#) (d. 527/8 BCE) who reformed the recitation of Homeric poetry at the [Panathenaic festival](#), which he initiated. This reform may have involved the production of a canonical written text.

Exactly when these poems would have taken on a fixed written form is debatable. According to the traditional 'transcription hypothesis', a non-literate 'Homer' dictated his poem to a literate scribe in the 6th century or earlier. However, in view of the way that texts were written on papyrus before the [Hellenistic](#) period a canonical text would probably have been impossible at this time. Reynolds & Wilson write:

"Finally it should be emphasized that the text as arranged on the papyrus was much harder for the reader to interpret than in any modern book. Punctuation was usually rudimentary at best. Texts were written without word-division, and it was not until the middle ages that a real effort was made to alter this convention in Greek or Latin texts (in a few Latin texts of the classical period a point is placed after each word). The system of accentuation, which might have compensated for this difficulty in Greek, was not invented until the Hellenistic period, and for a long time after its invention it was not universally used; here again it is not until the early middle ages that the writing of accents becomes normal practice. In dramatic texts throughout antiquity changes of speaker were not indicated with the precision now thought necessary; it was enough to write a horizontal stroke at the beginning of line, or two points one above the other, like the modern English colon, for changes elsewhere; the names of the characters were frequently omitted. . . . Another and perhaps even stranger feature of books in the pre-Hellenistic period is that lyric verse was written as if it were prose; the fourth-century papyrus of Timotheus (P. Berol. 9875) is an instance, and even without this valuable document the fact could have been inferred from the tradition that [Aristophanes of Byzantium](#) (c. 257-180 BCE) devised the [colometry](#) which makes clear the metrical units of the poetry (Dion. Hal. *de comp. verb.* 156, 221). It is to be noted that the difficulties facing the reader of an ancient book were equally troublesome to the man who wished to transcribe his own copy. The risk of misinterpretation and consequent corruption of the text in this period is not to be underestimated. It is certain that a high proportion of the most serious corruptions in classical texts



go back to this period and were already widely current in the books that eventually entered the library of the Museum of Alexandria" (Reynolds & Wilson, *Texts and Transmission*, 3rd ed. [1991] 4-5).

"Though evincing many features characteristic of oral poetry, the *Iliad* and *Odyssey* were at some point committed to writing. The Greek script, adapted from a [Phoenician syllabary](#) around 800 BCE, made possible the notation of the complex rhythms and vowel clusters that make up hexameter verse. Homer's poems appear to have been recorded shortly after the alphabet's invention: an inscription from [Ischia](#) in the Bay of Naples, ca. 740 BCE, appears to refer to a text of the *Iliad*; likewise, illustrations seemingly inspired by the [Polyphemus](#) episode in the *Odyssey* are found on [Samos](#), [Mykonos](#) and in Italy in the first quarter of the seventh century BCE. We have little information about the early condition of the Homeric poems, but [Alexandrian](#) editors stabilized the text in the second century BCE, from which all modern texts descend" (Wikipedia article on Homer, accessed 11-27-2008).

Filed under: [Fiction](#), [Science Fiction](#), [Drama](#), [Poetry](#), [Manuscripts & Manuscript Copying](#), [Popular Culture](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## The "Fatal Letter" in the *Iliad* Circa 750 BCE



In the mid-eighth century BCE the Greeks are thought to inherit the use of [wax tablets](#) and the leather scroll for writing, and the [Phoenician alphabet](#), and to develop their writing system. The earliest surviving examples are tablets written on metal.

"The first appearance of writing tablets in written Greek appears in [Homer](#)— the single Homeric example in which writing is referred to— in the narrated tale of [Bellerophon](#) (*Iliad* vi.155–203) which introduces the trope of the 'fatal letter', with its message sealed within the folded tablets: "Kill the bearer of this". The written tablets are an [anachronism](#) in a narrative of an event that is meant to have transpired generations before the [Trojan War](#), and incidentally help date the earliest possible [recension](#) of the epic that we read to the mid-eighth century" (Wikipedia article on wax tablets, accessed 11-27-2008).

Filed under: [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## One of the Oldest Records of the Greek Alphabet Circa 740 BCE



The Dipylon inscription, a short text written on an ancient Greek pottery vessel, is considered the oldest, or one of the oldest known examples of the use of the [Greek alphabet](#).

"The text is scratched on a wine jug ([oenochoe](#)), which was found in 1871 and is named after the location where it was found, the ancient Dipylon Cemetery, near the Dipylon Gate on the area of [Kerameikos](#) in Athens. The jug is attributed to the Late [Geometrical Period](#) (750-700 BCE), and it has been dated to ca. 740 BCE. It is now in the [National Archaeological Museum of Athens](#) (inv. 192)" (Wikipedia article on Dipylon inscription, accessed 04-25-2009).

Filed under: [Archaeology](#), [Education](#) / [Reading](#) / [Literacy](#), [Survival of Information](#), [Writing](#) / [Palaeography](#) / [Calligraphy](#) | [Bookmark or share this entry](#) »

## One of the Oldest Known Examples of Writing in Greek Circa 740 BCE – 720 BCE



The so-called [Cup of Nestor from Pithikoussai](#), a clay drinking cup (kotyle) that was found in 1954 at excavations in a grave in the ancient Greek site of [Pithikoussai](#) on the island of Ischia in Italy, bears a three-line inscription that was scratched on its side at a later time. This inscription and the so-called Dipylon inscription from Athens, also noticed in this database, are the oldest known examples of writing in the Greek alphabet.

Pithikoussai was one of the earliest Greek colonies in the West. The cup is dated to the [Geometric Period](#) (c.750-700 BCE) and is believed to have been originally manufactured in [Rhodes](#). It is preserved in the [Villa Arbusto museum](#) in the village of Lacco Ameno on the island of [Ischia](#), Italy.

Both the Cup of Nestor and the [Dipylon inscription](#) have been linked to early writing in the island of Euboea.

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## The Marsiliana Tablet Abecedarium 700 BCE

It is not clear whether the process of adaptation of the [Old Italic](#) or Etruscan alphabet from the Greek alphabet took place in Italy in the city of [Cumae](#), the first Greek colony on the mainland of Italy, or in Greece/Asia Minor. The Etruscan alphabet was a precursor of the Old Latin alphabet, the basis of the [Latin alphabet](#).

"It was in any case a Western Greek alphabet. In the alphabets of the West, X had the sound value [ks], Ψ stood for [kʰ]; in Etruscan: X = [s], Ψ = [kʰ] or [kχ] (Rix 202-209).

"The earliest Etruscan [abecedarium](#), the Marsiliana d'Albegna (near Grosseto) tablet which dates to c. 700 BCE, lists 26 letters corresponding to contemporary forms of the Greek alphabet which retained san and qoppa but which had not yet developed omega.

" □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □

"in transliteration,

"A B G D E V Z H Θ I K L M N Ξ O P Ś Q R S T Y X Φ Ψ"

---

"21 of the 26 archaic Etruscan letters were adopted for [Old Latin](#) from the 7th century BCE, either directly from the [Cumae alphabet](#), or via archaic Etruscan forms, compared to the classical Etruscan alphabet retaining B, D, K, O, Q, X but dropping Θ, Ś, Φ, Ψ, F (Etruscan U is Latin V, Etruscan V is Latin F).

"□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □

"A B C D E F Z H I K L M N O P Q R S T V X

(Wikipedia article on Old Italic alphabet, accessed 08-02-2009).

Filed under: [Linguistics / Translation / Speech, Survival of Information, Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## Knowledge as Power: The Earliest Systematically Collected Library as Distinct from an Archive 668 BCE – 627 BCE



In an effort to collect all knowledge, [Ashurbanipal](#), King of Assyria during these years, collected a library at Nineveh, of 20,000–30,000 clay tablets written in [cuneiform script](#). "Ashurbanipal was one of the few Assyrian kings to have been trained the scribal arts — by one Balasī, a senior royal scholar " (Robson, "The Clay Tablet Book," Eliot & Rose (eds) *A Companion to the History of the Book* [2007] 75).

"Recent cataloguing in the British Museum has enumerated some 3,700 scholarly tablets from Ashurbanipal's Library written in Babylonian script and Dialect — about 13 percent of the entire library. Ashurbanipal's obsession with Babylonian books did not, then, completely overwhelm indigenous production, but he did view them as highly valuable cultural capital; their forced removal to Nineveh undermined Babylonian claims to the intellectual heritage of the region and thus pretensions to political hegemony, while reinforcing Ashurbanipal's own self-image as guardian of Mesopotamian culture and power" (Robson, *op. cit.*, 77).

The library was discovered at Nineveh in 1849, and is considered the [earliest systematically collected library](#), as distinct from a government [archive](#). It is thought that a significant portion of the library survived to the present because the tablets were baked in fires set during the [Median](#) sack of [Nineveh](#) in 612 CE.

To deter thieves, Ashurbanipal had the following curse written on many of his tablets. It is the earliest known book curse:

"I have transcribed upon tablets the noble products of the work of the scribe which none of the kings who had gone before me had learned, together with the wisdom of Nabu insofar as it existeth [in writing]. I have arranged them in classes, I have revised them and I have placed them in my palace, that I, even I, the ruler who knoweth the light of Ashur, the king of the gods, may read them. Whosoever shall carry off this tablet, or shall inscribe his name on it, side by side with mine own, may Ashur and Belit overthrow him in wrath and anger, and may they destroy his name and posterity in the land" (Drogin, *Anathema!* [1983] 52-53).

The surviving portion of the library includes 660 cuneiform tablets that concern medicine. These were published in facsimile for the first time by Reginald C. Thompson as *Assyrian Medical Texts. From the Originals in the British Museum* (1923).

Filed under: [Archives](#), [Book History](#), [Libraries](#), [Medicine](#), [Organization of Information / Taxonomy](#), [Social / Political](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## The God of Writing. . . . Circa 646 BCE



King Ashurbanipal records his rebuilding of Ezida, the temple of Nabû, the god of writing on a limestone slab in Neo Assyrian cuneiform script.

"TO NABÛ, EXALTED LORD, WHO DWELLS IN EZIDA, WHICH IS IN NINEVEH, HIS LORD: I ASHURBANIPAL, KING OF ASSYRIA, THE ONE LONGED FOR AND DESTINED BY HIS GREAT DIVINITY, WHO, AT THE ISSUING OF HIS ORDER AND THE GIVING OF HIS SOLEMN DECREE, CUT OFF THE HEAD OF TE'UMMAN, KING OF ELAM, AFTER DEFEATING HIM IN BATTLE, AND WHOSE GREAT COMMAND MY HAND CONQUERED UMMAN-IGASH, TANMARIT, PA'E AND UMMAN-ALTASH, WHO RULED OF ELAM AFTER TE'UMMAN. I YOKED THEM TO MY SEDAN CHAIR, MY ROYAL CONVEYANCE. WITH HIS GREAT HELP I ESTABLISHED DECENT ORDER IN ALL THE LANDS WITHOUT EXCEPTION. AT THAT TIME I ENLARGED THE STRUCTURE OF THE COURT OF THE TEMPLE OF NABÛ, MY LORD, USING MASSIVE LIMESTONE. MAY NABÛ LOOK WITH JOY ON THIS, MAY HE FIND IT ACCEPTABLE. BY THE RELIABLE IMPRESS OF YOUR WEDGES MAY THE ORDER FOR A LIFE OF LONG DAYS COME FORTH FROM YOUR LIPS, MAY MY FEET GROW OLD BY WALKING IN EZIDA IN YOUR DIVINE PRESENCE"

(Schoyen Collection MS 2180)

Filed under: [Religious Texts / Religion](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## Construction of the Etemenanki Ziggurat, Later Known as The Tower of Babel 604 BCE – 562 BCE



Under [King Nebuchadnezzar II](#), the king who is named more than 90 times in the Old Testament, the restoration and enlargement of the [Etemenanki ziggurat](#) in Babylon was completed after 43 years of labor. The ziggurat was originally built around the time of [Hammurabi](#). It has been calculated that for its construction at least 17 million bricks had to be made and fired. Some of these bricks were stamped with inscriptions in [cuneiform](#). Eventually the ziggurat became known as the [Tower of Babel](#), and the few bricks from this that survive are known as "Tower of Babel bricks" or Nebuchadnezzar II bricks.

"Babylon with the ziggurat was captured by Kyros 538 BC, Dareios I 519 BC, Xerxes ca. 483 BC, and entirely destroyed by Alexander I the Great in 331 BC. It is this tall stepped temple tower which is referred to in Genesis 11:1-9, and became known as 'The Tower of Babel'. The bricks are specifically mentioned in Genesis 11:3: 'Come, let us make bricks and bake them in the fire. — For stone they used bricks and for mortar they used bitumen'. The black bitumen is still visible on the back of the present baked brick. These bricks are considered so important and interesting that British Museum had their copy on exhibit with special handout descriptions, from where parts of the present information is taken. For a stele illustrating The Tower of Babel, see MS 2063. Nebuchadnezzar II was the founder of the New Babylonian empire. He captured Jerusalem in 596 and 586 BC, burnt down the temple and all of Jerusalem, carried its treasures off to Babylon, and took the Jews into captivity (2 kings 24-25). Nebuchadnezzar II is the king who is named more than 90 times in the Old Testament. Daniel 1-4 is almost entirely devoted to the description of his greatness and reign, his rise and fall, and submission to God" (Schoyen Collection MS 1815/1).

Filed under: [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## The Tower of Babel Stele 604 BCE – 562 BCE



[Nebuchadnezzar II](#) completed the restoration of the [Etemenanki](#) which was originally built around the time of Hammurabi (1792-1750 BCE). The Tower of Babel Stele, of which two of the original three parts are preserved in the [Schøyen Collection](#) (MS 2063), presents an image of the Etemenanki tower contemporary with Nebuchadnezzar's restoration, along with a simple building plan.

"The missing part of the stele's back, was in a religious institution in U.S.A., the present whereabouts unknown. The stele was found in a special hiding chamber, broken into 3 parts in antiquity, at Robert Koldewey's excavations of the site of the Tower of Babel in 1917. Its importance was immediately recognised. A photograph was taken with 3 archaeologists standing next to the stele. With the imminent danger of war breaking out in the area, they decided to rescue it, and each archaeologist carried one part out of the war zone. One part was taken to Germany, one part to Jordan and then London, the third part to U.S.A."

Filed under: [Archaeology](#), [Collecting Books](#), [Manuscripts](#), [Art](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## The Oldest Surviving Texts from the Hebrew Bible Circa 600 BCE

In 1979 [two tiny silver scrolls](#), inscribed with portions of the well-known [apotropaic Priestly Blessing](#) of the [Book of Numbers](#), and apparently once used as [amulets](#), were found in one of a burial chambers at [Ketef Hinnom](#), an archaeological site near Jerusalem. The delicate process of unrolling the scrolls, while developing a method that would prevent them from disintegrating, took three years. Even though very brief, the two tiny silver scrolls are the oldest surviving texts from the Hebrew Bible.

"The scrolls were found in 1979 in Chamber 25 of Cave 24 at Ketef Hinnom, during excavations conducted by a team under the supervision of [Gabriel Barkay](#), professor of archaeology at [Bar-Ilan University](#). The site appeared to be archaeologically sterile (the tomb had last been used for storing rifles during the Ottoman period), but a chance discovery by a 13-year-old "assistant" revealed that a partial collapse of the ceiling long ago had preserved the contents of Chamber 25.

"The chamber contained approximately 60 cm. of material with over a thousand objects: many small pottery vessels, artifacts of iron and bronze (including arrowheads), needles and pins, bone and ivory objects, glass bottles, and jewelry including earrings of gold and silver. The tomb had evidently been in use for several generations towards the end of the [First Temple](#) period, and continued to be used after the destruction of Jerusalem in 587/6 BCE. KH1 was found in Square D, the middle of the repository, 7 cm above the floor, while KH2 was found while sifting dirt from the lower half of the deposits in Square A, the innermost portion of the repository. Both amulets were separated from Hellenistic artifacts by 3 meters of length and 25 cm of depth, and embedded in pottery and other material from the 7th/6th centuries BCE.

"Barkay initially dated the inscriptions to the late-7th/early-6th centuries BC (later revised downward slightly to the early 6th century) on palaeographic grounds (the forms of the delicately-incised paleo-Hebrew lettering)

and on the evidence of the pottery found in the immediate vicinity. This dating was subsequently questioned by Johannes Renz and Wolfgang Rollig (*Handbuch der Althebraischen Epigraphik*, 1995), who argued that the script was in too poor a condition to be dated with certainty and that a 3rd/2nd century BCE provenance could not be excluded, especially as the repository, which had been used as a kind of "rubbish bin" for the burial chamber over many centuries, also contained material from the fourth century BCE.

"A major re-examination of the scrolls was therefore undertaken by the University of Southern California's West Semitic Research Project, using advanced photographic and computer enhancement techniques which enabled the script to be read more easily and the paleography to be dated more confidently. The results, published in the *Bulletin of the American Schools of Oriental Research (BASOR)* in 2004, confirmed a date immediately prior to the destruction of Jerusalem by the Babylonians in 586/7 BCE. (An innovation in the report was the simultaneous publication of an accompanying "digital article," a CD version of the article and the images). Dr Kyle McCarter of Johns Hopkins University, a specialist in ancient Semitic scripts, has said the study should "settle any controversy over [the date of] these inscriptions" (Wikipedia article on Ketef Hinnom, accessed 09-01-2009).

Filed under: [Archaeology](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

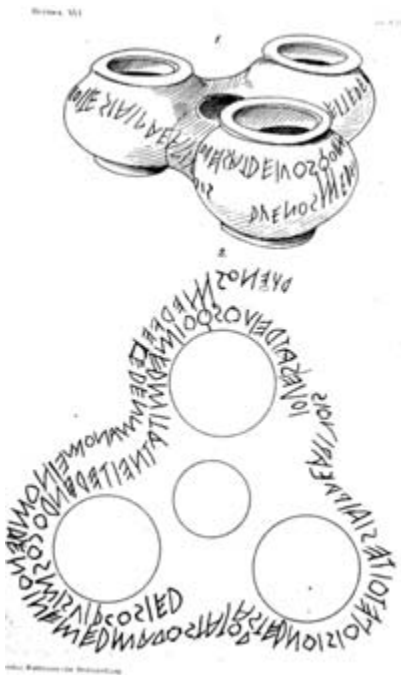
## Destruction of Solomon's Temple 586 BCE



Solomon's Temple in Jerusalem is destroyed and the Jews are exiled into the [Babylonian Captivity](#).

Filed under: [Archaeology](#), [Religious Texts / Religion](#), [Social / Political](#) | [Bookmark or share this entry](#) »

## The Duenos Inscription Circa 550 BCE



The [DUENOS inscription](#), found on a vase on Quirinal Hill in Rome, is inscribed with the second earliest known [Old Latin](#) text.

"It is inscribed on the sides of a kernos, in this case a trio of small globular vases adjoined by three clay struts. It was found by Heinrich [Dressel](#) in 1880 on the [Quirinal Hill](#) in Rome. The kernos was held at the [Staatliche Museen](#) in Berlin (inventory no. 30894,3), prior to the reunification of Germany and the reorganization of the national museums in that city" (Wikipedia article on Duenos Inscription, accessed 08-02-2009).

Old Latin, the precursor of classical Latin, is known from non-book writing, such as stone inscriptions.

Filed under: [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## The Earliest Known Document in the History of Religious Toleration 537 BCE



After the overthrow of Babylonia by the Persians, [King Cyrus II \(Cyrus the Great\)](#) permitted various religious groups, including perhaps 40,000 Jews, to return to their native land. Upon conquering Babylonia, Cyrus issued a declaration inscribed in Babylonian [cuneiform](#) on a clay cylinder which was discovered in in Babylon in 1879. Known as the [Cyrus Cylinder](#), it is preserved in the British Museum.

On the cylinder Cyrus announced a number of reforms that he made after conquering the country. These include arranging for the restoration of temples and organizing the return to their homelands of a number of people who had been held in Babylonia by the Babylonian kings. For these reasons the Cyrus Cylinder has been called the earliest known document in the history of [religious toleration](#).

Filed under: [Religious Texts / Religion](#), [Social / Political](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## Ezra Introduces Public Reading of the Torah Circa 536 BCE



After the return of the Jewish people from the Babylonian captivity, [Ezra the Scribe](#) introduced public reading of the Torah.

Filed under: [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#) | [Bookmark or share this entry »](#)

## Disappearance of the Ark of the Covenant and the Ten Commandments 535 BCE





Having taken 4 months to walk from Babylon to Jerusalem, the Jews began construction of the [Second Temple](#). Missing from the Second Temple was the [Ark of the Covenant](#) which, according to legend, contained the [Ten Commandments](#). The loss eventually resulted in extensive speculations concerning the Ark's disappearance and archaeological efforts to locate the Ark.

Filed under: [Archaeology](#), [Destruction / Looting of Information](#), [Religious Texts / Religion](#) | [Bookmark or share this entry](#) »

## Earliest Known Work on Descriptive Linguistics Circa 501 BCE



[Panini](#), an Indian grammarian from Gandhara, composed his formulation of 3,959 rules of Sanskrit morphology known as *Ashtadhyayi*. This is the earliest known work on descriptive linguistics. It includes the concepts of the phoneme, the morpheme, and the root, and metarules, transformation, and [recursion](#).

Filed under: [Linguistics / Translation / Speech](#) | [Bookmark or share this entry](#) »

## First Known Description of a Binary Numerical System Circa 500 BCE

In *Chhandah-shastra*, a Sanskrit book on meters, or long syllables, "[Pingala](#) presents the first known description of a binary numeral system. He described the binary numeral system in connection with the listing of Vedic meters with short and long syllables. His work also contains the basic ideas of maatraameru (Fibonacci number) and meruprastaara (Pascal's triangle.)"

Filed under: [Mathematics / Logic](#) | [Bookmark or share this entry](#) »

## The Roman Census Circa 500 BCE



[Servius Tullius](#), the sixth legendary king of [ancient Rome](#), and the second king of the [Etruscan](#) dynasty, introduced the Roman [census](#) to determine taxes. Conducted every five years, it provided a register of citizens and their property.

Filed under: [Statistics / Demography](#) | [Bookmark or share this entry](#) »

## Paper in Pre-Columbian Mesoamerica Circa 500 BCE



Natives of [pre-Columbian Mesoamerica](#) manufactured [Amatl](#) ([Nahuatl](#): *āmatl*, Spanish: *amate* or *papel amate*) during the first millenium BCE. It is a form of paper made by boiling the inner bark of several species of trees, particularly [fig trees](#) (genus *Ficus*) such as *F. cotinifolia* and *F. padifolia*. The resulting fibrous material is pounded with a stone to produce a stretchy and somewhat delicate paper, colored light brown with corrugated lines.

"Iconography (in stone) dating from the period contains depictions of items thought to be paper. For example, Monument 52 from the [Olmec](#) site of [San Lorenzo Tenochtitlán](#) illustrates a personage adorned with ear pennants of folded paper." (Wikipedia article on [Amatl](#))

Filed under: [Paper / Papyrus / Parchment / Vellum, Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## The Royal Road Circa 475 BCE



By the time of [Herodotus](#) (circa 484-425 BCE) the Persian [Royal Road](#) ran some 2,857 km from the city of [Susa](#) on the lower Tigris to the port of [Smyrna](#) (modern Izmir in Turkey) on the Aegean Sea. The Royal Road was a highway built by the Persian king [Darius I](#), who built the road to facilitate rapid communication throughout the [Persian Empire](#). The Royal Road was protected by Persian rulers and later used by the Romans. On this road couriers, riding in relays, could travel 1,677 miles (2,699 km) in seven or nine days.

Herodotus wrote, "There is nothing in the world that travels faster than these Persian couriers." Herodotus's praise for these messengers—"Neither snow nor rain nor heat nor darkness of night prevents them from

accomplishing the task proposed to them with the very utmost speed”—is the inspiration for the unofficial motto of postal carriers.

By having fresh horses and riders ready at each relay, royal couriers may have carried messages the entire distance in 9 days, though normal travelers took about three months. This Royal Road linked into many other routes in the overall trade network known as the [Silk Road](#). Some of these roads, such as the routes to India and Central Asia, were also protected, encouraging regular contact between India, Mesopotamia and the Mediterranean. There are accounts in the Old Testament [Book of Esther](#) of dispatches being sent from Susa to provinces as far out as India and Cush ([Kush](#)) during the reign of [Xerxes](#) (485-465 BCE).

Until the development of effective [optical telegraph](#) systems at the end of the 18th century, messengers on horseback, riding over a good road system, remained the fastest method of sending a message overland.

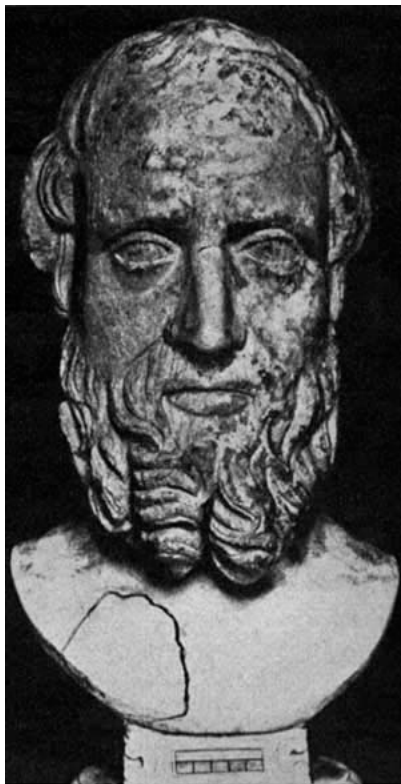
Filed under: [Archaeology](#), [Communication](#), [Internet & Networking](#) | [Bookmark or share this entry »](#)

## Beginnings of the Book Trade in Greece Circa 450 BCE

"It is not until the middle of the fifth century or a little later that a book trade can be said to have existed in Greece: we find references to a part of the Athenian market where books can be bought (Eupolis fr. 327 K.-A.) and Socrates is represented by Plato as saying in his *Apology* 26D that anyone can buy Anaxagorus' works for a drachma in the orchestra. All details of the trade, however, remain unknown" (Reynolds & Wilson, *Scribes and Scholars*, 3rd. ed. [1991] 2).

Filed under: [Book Trade](#) | [Bookmark or share this entry »](#)

## The Egyptians Reckon with Pebbles and Probably Use the Sandboard Abacus Circa 440 BCE



Because the numbering systems of the Mesopotamians, Babylonians, Egyptians, Greeks and Romans are not convenient for extensive calculation, it is believed that they used some sort of mechanical calculating device. The simplest form of calculating device is a kind of table or tablet on which calculation can be written in sand or dust, and then easily erased. This is the "sandboard abacus". One derivation of the Latin word [abacus](#) comes from the Greek *abakos* from the Hebrew word *abaq*, meaning dust.

In his [Histories Herodotus of Halicarnassus](#), written about this time, stated that the Egyptians "write their characters and reckon with pebbles, bringing their hand from right to left, while the Greeks go from left to right." D.E. Smith, in his [History of Mathematics II](#), p. 160 quotes this statement by Herodotus and writes, "Right to left order was that of the hieratic script and there is probably some relation between this script and the [abacus](#). No wall pictures thus far discovered give any evidence of the use of the abacus, but in any collection of Egyptian antiquities there may be found disks of various sizes which may have been used as counters."

Filed under: [Data Processing / Computing](#), [Mathematics / Logic](#) | [Bookmark or share this entry »](#)

## Possible Libraries in Ancient Greece Circa 410 BCE

"The increase of the book trade made it possible for private individuals to form libraries. Even if the tradition that sixth-century tyrants such as [Pisistratus](#) and [Polycrates](#) of Samos possessed large collections of books is discounted ([Anthenaues I.3A](#)), it is clear that by the end of the fifth century private libraries existed. Aristophanes pokes fun at Euripides for drawing heavily on literary sources in composing his tragedies (Frogs 943), and his own work, being full of parody and allusion, must have depended to some extent on a personal book collection.

"There is no trace of any general library maintained at the public expense at Athens, but it is likely that official copies of plays performed at the leading festivals such as the [Dionysia](#) were kept at the theatre or in the public record office. [Pseudo-Plurarch](#) (*Lives of the ten orators* 841F) ascribes to the orator Lycurgus (c.390-324BCE) a proposal to keep official copies in this way, but the need would probably have arisen earlier. We know that after the original performance plays were revived from time to time. New copies of the text must have been needed for the actors, and if they had been obliged to obtain these by a process of transcription from private copies it would be surprising that an almost complete range of plays survived into the Hellenistic age" (Reynolds & Wilson, *Texts and Transmission*, 3rd ed. [1991] 5).

Filed under: [Book Trade](#), [Libraries](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## Arabic Numerals are Invented in India by the Hindus Circa 400 BCE

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| — | = | ≡ | + | h | ϕ | ∅ | ∟ | ∩ |

What we call [Arabic numerals](#) were invented in India by the Hindus. Because the Arabs transmitted this system to the West after the Hindu numerical system found its way to Persia, the numeral system became known as Arabic numerals, though Arabs call the numerals they use "Indian numerals", *ارقام هندية*, *arqam hindiyah*.

Filed under: [Mathematics / Logic](#) | [Bookmark or share this entry »](#)

## Export of Books from Greece to the Euxine Coast 399 BCE

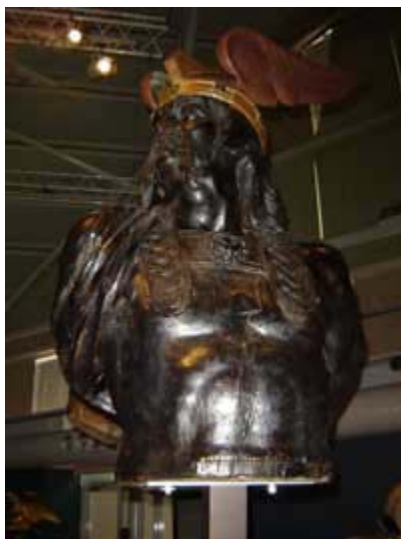


In his [Anabasis](#) 7.5.14, Greek historian [Xenophon](#) reported that books (papyrus rolls) formed part of the cargo of ships wrecked off [Salmydessos](#) on the north coast of [Thrace](#) -- evidence that books were exported from Athens (?) to the [Euxine coast](#) by this date, reflective of an international book trade.

Reynolds & Wilson, *Scribes and Scholars* 3rd ed. (1991) 244.

Filed under: [Book History](#), [Book Trade](#) | [Bookmark or share this entry](#) »

## **The Gauls Sack Rome and Destroy Most Records 390 BCE – 387 BCE**



The [Gauls](#), under their chieftain [Brennus](#) or Brennos, defeat Roman armies in the [Battle of the Allia](#) and sack Rome.

With the exception of the [Capitoline Hill](#), the Gauls plundered the city and destroyed nearly all records.

Filed under: [Destruction / Looting of Information](#), [Military / Warfare](#) | [Bookmark or share this entry](#) »

## **The Library of Aristotle 384 BCE – 321 BCE**



The library of [Aristotle](#) may be the first private library concerning which there is considerable discussion among early commentators. It is impossible to know how much of the discussion has basis in fact. Harris provides the following summary: “Upon his [Aristotle’s] death, this library was inherited by Aristotle’s teaching successor, [Theophrastus](#) of Lesbos... Theophrastus in turn enlarged the library and later bequeathed it to his nephew [Neleus](#) [of Scepsis]. Neleus was not a successful teacher, and in his later years withdrew from the school, taking his library with him to Scepsis in Asia Minor. His descendants, apparently unlettered but aware of the value of the books, saved them by burying them, according to the geographer Strabo, to keep them out of the hands of the [Attalid](#) kings of [Pergamum](#) who were building up their famous library.

“Finally, about 100 B.C., the mildewed and worm-eaten remnants of Aristotle’s library were sold to [Appellicon of Teos](#), a minor Athenian military leader and book collector. Appellicon tried to restore the damaged volumes but only succeeded in damaging them further when he made incorrect ‘corrections’ for missing fragments of pages and otherwise edited the works. After his death, Athens was captured by the Roman general [Sulla](#), who carried the library off to Rome, where it eventually became a part of [Tyrannion’s](#) library. Another account relates that [Ptolemy II](#) (285-246 B.C.) acquired Aristotle’s library directly from Neleus and brought it to Egypt to become a part of the great Alexandrian library. It is possible that both stories are partially correct, and it is quite probable that copies at least of Aristotle’s library reached Alexandria eventually.” (Harris, *History of Libraries in the Western World* 4th ed. [1999] 40-41)

Filed under: [Collecting Books](#), [Manuscripts](#), [Art](#), [Libraries](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Hydraulic Telegraph 350 BCE



According to [Polybius](#), a Greek historian of the Hellenistic period, [Aeneas Tacticus](#), one of the earliest Greek writers on the art of war, invented the hydraulic telegraph about this time. It was a [semaphore](#) system used during the [First Punic War](#) to send messages between Sicily and Carthage.

"The system involved identical containers on separate hills; each container would be filled with water, and a vertical rod floated within. The rods were inscribed with various predetermined [codes](#).

"To send a message, the sending operator would use a torch to signal the receiving operator; once the two were synchronized, they would simultaneously open the spigots at the bottom of their containers. Water would drain out until the water level reached the desired code, at which point the sender would lower his torch, and the operators would simultaneously close their spigots."

Filed under: [Communication](#), [Cryptography / Cryptanalysis](#), [Internet & Networking](#), [Telegraph](#) | [Bookmark or share this entry »](#)

## **The Earliest Example of Shorthand Writing Circa 350 BCE**



The earliest known example of a [shorthand](#) writing system is the [Acropolis stone](#) (Akropolisstein). The marble slab shows a writing system using primarily based on vowels, using certain modifications to indicate consonants.

Filed under: [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## The Oldest Map Clearly Marked with Distances 343 BCE – 313 BCE

A quarter-inch thick copper plate in the Hebei Provincial Museum at Shijiazhuang, Hebei Province, China, bears the [world's oldest map clearly marked with distances](#). The 2,300-year-old map marks the locations of buildings in the five mausoleums of Wang Cuo (344-313 B.C.), his queen, and his concubines. It is called the Zhao Yu Tu ("map of the area of the mausoleum"). "It is not only the oldest map ever found in China but the oldest numeral-bearing map in the world," says Du Naisong, a researcher with the Palace Museum in Beijing's Forbidden City. Thirty-seven inches long and 19 inches wide, the map marks more than 70 locations, and symbols, numerals, and epigraphs are inlaid with gold and silver. Unlike modern maps, the Zhao Yu Tu has south on top and north on the bottom. One-half inch equals 16.5 feet on the map's scale.

Filed under: [Cartography / Geography / Voyages / Travels](#) | [Bookmark or share this entry](#) »

## "The Founding Document of Mathematics" 323 BCE – 283 BCE



[Euclid](#) of Alexandria, a teacher at the [Alexandrian Library](#) under the reign of [Ptolemy I](#), wrote the [Elements](#) during this time, "in which he summarized the preceding two centuries of mathematical research. Now known



as *the* founding document of mathematics, the *Elements* was the standard textbook for mathematical education in ancient times, in the Islamic world, and in Europe through the Middle Ages, the Renaissance, and until almost the present day. The system of thought presented by the *Elements*, in which knowledge was distilled in the form of theorems and then given a written proof, inspired fields as diverse as law and physics. Indeed, Newton's *Principia*, which marked the beginning of modern physics, took Euclid's work as its intellectual and stylistic model."

## The Royal Library of Alexandria Circa 300 BCE



The [Royal Library of Alexandria](#) is founded under the reign of [Ptolemy I Soter](#) or [Ptolemy II](#).

At its peak the Alexandrian library may have preserved 400,000 to 700,000 [papyrus rolls](#)—*the largest collection of recorded information in the ancient world*. Though the number of papyrus rolls at Alexandria was undoubtedly very large, especially relative to other libraries of its time, to keep the extent of this library in proportion one should remember that a typical papyrus roll probably contained a text about the length of one book of Homer.

Traditionally the Alexandrian Library is thought to have been based upon the library of Aristotle. By tradition it is also believed, without concrete evidence, that the much of the collection of rolls was acquired by order of [Ptolemy III](#), who supposedly required all visitors to Alexandria to surrender rolls in their possession. These writings were then copied by official scribes, the originals were put into the Library, and the copies were delivered to the previous owners.

The Alexandrian Library was associated with a school and a museum. Scholars at Alexandria were responsible for the editing and standardization for many earlier Greek texts. One of the best-known of these editors was [Aristophanes of Byzantium](#), a director of the library, whose work on the text of the *Iliad* may be preserved in the [Venetus A](#) manuscript, but who was also known for editing authors such as Pindar and Hesiod. (The Venetus A manuscript is noticed in this database.)

Though it is known that portions of the Alexandrian Library survived for several centuries, the various accounts of the library's eventual destruction are contradictory. The Wikipedia article on the [Library of Alexandria](#) outlines four possible scenarios for its destruction:

1. [Julius Caesar's](#) fire in The Alexandrian War, in 48 BCE
2. The attack of [Aurelian](#) in the Third century CE
3. The decree of [Theophilus](#) in 391 CE
4. The [Muslim conquest](#) in 642 CE or thereafter.

The article concludes that "although the actual circumstances and timing of the physical destruction of the Library remain uncertain, it is however clear that by the eighth century A.D., the Library was no longer a significant institution and had ceased to function in any important capacity."

◆ Another factor in the eventual destruction of the contents of the Alexandrian Library might have been the decay of the papyrus rolls as a result of the climate. Most of the papyrus rolls and fragments that survived after the Alexandrian Library did so in the dry sands of the Egyptian desert. Papyrus rolls do not keep well either in dampness or in salty sea air, to which they were likely exposed in the library located in the port of Alexandria. Thus, independently of the selected library destruction scenario, because of decay of the storage medium, or as

a result of fires or other natural catastrophes, it is probable that significant portions of the information in the Alexandrian library were lost before the library was physically destroyed.

Filed under: [Book History](#), [Data Storage / Memory](#), [Destruction / Looting of Information](#), [Education / Reading / Literacy](#), [Libraries, Manuscripts & Manuscript Copying](#), [Museums](#), [Paper / Papyrus / Parchment / Vellum](#), [Preservation & Conservation of Information](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Dead Sea Scrolls 300 BCE – 68 CE



A column of the Copper Scroll found in Cave Three.

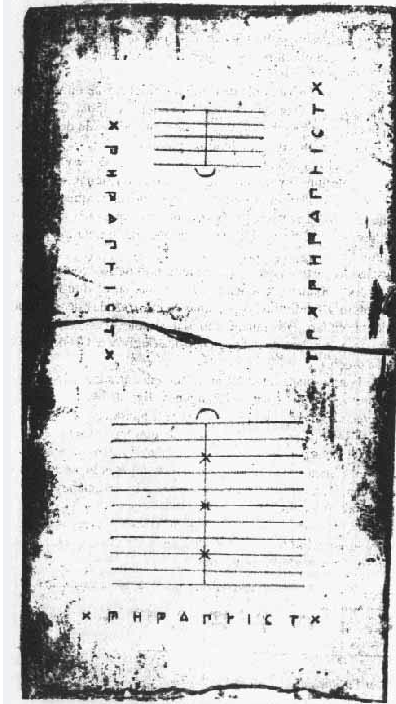
This is the date range of the [Dead Sea Scrolls](#) which were discovered between 1947 and 1956 in eleven caves near Khirbet [Qumran](#), on the northwestern shores of the Dead Sea. Historical, paleographic, and linguistic evidence, as well as carbon-14 dating, established that the scrolls and the Qumran ruin dated from the third century BCE to 68 CE. Dating from the late Second Temple Period, a time when Jesus of Nazareth lived, the Dead Sea Scrolls are older than any other surviving manuscripts of the Hebrew Scriptures by almost one thousand years.

“Most of the scrolls were written in Hebrew, with a smaller number in Aramaic or Greek. Most of them were written on parchment, with the exception of a few written on papyrus. The vast majority of the scrolls survived as fragments—only a handful were found intact. Nevertheless, scholars have managed to reconstruct from these fragments approximately 850 different manuscripts of various lengths.

“The manuscripts fall into three major categories: biblical, apocryphal, and sectarian. The biblical manuscripts comprise some **two hundred copies of books of the Hebrew Bible, representing the earliest evidence for the biblical text in the world.** Among the apocryphal manuscripts (works that were not included in the Jewish biblical canon) are works that had previously been known only in translation, or that had not been known at all. The sectarian manuscripts reflect a wide variety of literary genres: biblical commentary, religious-legal writings, liturgical texts, and apocalyptic compositions. Most scholars believe that the scrolls formed the library of the sect (the Essenes?) that lived at Qumran. However it appears that the members of this sect wrote only part of the scrolls themselves, the remainder having been composed or copied elsewhere.”

Filed under: [Book History](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## The Earliest Surviving Counting Board Circa 300 BCE



The Salamis Tablet. (View Larger)

Excluding counting on the fingers, counting boards are the earliest known counting device, and a precursor of the abacus. They were made from stone or wood and the counting was done on the board with beads or pebbles or sand or dust. These devices have also been called the "sandboard abacus." The earliest surviving example of a [counting board](#) or a [gaming board](#) may be a tablet found about 1850 CE on the Greek island of [Salamis](#) which dates back to about 300 BCE. It is preserved in the Greek National Museum at Athens.

"It is a slab of white marble 149 cm long, 75 cm wide, and 4.5 cm thick, on which are 5 groups of markings. In the center of the tablet is a set of 5 parallel lines equally divided by a vertical line, capped with a semi-circle at the intersection of the bottom-most horizontal line and the single vertical line. Below these lines is a wide space with a horizontal crack dividing it. Below this crack is another group of eleven parallel lines, again divided into two sections by a line perpendicular to them, but with the semi-circle at the top of the intersection; the third, sixth and ninth of these lines are marked with a cross where they intersect with the vertical line." Three sets of Greek symbols (numbers from the [acrophonic system](#)) are arranged along the left, right and bottom edges of the tablet.

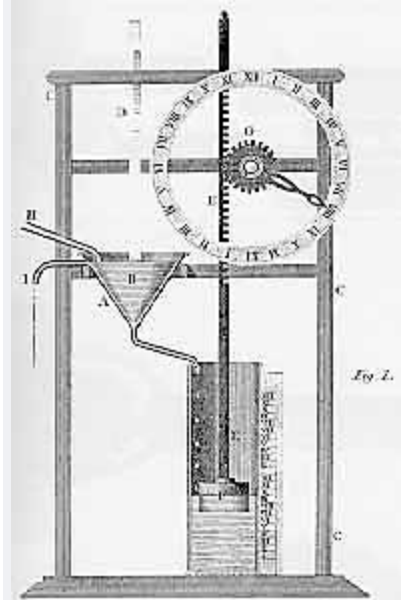
Filed under: [Accounting / Business Machines](#), [Data Processing / Computing](#), [Mathematics / Logic](#) | [Bookmark or share this entry »](#)

## The Beginnings of Latin Literature Circa 300 BCE

"Although written records may have existed from very early times, Latin literature did not begin until the third century B.C. Inspired by Greek example, it was probably committed from its first beginnings to the form of the book which had long been standard in the Greek world, the papyrus scroll" (Reynolds & Wilson, *Scribes and Scholars*, 3rd. ed. [1991] 8-19).

Filed under: [Book History](#), [Manuscripts & Manuscript Copying](#) | [Bookmark or share this entry »](#)

## The First Truly Automatic Self-Regulatory Device Circa 285 BCE – 222 BCE



A diagram of Ctesibius's water clock.

Greek inventor and mathematician [Ctesibius](#) or Ktesibios or Tesibius (Greek Κτησιβιος), probably the first head of the [Museum at Alexandria](#), invents the first artificial automatic regulatory system, a water clock. "In his water clocks, water flowed from a source such as a holding tank into a reservoir, then from the reservoir to the mechanisms of the clock. Ktesibios's device used a cone-shaped float to monitor the level of the water in its reservoir and adjust the rate of flow of the water accordingly to maintain a constant level of water in the reservoir, so that it neither overflowed nor was allowed to run dry. This was the first artificial truly automatic self-regulatory device that required no outside intervention between the feedback and the controls of the mechanism" (Wikipedia article on Cybernetics, accessed 03-17-2009).

Filed under: [Science, Technology](#) | [Bookmark or share this entry](#) »

## The Beginnings of Philology Circa 280 BCE



Fragments of the *Odyssey*, most likely copied in Alexandria.

Commentaries on the [Iliad](#) and the [Odyssey](#) written in the [Hellenistic](#) period at Alexandria begin exploring the textual inconsistencies of the poems which occurred as the result of different scribes writing down differing versions of poems passed down through the oral tradition. This process of comparing different manuscript texts, such as would have been preserved at the [Alexandrian Library](#), to arrive at what might be the "canonical" text, was the beginning of [philology](#).

The first critical edition of Homer was made by [Zenodotus](#) of Ephesus, first superintendant of the [Library of Alexandria](#), who lived during the reigns of the first two [Ptolemies](#), and was at the height of his reputation about 280 BCE. His colleagues in librarianship were [Alexander of Aetolia](#) and [Lycophron of Chalcis](#), to whom were allotted the tragic and comic writers respectively, Homer and other epic poets being assigned to Zenodotus.

"Having collated the different manuscripts in the library, he expunged or [obelized](#) doubtful verses, transposed or altered lines, and introduced new readings. It is probable that he was responsible for the division of the Homeric poems into twenty-four books each (using capital Greek letters for the [Iliad](#), and lower-case for the

[Odyssey](#)), and possibly was the author of the calculation of the days of the *Iliad* in the [Tabula Iliaca](#)" (Wikipedia article on Zenodotus, accessed 11-26-2008).

Filed under: [Book History](#), [Fiction](#), [Science Fiction](#), [Drama](#), [Poetry](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## A "Wild" or "Eccentric" Papyrus of the Iliad Circa 275 BCE

Fragments of the *Iliad*, Books XXI-XXIII, preserved at the Bodleian Library, were recovered from cartonnage, the material made of waste papyrus for mummy cases, which has proven to be a rich source of literary texts.

"Literary papyri of this early date are by no means common, and this one has the added interest of being one of the best examples of what are sometimes called 'wild' or 'eccentric' papyri of Homer. The text deviates substantially, e.g. by the omission or addition of whole lines, from the standard version later established by the Alexandrian scholars" (Hunt, R.W., *The Survival of Ancient Literature*, Oxford: Bodleian Library, 1975, No. 1.)

Filed under: [Archaeology](#), [Book History](#), [Fiction](#), [Science Fiction](#), [Drama](#), [Poetry](#), [Manuscripts & Manuscript Copying](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## Writing on Bamboo and Silk Circa 255 BCE



An example of Lishu, or Clerkly Script, developed by Chinese Bureaucrats to be written with a brush.

In China up till the end of the Chou dynasty (255 BCE), through China's classical period, writing was done with a bamboo pen, with ink of soot, or lampblack upon slips of bamboo or wood, with wood being used mainly for short messages and bamboo for longer messages and for books. "Bamboo is cut into strips about 9 inches long and wide enough for a single column of characters. The wood was sometimes in the same form, sometimes wider. The bamboo strips, being stronger, could be perforated at one end and strung together, either with silken cords or with leather thongs, to form books...

"The invention of the writing brush of hair, attributed to the general Meng T'ien in the third century B.C., worked a transformation in writing materials. This transformation is indicated by two changes in the language. The word for chapter used after this time means 'roll'; the word for writing materials becomes 'bamboo and silk' instead of 'bamboo and wood.' There is evidence that the silk used for writing during the early part of the Han dynasty consisted of actual silk fabric. Letters on silk, dating possibly from Han times, have been found together with paper in a watchtower of a spur of the Great Wall.

"But as the dynastic records of the time state, 'silk was too expensive and bamboo too heavy.'...The emperor Chin'in Shih Huang set himself the task of going over daily a hundred and twenty pounds of state documents. Clearly a new writing material was needed.

“The first step was probably a sort of paper or near-paper made of raw silk. This is indicated by the character for paper, which has the silk radical showing material, and by the definition of that character in the *Shuo wen*, a dictionary that was finished about the year A.D. 100” (Carter, *The Invention of Printing in China and its Spread Westward*, 2nd ed. [1955] 3-4).

Filed under: [Book History](#), [Paper / Papyrus / Parchment / Vellum](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## The Septuagint Circa 250 BCE

The [Septuagint \(LXX\)](#), the Greek translation of the Hebrew Bible, may have been produced at Alexandria, Egypt about this time. The Alexandrian community then included the largest community of Jews.

“The Septuagint derives its name (derived from Latin *septuaginta*, 70, hence the abbreviation LXX) from a legendary account in the [Letter of Aristeas](#) of how seventy-two Jewish scholars (six scribes from each of the twelve tribes) were asked by the Egyptian pharaoh [Ptolemy II Philadelphus](#) in the 3rd century BC to translate the Torah for inclusion in the Library of Alexandria. In a later version of that legend narrated by [Philo of Alexandria](#), although the translators were kept in separate chambers, they all produced identical versions of the text in seventy-two days. Although this story is widely viewed as implausible today, it underlines the fact that some ancient Jews wished to present the translation as authoritative. A version of this legend is found in the Talmud, which identifies 15 specific unusual translations made by the scholars. Only 2 of these translations are found in the extant LXX.”

“The oldest witnesses to the LXX include 2nd century BC fragments of Leviticus and Deuteronomy (Rahlfs nos. 801, 819, and 957), and 1st century BC fragments of Genesis, Exodus, Leviticus, Numbers, Deuteronomy, and the Minor Prophets (Rahlfs nos. 802, 803, 805, 848, 942, and 943). Relatively complete manuscripts of the LXX include the *Codex Vaticanus* and the *Codex Sinaiticus* of the 4th century AD/CE and the *Codex Alexandrinus* of the 5th century. These are indeed the oldest surviving nearly-complete manuscripts of the Old Testament in any language; the oldest extant complete Hebrew texts date from around 1000” (Wikipedia article on Septuagint, accessed 11-29-2008).

Filed under: [Book History](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Earliest Surviving Monolingual Dictionary Circa 250 BCE



An edition of the Erya. (View Larger)

The earliest surviving monolingual [dictionary](#) is the [Chinese dictionary](#) called the [Erya](#).

"The Erya has been described as a dictionary, glossary, synonymicon, thesaurus, and encyclopaedia. Karlgren (1931: 46) explains that the book "is not a dictionary in abstracto, it is a collection of direct glosses to concrete passages in ancient texts." The received text contains 2094 entries, covering about 4300 words, and a total of 13,113 characters. It is divided into nineteen sections, the first of which is subdivided into two parts. The title of each chapter combines shi ("explain; elucidate") with a term describing the words under definition. Seven chapters (4, 8, 9, 10, 12, 18, and 19) are organized into taxonomies. For instance, chapter 4 defines terms for: paternal clan (宗族), maternal relatives (母黨), wife's relatives (妻黨), and marriage (婚姻). The text is divided between the first three heterogeneous chapters defining abstract words and the last sixteen semantically-arranged chapters defining concrete words. The last seven – concerning grasses, trees, insects and reptiles, fish, birds, wild animals, and domestic animals – describe more than 590 kinds of flora and fauna. It is a valuable document of natural history and historical biogeography" (Wikipedia article on Erya, accessed 05-08-2008).

## Early Example of Assembly Line Production 215 BCE – 210 BCE



One of three excavation pits of the Terracotta Army. (View Larger)

[Qin Shi Huang](#), the first [Emperor of China](#), orders construction of the *Terracotta Warriors and Horses*, otherwise known as the [Terracotta Army](#), near [Xi'an](#), [Shaanxi](#) province ostensibly to help him rule in the afterlife from his vast mausoleum.

Varying in height from 183 to 195 cm (6ft–6ft 5in), according to their role, with generals being tallest, the figures include warriors, chariots, horses, officials, acrobats, strongmen, and musicians.

"Current estimates are that in the three pits containing the Terracotta Army there were over 8,000 soldiers, 130 chariots with 520 horses and 150 cavalry horses, the majority of which are still buried in the pits."

Creation of this vast collection of painted statuary involved one of the earliest implementations of assembly line production:

"The terracotta figures were manufactured both in workshops by government laborers and also by local craftsmen. The head, arms, legs and torsos were created separately and then assembled. Studies show that eight face moulds were most likely used, and then clay was added to provide individual facial features. Once assembled, intricate features such as facial expressions were added. It is believed that their legs were made in much the same way that terracotta drainage pipes were manufactured at the time. This would make it **an assembly line production**, with specific parts manufactured and assembled after being fired, as opposed to crafting one solid piece of terracotta and subsequently firing it. In those days, each workshop was required to inscribe its name on items produced to ensure quality control. This has aided modern historians in verifying that workshops that once made tiles and other mundane items were commandeered to work on the terracotta army. Upon completion, the terracotta figures were placed in the pits in precise military formation according to rank and duty" (Wikipedia article on Terracotta Army, accessed 06-01-2009).

Filed under: [Archaeology](#), [Art](#), [Economics](#), [Technology](#) | [Bookmark or share this entry »](#)

## The Origins of Bibliography Circa 200 BCE



A digital recreation of the Library of Alexandria.

[Kallimachos](#) (Callimachus), a renowned poet and head of the [Alexandrian Library](#), compiles a catalogue of its holdings which he calls [Pinakes](#) (Tables or Lists).

Supposedly extending to 120 papyrus scrolls, this catalogue amounted to a systematic survey of Greek literature up to its time. It also represented the origins of bibliography. Only a few fragments survived the eventual destruction of the library. These were first published in 1697.

Breslauer & Folter, *Bibliography. Its History and Development* (1984) no. 1.

Rudolf Blum, [\*Kallimachos. The Alexandrian Library and the Origins of Bibliography\*](#). Translated by Hans H. Wellisch (1991).

Filed under: [Bibliography](#), [Indexing & Seaching Information](#), [Libraries](#) | [Bookmark or share this entry »](#)

## Very Long Process of Canonization of the Hebrew Bible Circa 200 BCE

Evidence suggests that the process of [canonization of the Tanakh or Hebrew Bible](#) (Old Testament) occurred over several centuries. The first suggestion of a Jewish Canon comes in the 2nd century BCE. “The book of 2 Maccabees, itself not a part of the Jewish canon,” described Nehemiah (around 400 BCE) as having “founded a library and collected books about the kings and prophets, and the writings of David, and letters of kings about votive offerings” (2 Macc 2:13). The book also suggested that Ezra brought the Torah back from Babylon to Jerusalem and the Second Temple as described in Nehemiah 8. Both I and II Maccabees suggest that Judas Maccabeus likewise collected sacred books. They do not, however, suggest that the canon was at that time closed; moreover, it is not clear that these sacred books were identical to those that later became part of the canon.

Filed under: [Book History](#), [Libraries](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## The Library of Pergamum 197 BCE – 159 BCE



The ruins of the Library.

Rulers of [Pergamum](#) (now Bergama in Turkey) decide to challenge the position of the [Alexandrian Library](#) by founding a competing library of their own. This project, and the vast buildings constructed for the purpose, is associated with the rule of king Eumenes II. The Library of Pergamum supposedly contained 200,000 scrolls—the second largest library holdings in the ancient world. Legend is that Anthony gave this library to Cleopatra as a marriage gift.

Filed under: [Libraries](#) | [Bookmark or share this entry »](#)

## Invention of the Astrolabe Circa 150 BCE – 100 BCE





A portrait of Hipparchus from the title page of William Cunningham's *Cosmographical Glasse* (1559). (View Larger)

The rudimentary [astrolabe](#) was invented in the Hellenistic world and is often attributed to [Hipparchus](#). A combination of the [planisphere](#) and [dioptra](#), the astrolabe was effectively an analog calculator capable of working out several different kinds of problems in spherical astronomy.

Filed under: [Data Processing / Computing](#), [Mathematics / Logic](#), [Technology](#) | [Bookmark or share this entry »](#)

## The Earliest Analog Computer Circa 150 BCE – 100 BCE



The [Antikythera Mechanism](#) discovered off Antikythera, Greece in 1901, includes the only specimen preserved from antiquity of a scientifically graduated instrument, and also may also be thought of as the earliest extant [mechanical calculator](#). "The Antikythera mechanism must therefore be an arithmetical counterpart of the much more familiar geometrical models of the solar system which were known to Plato and Archimedes and evolved into the orrery and the planetarium. The mechanism is like a great astronomical clock without an escapement, or like a modern analogue computer which uses mechanical parts to save tedious calculation . . . It is certainly very similar to the great astronomical cathedral clocks that were built. . . ." in Europe beginning in the fourteenth century.

Applying high-resolution imaging systems and three-dimensional X-ray tomography, in 2008 experts deciphered inscriptions and reconstructed functions of the bronze gears on the mechanism. The results of this research, [illustrated in a video available at this link](#), revealed details of dials on the instrument's back side, including the names of all 12 months of an ancient calendar. Scientists found that the device not only predicted solar eclipses but also organized the calendar in the four-year cycles of the Olympiad, forerunner of the modern Olympic Games.

In December 2008, Michael Wright described a more complete reconstruction of the device which he built, in [a video available at this link](#).

The new findings also suggested that the mechanism's concept originated in the colonies of Corinth, possibly [Syracuse](#), in Sicily. The scientists said this implied a likely connection with [Archimedes](#), who lived in Syracuse and died in 212 B.C. Archimedes invented a planetarium calculating motions of the moon and the known planets, and wrote a lost manuscript on astronomical mechanisms. Some evidence had previously linked the complex device of gears and dials to the island of [Rhodes](#) and the astronomer [Hipparchos](#), who had made a study of irregularities in the Moon's orbital course.

## Probably the First Trigonometric Table Circa 150 BCE



Hipparchos.

Hellenistic astronomer, geographer, and mathematician, [Hipparchos of Rhodes](#), produces a table of chords, an early example of a trigonometric table.

". . .some historians go so far as to say that trigonometry was invented by him. The purpose of this table of chords was to give a method for solving triangles which avoided solving each triangle from first principles. He also introduced the division of a circle into 360 degrees into Greece" ([Mactutor biography of Hipparchus](#), accessed 11-27-2008).

Filed under: [Data Processing / Computing](#), [Mathematics / Logic](#), [Science](#) | [Bookmark or share this entry »](#)

## Acta Diurna: the First Daily Gazette Circa 131 BCE



Ruins of the Roman Forum, where the Acta Diurna was posted.

Copies of [Acta Diurna](#) ("Daily Events", or the "Daily Public Record"), are carved on stone or metal and presented in message boards in public places like the Roman [Forum](#) beginning about this time.

They were also called simply *Acta* or *Diurna* or sometimes *Acta Popidi* or *Acta Publica*. These are thought to be the first daily gazette.

"Their original content included results of legal proceedings and outcomes of trials. Later the content was expanded to public notices and announcements and other noteworthy information such as prominent births, marriages and deaths. After a couple of days the notices were taken down and archived, (though no intact copy has survived to the present day).

"Sometimes scribes made copies of the *Acta* and sent them to provincial governors for information. Later emperors used them to announce royal or senatorial decrees and events of the court.

"Other forms of *Acta* were legal, municipal and military notices. [Acta Senatus](#) were originally kept secret, until then-[consul Julius Caesar](#) made them public in 59 BCE. Later rulers, however, often censored them" (Wikipedia article on Acta Diurna, accessed 07-31-2009).

Filed under: [News Media / Journalism, Publishing](#) | [Bookmark or share this entry](#) »

## The Isaiah Scroll Circa 100 BCE



The [Isaiah Scroll](#) is the only complete scroll in the cache of 220 biblical scrolls discovered in a cave in [Qumran](#) on the northwestern coast of the Dead Sea. [Isaiah](#) is the most popular prophet of the [Second Temple](#) period: 21 copies of the scroll were found in Qumran. The text includes the familiar unfulfilled prophecy: “and they shall beat their swords into plowshares, and their spears into pruning hooks: nation shall not lift up sword against nation, neither shall they learn war any more.”

Filed under: [Manuscripts & Manuscript Copying, Religious Texts / Religion, Survival of Information](#) | [Bookmark or share this entry](#) »

## The Earliest Bookbindings Circa 100 BCE

The craft of [bookbinding](#) originates in India.

Religious [sutra](#), meaning "a rope or thread that holds things together," were copied onto palm leaves cut in two, lengthwise, with a metal stylus. The leaf was then dried and rubbed with ink, which formed a stain in the stylus tracings in the leaf. The finished leaves were numbered, and two long twines were threaded through each end through wooden boards. When closed, the excess twine was wrapped around the boards to protect the leaves of the book. Buddhist monks took the idea of bookbinding through what we call Persia, Afghanistan, and Iran, to China in the first century BCE.

Filed under: [Book History, Bookbinding, Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## The Tabularium, Archives of Republican Rome, is Founded Circa 78 BCE



The Roman Tabularium. ([View Larger](#))

The archives of Republican Rome, the [Tabularium](#), is constructed within the [Forum Romanum](#).

"Except for a few isolated cases, the general archives is a product of the last two hundred years. Although the *Tabularium*, the archives of Republican Rome, showed a tendency to absorb records of various administrative origins, the idea of concentrating in one place the archives of different creators was alien to ancient and medieval times. The ancient world did not even have the concept of an [archivio di deposito](#), for nowhere are there to be found arrangements revealing an intention to differentiate administratively between current records and those no longer regularly needed for the dispatch of business. It was only in the Middle Ages that a discriminating attitude toward the value of records developed. This was expressed in the practice of copying important records in [cartularies](#) so as to have them available for frequent use, while the originals were carefully

protected in an inner sanctum, as for instance, the Byzantine *skeuophylakion*. By and large, however, it was the emerging recognition of the research value of records that led to the distinction between records of daily usefulness and others to be preserved because of their long-range importance.



An interior corridor of the Tabularium. (View Larger)

"In the ancient period, this distinction was not made; and this means that by archives we must understand all kinds of records. In fact, the term archives itself may be slightly inappropriate, for even in its broadest meaning the word suggests an intention to keep records in usable order and in premises suitable to that purpose. In the Near East, where great quantities of records have been found on excavation sites, only rarely could any part of the site be identified as an archives room. Most of the time we cannot tell whether we are dealing with an archival aggregate or with a collection of trash, the equivalent of a modern waste-paper basket. And yet we cannot exclude such *disjecta membra* from our consideration, because they may still reveal a pattern worth discovering. When [Bernard P. Grenfell](#), [Arthur S. Hunt](#), and J. Gilbert Smyly discovered the mummies of the "[papyrus enriched](#)" [holy crocodiles in Egyptian Tebtunis](#), they sensibly decided to include in the first volume of their publication a "classification of papyri according to crocodiles," for papyri in the belly of the same animal might reveal relationships reflecting their administrative provenance and an original arrangement" (Posner, *Archives in the Ancient World* [1972] 4-5).

You can watch a slide show about the *Tabularium* at this link: <http://www.slideshare.net/ahendry/roman-republic-the-tabularium>, accessed 07-12-2009).

Filed under: [Archives](#), [Paper / Papyrus / Parchment / Vellum](#) | [Bookmark or share this entry »](#)

## The Book Trade in Cicero's Rome Circa 70 BCE



Marcus Tullius Cicero. (View Larger)

"We hear nothing of a book trade at Rome before the time of [Cicero](#). Then the booksellers and copyists (both initially called *librarii*) carried on an active trade, but do not seem to have met the high standards of a discriminating author, for Cicero complains of the poor quality of their work (*Q.f.* 3-.4.5, 5.6). Most readers depended upon borrowing books from friends and having their own copies made from them, but this too demanded skilled copyists. It was perhaps for such reasons that [Atticus](#), who had lived for a long time in Greece and there had some experience of a well-established book trade, put his staff of trained *librarii* at the service of his friends. It is not easy to see whether Atticus is at any given moment obliging Cicero as a friend or in a more professional capacity, but it is clear that Cicero could depend on him to provide all the services of a high-class publisher. Atticus would carefully revise a work for him, criticize points of style or content, discuss the advisability of publication or the suitability of a title, hold private readings of the new book, send out complimentary copies, organize its distribution. His standards of execution were of the highest and his name a guarantee of quality" (Reynolds & Wilson, *Scribes and Scholars*, 3rd. ed. [1991] 23-24).

Filed under: [Book History](#), [Book Trade](#), [Publishing](#) | [Bookmark or share this entry »](#)

## Possibly the Earliest System of Shorthand 63 BCE

|   |              |   |            |   |               |
|---|--------------|---|------------|---|---------------|
| W | approbat     | W | modestus   | W | epistola      |
| W | comprobat    | W | immodestus | W | littera       |
| W | improbat     | M | modicus    | W | littere       |
| W | probat       | M | immodicus  | W | syllaba       |
| W | probitas     | M | commodus   | W | tempus        |
| W | improbitas   | M | incommodus | W | peremptus     |
| W | probabilis   | M | apcommodus | W | per id tempus |
| W | improbabilis | M | in modum   | W | separatis     |
| W | modus        | M | admodum    | W | estiporatis   |
| W | modulus      | M | quidmodum  | W | littera       |

Vindolanda Tablet 122 with Latin shorthand, possibly notae Tironianae, c.90-130 CE. (View Larger)

[Plutarch](#) records that in 63 BCE the system of shorthand known as [Tironian notes](#) was used to record [Cato the Younger's](#) denunciation against [Catiline](#):

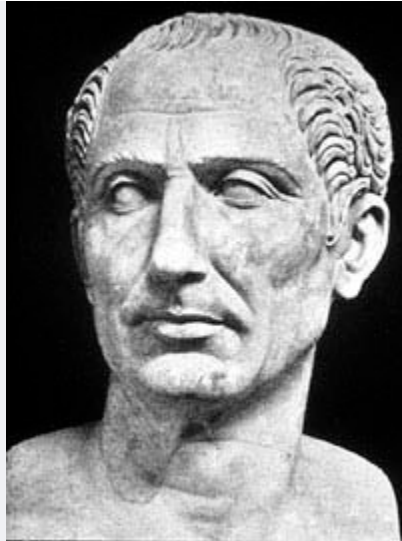
"This only of all Cato's speeches, it is said, was preserved; for Cicero, the consul, had disposed in various parts of the senate-house, several of the most expert and rapid writers, whom he had taught to make figures comprising numerous words in a few short strokes; as up to that time they had not used those we call shorthand writers, who then, as it is said, established the first example of the art."

"Tironian notes (*notae Tironianae*) is a system of shorthand said to have been invented by [Cicero's](#) scribe [Marcus Tullius Tiro](#). Tiro's system consisted of about 4,000 signs, somewhat extended in classical times to 5,000 signs. In the Medieval period, Tironian notes were taught in monasteries and the system was extended to

about 13,000 signs. The use of Tironian notes declined after A.D. 1100 but some use can still be seen through the 17th century" (Wikipedia article on Tironian notes, accessed 04-20-2009).

Filed under: [Book History](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## Julius Caesar Introduces a Calendar and Plans a Great Library 46 BCE



Caesar

[Julius Caesar](#) introduces the [Julian calendar](#).

The Julian Calendar has a regular year of 365 days divided into 12 months, and a leap day is added every four years, so the average Julian year is 365.25 days. The calendar remained in use into the 20th century in some countries and is still used by many national Orthodox churches. "However with this scheme too many leap days are added with respect to the astronomical seasons, which on average occur earlier in the calendar by about 11 minutes per year, causing it to gain a day about every 128 years. It is said that Caesar was aware of the discrepancy, but felt it was of little importance."

Caesar planned to establish a public library to equal or surpass the one at Alexandria. He appointed [Marcus Terentius Varro](#), a noted scholar and book collector, to gather copies of the best-known literature for a Roman public library. However these plans were shelved when Caesar was assassinated in 44 BCE.

Filed under: [Libraries](#), [Mathematics / Logic](#) | [Bookmark or share this entry »](#)

## The Writings of Virgil 42 BCE – 19 BCE



Virgil

[Publius Vergilius Maro](#) composes the *Eclogues*, the *Georgics*, and dies before the *Aeneid* is complete. His writings will be widely copied in the Middle Ages, manuscripts of which will be some of the earliest Latin literary manuscripts to survive.

Filed under: Fiction, Science Fiction, Drama, Poetry, Manuscripts & Manuscript Copying, Survival of Information | [Bookmark or share this entry »](#)

## Humorous Inscriptions on Lead Sling-Bolts (Sling Bullets; Slingshot) Reflect War of Words 41 BCE



Sling-bolts, or bullets, engraved with a winged lightning-bolt on one side, and the words 'take that' on another. Circa fourth century BCE Athens. (View Larger)

Evidence of wide-ranging military literacy in the Roman Empire can be of a very ephemeral kind.

"In 41 BC during the civil war that followed the death of [Julius Caesar](#), [Octavian](#) (the future Emperor Augustus) trapped Lucius Antonius and Fulvia (the brother and the wife of [Mark Antony](#)) with the walls of the central Italian town of Perugia. A number of lead sling-bolts (roughly the size of hazelnuts), manufactured during the siege that followed, have been recovered in Perugia; they bear short inscriptions, which both sides carved into their moulds, so that the bolts [also called sling bullets or slingshot] could be used in a war of words, as well as to inflict death or injury. Some of these inscriptions are fairly tame, wishing victory to one or other side, or commenting on Lucius Antonius' receding hairline (which is also known from his coinage). Others are rather richer in flavour, like the one, fired from Octavian's side, which bluntly asks: Lucius Antonius the bald, and Fulvia, show us your arse [L. [uci] A[antoni] calve, Fulvia, culum pan[dite] ]. Whoever composed this refined

piece of propaganda and had it cast into a sling-bolt certainly expected some of the soldiery on the other side to be able to read" (Ward-Perkins, *The Fall of Rome and the End of Civilization* [2005] 157-58).

Filed under: [Archaeology](#), [Education / Reading / Literacy](#), [Military / Warfare](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## The First-Known Public Library in Rome Circa 37 BCE



A coin depicting the profile and birth of Gaius Asinius Pollio. (View Larger)

[Gaius Asinius Pollio](#), Consul 40 BCE, having amassed a fortune in his conquest of Dalmatia and/or campaigns in Parthia, consolidates several collections already in Rome, possibly including those of [Varro](#) and [Sulla](#), to form a library in the Temple of Liberty ([Atrium Libertatis](#)) on the Aventine Hill. The library had Greek and Latin wings. "Public archives had already been housed there, but Pollio reorganized the collection, added the libraries he had acquired, and opened the whole to the public about 37 B.C., making it the first-known public library in Rome." (Harris, *History of Libraries in the Western World* 4th ed. [1999] 57.)

Filed under: [Libraries](#) | [Bookmark or share this entry](#) »

## Book Trade and Libraries in the Roman Empire Circa 30 BCE

"By the end of the [Roman Republic](#) the institutions and processes that govern and guard the transmission of the written word were already in existence, and under [Augustus](#) and his successors they were refined and consolidated. The book trade became more important, and we soon hear of the names of established booksellers: [Horace](#) speaks of the Sosii, later [Quintilian](#) and [Martial](#) tell of the Tryphon, Atractus, and others. By the time of the [Younger Seneca](#) book collecting was derided as a form of extravagant ostentation. Augustus founded two public libraries, one in 28 B.C. in the [Temple of Apollo](#) on the Palatine, the other, no longer afterwards, in the [Porticus Octaviae](#). Thereafter libraries were a common form of both private and imperial munificence, in Rome and the provinces. [Pliny](#) founded a library in his native Comum and provides money for its upkeep; the best-preserved (and restored) ancient library is that built at [Ephesus](#) in memory of Titus Julius Celsus, proconsul of Asia A.D. 106-7; one of the most famous was the [Bibliotheca Ulpia](#) founded by [Trajan](#), which long survived the disasters of fire and strife and was still standing in the fifth century" (Reynolds & Wilson, *Scribes and Scholars*, 3rd. ed. [1991] 24-25).

Filed under: [Book Trade](#), [Collecting Books](#), [Manuscripts](#), [Art](#), [Libraries](#) | [Bookmark or share this entry](#) »

## The Portland Vase: Classical Connoisseurship, Influence, Destruction & Conservation 30 BCE – 25 CE

A Roman [cameo glass](#) vase, the [Portland Vase](#), created between 30 BCE and 25 CE, and known since the Renaissance, served as an inspiration to many glass and porcelain makers from about the beginning of the 18th century onwards. It is about 25 centimetres high and 56 in circumference, made of violet-blue glass, and surrounded with a single continuous white glass cameo depicting seven figures of humans and gods. "On the bottom was a cameo glass disc, also in blue and white, showing a head, presumed to be of [Paris](#) or [Priam](#) on the basis of the [Phrygian cap](#) it wears. This roundel clearly does not belong to the vase, and has been displayed separately since 1845. It may have been added to mend a break in antiquity or after, or the result of a conversion from an original [amphora](#) form (paralleled by a similar blue-glass cameo vessel from [Pompeii](#)) - it was definitely attached to the bottom from at least 1826."

"The meaning of the images on the vase is unclear and controversial. Interpretations of the portrayals have included that of a marine setting (due to the presence of a ketos or sea-snake), and of a marriage theme/context (i.e. as a wedding gift). Many scholars (even [Charles Towneley](#)) have concluded that the figures do not fit into a single iconographic set."



"Cameo-glass vessels were probably all made within about two generations as experiments when the blowing technique (discovered in about 50 BC) was still in its infancy. Recent research has shown that the Portland vase, like the majority of cameo-glass vessels, was made by the dip-overlay method, whereby an elongated bubble of glass was partially dipped into a crucible (fire-resistant container) of white glass, before the two were blown together. After cooling the white layer was cut away to form the design."

"The work towards making a 19th century copy proved to be incredibly painstaking, and based on this it is believed that the Portland Vase must have taken its original artisan no less than two years to produce. The cutting was probably performed by a skilled gem-cutter. It is believed that the cutter may have been Dioskourides, as gems cut by him of a similar period and signed by him."

Traditionally the vase was believed to have been discovered by Fabrizio Lazzaro in the sepulchre of the Emperor [Alexander Severus](#), at Monte del Grano near Rome, and excavated some time around 1582.

The first documented reference to the vase is a 1601 letter from the French scholar [Nicolas Claude Fabri de Peiresc](#) to the painter [Peter Paul Rubens](#), where it is recorded as in the collection of [Cardinal Francesco Maria Del Monte](#) in Italy. It then passed to the [Barberini](#) family collection (which also included sculptures such as the [Barberini Faun](#) and [Barberini Apollo](#)) where it remained for some two hundred years, being one of the treasures of Maffeo Barberini, later [Pope Urban VIII](#).

In 1778 Sir [William Hamilton](#), British ambassador in Naples, purchased it from James Byres. "Byres, a Scottish art dealer, had acquired it after it was sold by Donna Cornelia Barberini-Colonna, Princess of Palestrina. She had inherited the vase from the Barberini family. Hamilton brought it to England on his next leave, after the death of his first wife, Catherine. In 1784, with the assistance of his niece, Mary, he arranged a private sale to [Margaret Cavendish-Harley](#), widow of [William Bentinck, 2nd Duke of Portland](#) and so dowager Duchess of Portland. She passed it to her son [William Cavendish-Bentinck, 3rd Duke of Portland](#) in 1786.

"The 3rd Duke loaned the original vase to [Josiah Wedgwood](#) (see below) and then to the British Museum for safe-keeping, at which point it was dubbed the "Portland Vase". It was deposited there permanently by the fourth Duke in 1810, after a friend of his broke its base. The original Roman vase has remained in the British Museum ever since 1810, apart from three years (1929-32) when [William Cavendish-Bentinck, 6th Duke of Portland](#) put it up for sale at Christie's. It failed to reach its reserve. It was purchased by the Museum from [William Cavendish-Bentinck, 7th Duke of Portland](#) in 1945 with the aid of a bequest from James Rose Vallentin. . . .

"The 3rd Duke lent the vase to Josiah Wedgwood, who had already had it described to him as 'the finest production of Art that has been brought to England and seems to be the very apex of perfection to which you are endeavouring' by the sculptor [John Flaxman](#). Wedgwood devoted four years of painstaking trials at duplicating the vase - not in glass but in [jasperware](#). He had problems with his copies ranging from cracking and blistering (clearly visible on the example at the Victoria and Albert Museum) to the reliefs 'lifting' during the firing, and in 1786 he feared that he could never apply the Jasper relief thinly enough to match the glass original's subtlety and delicacy. He finally managed to perfect it in 1790, with the issue of the "first-edition" of copies (with some of this edition, including the V&A one, copying the cameo's delicacy by a combination of undercutting and shading the reliefs in grey), and it marks his last major achievement.

"Wedgwood put the first edition on private show between April and May 1790, with that exhibition proving so popular that visitor numbers had to be restricted by only printing 1900 tickets, before going on show in his public London showrooms. (One ticket to the private exhibition, illustrated by Samuel Alkin and printed with 'Admission to see Mr Wedgwood's copy of The Portland Vase, Greek Street, Soho, between 12 o'clock and 5', was bound into the Wedgwood catalogue on view in the Victoria and Albert Museum's British Galleries.) As well as the V&A copy (said to have come from the collection of Wedgwood's grandson, the naturalist Charles Darwin), others are held at the Fitzwilliam Museum (this is the copy sent by Wedgwood to [Erasmus Darwin](#) which his descendants loaned to the Museum in 1963 and later sold to them) and the Department of Prehistory and Europe at the British Museum.

"The Vase also inspired a 19th century competition to duplicate its cameo-work in glass, with [Benjamin Richardson](#) offering a £1000 prize to anyone who could achieve that feat. Taking three years, glass maker Philip Pargeter made a copy and John Northwood engraved it, to win the prize. This copy is in the Corning Museum of Glass in Corning, New York.

#### Vandalism and Reconstruction

"On February 7, 1845, the vase was shattered by William Lloyd, who drunkenly threw a nearby sculpture on top of the case smashing both it and the vase. The vase was pieced together with fair success, though the restorer was unable to replace all of the pieces and thirty-seven small fragments were lost. It appears they had been put

into a box and forgotten. In 1948, the keeper Bernard Ashmole received thirty-seven fragments in a box from Mr. Croker of Putney, who did not know what they were. In 1845 Mr. Doubleday, the first restorer, did not know where these fragments went. A colleague had taken these to Mr. Gabb, a box maker, who was asked to make a box with thirty seven compartments, one for each fragment. The colleague died, the box was never collected, Gabb died and his executrix Miss Revees asked Croker to ask the museum if they could identify them. The Duke's descendants finally sold the vase to the museum in 1945.

"By 1948, the restoration appeared aged and it was decided to restore the vase again, but the restorer was only successful in replacing three fragments. The adhesive from this weakened, by 1986 the joints rattled when the vase was gently tapped. The third and current reconstruction took place in 1987, when a new generation of conservators assessed the vase's condition during its appearance as the focal piece of an international exhibition of Roman glass and, at the conclusion of the exhibition, it was decided to go ahead with reconstruction and stabilisation. The treatment had scholarly attention and press coverage. The vase was photographed and drawn to record the position of fragments before dismantling; the BBC filmed the conservation process. All previous adhesives had failed, so to find one that would last, conservation scientists at the museum tested many adhesives for long term stability. Finally, an epoxy resin with excellent ageing properties was chosen. Reassembly of the vase was made more difficult as the edges of some fragments were found to have been filed down during the restorations. Nevertheless, all of the fragments were replaced except for a few small splinters. Areas that were still missing were gap-filled with a blue or white resin.

"The newly conserved Portland Vase was returned to display. Little sign of the original damage is visible and except for light cleaning, the vase should not require major conservation work for many years." (Wikipedia article on Portland Vase, accessed 11-10-2009)

Filed under: [Archaeology](#), [Art](#), [Art and Science](#), [Medicine](#), [Technology](#), [Collecting Books](#), [Manuscripts](#), [Art](#), [Preservation & Conservation of Information](#) | [Bookmark or share this entry »](#)

## The Emperor Augustus Builds Two Public Libraries 28 BCE



Augustus

"Beginning with August, the Roman emperors took over the task of building libraries in Rome. Actually, Augustus was responsible for two public libraries. The first, in the Temple of Apollo, was begun in 36 B.C. and dedicated in 28. B.C. It was divided into two separate collections, one Greek and one Latin. Pompeius Macer was the first librarian, and Julius Hyginus, a noted grammarian, also served in that capacity. Later enlarged by the Emperors Tiberius and Caligula, this library on the Palatine Hill was one of the two major libraries in Rome for several hundred years. It was damaged at least twice by fires but survived well into the 4th century. The second Augustan library was in the Porticus Octaviae, a magnificent structure built in honor of Octavia, the Emperor's sister... Caius Melissus was the first librarian for this collection, housed in chambers over a promenade. Although damaged by fire in the reign of Titus about 80 A.D., the Octavian Library probably survived into the 2nd century." (Harris, *History of Libraries in the Western World* 4th ed. [1999] 57.)

Filed under: [Libraries](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## The Cursus publicus Circa 20 BCE



Augustus. (View larger)

[Augustus](#), Emperor of the Roman Empire, creates the [Cursus publicus](#), the courier service of the Roman empire, to transport messages, officials, and tax revenues from one province to another. Though he based the Roman system on the Persian model of relay riders passing a message from one courier to the next, Augustus switched to a system in which one man made the entire journey carrying the message. This had the advantage of enabling the messenger to be questioned regarding additional information, and it may have provided additional security. However, it also slowed down the speed of communication.

Various authorities have estimated that the average speed of a messenger over the [Roman road](#) system was about 50 miles per day-- a substantial reduction in speed from the relay methods used by the Persian Empire.

It has also been estimated from surviving accounts of Roman voyages that the fastest Roman ships sailed at five knots or 120 miles per day in good weather and two knots or 50 miles per day in unfavorable weather.

Filed under: [Communication](#), [Internet & Networking](#) | [Bookmark or share this entry »](#)

## The Oldest Surviving Substantial Collection of Buddhist Manuscripts Circa 1 CE – 100 CE



"In 1994, the British Library Oriental and India Office Collections acquired a collection of twenty-nine fragments of manuscripts written on birch bark scrolls in the Gāndhārī (a dialect of Prakrit) language and in the Kharoṣṭhī script. They were contained inside a clay pot, also bearing an inscription in the same language, in which they had been buried in antiquity. Preliminary analysis of these documents indicated that they dated from about the first century A.D., [which would make them the oldest surviving substantial collection of Buddhist manuscripts, as well as of any kind of Indian manuscripts.](#)

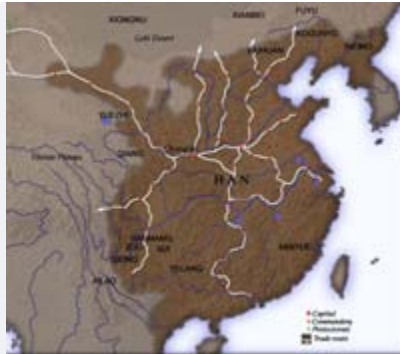
"The exact findspot of these manuscripts is unfortunately unknown. But in the past several manuscripts of the same type have been reported to have been found in or around Haḍḍa near [Jalalabad](#) in eastern Afghanistan, although none of these have ever been published and most of them apparently are now lost. It is therefore likely that the new manuscripts came from the same region. This area closely adjoins the region known in ancient

times as [Gandhāra](#), the homeland of the Gāndhārī language and Kharoṣṭhī script, which were current from about the third century B.C. to the fourth century A.D."

The scrolls in the British Library and others in the Senior Collection and the Schoyen collection have been called the "[Dead Sea Scrolls of Buddhism](#)."

Filed under: [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## The First Census of Which Records are Preserved 2 CE

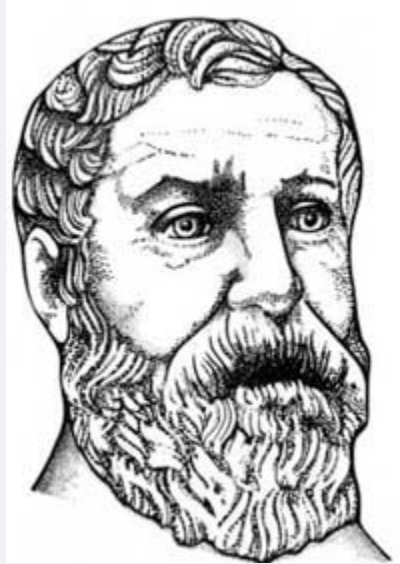


A map of Eastern China, the territories of the Han Dynasty highlighted in dark brown.

The first [census](#) of which records are preserved is taken in China during the Han Dynasty. At that time there are 57.5 million people living in Han China—the world's largest population.

Filed under: [Mathematics / Logic, Statistics / Demography](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## The First Automata Recorded 10 CE – 70 CE



Hero of Alexandria

Among the numerous engineering and technological writings by [Hero of Alexandria](#) that have survived are designs for automata—machines operated by mechanical or pneumatic means. These include devices for temples "to instill faith by deceiving believers with 'magical acts of the gods,' for theatrical spectacles, and machines like a statue that pours wine. These are the first recorded automata.

Filed under: [Data Processing / Computing](#), [Robotics](#), [Technology](#) | [Bookmark or share this entry »](#)

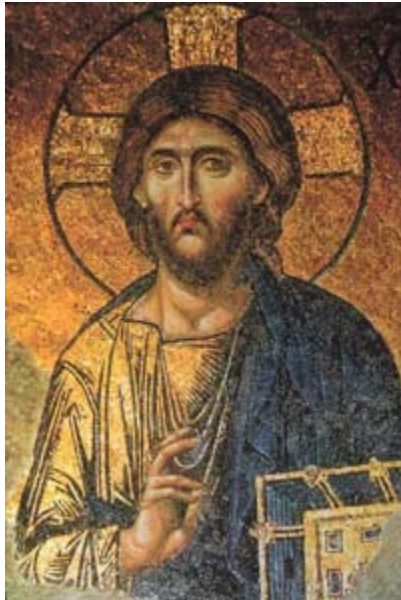
## The First Income Tax 10 CE



Emperor Wang Mang.

Chinese Emperor [Wang Mang](#) institutes an unprecedented tax -- the [income tax](#) -- at the rate of 10 percent of profits, for professionals and skilled labor. (Previously, all Chinese taxes were either [head tax](#) or [property tax](#).)

## Christianity Emerges 30 CE – 100 CE



[Christianity](#) emerges as a religious movement and splits with [Judaism](#).

Filed under: [Religious Texts / Religion](#) | [Bookmark or share this entry](#) »

## The New Testament Was Probably Written over Less than a Century Circa 65 CE – 150 CE

Unlike the Old Testament, which was written over several hundred years, the New Testament was written in a relatively narrow span of time, probably less than a century.

The 27 books of the [New Testament](#) were written by various authors at various times and places, probably in [Koine Greek](#), the vernacular dialect in first-century Roman provinces. "Koine Greek is not only important to the

history of the Greeks for being their first common dialect . . . , but it's also important . . . for being the first 'international' form of speech, and eventually the chosen medium for the teaching and spreading of Christianity. Koine Greek was unofficially a first or second language in the Roman Empire."

Filed under: [Book History, Linguistics / Translation / Speech, Religious Texts / Religion](#) | [Bookmark or share this entry »](#)

## **Destruction of the Second Temple 66 CE – 73 CE**



The [first Jewish-Roman War](#) ends with destruction of the [Second Temple](#) and the fall of Jerusalem.

Legions under [Titus](#) besieged and destroyed Jerusalem, looted and burned [Herod's Temple](#) and Jewish strongholds (notably [Masada](#) in 73), and enslaved or massacred a large part of the Jewish population. This contributed to the numbers and geography of the [Jewish Diaspora](#), as many Jews were scattered after losing their state, or sold into slavery through the empire.

"Estimates of the death toll range from 600,000 to 1,300,000 Jews: there was 'no room for crosses and no crosses for the bodies'. Over 100,000 died during the siege, and almost 100,000 were taken to Rome as slaves. Many fled to areas around the Mediterranean. The Romans hunted down and slaughtered entire clans, such as descendants of the [House of David](#). On one occasion, Titus condemned 2,500 Jews to fight with wild beasts in the [amphitheater of Caesarea](#) in celebration of his brother [Domitian's](#) birthday" (Wikipedia article on the First Jewish-Roman War, accessed 11-24-2008).

Filed under: [Destruction / Looting of Information, Military / Warfare, Religious Texts / Religion](#) | [Bookmark or share this entry »](#)

## **Composition of the Four Gospels 70 CE – 110 CE**



Approximate date of composition of the canonical Four Gospels: Matthew, Mark, Luke, and John.

None of the [Four Gospels](#) actually identifies its author by name, though the traditions about authorship are based on very early Christian writings that identify them. About 50 Gospels were written in the first and second century CE, each believed to be accurate by various groups within the early Christian movement.

Persecution of the early Christians by the Romans, before Christianity was adopted by the Emperor Constantine in 313, undoubtedly contributed to the scarcity of early Christian documents.

"The relationship of early Christianity to the Jewish faith, and the foundation of the cult deeply rooted in a people accustomed to religious intolerance actually helped it take hold initially. The Jews were accustomed to resisting political authority in order to practice their religion, and the transition to Christianity among these people helped foster the sense of Imperial resistance. To the Romans, Christians were a strange and subversive group, meeting in catacombs, sewers and dark alleys, done only for their own safety, but perpetuating the idea

that the religion was odd, shameful and secretive. Rumors of sexual depravity, child sacrifice and other disturbing behavior, left a stigma on the early Christians. Perhaps worst of all was the idea of cannibalism. The concept of breaking bread originating with the last supper, partaking of the blood and body of Christ, which later came to be known as Communion, was taken literally. To the Romans, where religious custom dictated following ancient practices in a literal sense, the idea of performing such a ritual as a representation was misunderstood, and the early cult had to deal with many such misperceptions"

(<http://www.unrv.com/culture/christian-persecution.php>, accessed 12-04-2008).

Filed under: [Book History](#), [Prejudice / Antisemitism](#), [Religious Texts / Religion](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## The Continuing Process of Canonization of the Hebrew Bible Circa 70 CE – 90 CE

"There is no evidence in non-[Pharisaic](#) Jewish circles before 70 CE of either a fixed canon or text [of the Hebrew Bible]. The [Essenes](#) at [Qumran](#) exhibit no knowledge of such, and the same is true of the Hellenistic Jewish community in Alexandria, and of the early Christian communities. The earliest clear definition of a 'closed' Hebrew canon is found in [Josephus](#) in his apologetic work, *Contra Apionem*, written in Rome in the last decade of the first century of the Common Era. He writes that there was a fixed and immutable number—twenty-two of 'justly accredited' books. Josephus no doubt draws upon his Pharisaic tradition in making his assertion, and presumes in his remarks a well-established doctrine of canon.

"I am persuaded by the accumulation of evidence, old and new, that the circumstances that brought on the textual crisis that led to the establishment of the Hebrew text—varied texts and editions, party strife and sectarian division, the systematization of hermeneutic rules and halakic dialectic—were the occasion as well for a canonical crisis and responding to it. The establishment of the text and the establishment of the canon were thus two aspects of a single if complex endeavor. Both were essential to erect 'Hillelite' protection against rival doctrines of cult and calendar, alternate legal dicta and theological doctrines, and indeed against the speculative systems and mythological excesses found in the books of certain apocalyptic schools and proto-Gnostic sects. Such literature abounds in the apocryphal and pseudoepigraphic works found at Qumran. To promulgate a textual recension, moreover, one must set some sort of limit on the books whose text is to be fixed. In choosing one edition of a book over another—in the case of Jeremiah or Chronicles or Daniel—one makes decisions that are at once textual and canonical. Ultimately, the strategies that initiate the establishment of biblical text lead to the *de facto* if not *de jure* establishment of a canon" (Frank Moore Cross, "The Dead Sea Scrolls: Light on the Text and Canon of the Bible," Gold (ed) *A Sign and a Witness. 2000 Years of Hebrew Books and Illuminated Manuscripts* [1988] 16-17).

Filed under: [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## One of the Oldest and Most Complete Diagrams from Euclid 75 CE – 125 CE



Date of one of the [oldest and most complete diagrams from Euclid's \*Elements\*](#)—a fragment of papyrus found among the rubbish piles of [Oxyrhynchus](#) in 1896-97 by the expedition of [B. P. Grenfell](#) and A. S. Hunt. It is preserved at the University of Pennsylvania.

"The diagram accompanies Proposition 5 of Book II of the Elements, and along with other results in Book II it can be interpreted in modern terms as a geometric formulation of an algebraic identity - in this case, that  $ab + (a-b)^2/4 = (a+b)^2/4$  (although the relationship between Euclid's propositions and algebra, which he did not possess, is controversial)."

Filed under: [Book Illustration](#), [Manuscripts & Manuscript Copying](#), [Mathematics / Logic](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## The Last Known Datable Cuneiform Tablet 75 CE

The last known datable cuneiform tablet is an astronomical almanac from 75 CE.

Filed under: [Science](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## Roman Portraits Celebrating Literacy Circa 75 CE



A [fresco of a Pompeian couple with stylus, wax tablets, and papyrus roll](#), preserved in the [Museo Archeologico Nazionale, Naples](#), shows the man holding a papyrus scroll and the woman holding a stylus to her lips for writing on the wax tablets that she holds in her other hand. It is one of several surviving Roman portraits depicting the symbols of literacy.

"This couple, who did not come from the very highest ranks of the Pompeian aristocracy, probably chose to be depicted in this way as a mark of their status—they belonged to the ranks of those who were literate, and they wished to display the fact. In this sense, the portrait is evidence that literacy was far from universal in Roman Pompeii. But it is none the less an impressive fact, typical of the Roman world and difficult to parallel before modern times, that a provincial couple should have chosen to be painted in a way that very specifically celebrated a close relationship with the written word, on the part of both the man and his wife" (Ward-Perkins, *The Fall of Rome and the End of Civilization* [2005] 162-63, plate 7.10).

Filed under: [Archaeology](#), [Education / Reading / Literacy](#), [Paper / Papyrus / Parchment / Vellum](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## The Only Library Preserved Intact from Roman Times 79 CE





The eruption of [Mount Vesuvius](#) destroys the Roman coastal city of [Herculaneum](#), preserving in lava the important library of papyrus scrolls in the so-called "[Villa of the Papyri](#)"—a magnificent home thought to have been built by [Julius Caesar's](#) father-in-law, [Lucius Calpurnius Piso Caesoninus](#).

Because the library was buried in lava, most of the papyrus rolls are too fragile to be opened. It has required sophisticated computer technology to read the few that have been read so far, and it is hoped that an [X-ray CT scanning system](#) may allow the reading of others.

This remains the only library preserved intact from Roman times.

Filed under: [Archaeology](#), [Imaging / Photography](#), [Libraries](#), [Manuscripts & Manuscript Copying](#), [Paper / Papyrus / Parchment / Vellum](#), [Preservation & Conservation of Information](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## **Over 11,000 Wall Inscriptions Survived from Pompeii 79 CE**



The eruption of [Mt. Vesuvius](#) over two days buries the cities of Herculaneum and [Pompeii](#) in lava, preserving buildings in a remarkable way.

From the ruins of Pompeii over 11,000 inscriptions have been recorded—of many different kinds—carved, painted or scratched into walls, formal, humorous, erotic, and scatological. They reflect wide use of writing and comparatively wide availability of literacy in Roman society.

"Some of them [the inscriptions] are very grand and formal, like the dedications of public buildings and the funerary epitaphs, similar to others found all over the Roman world. Inscriptions such as these are not necessarily good evidence of widespread literacy. The enormous numbers that were produced in Roman times could reflect a fashion for this particular medium of display, rather than a dramatic spread of the ability to read and write.

"Other Pompeian inscriptions are perhaps more telling, because they display a desire to communicate in a less formal and more ephemeral way with fellow citizens. Walls on the main streets of Pompeii are often decorated with painted messages, whose regular script and layout reveal the work of professional sign-writers. Some are advertisements for events such as games in the amphitheatre; others are endorsements of candidates for civic office, by individuals and groups within the city. . . .

"[Graffiti](#) offer even more striking evidence of the spread and use of writing in Pompeian society. These are found all over the city, scratched into stone or plaster by townspeople with time on their hands and a message to convey to future idlers. . . .

"Even though we cannot estimate the proportion of Pompeians who were literate (was it 30 per cent, or more, or perhaps on 10 per cent ?) we can say with confidence that writing was an essential, and a day-to-day part of the city's life" (Ward-Perkins, *The Fall of Rome and the End of Civilization* [2005] 153-54, & 155-57).

Filed under: [Archaeology](#), [Education / Reading / Literacy](#), [Preservation & Conservation of Information](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## **The First Mention of Literary Works Published in Parchment Codices 84 CE – 86 CE**



"The first mention of literary works being published in parchment codices is found in [Martial](#), in a number of poems written during the years 84-86. He emphasizes their compactness, their handiness for the traveller, and tells the reader the name of the shop where such novelties can be bought (I.2.7-8). Although there is one surviving fragment of a parchment codex written about A.D. 100 (the anonymous *De Bellis Macedonicis*, P. Lit. Lond. 121) the pocket editions that Martial was at pains to advertise were not a success. The codex did not come into use for pagan literature until the second century; but it rapidly gained ground in the third, and triumphed in the fourth" (Reynolds & Wilson, *Scribes and Scholars*, 3rd ed., [1991] 34).

"The poet Martial, writing in or near 85 A.D., described codex books, though not using that term for them. In perhaps the clearest of his several references, he described a book containing the works of Homer in 'multiplici pelle,' much-folded or many-layered leather. The context of his references suggests that the codices he had in mind were curiosities, his general point being that by this means (as compared to the standard alternative, the roll) a substantial text could be contained in quite a small, handy volume. His precise meaning is not certain; some scholars have conjectured that Martial was describing books in minature scripts" (Needham, *Twelve Centuries of Bookbindings 400-1600* [1979] 4).

Filed under: [Book History](#), [Manuscripts & Manuscript Copying](#), [Publishing](#) | [Bookmark or share this entry](#) »

## Process of Canonizing the Old Testament Circa 90 CE

Rabbi [Yohanan ben Zakkai](#) relocates to the city of [Yavne/Jamnia](#) and receives permission from the Romans to found a school of [Jewish law](#) there. The school became a major source for the later [Mishna](#), which recorded the [Tannaim](#).

This school is often understood as a wellspring of [Rabbinic Judaism](#). The Council of Yavne or [Council of Jamnia](#), thought to have taken place about this time, referred to a hypothetical council under Rabbi Yohanan's leadership that, according to tradition, was responsible for defining the [canon of the Hebrew Bible](#).

"Today, there is no scholarly consensus as to when the Jewish canon was set. Nevertheless, the outcomes attributed to the *Council of Jamnia* did occur whether gradually or in a definitive, authoritative council. Several concerns of the remaining Jewish communities in Israel would have been the loss of the national language, the growing problem of conversions to Christianity, based in part on Christian promises of [life after death](#). What emerged from this era was twofold:

1. A rejection of the [Septuagint](#) or [Koine Greek](#) Old Testament widely then in use among the [Hellenized diaspora](#) along with its additional books not part of the [Biblical Hebrew/Biblical Aramaic Masoretic Text](#).
2. The inclusion of a curse on the "[Minim](#)" which probably included [Jewish Christians \(Birkat ha-Minim\)](#). According to the Jewish Encyclopedia article on [Min](#): "In passages referring to the Christian period, "minim" usually indicates the Judæo-Christians, the [Gnostics](#), and the [Nazarenes](#), who often conversed with the Rabbis on the [unity of God](#), [creation](#), [resurrection](#), and similar subjects (comp. Sanh. 39b). In some passages, indeed, it is used even for "Christian"; but it is possible that in such cases it is a substitution for the word "Nozeri," which was the usual term for 'Christian' . . . On the invitation of [Gamaliel II](#), Samuel ha-Ḳatan composed a prayer against the minim which was inserted in the

"[Eighteen Benedictions](#)"; it is called "Birkat ha-Minim" and forms the twelfth benediction; but instead of the original "Nozerim" . . . the present text has "wela-malshinim" ("and to the informers"). The cause of this change in the text was probably, the accusation brought by the [Church Fathers](#) against the Jews of cursing all the Christians under the name of the Nazarenes."

"Sociologically, these developments achieved two important ends, namely, the preservation of the [Hebrew language](#) at least for religious use (even among the [diaspora](#)) and the final separation and distinction between the Jewish and Christian communities. (Through nearly the end of the first century, Christians of Jewish descent continued to pray in synagogues.) But see also [John Chrysostom#Sermons on Jews and Judaizing Christians](#)" (Wikipedia article on Council Jamnia, accessed 12-07-2008).

Filed under: [Religious Texts / Religion, Survival of Information](#) | [Bookmark or share this entry](#) »

## At Alexandria Ptolemy Writes the *Almagest*, the *Cosmographia*, and the *Tetrabiblos* Circa 100 CE – 178 CE



Probably at the [Library of Alexandria](#) mathematician, astronomer, geographer, and astrologer Claudius [Ptolemaeus](#) (Greek: Κλαύδιος Πτολεμαῖος, Klaúdios Ptolemaïos) writes the [Almagest](#), the *Cosmographia*, and the *Tetrabiblos*.

In the *Almagest* (in Greek, Η Μεγάλη Σύνταξις, "The Great Treatise", originally Μαθηματικὴ Σύνταξις, "Mathematical Treatise") Ptolemy compiled the astronomical knowledge of the ancient Greek and Babylonian world, relying mainly on the work of [Hipparchus](#), which had been written three centuries earlier.

The *Almagest* is the only surviving comprehensive treatise on astronomy from antiquity. It was preserved, like most of classical Greek science, in Arabic manuscripts, hence its familiar Arabic name. The work was first translated from Arabic into Latin from Arabic texts found in Toledo by [Gerard of Cremona](#) in the 12th century.

"Ptolemy formulated a geocentric model of the solar system which remained the generally accepted model in the Western and Arab worlds until it was superseded by the heliocentric solar system of Copernicus. Likewise his computational methods (supplemented in the 12th century with the Arabic computational [Tables of Toledo](#)), were of sufficient accuracy to satisfy the needs of astronomers, astrologers, and navigators, until the time of the great explorations. They were also adopted in the Arab world and in India. The *Almagest* also contains a star catalogue, which is probably an updated version of a catalogue created by Hipparchus. Its list of forty-eight constellations is ancestral to the modern system of constellations, but unlike the modern system they did not cover the whole sky (only the sky Ptolemy could see)."

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Ptolemy's *Cosmographia* "is a compilation of what was known about the world's geography in the Roman Empire during his time. He relied mainly on the work of an earlier geographer, [Marinos of Tyre](#), and on gazetteers of the Roman and ancient Persian empire, but most of his sources beyond the perimeter of the Empire were unreliable.

“Ptolemy also devised and provided instructions on how to create maps both of the whole inhabited world (*oikoumenè*) and of the Roman provinces. . . . Ptolemy was well aware that he knew about only a quarter of the globe.”



The maps in surviving manuscripts of Ptolemy's *Geography* date only from about 1300, after the text was rediscovered by [Maximus Planudes](#), a Byzantine scholar working in Constantinople.

◆The earliest printed editions of Ptolemy's *Cosmographia* are separately noticed in this database.

"Ptolemy's treatise on astrology, known in Greek as the *Apotelesmatika* ("Astrological Outcomes" or "Effects") and in Latin as the *Tetrabiblos* ("Four books"), was the most popular astrological work of antiquity and also had great influence in the Islamic world and the medieval Latin West. The *Tetrabiblos* is an extensive and continually reprinted treatise on the ancient principles of horoscopic astrology in four books (Greek *tetra* means "four", *biblos* is "book"). That it did not quite attain the unrivaled status of the *Almagest* was perhaps because it did not cover some popular areas of the subject, particularly electional astrology (interpreting astrological charts for a particular moment to determine the outcome of a course of action to be initiated at that time), and medical astrology" (Wikipedia article on Ptolemy, accessed 07-16-2009).

Filed under: [Cartography / Geography / Voyages / Travels](#), [Data Processing / Computing](#), [Science](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## The Romance Papyrus Circa 100 CE – 200 CE



The [Romance Papyrus](#) (Paris, Bibliothèque nationale, cod. suppl. gr. 1294, also known as the Alexander papyrus) is one of the few surviving scraps of classical literary illustration on papyrus. It contains two unframed illustrations about an unknown romance set within the columns of text. The fragment is 340 by 115 mm. It was acquired by the Bibliothèque nationale de France in 1900.

Filed under: [Art](#), [Book Illustration](#), [Manuscripts & Manuscript Copying](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## Translation of the Bible From Greek into Coptic Circa 100 CE – 200 CE



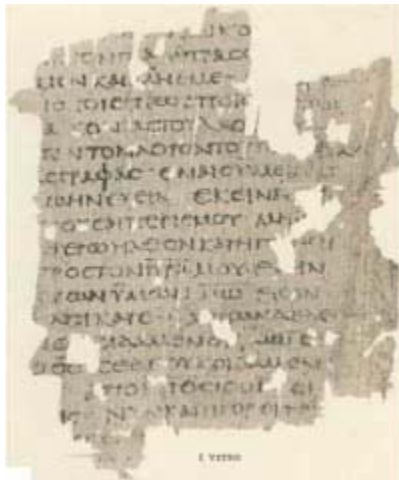
“Translation of the Bible into Egyptian, written in the Coptic Script, dates back to the second century AD. At first, some missionaries translated orally or informally from Greek into Egyptian, certain passages to use in their missionary work. In the last half of the Second Century, Pantaenus, the missionary philosopher, came to Alexandria and became the head of the Theological School. Later on St. Demetrius the first became the Bishop

of Alexandria. He was the first known Egyptian to be bishop of that city. The presence of those two sparked a concerted effort to spread Christianity among the Egyptian peasants. Thus the Coptic script was officially christianized for use in translating the Scriptures as needed in the missionary work. This was done to ensure the uniformity of the Christian teachings to be given to the new converts.

“The first translations were in the form of passages mainly from the Gospels. Later on, the whole books were translated. Probably the Gospels were translated first, followed by the Acts in the New Testament. Among the Old Testament books, Psalms followed by Genesis was probably the early order of translation. Eventually the entire New Testament was translated, followed by the Books of Moses, the Prophets, the Poetic Books and the Historical Books in that order. . . . *This translation process may have lasted about a century or even more. Keep in mind that all the translations were done from the [koine] Greek whether it was Old or New Testament Books. Except on rare occasions, the Hebrew Old Testament was never utilized by the Christians of Egypt: ([http://www.stshenouda.com/newsltr/nl3\\_2.htm](http://www.stshenouda.com/newsltr/nl3_2.htm), accessed 01-26-2009).*

Filed under: [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#)  
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## One of the Earliest Known Fragments of Any Gospel Circa 100 CE – 200 CE



The [Egerton Gospel](#) papyrus fragment preserved in the British Library is one of the earliest known fragments of any Gospel. It is related to the Saint John Fragment preserved in the John Rylands Library, also noticed in this database.

Filed under: [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#)  
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## The Earliest Known Fragment of the New Testament Circa 100 CE – 150 CE



A fragment from a [papyrus codex](#), measuring only 3.5 by 2.5 inches (9 by 6.4 cm) at its widest; and conserved at the John Rylands Library at Manchester, the [Saint John Fragment](#) is generally accepted as the [earliest extant record](#) of a canonical New Testament text. The front (recto) contains lines from the [Gospel of John](#) 18:31-33, in Greek, and the back (verso) contains lines from verses 37-38.

"...the dating of the papyrus is by no means the subject of consensus among critical scholars. The style of the script is strongly [Hadrianic](#), which would suggest a date somewhere between 125 and 160 CE. But the difficulty of fixing the date of a fragment based solely on paleographic evidence allows for a range of dates that extends from before 100 CE past 150 CE.

"The fragment of papyrus was among a group acquired on the Egyptian market in 1920 by [Bernard Grenfell](#). The original transcription and translation of the fragment of text was not done until 1934, by Colin H. Roberts. Roberts found comparator hands in papyri then dated between 50 CE and 150 CE, with the closest match of Hadrianic date. Since the contents would unlikely have been written before circa 100 CE he proposed a date in the first half of the second century. Over the 70 years since Roberts' essay, the estimated ages of his particular comparator hands have been revised (in common with most other undated antique papyri) towards dates a couple of decades older; while other comparator hands have subsequently been discovered with possible dates ranging into the second half of the second century" (Wikipedia article on [Rylands Library Papyrus 52](#)).

Filed under: [Manuscripts & Manuscript Copying](#), [Paper / Papyrus / Parchment / Vellum](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## **The Sole Surviving Example of Roman Literary Cursive script and the Earliest Example of a Parchment Codex Circa 100 CE**



British Library, Papyrus 745, a fragment of an anonymous work entitled *De bellis Macedonicis*, found at *Oxyrhynchus*, Egypt, and acquired by the British Museum in 1900, is the oldest surviving remains of a Latin manuscript written on parchment rather than papyrus. It is the sole surviving example of Roman Literary Cursive Script, and because it is written on both sides of the parchment, it is also "the earliest example of a membrane [parchment] codex, of the type advocated by the poet *Martial* in the first century" (Brown, *A Guide to Western Historical Scripts from Antiquity to 1600* [1990] no. 4 and plate 4.)

According to Brown, palaeographer *E. A. Lowe* dated this fragment in the third century CE.

Bischoff, *Latin Palaeography: Antiquity and Middle Ages* (1990) 9.

Filed under: [Book History](#), [Manuscripts & Manuscript Copying](#), [Paper / Papyrus / Parchment / Vellum](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## The Oldest Surviving Handwritten Documents in Britain Circa 100 CE



The *Vindolanda Writing Tablets*, excavated from the Roman fort at *Vindolanda*, one of the main military posts on the Northern frontier of Britain before the building of *Hadrian's Wall*, were written in carbon ink on wafer-thin slices of wood. The tablets were excavated in 1973 from waterlogged conditions in rubbish deposits in and around the commanding officer's residence. Experts have identified the handwriting of hundreds of different people in these documents. They confirm that the officers of Vindolanda were most certainly literate and that some soldiers in the ranks may also have been literate.

"These, and hundreds of other fragments which have come to light in subsequent excavations, are the oldest surviving handwritten documents in Britain.



"Most of the tablets are official military documents relating to the auxiliary units stationed at the fort. However, others are private letters sent to or written by the serving soldiers. The content is fascinating, giving us a remarkable insight into the working and private lives of the Roman garrison. They also display a [great variety of individual handwriting](#), which adds to our knowledge of [Roman cursive writing](#) around AD 100.

"The tablets are not made of wood and wax, previously thought to be the most popular medium for writing in the Roman world apart from papyrus. Instead they are wafer thin slices of wood, written on with carbon ink and quill-type pens. Even after specialised conservation the excavated tablets are fragile and require a carefully controlled environment" (British Museum, [Our Top Ten British Treasures](#), accessed 05-10-2009).

Filed under: [Archaeology](#), [Paper / Papyrus / Parchment / Vellum](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## The Invention of Paper in China 105 CE



Ts'ai Lun, an official of the Imperial Court, reports to the Emperor of China that paper has been invented.

Twentieth century discoveries of ancient paper fragments in North and Northwest China have pushed the date of the invention of [paper](#) back about two hundred years earlier. By the second century China was producing paper made from rags.

♦ Paper was not invented specifically for writing. "It was extensively used in China in the fine and decorative arts, at ceremonies and festivals, for business transactions and records, monetary credit and exchange, personal attire, household furnishings, sanitary and medical purposes, recreations and entertainments and so on" (Tsien Tsuen-Hsuin, *Science and Civilisation in China, V, pt. 1: Paper and Printing* [1985] 2).

Filed under: [Paper / Papyrus / Parchment / Vellum](#) | [Bookmark or share this entry](#) »

## The Most Famous Example of Roman Square Capital Letters 113 CE



Completion of the inscription incised at the base of [Trajan's Column](#) in Rome.

“This is perhaps the most famous example of Roman square capitals, a script often used for stone monuments, and less often for manuscript writing. As it was meant to be read from below, the bottom letters are slightly smaller than the top letters, to give proper perspective. Some, but not all, word divisions are marked with a dot, and many of the words, especially the titles, are abbreviated. In the inscription, numerals are marked with a *titulus*, a bar across the top of the letters” (Wikipedia article on Trajan's Column, accessed 08-09-2009).

◆ After the invention of printing by moveable type in Europe in the mid-15th century, [Roman letters](#) from stone inscriptions became a major source of inspiration for punch-cutters and type designers. The fifteenth century Roman typeface designed by [Nicolas Jenson](#), and the Roman typeface commissioned by [Aldus Manutius](#) and cut by [Francesco Griffo](#), both of which are known as [Antiqua](#), or "Venetian oldstyle", have been called syntheses of Roman stone inscriptions and [Carolingian minuscule](#).

Filed under: [Printing / Typography](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## Probably the Greatest, and Certainly the Longest Lasting of the Roman Libraries 114 CE



After the Libraries of Alexandria and Pergamum, the [Bibliotheca Ulpia](#), or the Ulpian Library, was the most famous library of antiquity and, of all the Roman libraries, the only one to survive at least until the mid-fifth century. It was founded by the Emperor [Trajan](#) in his [Forum](#).

You can view a computer reconstruction of the interior of the Ulpian Library [at this link](#).

"This collection may have been based on the 30,000-volume private library of Epaphroditos of Cheronea, and like other Roman libraries, it was divided into Greek and Latin sections. Early in the 4th century, this library was moved to the Baths of Diocletian....This move was apparently only temporary, possibly while the Forum was being repaired, since the library is reported to have been returned at a later date. Trajan's library was still in existence in 455 A.D. when a bust of Didonius Apollinarius was placed there by the Emperor Avitus." (Harris, *History of Libraries in the Western World* 4th ed. [1999] 58.)

Filed under: [Libraries](#) | [Bookmark or share this entry](#) »

## Ancient Greek Songs Circa 125 CE



Ancient musicians had two completely separate systems of musical notation, one meant for voice, and another for instruments.

[The Yale Musical Papyrus, P. Yale CtYBR inv. 4510](#), a fragment of probably two Greek songs, "contains the sort of musical notation sometimes used by professional singers in antiquity. In between the lines of Greek text can be seen symbols which resemble ancient Greek letters but which are in fact vocal musical notation. The papyrus is a fragment from what was apparently a collection of songs for performance, intended for a baritone voice with a wide range" ([William A. Johnson, Fragments of Ancient Greek Songs from the Early Empire](#)).

◆ If you click on a line in the reproduction of the papyrus on Johnson's website you can hear a midi rendition of how the song might have sounded.

Filed under: [Music](#), [Paper / Papyrus / Parchment / Vellum](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## Ancient Musical Notation Circa 125 CE



[The Michigan Instrumental Papyrus, P. Mich. inv. 1205r](#), is a "[Roman era](#)" papyrus containing the sort of musical notation used by instrumental musicians in antiquity. "The papyrus is a fragment from what was probably a collection of melodies for performance, perhaps intended for the ancient aulos, a woodwind not unlike a modern oboe; or, less likely, the ancient kithara, the performance version of a lyre" ([William A. Johnson, Fragments of Ancient Instrumental Music](#)).

◆ If you click on any line of the papyrus on Johnson's website you can hear a midi rendition by an oboist of how the music might have sounded.

Filed under: [Music](#), [Paper / Papyrus / Parchment / Vellum](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Form of the Manuscript Book Gradually Shifts from the Roll to the Codex Circa 150 CE – 450 CE



Between about 150 and 450 CE the form of the manuscript [book](#) shifted from the roll to the [codex](#). However, the transition was very gradual as most readers preferred the traditional roll format which had been in existence for over 2000 years. The transition may not have been "complete" until the fifth century.

"Ultimately, as its etymology indicates, the codex book evolved from wooden tablets, often with wax-filled compartments, used in ancient Rome for more or less ephemeral jottings and figurings. A group of such tablets, tied or hinged together, was known as a *caudex* / *codex*, a word originally indicating a tree trunk or block of wood (and, in Terence, a blockhead). At some stage before the Christian era folded parchments (*membranae*) came to be used for the same ephemeral purposes, and then were eventually adopted for permanent storage of written matter, even literary texts; and by the third century A.D. the term 'codex' had become assimilated also to these non-wooden objects" (Needham, *Twelve Centuries of Bookbindings 400-1600* [1979] 4).

The gradual transition from the roll to the codex has often been credited to early Christians, who apparently did not feel bound by tradition, for they did not continue to use the papyrus roll like the classical Greeks and Romans, nor the parchment roll like the Jews. To write the books of the Bible the Christians used the codex to a greater and greater extent, first on papyrus and then on parchment. Some of the best examples of early Christian papyrus codices in single quire [Coptic bindings](#) are the [Nag Hammadi Library](#) discovered in 1945.

Though the papyrus roll continued to be used until at least the fifth century for pagan literature, "this was strikingly not the case with Christian literature, and particularly the Christian Bible. Even its earliest surviving fragments, dating from the second century, whether written on parchment or papyrus, are ordinarily in codex form. It is not until the fourth century, at roughly the time the Empire became officially Christian, that the age of the codex was inaugurated for non-Christian literature. The question of why the codex book was apparently aboriginal to Christianity is an important and difficult one. The most profound student of the question, Mr. C. H. Roberts, has made the attractive suggestion that we see here a reflection of the Roman origin of Christian writing. Assuming that Mark's was the earliest of the gospels, and that, as tradition has it, it was written in Rome, Roberts has postulated that the codex format was borrowed from the notebooks and account books current in St. Mark's milieu, that of 'Jewish and gentile traders, small business men, freedmen or slaves,' and that the format then became general among the Christians, whose copies of the new writings were made outside the world of professional scribes and their standard roll-form. The implication is that the authority of the Word helped crystallize its form, leading to the retention of the codex format even, for instance in Egypt, where the commonest writing material, papyrus, was (being much less pliable than leather) not inherently suited to the new form" (Needham, *op cit.*, 4).

Whether the Christians were responsible for the transition from the roll to the codex or they adopted it, the fourth century saw both the triumph of Christianity in the Roman Empire and a revolution in book production which made it possible to make books large enough to hold the whole Bible in one volume, and also to hold all of Virgil's poems in one volume. Christians preferred the codex format for the Scriptures used in liturgy since a codex is easier to handle than a roll, and one can write on both sides of the leaves of a codex, allowing more information to be recorded in less space. This was also a form of information storage preferable for people on the move. The codex also allowed the development of bindings which were protective as well as decorative. Bindings would have increased the longevity of codices versus scrolls, and over time this would have been recognized as a significant advantage.

During the transitional period, for first drafts, brief writings, and notes the Romans used various forms of bound parchment leaves. For diplomas and other brief documents they wrote on bronze, lead, and wood. They used erasable wax tablets for notes, and in certain cases sealed wax tablets for legal documents. For formal presentations they preferred the papyrus roll. Scribes preferred to write on the side of [papyrus](#) with the fibers running horizontally. When they wrote on the outside of the roll the writing on the outside was easily worn off. One of the limitations of papyrus rolls was that an individual roll could hold a text only about the length of one book of Homer.

Filed under: [Book History](#), [Bookbinding](#), [Data Storage / Memory](#), [Manuscripts & Manuscript Copying](#), [Paper / Papyrus / Parchment / Vellum](#), [Religious Texts / Religion](#) | [Bookmark or share this entry »](#)

## The "Hawara Homer" Circa 150 CE



The ten frames of the so-called "Hawara Homer," preserved at the Bodleian Library, were discovered lying rolled up under the head of a mummified woman by [W. M. Flinders Petrie](#) in the cemetery at [Hawara](#), Egypt. "The script is a fine rounded capital hand of large size. In the left-hand margin of frame 10 there are some critical signs of the type developed by the [Alexandrian](#) scholars. There are also some brief scholia in which [Aristarchus](#) (216-144 B.C.), the greatest of the Hellenistic critics, is named." (Hunt, R.W., *The Survival of the Classics*, Oxford: Bodleian Library, 1975, no. 3). Illustrated in Reynolds & Wilson, *Scribes and Scholars*, 3rd ed., 1991, plate 1.

Filed under: [Archaeology](#), [Manuscripts & Manuscript Copying](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## Insisting on Only Four Gospels Circa 185 CE



"Of the many [gospels](#) written in antiquity, exactly four gospels came to be accepted as part of the New Testament, or canonical. An insistence upon a canonical four, and no others, was a central theme of Irenaeus of Lyons, c.185. In his central work, *Adversus Haereses* [Irenaeus](#) denounced various Christian groups that used only one gospel...as well as groups that embraced the texts of new revelations....Irenaeus declared that the four he espoused were the four pillars of the Church: 'it is not possible that there can be either more or fewer than four' he stated, presenting as logic the analogy of the four corners of the earth and the four winds (1.11.8). His image, taken from *Ezekial* 1, of God's throne borne by four creatures with four faces—'the four had the face of a man, and the face of a lion, on the right side: and the four had the face of an ox on the left side; they four also had the face of an eagle'— equivalent to the 'four-formed' gospel, is the origin of the conventional symbols of the Evangelists: lion, bull, eagle, man. Irenaeus was successful in declaring that the four gospels collectively, and exclusively these four, contained the truth. By reading each gospel in light of the others, Irenaeus made of *John* a lens through which to read *Matthew*, *Mark* and *Luke*" (Wikipedia article on Gospel, accessed 12-04-2008).

Filed under: [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The First Auto-Bibliography Circa 190 CE

Roman physician [Claudius Galen](#) of Pergamon writes two classified bibliographies of his own writings: *Peri ton idion biblion* [Latin: *De Libris propriis liber*, On his own writings] and *Peri tes taxeos ton idion biblion* [Latin: *De ordine librorum suorum liber*, On the arrangement of his own writings].

These are the first auto-bibliographical works which survived, and they may also be considered the first bibliographies of any kind which survived after the listings from the library of Alexandria by Kallimachos (Callimachus), which survived only in the most fragmentary form.

"The *De libris propriis liber* opens with a general introduction, in which Galen refers to the books falsely attributed to him. The main text is divided into seventeen chapters, in which Galen arranges his works under such headings as commentaries, anatomical works, Hippocratic writings, works on moral philosophy, grammar and rhetoric, and so on. This bibliography apparently did not suffice as a guide to the five hundred or so works Galen had put out (many of them now lost), for he added a second one. This is the *De ordine librorum suorum liber*, of which second bibliography unfortunately only a fragment has come down to us" (Besterman, *The Beginnings of Systematic Bibliography* 2nd ed (1940) 3, nos. I & II).

Galen's bibliographies were first published in Part IV, ff.\*\*1-6, of the *editio princeps* of his collected writings in Greek issued by the heirs of [Aldus Manutius](#) and Aldus's father-in-law, Andreas Asulanus, in 1525. They were revised and improved by Conrad Gessner in 1562, as noticed in this database.

Breslauer & Folter, *Bibliography: Its History and Development* (1984) no. 2.

Filed under: [Bibliography](#), [Medicine](#), [Organization of Information / Taxonomy](#) | [Bookmark or share this entry »](#)

## The Diptych Document Format 198 CE

An unusually well-preserved [diptych](#) in the Bodleian Library, Oxford, shows how this document format was used during the Roman empire.

"The diptych contains the appointment of a guardian for a woman by the prefect of Egypt. The main body of the text inscribed on the wax is in Latin, followed by a subscription written in Greek by an amanuensis on behalf of the woman, who was illiterate. On the outside there are copies of these sections and a list of the names of seven witnesses, all written in ink directly on the wood. The diptych was originally tied shut and sealed with the seals of the witnesses to prevent tampering with the inner text, the authenticated version, while the exterior text remained available for consultation" (Hunt, R.W., *The Survival of the Classics*, Oxford: Bodleian Library, 1975, no. 32.)

Filed under: [Manuscripts & Manuscript Copying](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## The Making of a Gospel Book Circa 200 CE – 300 CE

"Following the custom of the Synagogue, the Scriptures of the Old Testament were read at the primitive Christian assemblies. According as the [Canon of the New Testament](#) was decided on, certain extracts from it were included in these readings. [Justin](#) tells us that in his day, when the Christians met together, they read the Memoirs of the Apostles and the writings of the Prophets (*First Apology* 67). [Tertullian](#), [Cyprian](#), and other writers bear witness to the same custom; and in the West the order of [lector](#) existed as early as the third century. For want of precise testimony we do not know how the particular passages were decided on. Most likely the presiding bishop chose them at the assembly itself; and it is obvious that on the occurrence of certain festivals the Scripture relating to them would be read. Little by little a more or less definite list would naturally result from this method. [St. John Chrysostom](#) in a homily delivered at Antioch exhorts his hearers to read beforehand the Scripture passages to be read and commented on in the Office of the day (Homilia de Lazaro, iii, c. i). In like manner other Churches would form a table of readings. In the margin of the manuscript text it was customary to note the Sunday or festival on which that particular passage would be read, and at the end of the manuscript, the list of such passages, the Synaxarium or Capitulare, would be added. Transition from this process to the making of an Evangeliarium, or collection of all such passages, was easy. Gregory is of opinion that we possess fragments of Evangeliaria in Greek dating from the fourth, fifth, and sixth centuries, and that we have very many from the ninth century onwards (according to Gregory they number 1072). In like manner, we find Lectionaries in the Latin Churches as early as the fifth century. The Comes of the [Roman Church](#) dates from before [St. Gregory the Great](#) (P.L., XXX, 487-532." (quoted from the *New Advent Encyclopedia* article on [Evangeliaria](#)).

Filed under: [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## Pamphilus Establishes a Library and Scriptorium 200 CE – 300 CE



[Pamphilius of Caesarea](#) (d. 409) devoted his life to searching out and obtaining copies of manuscript texts. He established a library that may have contained 30,000 manuscripts and a [scriptorium](#) at a Christian theological school at [Caesarea Palaestina](#), a town on the coast of Israel between Tel Aviv and Haifa. Because of this library Caesarea was the capital of Christian scholarship in the 3rd century.

Filed under: [Libraries](#), [Manuscripts & Manuscript Copying](#), [Preservation & Conservation of Information](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## Among the Earliest News Media: Tipao Circa 200 CE – 300 CE

[Tipao](#) (Chinese: 邸报 Pinyin: dǐ bào), palace reports or imperial bulletins or gazettes published by central and local Chinese governments, were among the earliest news media.

"Different sources place their first publication as early as the Han Dynasty (206 BC–220 AD) or as late as the Tang Dynasty (June 18, 618–June 4, 907). They carried official announcements and news, and were intended to be seen only by bureaucrats (and a given di bao might only be intended for a certain subset of bureaucrats). Selected items from a gazette might then be conveyed to local citizenry by word of mouth and/or posted announcements. Frequency of publication varied widely over time and place" (Wikipedia article on Tipao, accessed 08-01-2009).

Filed under: [News Media / Journalism](#) | [Bookmark or share this entry](#) »

## The Oldest Woodblock Printed Fragments from China Circa 220 CE

The earliest woodblock printed fragments to survive are from China and are of [silk printed with flowers in three colors](#) from the Han dynasty (before 220 CE).

Filed under: [Printing / Typography](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The First Important Work of Rabbinic Judaism Circa 220 CE

The [Mishnah or Mishna](#) (הגשמה, "repetition", from the verb *shanah* הגש, or "to study and review"), is put into its final form about this time. It is the first major [redaction](#) into written form of Jewish oral traditions, called the [Oral Torah](#).

It was "debated between 70-200 CE by the group of rabbinic sages known as the [Tannaim](#) and redacted about 200 CE by [Judah haNasi](#) when, according to the [Talmud](#), the persecution of the Jews and the passage of time raised the possibility that the details of the oral traditions would be forgotten. The oral traditions that are the subject of the Mishnah go back to earlier, Pharisaic times. The Mishnah does not claim to be the development of new laws, but merely the collection of existing traditions.

"The Mishnah is considered to be the first important work of [Rabbinic Judaism](#) and is a major source of later [rabbinic](#) religious thought. Rabbinic commentaries on the Mishnah over the next three centuries were redacted as the [Gemara](#)" (Wikipedia article Mishnah, accessed 12-05-2008).

Filed under: [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## Possibly the Earliest Record of Rabbinic Texts 244 CE – 256 CE



The [Dura Europos synagogue](#), discovered in eastern Syria in 1932, was dated from an Aramaic inscription to 244. It is unique in that it was preserved virtually intact. A parchment fragment discovered there containing texts highly reminiscent of rabbinic prayer texts, may be the earliest surviving record of rabbinic texts. Reference: Goldstein & Mintz, *Printing the Talmud from Bomberg to Schottenstein* [2006] No. 1, p. 170.

"It [the Dura Europos synagogue] contains a forecourt and house of assembly with frescoed walls depicting people and animals, and a [Torah](#) shrine in the western wall facing Jerusalem. The frescoes are now displayed in the National Museum of Damascus. Because of these frescoes, the synagogue was at first mistaken for a Greek temple.

"The painted scenes of stories include Moses receiving the Law, Moses leading the Hebrews out of Egypt, and many others. It is thought that the Synagogue was used in part as an instructional display to educate and teach the history and laws of the religion. Some think that this synagogue was painted in order to compete with the many other religions practiced in Dura Europos. The large-scale pictorial art in the synagogue helps to dispel narrow interpretations of historically prohibited visual images" (Wikipedia article on Dura-Europos synagogue, accessed 12-10-2008).

Filed under: [Archaeology](#), [Art](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## One of the Few Scraps of Classical Literary Illustration on Papyrus Circa 250 CE



The [Heracles Papyrus](#) preserved in Oxford at the Sackler Library (Oxyrhynchus Pap. 2331) is a fragment of about the labors of [Heracles](#). It contains three unframed colored line drawings of the first of the Labors, the strangling of the lion set within the columns of cursive text. Found at [Oxyrhynchus](#), it is one of the few surviving scraps of classical literary illustration on papyrus. The fragment is 235 by 106 mm.

Filed under: [Book History](#), [Book Illustration](#), [Graphics / Visualization / Animation](#), [Manuscripts & Manuscript Copying](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## Greek Writings on Music and Rhythm Circa 250 CE





The earliest surviving fragments of the writings on music by the fourth century BCE Greek peripatetic philosopher and writer on harmonic theory, music and rhythm, [Aristoxenus](#) (Ἀριστόξενος) of Tarentum, are papyri found at [Oxyrhynchus](#).

"Perhaps the most amazing papyrus fragment is a large excerpt from Aristoxenus' *Rhythmica*, a part of which was first published in 1898 as fragment 9 of the Oxyrhynchus Papyri. In 1968 it was revealed that fragment 2687 of the Oxyrhynchus Papyri completed columns 2-4 by supplying fourteen or fifteen lines at the bottom; this same fragment added substantially to columns 1 and 5. Nearly one hundred lines of the text have now been uncovered in papyrus dating from the third century C.E. But this is not all. Fragments 667 and 3706 of the Oxyrhynchus Papyri preserve in characteristic Aristoxenian language an analysis of conjunct and disjunct scales and of genera. These fragments, too, date from the second or third centuries C.E. and may very well contain parts of the sections of Aristoxenus' *Harmonica* missing in the manuscript tradition" (Mathiesen, "Hermes or Clio? The transmission of Ancient Greek Music Theory", Palisca, Baker, Hanning [eds.] [Musical Humanism and its Legacy. Essays in Honor of Claude Palisca \[1992\] 5-6](#)).

Filed under: [Music](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## Death of Wei Tan, Discoverer of Ink 251 CE

Death of Wei Tan, to whom the Chinese attribute the discovery of ink used for writing, and later for printing. Carter, *Invention of Printing in China* 2nd ed [1955] 32.

Filed under: [Printing / Typography](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## Perhaps the Earliest Surviving Text of the Hippocratic Oath Circa 275 CE



[Oxyrhynchus Papyrus 2547](#) is a fragment of the Hippocratic oath written in Greek in Egypt about 275 CE. It is preserved in the Wellcome Institute Library, London (WMS 5724).

Conrad *et al*, *The Western Medical Tradition 800 BC to AD 1800* (1995) Fig. 3, p. 21.

Filed under: [Medicine](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## One of the Earliest, Most Widely-Used Cross-Indexing Systems Circa 280 CE – 340 CE



The [Eusebian canons](#) or Eusebian sections, also known as *Ammonian Sections*, are the system of dividing the four Gospels used between late Antiquity and the Middle Ages. The sections are indicated in the margin of nearly all Greek and Latin manuscripts of the Bible, and usually summarized in **Canon Tables** at the start of the Gospels. There are about 1165 sections: 355 for Matthew, 235 for Mark, 343 for Luke, and 232 for John; the numbers, however, vary slightly in different manuscripts. These tables represent a way for the reader to move back and forth between related sections in the texts, and are an early organizational structure and cross-indexing system.

"Until the nineteenth century it was mostly believed that these divisions were devised by [Ammonius of Alexandria](#), at the beginning of the third century (c. 220), in connection with a *Harmony of the Gospels*, now lost, which he composed. It was traditionally believed that he divided the four Gospels into small numbered sections, which were similar in content where the narratives are parallel. He then wrote the sections of the three last Gospels, or simply the section numbers with the name of the respective evangelist, in parallel columns opposite the corresponding sections of the Gospel of Matthew, which he had chosen as the basis of his Harmony. Now it is believed that the work of Ammonius was restricted to what [Eusebius of Caesarea](#) (265-340) states concerning it in his letter to Carpianus, namely, that he placed the parallel passages of the last three Gospels alongside the text of Matthew, and the sections traditionally credited to Ammonius are now ascribed to Eusebius, who was always credited with the final form of the tables.

"The tables themselves were usually placed at the start of a [Gospel Book](#), and in illuminated copies were placed in round-headed arcade-like frames of which the general form remained remarkably consistent through to the [Romanesque](#) period. This form was derived from [Late Antique](#) book-painting frames like those in the [Chronography of 354](#). In many examples the tables are the only decoration in the whole book, perhaps other than some initials. In particular, canon tables, with [Evangelist portraits](#), are very important for the study of the development of manuscript painting in the earliest part of the Early Medieval period, where very few manuscripts survive, and even the most decorated of those have fewer pages illuminated than was the case later" (quotations from the Wikipedia article on Eusebian Canons, accessed 11-26-2008.)

Wright, Alex. *Glut: Mastering Information Through the Ages* (2007) 83-85.

Filed under: [Indexing & Seaching Information](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Organization of Information / Taxonomy](#), [Religious Texts / Religion](#) | [Bookmark or share this entry »](#)

## The Imperial Library at Nicomedia 284 CE – 305 CE



The Emperor [Diocletian](#) establishes an Imperial Library at [Nicomedia](#), the eastern capital city of the Roman Empire, but little information about this has survived.

Filed under: [Libraries](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## Costs of Professional Writing Measured by the Normal Length of a Line in a Verse of Virgil Circa 284 CE – 305 CE

"At the time of the conversion to Christianity, Rome had twenty-eight libraries within its walls and book production was so well established a line of business that [Diocletian](#), in his price edict, set rates for various qualities of script: for one hundred lines in '*scriptura optima*', twenty-five denarii; for somewhat lesser script, twenty denarii, and for functional script ('*scriptura libelli bel tabularum*'), ten denarii. The unit of valuation was the normal length of line in a verse of Virgil. The extent of a work is given in these units at the end of some manuscripts ([stichometry](#)), and stichometric lists survive for biblical books and for the writings of Cyprian" (Bischoff, *Latin Palaeography: Antiquity and the Middle Ages* [1990] 182).

Filed under: [Book History](#), [Libraries](#), [Manuscripts & Manuscript Copying](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## The Codex Vaticanus 300 CE – 400 CE



The [Codex Vaticanus](#), a 4th century uncial manuscript in Greek of the Septuagint and the New Testament, is one of the two extant 4th century texts of the Old and New Testament in the form used by the early Christians, the other being the *Codex Sinaiticus*. The *Codex Vaticanus* lacks pages 1519-1536 containing Hebrews 9:14 through Revelation, which were lost and replaced by a 15th century minuscule supplement.

The manuscript has been housed in the Vatican Library, founded in 1448, for as long as it has been known, appearing in the Vatican Library's earliest catalogue in 1475.

## The Codex Sinaiticus 300 CE – 400 CE



The [Codex Sinaiticus](#) was written Greek in the 4th century, by three or four different scribes, in Biblical majuscule in *scriptio continua*, without word division. Originally it contained the complete Old and New Testaments. However, just over half of the original book survived, now dispersed between four institutions: St Catherine's Monastery in Sinai, the British Library, Leipzig University Library, and the National Library of Russia in St Petersburg.

At the [British Library](#) the largest surviving portion - 347 leaves, or 694 pages - includes the whole of the New Testament. The Greek Old Testament (or *Septuagint*) also survived almost complete, plus the Epistle of Barnabas, and portions of The Shepherd of Hermas.

Along with the *Codex Vaticanus*, the [Codex Sinaiticus](#) is one of the most valuable manuscripts for establishing the original text of the Greek New Testament, as well as the Septuagint. It is the only uncial manuscript with the complete text of the New Testament, and the only ancient manuscript of the New Testament written in four columns per page which survived to the present.

•The *Codex Sinaiticus*, and the *Codex Vaticanus* produced at roughly the same time, also mark a pivotal point in the history of the book. They may have been the first, or among the first, large bound books produced. For one volume to contain all the Christian scriptures book production had to make a technological leap forward, something that might be compared retrospectively to the introduction of printing by moveable type in Europe in the 15th century. While most previous bound books, as opposed to rolls, were relatively short and small in page size, the *Codex Sinaiticus* and the *Codex Vaticanus* were huge in length and large in page size.

After his conversion the Emperor [Constantine](#) commissioned fifty Greek Bibles for the churches of his new capitol, Constantinople, and it is possible that both the *Codex Vaticanus* and the *Codex Sinaiticus* were among those commissioned. Bischoff, *Latin Palaeography: Antiquity and Middle Ages* (1990) 184, note 25.

You can page through a digital facsimile of the Codex and listen to podcasts at the British Library website web [at this link](#).

♦ Please use the keyword search under Codex Sinaiticus to locate several other entries in this database pertinent to this codex as it appears in book history over the centuries.

## Confirmation of the Adoption of the Codex Form of the Book by the Early Christians 300 CE – 350 CE



In 1945 thirteen [papyrus codices](#) buried in a sealed jar were found by a local peasant near the [Upper Egyptian](#) town of [Nag Hammâdi](#). Eleven of these were in their original leather covers. This collection of codices in Coptic bindings called the [Nag Hammadi Library](#), comprised fifty-two mostly Gnostic tractates or treatises, documenting a ". . . major side-stream of early quasi-Christian thought. . . formerly attested only by the anti-heretical treatises of orthodox Christianity. . . ." (Needham). The best-known of these works is probably the [Gospel of Thomas](#), of which the Nag Hammadi codices contained the only complete text. They also included three works belonging to the [Corpus Hermeticum](#) and a partial translation / alteration of Plato's *Republic*. In his "Introduction" to *The Nag Hammadi Library in English*, James Robinson suggested that these codices may have belonged to a nearby [Pachomian](#) monastery, and were buried after [Bishop Athanasius](#) condemned the uncritical use of [non-canonical](#) books in his [Festal Letter of 367 CE](#). For the history of the book this collection of codices represents the most extensive confirmation of the adoption of the codex form of book in the third-fourth centuries by early Christians.

"The Nag Hammadi codices are written on papyrus. Their language is Coptic, the native language of Egypt as recorded in the third century A.D. and after. Coptic script is a modification of the Greek alphabet, reflecting the fact that, in its written form, Coptic was essentially the language of Egyptian Christianity, whose early literature (including the heterodox Gnostic texts) was in large part translated from the Greek. The Nag Hammadi codices were written and bound in the first half of the fourth century, presumably within a religious community. The site of the find was near [Chenoboskion](#), where in the early fourth century a monastery was established by [St. Pachomius](#), the founder of conventional Christian monasticism. The burial of the Gnostic writings may have followed a fourth-century purge there of heretical literature.

"The volumes consist of single-quire codices, of as many as seventy-six leaves each; in two cases, two or more distinct codices, were found together in one volume. The covers are made of prepared goatskin or sheepskin. The upper covers have flaps, similar to those later routine on Islamic bindings. . . , extending over the fore-edge and folding around to the lower cover. Leather thongs are attached to the flaps, by means of which the volumes could be wrapped up and tied. Some of the volumes also have remains of thongs on the top and bottom of the covers. The covers are more than simply wrappers, for their insides are lined with papyrus cartonnage, built up into boards over which the turn-ins of the covers were folded and glued or tied. To secure the quire in its cover, two pairs of holes were stabbed through the fold of the leaves, one pair toward the top, the other toward the bottom. A leather thong was passed through each pair, then either through the spine of the cover itself, or through a strip of leather guard, and its ends tied together. If leather guards were used, they were glued to the inside fo the covers, so that in either case the codex as attached to the cover. Several of the bindings are decorated, the most elaborate being that of Nag Hammadi Codex II. Its covers are scribed with fillets, dividing them into [cross and X- \(or St. Andrew's cross\)](#) patterns. Additional simple scrollwork patterns were added in ink, and what appears to be an [ankh](#), or crux ansata, was drawn at the top of the upper cover" (Needham, *Twelve Centuries of Bookbindings: 400-1600* [1979] 5-6).

The Nag Hammadi codices are preserved in the [Coptic Museum](#) in Cairo.

Filed under: [Book History](#), [Bookbinding](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Transition from Papyrus to Parchment Circa 300 CE

"By the fourth century, the use of parchment for books was so widespread in the West that we can speak of a general transition from papyrus to parchment in the book-making process. This was of decisive importance for the preservation of literature because only very few papyrus fragments from medieval libraries have survived, since the European climate is inimical to this material. Nonetheless, in the sixth century AD the law codes of Justinian I were distributed from Byzantium in papyrus as well as in parchment manuscripts. One of the latest western papyrus books preserved (c. saec. VII-VIII) [circa 7-8th century] is a Luxeuil codex containing works of Augustine, in which interleaved parchment leaves protect the middle and the outside of the gatherings" (Bischoff, *Latin Palaeography, Antiquity and the Middle Ages* [1990] 8).

Filed under: [Book History](#), [Law / Copyrights / Patents](#), [Paper / Papyrus / Parchment / Vellum](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## A Rare Manuscript Example of Roman Square Capitals Circa 300 CE



The *Codex Augusteus* of [Virgil](#), or the [Vergilius Augusteus](#), is "a rare example of Square Capitals, which were generally reserved for display purposes or for use in monumental epigraphic inscriptions (*scriptura monumentalis*), used for a complete text in a prestigious manuscript. The angular letter-forms, with their frequent changes of angle and their serifs, were difficult to achieve with the reed pen (calamus) hence the preference for more rounded book scripts" (Brown, *A Guide to Western Historical Scripts from Antiquity to 1600* [1990] no. 1 and plate 1).

Only seven leaves of the manuscript survive, of which four are in the Vatican Library (Vat. Lat. 3256), and the remaining three in the Staatsbibliothek zu Berlin (Lat. fol. 416.)

By the 15th century the manuscript was in St. Denis, Paris. Later it was in the library of jurist, humanist and bibliophile, [Claude Dupuy](#). The Vatican library obtained their portion of the fragment from humanist, historian and archaeologist [Fulvio Orsini](#) in 1574-75.

Filed under: [Collecting Books](#), [Manuscripts](#), [Art](#), [Fiction](#), [Science Fiction](#), [Drama](#), [Poetry](#), [Manuscripts & Manuscript Copying](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## The Diocletianic Persecution of Christians February 24, 303 CE



Roman Emperor Gaius Aurelius Valerius Diocletianus, commonly known as [Diocletian](#), orders the publication of his first "Edict against the Christians." The edict orders the destruction of Christian scriptures and places of worship across the Empire, and prohibits Christians from assembling for worship.

This was the beginning of The [Diocletianic Persecution](#) (303–311), the Roman empire's "last, largest, and bloodiest official persecution of Christianity" (Wikipedia article on Diocletian).

Filed under: [Destruction / Looting of Information, Prejudice / Antisemitism, Religious Texts / Religion, Social / Political](#) | [Bookmark or share this entry »](#)

## The Beginning of Constantine's Conversion October 28, 312 CE



According to chroniclers such as [Eusebius](#), the [Battle of the Milvian Bridge](#) between the [Roman Emperors Constantine I](#) and [Maxentius](#), marks the beginning of Constantine's conversion to Christianity.

Eusebius recounts that Constantine and his soldiers had a vision that God promised victory if they daubed the [labarum](#) on their standards. Constantine won the battle and started on the path that led him to end the [Tetrarchy](#) and become the sole ruler of the Roman Empire. The [Arch of Constantine](#), erected in Rome in celebration of the victory, attributed Constantine's success to divine intervention, but whether it was specifically at the hands of the Christian God was left ambiguous.

Filed under: [Religious Texts / Religion, Social / Political](#) | [Bookmark or share this entry »](#)

## The Edict of Milan Proclaims "Religious Toleration" 313 CE



The Emperor [Constantine](#), who rules the Eastern parts of the Roman Empire and the Emperor [Licinius](#), who rules the Western parts, sign a letter known as the [Edict of Milan](#).

This edit proclaimed [religious toleration](#) throughout the [Roman Empire](#), and was responsible for the reduction of persecution of Christians and tolerance of the spread of Christianity.

Filed under: [Freedom / Privacy / Security, Religious Texts / Religion, Social / Political](#) | [Bookmark or share this entry »](#)

## Constantine's Religious Toleration Does Not Apply to Jews October 18, 315 CE

In a law *Concerning Jews, Heaven-Worshippers, and Samaritans*, the Emperor [Constantine](#) decrees:

"We wish to make it known to the Jews and their elders and their patriarchs that if, after the enactment of this law, any one of them dares to attack with stones or some other manifestation of anger another who has fled their dangerous sect and attached itself to the worship of God [Christianity] he must speedily be given to the flames and burnt together with all his accomplices.

"Moreover, if any one of the population should join their abominable sect and attend their meetings, he will bear with them deserved penalties" (Marcus, *The Jew in the Medieval World. A Sourcebook: 315-1791*, rev. ed. [1999] 4).

Filed under: [Freedom / Privacy / Security](#) , [Law / Copyrights / Patents](#), [Prejudice / Antisemitism](#), [Religious Texts / Religion](#) | [Bookmark or share this entry »](#)

## Constantine Orders Fifty Luxurious Bibles for the Churches of Constantinople 326 CE – 327 CE

"In the twenty-first year of [Constantine's](#) reign, 326-327, [Eusebius](#), in his *Life of Constantine*, describes the fifty luxurious Bibles that the emperor commissioned to be made for the churches of Constantinople, but does not specifically mention their bindings: IV: 36-37, Migne [P\[atrolologiae\] C\[cursus completus series graeca\]](#) XX cols. 1183-86" (Needham, *Twelve Centuries of Bookbindings 400-1600* [1979] 23, note 1).

Filed under: [Book History](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#) | [Bookmark or share this entry »](#)

## Foundation of the Imperial Library of Constantinople Circa 330 CE



The Emperor Constantine makes Byzantium his capitol, renames it Constantinople, and begins the formation of the [Imperial Library of Constantinople](#) by having the Judeo-Christian scriptures copied from papyrus onto the more permanent medium of parchment or vellum.

Constantine's son, [Constantius II](#), aware of the deterioration of texts written on papyrus scrolls, continued and expanded the project. The person in charge of the library under Constantius II is thought to have been [Themestios](#), who directed a team of scribes and librarians who copied the texts of papyrus scrolls onto parchment codices. It is probable that this library preserved selected texts that survived burning of the [Library of Alexandria](#), though the historical accounts of the destruction of the Alexandrian Library are contradictory.

It has been estimated that the Imperial Library of Constantinople eventually grew to about 100,000 manuscript volumes.

Filed under: [Libraries](#) , [Paper / Papyrus / Parchment / Vellum](#), [Preservation & Conservation of Information](#), [Social / Political](#), [Survival of Information](#) | [Bookmark or share this entry »](#)



## The Earliest Egyptian Printed Cloth Circa 350 CE



The [earliest Egyptian printed cloth](#) dates from the 4th century.

"In his Natural History, Pliny states that this technique [printing on textiles] was particularly utilized in Egypt. Printed material is only represented by fabrics of the fourth century at the earliest and continues until the Arab period. In those days, there were great textile centers such as [Alexandria](#), Panopolis, [Oxyrhynchus](#), [Tinnis](#) and [Damietta](#), but regrettably we know this only from texts, because any trace of weaving shops and their fragile wooden looms has vanished. However, by studying the fabrics themselves, scholars are often able to derive their origins.

"Actually, only two groups of fabrics have been dated with any certainty. One group was a pair of medallions and a band of flax and purple wool coming from a tomb in Hwara in the [Fayoum](#) Oasis, which were found together with a coin dated to 340 AD. These medallions are adorned in a manner that is virtually identical with that of painted Egyptian shrouds of the [Roman period](#) and fabrics discovered in Syria. Next to the body of Aurelius Colluthus, in his tomb at Antinoe, were discovered sales contracts and his will, all written in Greek between 454 and 456 AD. He was wrapped in a large tapestry with an upper tier showing two busts under arcades supported by two large columns. A geometrical network with florets and leaves covers the space between the columns, which is a composition very similar to the decorations in paintings and mosaics of the same period."

Filed under: [Art](#), [Art and Science](#), [Medicine](#), [Technology](#), [Printing / Typography](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

**"To Fronto Belongs the Unique Distinction of Surviving Solely as the Lower Script in No Fewer than Three Palimpsests"**  
**(Reynolds) Circa 350 CE – 475 CE**



The writings of Roman grammarian, rhetorician and advocate, [Marcus Cornelius Fronto](#), were "cut to pieces in the Dark Ages. Any author may fall on hard times, when parchment is scarce and other texts are more in demand, but to Fronto belongs the unique distinction of surviving solely as the lower script in no fewer than three palimpsests.

"The first preserves a few words from the end of his *Gratiarum actio pro Cathaginiensibus*. It is part of that remarkable manuscript Vatican, Pal. lat 24, which is a tissue of ancient codices, largely of classical authors and Italian in origin, which were reused in Italy to make up a copy of the Old Testament. The Fronto fragment (ff. 45 and 53, CLA I. 72) is written in rustic capitals of s. IV-V [4th to 5th centuries]; the text was discovered by [Angelo Mai](#) in 1820 and published by him in 1823.

"The extensive remains of Fronto's Correspondence are transmitted as the lower script of Milan, Ambros. E. 147 sup. + Vatican lat 5750, written in an uncial hand of the later fifth century, presumably in Italy; it was rewritten in the seventh century, probably at [Bobbio](#), where it was later housed, with a Latin translation of the Acts of the [Council of Chalcedon](#). Both parts were discovered by Mai, the Ambrosian in 1815, the Vatican in 1819, and published in 1815 and 1823 respectively. The first, in particular, suffered disastrously from his heavy use of chemical reagents.

"It seemed, until 1956, that further gains to Fronto's text could come only from strenuous emendation and decipherment; but in that year [Bernhard Bischoff](#) pointed out that a third manuscript, published as early as 1750 and conjecturally ascribed to Fronto (then undiscovered) by [Dom Tassin](#) in the *Nouveau traité de diplomatique*, contained fragments of *Epit. ad Verum* 2.1 which actually overlap with the Milan palimpsest. This is one leaf of Paris lat 12161 (pp. 133-4, CLA v. 629) rewritten probably at [Corbie](#), the late seventh or early eighth century with Jerome and [Gennadius](#), *De viris illustribus*. The original script, a sixth century uncial, may perhaps belong to southern France, in which case we have what could be a remnant of the last flowering of rhetorical studies in Gaul" (Reynolds ed., *Texts and Transmission* [1983] 173-74).

Filed under: [Destruction / Looting of Information, Survival of Information](#) | [Bookmark or share this entry »](#)

## The Most Richly Illustrated Greek Papyrus Circa 350 CE



The "[Oslo Papyrus](#)" ([P.Oslo 1 1](#)), a magical papyrus roll about 8.3 feet long, written in 12 columns on the recto and transversa charta on the verso, and consisting of magical recipes especially for love magic, is "the most richly illustrated Greek papyrus" (Diringer). Seven of its columns of text are illustrated by figures of the

demons invoked. The illustration is done in the Egyptian style. The papyrus also includes "a remedy to prevent conception, the only one that exists in the world."

The papyrus was donated to the University of Oslo by S. Eitrem in the 1930s, as part of a collection of 329 papyri and fragments from [Karanis](#) and Theadelphia which he purchased from dealers in Cairo and the [Faiyum](#).

"It may, therefore be argued that even if we have not sufficient evidence to show that the Greek art of book illustration descended from the Egyptian, there can be no doubt that the latter had a strong influence on the origin and development of the Greek ornamentation and illustration of books. In Weitzmann's opinion, the so-called papyrus style probably originated in pre-Hellenistic Egypt and was only adapted and further developed by the Greeks; furthermore 'Alexandria was probably the actual centre which provided the facilities for the development of roll illustration as a new branch of Greek art.'

"There is no evidence, however, that 'illumination' of books was practised in ancient Greece or Rome on a large scale. Indeed the earliest preserved MSS, are free from ornamentation, and the earliest codices extant show a minimum of colour" (Diringer, *The Illuminated Book: Its History & Production* [1967] 29-30).

Filed under: [Book Illustration](#), [Manuscript Illumination](#), [Medicine](#) | [Bookmark or share this entry](#) »

## The Earliest Surviving Manuscript of the Old Latin Gospels Circa 350 CE



Preserved in the cathedral library of [Vercelli](#), in the [Province of Vercelli](#), Italy, the [Codex Vercellensis](#) is the earliest surviving manuscript of the [old Latin Gospels](#) ("Codex a"). It is written in the usual order of the Western Church— Matthew, John, Luke and Mark, but it no longer contains the last twelve verses of the Gospel of Mark. Tradition has it that it was written under the direction of bishop [Eusebius of Vercelli](#). Because the codex was used for the taking of oaths in the early Middle Ages, much of it is either difficult to read or destroyed, so that a significant portion its text is known primarily from later copyists or editors. It was restored and stabilized in the early twentieth century.

Filed under: [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Oldest Surviving Manuscript of the Comedies of Terence Circa 350 CE – 450 CE

Dating from the fourth or fifth century, the [Codex Bembinus](#) (Vatican Library Vat. lat. 3226) is the oldest surviving manuscript containing all or portions of the six comedies or *Fabulae* of [Terence](#). It is written in [Rustic Capitals](#).

"The marginal gloss is in a [Cursive Half-Uncial](#), the handwriting of the educated person of late Antiquity which, as in this example, would often be used for annotation of formal works. It consists of a rapid form of Half-

Uncial, as the name suggests" (Brown, *A Guide to Western Historical Scripts from Antiquity to 1600* [1990] no. 7, plate 7).

In the middle of the 15th century the manuscript belonged to Gianantonio de' Pandoni (Porcellio) when in 1457 it was acquired by humanist [Bernardo Bembo](#). It later passed into the collection of humanist, collector and archaeologist [Fulvio Orsini](#), and entered the Vatican Library in 1600.

Reynolds & Wilson, *Scribes and Scholars* 3rd. ed., (1991) 36.

Filed under: [Collecting Books](#), [Manuscripts](#), [Art](#), [Fiction](#), [Science Fiction](#), [Drama](#), [Poetry](#), [Manuscripts & Manuscript Copying](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## Origins of the Lateran Library Circa 350 CE – 650

"The first allusion to a papal library comes from [Julius I](#) (337-52), who directed the clergy to settle certain legal matters not in the civil courts in the *scrinium sanctum in ecclesia*. The use of the singular suggests a central library, whether in the Lateran or in the episcopal church. There is evidence that a little later [Damasus I](#) (366-84) rebuilt the basilica of the church of Saint Laurence (San Lorenzo in Prasina) to better house a library. A dedicatory hexameter inscription that once stood over the entrance to the basilica is preserved in a codex of the Vatican library. It reads:

*archivis fateor volui nova condere tecta addere  
preterea dextra laevaue columnas  
quae Damasi teneant proprium per saecula nomen.*

"This library, however, was probably not the central ecclesiastical library at Rome, for the [Lateran Palace](#) had been the official residence of the pope and the center of ecclesiastical administration since the time of [Sylvester I](#) (315-335), and it is more likely that the papal library, including the central archives, was located there.

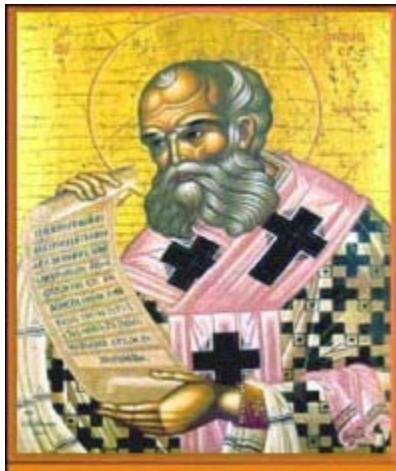
"Excavations carried out at the beginning of the twentieth century in the *Capella Sancta Sanctorum*, the only surviving part of the ancient Lateran Palace, discovered among the foundations of the chapel the remains of a room of the earliest Lateran library. On one wall was a fresco of a reader, apparently Augustine, seated at a desk, an open codex before him. Beneath it was a legend referring to the writings of the fathers. Clearly this library contained theological literature, not merely archives. The painting dates from the fifth or early sixth century, but the room was probably a library much earlier. Although the *Liber pontificales* lists a series of popes, beginning with [Celestine I](#) (422-32), who contributed to the growth of the Lateran library, little is known of its scope and contents before the seventh century. The proceedings of the [Lateran Council](#) of 649 include an extensive list of books the council requested from the library in order to document the issues, a list that includes a great variety of theological texts, orthodox and heretical, deriving from both the Greek and the Latin church. If this list reflects the actual or approximate holdings of the library, it held an extensive collection of theological literature at least by the middle of the seventh century" ([Gamble, \*Books and Readers in the Early Church\* \[1999\] 162-63](#)).

Filed under: [Archives](#), [Libraries](#), [Religious Texts / Religion](#) | [Bookmark or share this entry](#) »

## The Earliest Dated Codex with Full-Page Illustrations 354 CE



## New Testament Canonization in Process 367 CE



In his Easter letter of 367, [Athanasius](#), Bishop of Alexandria, provides a list of exactly the same books as what would become the 27-book New Testament canon, and he uses the word "canonized" (*kanonizomena*) in regards to them.

"Thus some claim, that from the fourth century, there existed unanimity in the West concerning the New Testament canon (as it is today), and that by the fifth century the Eastern Church, with a few exceptions, had come to accept the Book of Revelation and thus had come into harmony on the matter of the canon. Nonetheless, a full dogmatic articulation of the canon was not made until the [Council of Trent](#) of 1546 for Roman Catholicism, the [Thirty-Nine Articles](#) of 1563 for the [Church of England](#), the [Westminster Confession of Faith](#) of 1647 for [Calvinism](#), and the [Synod of Jerusalem](#) of 1672 for the [Greek Orthodox](#)." (Wikipedia article on Development of the New Testament canon, accessed 12-07-2008).

Filed under: [Religious Texts](#) / [Religion, Survival of Information](#) | [Bookmark or share this entry](#) »

## St. Jerome Criticizes Luxurious Manuscripts 384 CE



"The Christian tradition of 'treasure' bindings, covered with gold and silver, ivories, enamelwork, and gems, had its origin in late Antiquity and continued unbroken for a millennium. The earliest reference to such bindings in a Christian context is found in a letter of St. Jerome, dated 384, where he writes scornfully of the wealthy Christian women whose books are written in gold on purple vellum, and clothed with gems. It is noteworthy that he specifically associates jewelled bindings with purple codices, for a dozen or more such biblical manuscripts of the fifth and sixth centuries have survived. None is any longer in its first binding, but we have a clue here to the external treatment originally given to these luxurious volumes. . . ." (Needham, *Twelve Centuries of Bookbindings 400-1600* [1979] 21).

Filed under: [Book History, Bookbinding](#) | [Bookmark or share this entry](#) »

## The Last Major Surviving Historical Account of the Late Roman Empire Circa 385 CE

Roman Historian, [Ammianus Marcellinus](#), writes *Res gestae libri XXI*, the last major surviving historical account of the late Roman empire. His work chronicles the history of Rome from 96 to 378, although only the sections covering the period 353 - 378 remain extant.

"His work, the *Res Gestae*, has suffered terribly from the manuscript transmission. Aside from the loss of the first thirteen books, the remaining eighteen are in many places corrupt and lacunose. The sole surviving manuscript from which almost every other is derived is a ninth-century Carolingian text, *V*, produced in Fulda from an insular exemplar. The only independent textual source for Ammianus lies in *M*, another ninth-century Frankish codex which was, unfortunately, unbound and placed in other codices during the fifteenth century. Only six leaves of *M* survive; however, the printed edition of Gelenius (*G*) is considered to be based on *M*, making it an important witness to the textual tradition of the *Res Gestae*" (Wikipedia article on Ammianus MerceLLinus, accessed 11-21-2008).

Filed under: [Manuscripts & Manuscript Copying](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Only Ancient Manual of Roman Military Instructions that Survived Intact Circa 390 CE

Roman [Publius Flavius Vegetius Renatus](#) writes *Epitoma rei militaris* (also referred to as [De re militari](#)), and the lesser-known *Digesta artis mulomedicinae*, a guide to veterinary medicine.

"The latest event alluded to in his *Epitoma rei militaris* is the death of the Emperor [Gratian](#) (383); the earliest attestation of this work is a *subscriptio* by one Flavius Eutropius, writing in Constantinople in the year 450, which appears in one of two families of manuscripts, suggesting that a bifurcation of the manuscript tradition had already occurred. Despite Eutropius' location in Constantinople, the scholarly consensus is that Vegetius wrote in the Western Empire. Vegetius dedicates his work to the reigning emperor, who is identified as Theodosius, *ad Theodosium imperatorem*, in the manuscript family that was not edited in 450; the identity is disputed: some scholars identify him with [Theodosius the Great](#), while others . . . identify him with the later [Valentinian III](#), dating the work 430-35.

"Vegetius's epitome mainly focuses on military organization and how to react to certain occasions in war. Vegetius explains how one should fortify and organize a camp, how to train troops, how to handle undisciplined troops, how to handle a battle engagement, how to march, formation gauge, and many other useful methods of promoting organization and valour in the legion.

"As G. R. Watson observes, Vegetius' *Epitoma* 'is the only ancient manual of Roman military institutions to have survived intact.' Despite this, Watson is dubious of its value, for he 'was neither a historian nor a soldier: his work is a compilation carelessly constructed from material of all ages, a congeries of inconsistencies.' These antiquarian sources, according to his own statement, were Cato the Elder, Cornelius Celsus, Frontinus, Paternus and the imperial constitutions of Augustus, Trajan, and Hadrian.

"The first book is a plea for army reform; it vividly portrays the military decadence of the Late Roman Empire. Vegetius also describes in detail the organisation training and equipment of the army of the early Empire. The third contains a series of military maxims, which were (rightly enough, considering the similarity in the military conditions of the two ages) the foundation of military learning for every European commander from [William the Silent](#) to [Frederick the Great](#). When the French Revolution and the "nation in arms" came into history, we hear little more of Vegetius. Some of the maxims may be mentioned here as illustrating the principles of a war for limited political objectives with which he deals:

" \* 'All that is advantageous to the enemy is disadvantageous to you, and all that is useful to you, damages the enemy.'

" \* 'the main and principal point in war is to secure plenty of provisions for oneself and to destroy the enemy by famine. Famine is more terrible than the sword.'

" \* 'No man is to be employed in the field who is not trained and tested in discipline.'

" \* 'It is better to beat the enemy through want, surprises, and care for difficult places (i.e., through manoeuvre) than by a battle in the open field.'

" \* 'Let him who desires peace prepare for war.'

"These are maxims that have guided the leaders of professional armies for most of recorded history, as witness the Chinese generals [Sun Tzu](#) and [Wu](#). His 'seven normal dispositions for battle,' once in honor among European students of the art of war, are equally useful if applied to more modern conditions. His book on siegecraft is important as containing the best description of Late Empire and Medieval siegecraft. From it,

among other things, we learn details of the siege engine called the [onager](#), which afterwards played a great part in sieges, until the development of modern cannonry. The fifth book is an account of the materiel and personnel of the Roman navy.

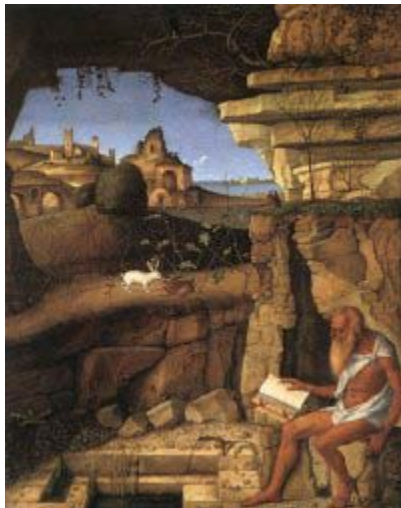
"The author of the 1911 *Encyclopaedia Britannica* article states that 'In manuscript, Vegetius's work had a great vogue from its first advent. Its rules of siegecraft were much studied in the Middle Ages.' N.P. Milner observes that it was 'one of the most popular Latin technical works from Antiquity, rivalling the elder Pliny's *Natural History* in the number of surviving copies dating from before AD 1300.' It was translated into English, French (by [Jean de Meun](#) [1284] and others), Italian (by the Florentine judge [Bono Giamboni](#) [circa 1250] and others), Catalan, Spanish, Czech, and Yiddish before the invention of printing. The first printed editions are ascribed to Utrecht (1473), Cologne (1476), Paris (1478), Rome (in *Veteres de re mil. scriptores*, 1487), and Pisa (1488). A German translation by Ludwig Hohenwang appeared at Ulm in 1475." (Wikipedia article on Publius Flavius Vegetius Renatus, accessed 05-26-2009).

"English translations [of Vegetius] precede printed books. Manuscript 18A.Xii in the Royal Library, written and ornamented for [Richard III of England](#), is a translation of Vegetius. It ends with a paragraph starting: "Here endeth the boke that clerkes clepethe in Latyne Vegecii de re militari." The paragraph goes on to date the translation to 1408. The translator is identified in Manuscript No. 30 of Magdalen College, Oxford, as John Walton, 1410 translator of Boethius." (Wikipedia article on De re militari, accessed 05-26-2009).

Vegetius' work may frequently be confused with *De re militari* written by the 15th century humanist [Roberto Valturio](#) (Valturius). That work, first issued in print in 1472, was the first printed work on technology and the first book with informational rather than decorative illustrations. It is also noticed in this database. Vegetius' *Epitoma rei militaris* was first published only one year later, but without illustrations.

Filed under: [Military / Warfare](#), [Survival of Information](#), [Technology](#) | [Bookmark or share this entry](#) »

## The First Collection of Bio-Bibliographies 392 CE



In Bethlehem [St. Jerome](#) composes *De viris illustribus*, the title and arrangement of which he borrowed from [Suetonius](#).

*De viris illustribus* "contains short biographical and literary notes on 135 Christian authors, from [Saint Peter](#) down to Jerome himself. For the first seventy-eight authors Eusebius (*Historia ecclesiastica*) is the main source; in the second section, beginning with [Arnobius](#) and [Lactantius](#), he includes a good deal of independent information, especially as to western writers" (Wikipedia article on Jerome, accessed 01-04-2008).

*De viris illustribus* is considered the first biographical work to stress bibliography.

"It is a simple enumeration of titles under each author, in no particular order; sometimes the number of 'books' (chapters) is stated" (Breslauer & Folter, *Bibliography: Its History and Development* [1984] no. 3).

The work was first published as a printed book by Günther Zainer of Augsburg in an undated edition thought to have been issued in 1472 or 1473.

Filed under: [Bibliography](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#) | [Bookmark or share this entry](#) »



## The Roman Empire Splits Permanently into Eastern and Western Halves 393 CE



Two years before his death in 395 CE Emperor [Flavius Theodosius](#) (Theodosius I), divides the Roman Empire into two parts.

The [Western Roman Empire](#) Theodosius placed in the hands of his younger son [Flavius Honorius](#), who he declared [Augustus](#) in 393 when Honorius was only nine years old. Honorius's "throne was guarded by his principal general, Flavius Stilicho, who was successively Honorius's guardian (during his childhood) and his father-in-law (after the emperor became an adult). Despite Stilicho's generalship, the empire lost ground; and after the guardian's execution, Honorius's empire moved towards the verge of collapse" (Wikipedia article on Honorius [emperor]) accessed 05-10-2009).

The Eastern Roman Empire or [Byzantine Empire](#) Theodosius placed in the hands of his older son [Flavius Arcadius](#). In 383 Theodosius had declared Arcadius [Augustus](#), and had co-ruled the Eastern half of the Roman Empire with him until 393.

Filed under: [Social / Political](#) | [Bookmark or share this entry »](#)

## The First Western Autobiography 397 CE – 398 CE

[Aurelius Augustinus Hipponensis](#) (St. Augustine), Bishop of [Hippo Regius](#) in Roman Africa (present Algeria), writes [Confessions](#).

"It is widely seen as the first Western autobiography ever written, and was an influential model for Christian writers throughout the following 1000 years of the Middle Ages. It is not a complete autobiography, as it was written in his early 40s, and he lived long afterwards, producing another important work (*City of God*); it does, nonetheless, provide an unbroken record of his development of thought and is the most complete record of any single individual from the 4th and 5th centuries. It is a significant theological work. In the work St. Augustine writes about how much he regrets having led a sinful and immoral life. He discusses his regrets for following the [Manichaeans](#) religion and believing in astrology. He writes about Nebridius's role in helping to persuade him that astrology was not only incorrect but evil, and St. Ambrose's role in his conversion to Christianity. He shows intense sorrow for his sexual sins, and writes on the importance of sexual morality. He also mentions that his favorite subject in school was mathematics because it was concrete and more rigorously defined than other subjects. The book is thought to be divisible into chapters which symbolize various aspects of the Trinity and trinitarian belief." (Wikipedia article on Confessions (St. Augustine) accessed 05-12-2009).

Hundreds of medieval manuscripts of *The Confessions* survive. The earliest is "Rome, Biblioteca Nazionale Centrale, Sessorianus 55. The script is half-uncial and difficult to date. Lowe (CLA 4.420a) suggested late sixth century; Bischoff (quoted at CCL 23.xxxviii) once ventured `saec. V/VI', but has since commented that he finds the half-uncial `rätselhaft' and `tantalizing' (see JThS n.s. 34 [1983], 114n2, and Atti-1986, 1.412)" (*The Confessions of St. Augustine* edited by J. J. O'Donnell (1992), Prolegomena: <http://www.stoa.org/hippo/comm.html#B.MA>, accessed 05-12-2009).

There are nine surviving manuscripts in Carolingian miniscule from the 9th/10th centuries, mostly preserved in the Bibliothèque nationale, Paris.

Filed under: [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## The Oldest Surviving Illustrated Biblical Manuscript Circa 398 CE



The *Quedlinburg Itala* fragment consists of six folios from a large illuminated manuscript of an [Old Latin](#) translation of the Bible. It is the oldest surviving illustrated biblical manuscript, and according to Bernhard Bischoff, it may date from the end of the fourth century.

"The fragments were found in the bindings of books in the town of [Quedlinburg](#). The illustrations are grouped in framed miniatures occupying an entire page. There are between two and five miniatures per page, with the corresponding text being on separate pages. The illustrations, although much damaged, are done in the illusionistic style of late antiquity. . . .

"Much of the paint surface is lost revealing the underlying writing that gives instructions to the artist who should execute the pictures. Translation of the text: "You make the tomb [by which] Saul and his servant stand and two men, jumping over pits, speak to him and [announce that the asses have been found]. You make Saul by a tree and [his] servant [and three men who talk] to him, one carrying three goats, one [three loaves of bread, one] a wine-skin." (Wikipedia article on Quedlinburg Itala fragment, accessed 11-29-2008).

The fragment is preserved at the [Staatsbibliothek Preussischer Kulturbesitz, Berlin](#).

Bernhard Bischoff, *Manuscripts and Libraries in the Age of Charlemagne* (2008) 5.

Filed under: [Art](#), [Book Illustration](#), [Manuscript Illumination](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

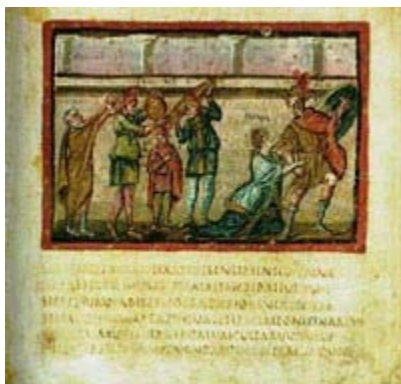
## The Charioteer Papyrus Circa 400 CE



The [Charioteer Papyrus](#), preserved at the Egypt Exploration Society, London, is a fragment of an illustration from an unknown work of literature. "It is one of the finest surviving fragments of classical book illustration. Unlike other surviving illustrated fragments of papyrus, such as the Romance Papyrus and the Heracles Papyrus, which have illustrations that are little more than mere sketches, the Charioteer Papyrus is sensitively drawn and finely colored. It shows portions of six charioteers in red or green tunics. Although there is not any text on the fragment, it undoubtedly served an illustration for a literary work, perhaps serving as an illustration for the chariot race at the games at the funeral of Patroclus in the *Iliad*."

Filed under: [Art](#), [Book History](#), [Book Illustration](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## Herald of Christianity and Magus Circa 400 CE



The [Vergilius Vaticanus](#) (Vatican, [Biblioteca Apostolica](#), Cod. Vat. lat. 3225; also known as the *Vatican Virgil*) is an illuminated manuscript containing fragments of [Virgil's Aeneid](#) and [Georgics](#) produced in Rome. It is one of the oldest surviving sources for the text of the *Aeneid*, and the oldest of three surviving illustrated manuscripts of classical literature. The two others are the [Vergilius Romanus](#) (circa 450) and the [Ambrosian Iliad](#) (493-508).

"It is Italy that has left us the greatest legacy of books and literature from the late Roman world. In the Italy of the fourth, fifth, and sixth centuries there were probably still stationers who employed scribes to produce books and well as scribes and artists who worked independently. The [Codex Vaticanus](#) of Virgil and the [Quedlinburg fragment](#) of the Book of Kings in the Vetus Latin version are two products of this professional scribal activity from the end of the fourth century. Both manuscripts might have originated in the same scriptorium"

(Bernhard Bischoff, *Manuscripts and Libraries in the Age of Charlemagne* [2007] 3-4). In his dating of the Quedlinburg fragment, and his consideration that both might have been produced by the same shop Bischoff

differs from later scholarship. The essays published in *Manuscripts and Libraries*. . . originally appeared in German between 1966 and 1981.

"Even as the Roman empire collapsed, literate men acknowledged that the Christianized Virgil was a master poet. . . . The *Aeneid* remained the central Latin literary text of the Middle Ages and retained its status as the grand epic of the Latin peoples, and of those who considered themselves to be of Roman provenance, such as the English. It also held religious importance as it describes the founding of the Holy City. Virgil was made palatable for his Christian audience also through a belief in his prophecy of Christ in his Fourth Eclogue. Cicero and other classical writers too were declared Christian due to similarities in moral thinking to Christianity.

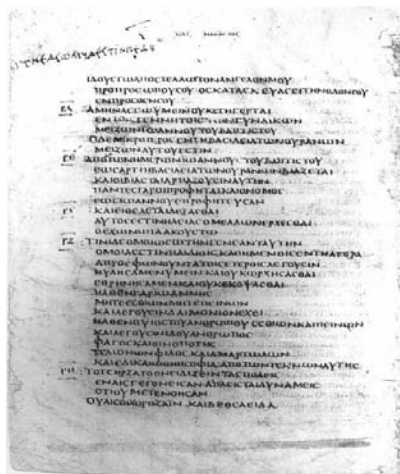


•"In the Middle Ages, Virgil was considered a herald of Christianity for his *Eclogue 4* verses ([Perseus Project Ecl.4](#)) concerning the birth of a boy, which were read as a prophecy of Jesus' nativity.

•"Also during the Middle Ages, as Virgil was developed into a kind of [magus](#), manuscripts of the *Aeneid* were used for [divinatory bibliomancy](#), the [Sortes Virgilianae](#), in which a line would be selected at random and interpreted in the context of a current situation" (Wikipedia article on Virgil, accessed 12-03-08).

Filed under: [Art](#), [Book Illustration](#), [Book Trade](#), [Fiction](#), [Science Fiction](#), [Drama](#), [Poetry](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## Codex Bezae Cantabrigdensis Circa 400 CE



The [Codex Bezae Cantabrigdensis](#), a [codex](#) of the New Testament dating from the fifth-century, was written in an [uncial](#) hand on vellum and contains, in both Greek and Latin, most of the four [Gospels](#) and [Acts](#), with a small fragment of the [Third Epistle of John](#). "Written with one column per page it has 406 leaves (26 na 21,5 cm), out of perhaps an original 534, and the Greek pages on the left face Latin ones on the right."

"The manuscript is believed to have been repaired at Lyon in the ninth century as revealed by a distinctive ink used for supplementary pages. It was closely guarded for many centuries in the monastic library of St [Irenaeus](#) at Lyon. The manuscript was consulted, perhaps in Italy, for disputed readings at the [Council of Trent](#), and was

at about the same time collated for [Stephanus](#)'s edition of the Greek New Testament. During the upheavals of the [Wars of Religion](#) in the 16th century, when textual analysis had a new urgency among the [Reformation](#)'s Protestants, the manuscript was taken from Lyon in 1562 and delivered to the Protestant scholar [Theodore Beza](#), the friend and successor of Calvin, who gave it to the University of Cambridge, in the comparative security of England, in 1581, which accounts for its double name" (Wikipedia article on the *Codex Bezae Cantabrigiensis*).

The [Codex Bezae](#) is preserved at Cambridge University Library.

Filed under: [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#)  
»

## "The Earliest Evidence for Tooling on a Leather Bookbinding" Circa 400 CE



An illuminated manuscript on vellum of the first half of the [Acts of the Apostles \(G. 67\)](#) written in Coptic of the Middle Egyptian dialect, and presumably the first half of a two-volume set, is preserved in the Pierpont Morgan Library.

"There is a miniature in the final quire of a [crux ansata](#) flanked by [two peacocks and bearing three smaller birds](#). It is the earliest-known Coptic miniature. The place of discovery of this Coptic Acts has never been revealed, but it appeared in the antiquarian book trade in 1961 together with a Coptic Gospel of Matthew that must have belonged to the same find. This latter is now in the possession of [William Scheide](#). Its script is very similar to that of the Glazier Acts, its dialect is the same, and the leaf size of both manuscripts is very nearly identical. Their small format suggests that they were made for private use. The Glazier Acts was originally dated as early as the fourth century, but recently a more generalized dating in the fifth century has been argued.

"The binding of the Scheide Matthew is now quite damaged, with loss of the entire spine or backstrip, but was identical in type to that of the Glazier Acts. Apart from its boards, all that now remains are carbonized portions of the hinging strips. At least two other Coptic codices, also dated to the fifth century, still retain bindings of this type. One of them is in the Morgan Library, M. 910: a complete Coptic Acts, in the [Sahidic dialect](#). Though severely damaged and partly disintegrated, from what remains the system of wooden boards, backstrip, hinge strips (four), and wrapping strips can be clearly reconstructed. The other example, a Sahidic Mark and Luke, is in the [Palau-Ribes collection](#) of the University of Barcelona.

"The fine state of preservation of the Glazier Acts binding, and especially of the goatskin backstrip is so fresh as to have cast some suspicion on its authenticity. However, considering the even more ancient [Nag Hammadi](#) find, it should not be assumed *a priori* that the binding is too good to be true, and that leather could not survive and remain flexible for so long. There have been various losses; the backstrip once extended at both ends, so that it could be folded over the top and bottom edges of the leaves for additional protection. The top extension is now frayed, and that at the bottom has been torn away. Two of the three wrapping strips survive, one only partially; and two of the bone securing pegs terminating the strips. Neither strip is now attached to the board. There are only remains of what were originally two plaited leather place marks, once laced into the upper board, one into the lower. In addition to fillets, the backstrip was stamped with a small tool of concentric circles, a common Coptic decorative pattern repeated on the bone pegs. This is the earliest evidence for tooling on a leather bookbinding.

"Three Egyptian bindings dated to the sixth century have survived in bindings which appear to exhibit later, fancier evolutions of this style; two are in the [Chester Beatty Library](#), Dublin, and one in the [Freer Gallery](#), Washington. The techniques of these bindings have not been entirely deciphered, but in all three examples, the number of hinging holes on the boards was greatly increased, to three dozen or more. In none of the three are there any signs of linkage between sewing and covers--with with the Glazier Acts and others of its group, only glue held the covers to the codex. The backstrips of the two Chester Beatty bindings were stamped with pictorial tools. The wooden covers of the Freer Gospels (a Greek text, but of Egyptian origin) are painted with portraits of the evangelists, two on each cover. It is generally thought that these painted figures were added later,

perhaps in the seventh century, and were not part of the original conception of the binding. The evangelists are depicted holding codices, a traditional iconography, and it is curious to note that these are quite clearly represented as possessing jewelled covers. . . ." (Needham, *Twelve Centuries of Bookbinding: 400-1600* [1979] 9-10).

Filed under: [Book History](#), [Book Illustration](#), [Book Trade](#), [Bookbinding](#), [Collecting Books](#), [Manuscripts](#), [Art](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## Jerome Criticizes Conspicuous Luxury in Christian Books Circa 400 CE



"From the time of [Constantine's decree](#), Christian book production was in a position to develop freely, but already in [Diocletian's](#) time Latin biblical manuscripts must have been available in large numbers. A century later [Jerome](#) became impassioned about conspicuous luxury in Christian books. He wrote with biting sarcasm about biblical codices of old, badly translated texts: 'veteres libros vel in membranibus purpureis auro argenteoque descriptos, vel uncialibus, ut vulgo aiunt, literis onera magis exarata quam codices', i.e. manuscripts made with expensive material and with 'inch-high' letters. He compared this with his own ideal: 'pauperes scidulas et non tam pulchros codices quam emendatos', and one can refer immediately to the plain St Gall gospel manuscript (Σ) saec. V, which stands very close to the text-critic Jerome" (Bernhard Bischoff, *Latin Palaeography: Antiquity and Middle Ages* [1990] 184.)

Filed under: [Book History](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#) | [Bookmark or share this entry](#) »

## The Oldest Extant Book Illustrations of Plants Circa 400 CE



Wellcome Images

The [Johnson Papyrus](#) (London, Wellcome Library, MS 5753) is a fragment of an early 5th century Greek codex written in Egypt, containing the oldest extant book illustrations of plants. It was discovered by [J. da M. Johnson](#), in 1904 while he was working in Antinoe, Egypt. Johnson later became Printer to the University of Oxford.

One side of the papyrus shows a sphere of dark blue-green leaves supported by some small scraggly roots. Below the illustration is a fragment of Greek text. The illustrated plant has been identified as comfrey, *symphytum officinale*. The reverse side shows "*phlommos*, perhaps mullein" (Conrad, *et al*, *The Western Medical Tradition 800 BC to AD 1800* [1995] Fig. 10, p. 10).

Both sides of the papyrus fragment are illustrated in color in Ford, *Images of Sciences. A History of Scientific Illustration* (1993) 23.

Filed under: [Book Illustration](#), [Medicine](#), [Natural History](#), [Paper / Papyrus / Parchment / Vellum](#), [Science](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## The Oldest Surviving Consular Diptych -- an Object that Could be Used as a Writing Tablet 406 CE



The oldest surviving consular diptych is one commissioned by Anicius Petronius Probus, consul in the western empire in 406. It is unique not only for its extreme antiquity but also as the only one to bear the portrait of the emperor ([Honorius](#) in this instance, to whom the diptych is dedicated in an inscription full of humility, with Probus calling himself the emperor's "famulus" or slave) rather than consul. It is preserved in the cathedral treasury at [Aosta](#).

Honorius was Emperor of the Western Roman Empire from 393 until his death in 423. Ascending to the throne at the age of only ten, Honorius was an especially weak military leader. In this diptych, however, he is portrayed in elaborate armor, holding an orb surmounted by a Victory, and a standard with the Latin words translated as "In the name of Christ, may you always be victorious." In actuality Honorius never led his troops in battle. At his death he left an empire on the verge of collapse.

A [diptych](#) is a pair of linked panels, generally in ivory, wood or metal with rich sculpted decoration. A diptych could function as a [wax tablet](#) for writing. More specifically a consular diptych was also intended as a deluxe commemorative object, commissioned by a [consul ordinarius](#), and distributed to reward those who had supported his candidacy, and to mark his entry to that post.

"The chronology of such diptychs is clearly defined, with their beginnings marked by a decision by [Theodosius I](#) in 384 to reserve their use to consuls alone, except by an extraordinary imperial dispensation, and their end marked by the consulship's disappearance under the reign of [Justinian](#) in 541. Even so, great aristocrats and imperial civil-servants bypassed Theodosius's ban and produced diptychs to celebrate less important posts than the consulship - [Quintus Aurelius Symmachus](#), for example, distributed some to commemorate his son's [quaestorian](#) then [praetorian](#) games in 393 and 401 respectively."

Filed under: [Art](#), [Book History](#), [Bookbinding](#), [Social / Political](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## The Withdrawal of Roman Legions from Britannia Results in the End of Literacy in the Region 410 CE



[Roman legions](#) withdraw from the province of [Britannia](#).

With the departure of the last Roman legions from Britain, and the end of Roman rule, literacy left England. From the time of the departure of the Romans to the arrival of in 597 of Augustine of Canterbury on a mission to convert the Anglo-Saxons, and for a period thereafter, it is believed that the people of Britain were essentially illiterate.

Filed under: [Education / Reading / Literacy](#), [Social / Political](#) | [Bookmark or share this entry »](#)

## The Goths Sack Rome August 24, 410 CE



The [Goths](#), under [Alaric I](#), capture and [sack the city of Rome](#).

"Because the barbarians had converted to Christian sect [Arianism](#) it was not a particularly violent looting with relatively little rape, murder and damage to buildings, but it still had a profound effect on the city. Many of the city's great buildings were ransacked, including the mausoleums of [Augustus](#) and [Hadrian](#), in which many Roman Emperors of the past were buried. This was the first time the city had been sacked in 800 years, and its citizens were devastated. Tens of thousands of Romans fled the economically ruined city into the countryside, with many of them seeking refuge in Africa" (Wikipedia article on Sack of Rome [410], accessed 05-10-2009).

"We are told that during one siege the inhabitants were forced progressively 'to reduce their rations and to eat only half the previous daily allowance, and later, when the scarcity continued, only a third.' 'When there was no means of relief, and their food was exhausted, plague not unexpectedly succeeded famine. Corpses lay everywhere. . . .' The eventual fall of the city, according to another account, occurred because a rich lady 'felt pity for the Romans who were being killed off by starvation and who were already turning to cannibalism', and so opened the gates to the enemy" (Ward-Perkins, *The Fall of Rome and the End of Civilization* [2005]17).

¶ Some historians see this as a major landmark in the decline and fall of the Western Roman Empire.

Filed under: [Military / Warfare](#), [Social / Political](#) | [Bookmark or share this entry »](#)

## The City of God 413 CE



[Aurelius Augustinus Hipponensis](#) (St. Augustine), Bishop of [Hippo Regius](#) in Roman Africa (modern Algeria), begins writing *De Civitate Dei* soon after the Sack of Rome.

"Augustine wrote the treatise to explain Christianity's relationship with competing religions and philosophies, and to the Roman government with which it was increasingly intertwined. It was written soon after Rome was sacked by the Visigoths in 410. This event left Romans in a deep state of shock, and many saw it as punishment for abandoning their Roman religion. It was in this atmosphere that Augustine set out to provide a consolation of Christianity, writing that, even if the earthly rule of the empire was imperilled, it was the City of God that would ultimately triumph — symbolically, Augustine's eyes were fixed on heaven, a theme repeated in many Christian works of Late Antiquity.

"Despite Christianity's designation as the official religion of the empire, Augustine declared its message to be spiritual rather than political. Christianity, he argued, should be concerned with the mystical, heavenly city the New Jerusalem — rather than with Earthly politics" (Wikipedia article on City of God [book], accessed 05-10-2009).

Filed under: [Religious Texts / Religion](#) | [Bookmark or share this entry](#) »

## Early Fifth Century Palimpsest Circa 425 CE



*The Codex Ephraemi Rescriptus*, the last of the four great [uncial](#) manuscripts of the Bible in Greek, was preceded by the [Codex Sinaiticus](#), the [Codex Alexandrinus](#) and the [Codex Vaticanus](#), all of which are noticed in this database. It was named "Rescriptus" because in the 12th century Greek translations of the treatises of [Ephraem the Syrian](#) were written over the biblical text that had been washed off its vellum pages, forming a [palimpsest](#). However, the effacement of the biblical text was incomplete, and beneath the text of Ephraem what was once a complete Bible, containing both the Old and New Testaments, could eventually be deciphered.

The manuscript was probably written and preserved in Constantinople. After the [fall of Constantinople](#) in 1453, the *Codex* was brought to Florence by an émigré scholar, and in 1533 [Catherine de' Medici](#) brought it to France as part of her dowry. From the Bourbon royal library it was eventually transferred to the [Bibliothèque nationale de France](#).

The first complete collation of the New Testament text was made by [Johann Jakob Wettstein](#) (1716). In 1834-1835 [potassium ferricyanide](#) was used to bring out faded or eradicated ink, and [Constantin von Tischendorf](#) made his reputation when he deciphered the very difficult to read texts, and published the Greek New Testament in 1843 and the Old Testament in 1845.

Filed under: [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## Saxons, Angles, and Jutes Invade Britain 449 CE

Saxons, Angles, and Jutes conduct large scale invasions of Britain, causing numerous members of the Christian aristocracy to flee to Bretagne, France. The environment in Britain becomes increasingly hostile to Christians.

Filed under: [Military / Warfare](#), [Religious Texts / Religion](#), [Social / Political](#) | [Bookmark or share this entry](#) »

## Fragments of a Fifth or Sixth Century Codex Circa 450 CE – 550



The [Cotton Genesis](#), a luxury manuscript with many illuminations, is one of the oldest illustrated biblical codices to survive. However, most of the manuscript was destroyed in the [Cotton library](#) fire in 1731, leaving only eighteen charred, shrunken scraps of [vellum](#). It is thought that the manuscript originally extended to more than 440 pages with approximately 340 miniature paintings that were framed and inserted into the text column.

"The miniatures were executed in late antique style comparable to [Catacomb](#) frescoes. Herbert Kessler and Kurt Weitzmann argue that the manuscript was produced in [Alexandria](#), as it exhibits stylistic similarities to other Alexandrian works such as the [Charioteer Papyrus](#).

"The Cotton Genesis appears to have been used in the 1220s to design 110 mosaic scenes in the atrium of [St Mark's Basilica](#) in Venice, after it was brought to Venice following the sack of [Constantinople](#) in 1204. The manuscript arrived in England, and was acquired by [Sir Robert Cotton](#) in the 17th century." (quoted from the Wikipedia article on Cotton Genesis, accessed 11-26-2008).

Filed under: [Book Illustration](#), [Collecting Books](#), [Manuscripts](#), [Art](#), [Destruction / Looting of Information](#), [Manuscript Illumination](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## One of Few Surviving "Scientific" Manuscripts from Late Antiquity Circa 450 CE – 550



The [Corpus Agrimensorum Romanorum](#), a Roman treatise on land surveying in the manuscript known as *Herzog August Bibliothek, Cod. Guelf. 36.23 Augusteus 2*, is one of the few surviving illustrated, non-literary

or non-religious manuscripts from late antiquity. The text is written in an [uncial](#) script, with red letters indicating the beginnings of paragraphs.

The manuscript is preserved in the [Herzog August Bibliothek, Wolfenbüttel](#).

Filed under: [Book Illustration](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Science](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Earliest Treasure Bookcovers Made of Ivory Circa 450 CE

"The earliest treasure bookcovers can be divided into those made of ivory, and those made of precious metals. The ivory covers found their direct models in the diptychs of the late Empire. These diptychs, luxurious versions of the traditional Roman wax writing tables in hinged pairs, were distributed as gifts by various Roman high officials to commemorate their entries into office. Ivory diptychs are first mentioned in a sumptuary edict of 384, enacting that ivory might be used for the diptychs only of the two annual *consules ordinarii*, whose assumption of office on 1 January (though their once-powerful title was now purely honorary) inaugurated the civil year. Because of the division of the Empire, consuls were elected in pairs both in Rome and Constantinople, and so their diptychs were manufactured in both cities. Until the extinction of the consular office, in 534 in Rome and 541 in Constantinople, many thousands of consular diptychs must have been created, presumably in workshops under the direction of the Imperial *scrinia*, or chancery. Those surviving, less than a hundred, mostly owe their preservation to their reuse in the Middle Ages as decorations for bookcovers.

"The earliest ivory plaques made explicitly as bookcovers rather than as diptychs or casket pieces are probably a famous pair in the Cathedral Treasury of Milan. Their layout is precisely that of the most luxurious consular diptychs, those meant for presentation to the emperor himself. But in place of Imperial symbolism, the panels are covered with scenes from the lives of Christ and Mary, together with the evangelist symbols and portraits. The center panels of each cover bear respectively an *Agnus Dei* and a cross, worked in silver-gilt and stones and attached to the ivory. The covers must have been made for a deluxe, large-format Gospels codex, now missing. They have been dated to the second half of the fifth century, and they come from the Western Empire, but have not been more precisely localized" (Needham, *Twelve Centuries of Bookbinding 400-1600* [1979] 21-22).

Filed under: [Art](#), [Bookbinding](#) | [Bookmark or share this entry](#) »

## The Codex Alexandrinus Circa 450 CE

The [Codex Alexandrinus](#), a fifth century manuscript containing the majority of the Septuagint and the New Testament, with the Gospels written in [Byzantine text-type](#) and the rest of the New Testament in [Alexandrian text-type](#), is, along with the *Codex Sinaiticus*, and the *Codex Vaticanus* (both of which are noticed in this database), one of the earliest and most complete manuscripts of the Bible. It derives its name from Alexandria, Egypt where it resided for a number of years.

In 1621 the codex was brought to Constantinople by [Cyril Lucar](#), who was first a patriarch of Alexandria, then later a patriarch of Constantinople. "Lucar was involved in a complex struggle with the Turkish government, the Catholic Church, and his own subordinates. He was supported by English government and presented the codex to [James I](#) in 1624, as a gratitude for his help. The codex was presented through the hands of [Thomas Roe](#), . . . the English ambassador at the court of the Sultan. King James died before the manuscript started for England, and the offer was transferred to [Charles I](#) in 1627. It became a part of the Royal Library, British Museum and since 1973 of the British Library. It was saved from the fire at Ashburnham House (the [Cotton library](#)) on 23 October 1731, by the librarian, [Richard Bentley](#)."

The origin and history of the manuscript is unusually complicated and unclear:

"The manuscript's original provenance is unknown. Traditionally Alexandria is pointed as a place of its origin and it is the most probable hypothesis. Cyril Lucar was the first who pointed Alexandria as the place of origin of the codex. This popular view based on an Arabic note from 13th or 14th century, on folio 1 reads: 'Bound to the Patriarchal Cell in the Fortress of Alexandria. Whoever removes it thence shall be excommunicated and cut off. Written by Athanasius the humble.' 'Athanasius the humble' is identified with Athanasius III, Patriarch of Alexandria from 1276 to 1316.

"F. C. Burkitt questioned this popular view as the first. According to Burkitt, the note reads: 'Bound to the Patriarchal Cell in the Fortress of Alexandria. He that lets it go out shall be cursed and ruined. The humble Athanasius wrote (this).' The manuscript had been found on Mount Athos, and the manuscript might have been taken to Egypt by Cyril in 1616, and that all the Arabic writing in the manuscript could have been inserted between that date and 1621, when Cyril was elected Ecumenical Patriarch of Constantinople. On this

supposition 'Athanasius the humble' might have been 'some person of Cyril's staff who had charge of his library'. According to Burkitt's view the codex was found on Athos, but it was written in Constantinople, because it represents a Constantinopolitan text (now known as the Byzantine text). This hypothesis was supported by Kirsopp Lake.

"Frederic G. Kenyon opposed to the Burkitt's view and argued that Cyril firmly believed in the Egyptian origin of the codex. A. S. Fulton, the Keeper of the Department of Oriental Printed Books and Manuscripts (in British Museum), in 1938 re-examined the Athanasius note, and gave it as his opinion that on palaeographical grounds it could be dated 13th to 14th century and that the 17th century was excluded. In 1945 T. D. Moschonas published a catalogue of the library of the Patriarch of Alexandria, in which he printed two Greek notes, both from 10th century manuscripts of [John Chrysostom](#), inserted by the Patriarch Athanasius III. The two notes must have been written between 1308 and 1316. Although the note in the Codex Alexandrinus is entirely in Arabic, and therefore no identity of hand the Greek notes can be expected, the similarity of wording leaves no doubt that this also is the work of Athanasius III.

"According to Skeat the note in the codex indicated that the manuscript had not previously been in the Patriarchal Library in Alexandria. The manuscript was carried from Constantinople to Alexandria between 1308 and 1316, together with two mentioned above manuscripts of Chrysostom. It remained in Alexandria until 1621, when Cyril removed it once to Constantinople. Whether was originally written in Constantinople or in Alexandria, is another question. Skeat did not try to give the answer on this question ('if any future scholar wishes to claim a Constantinopolitan origin for the Codex Alexandrinus, it is at least open to him to do so'). This view was supported by McKendrick, who proposes an Ephesian provenance of the codex.

"A 17th century Latin note on a flyleaf (from binding in a royal library) states that the manuscript was given to a patriarchate of Alexandria in 1098 (donum dedit cubicuo Patriarchali anno 814 Martyrum), although this may well be 'merely an inaccurate attempt at deciphering the Arabic note by Athanasius' (possibly the patriarch Athanasius III). The authority for this statement is unknown." (Wikipedia article on Codex Alexandrinus, accessed 06-27-2009).

Filed under: [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#)  
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## **The Last Victory Achieved by the Western Roman Empire 451 CE**

Roman General [Flavius Aetius](#) and [Visigothic](#) King [Theodoric I](#) defeat defeat the [Huns](#) under the command of [Attila](#) at the [Battle of the Catalaunian Plains](#) (or Fields), also called the Battle of Châlons.

Of this battle Gibbon wrote, "Attila's retreat across the Rhine confessed the last victory which was achieved in the name of the Western Roman Empire."

"John Julius Norwich, the historian known for his works on Venice and on Byzantium, said of the battle of Chalons:

" 'It should never be forgotten that in the summer of 451 and again in 452, the whole fate of western civilization hung in the balance. Had the Hunnish army not been halted in these two successive campaigns, had its leader toppled Valentinian from his throne and set up his own capital at Ravenna or Rome, there is little doubt that both Gaul and Italy would have been reduced to spiritual and cultural deserts.

"He goes on to say that though the battle in 451 was 'indecisive insofar as both sides sustained immense losses and neither was left master of the field, it had the effect of halting the Huns' advance.'

"There are a couple of reasons why this combat has kept its epic importance down the centuries. One is that—ignoring the Battle of Qarqar (Karkar), which was forgotten at this time—this was the first significant conflict that involved large alliances on both sides. No single nation dominated either side; rather, two alliances met and fought in surprising coordination for the time. Arthur Ferrill, addressing this issue, goes on to say:

"After he secured the Rhine, Attila moved into central Gaul and put Orleans under siege. Had he gained his objective, he would have been in a strong position to subdue the Visigoths in Aquitaine, but Aetius had put together a formidable coalition against the Hun. Working frenetically, the Roman leader had built a powerful alliance of Visigoths, Alans and Burgundians, uniting them with their traditional enemy, the Romans, for the defense of Gaul. Even though all parties to the protection of the Western Roman Empire had a common hatred of the Huns, it was still a remarkable achievement on Aëtius' part to have drawn them into an effective military relationship.

"Addressing Attila's fearsome reputation, and the importance of this battle, Gibbon noted that it was from his enemies we hear of his terrible deeds, not from friendly chroniclers, emphasizing that the former had no reason to elevate Attila's reign of terror, and the importance of the Battle of Chalons in proving Attila to be merely mortal and defeatable" (Wikipedia article on Battle of the Catalaunian Plains, accessed 05-10-2009).

Filed under: [Military / Warfare](#), [Social / Political](#) | [Bookmark or share this entry »](#)

## The Second Sack of Rome 455 CE



Vandal king [Geiseric](#) sails his powerful fleet from [Carthage](#) up the [Tiber](#) to sack Rome.

"The sack of 455 is generally seen by historians as being more thorough than the [Visigothic sack of 410](#), because the Vandals plundered Rome for fourteen days whereas the Visigoths spent only three days in the city" (Wikipedia article on the [Sack of Rome](#) [1455], accessed 11-22-2008).

Filed under: [Destruction / Looting of Information](#), [Military / Warfare](#) | [Bookmark or share this entry »](#)

## Composition of the Babylonian Talmud Circa 490 CE – 542

The Babylonian [Talmud](#) is composed by the late 5th or early 6th centuries, no later than c. 542 when the Black Plague appears in Byzantium.

The Babylonian Talmud comprises more than 1.8 million words. "To put this figure in context, it should be compared to the other major and magisterial legal compilation of the period, the Digest of the Roman emperor Justinian I, which contains roughly 800,000 words.

"Far beyond any other legal compilation of Late Antiquity, the Babylonian Talmud is marked by a salient characteristic, its continuous and unending dialogue. The debates are not haphazard. Certain authorities who were contemporaries or near-contemporaries debate all sorts of issues related to the Mishnah, issues that are sometimes only remotely relevant to them personally.

"Some statistics will give us an idea of what is happening. The Babylonian Talmud is the creation of at least seven generations of Babylonian authorities, and contains several generations of Israeli authorities as well. However, of the hundreds of authorities mentioned by name, more than forty thousand times in toto, only a dozen or so dominate the discussion and are scattered in pairs. Chronologically, Rav and Samuel, R. Óuna and R. Óisda, R. Naòman and R. Sheshet or R. Yehuda, Abaye and Rava, R. Papa and R. Óuna b. R. Joshua, and R. Ashi overwhelmingly carry forward the debate.

"These debates are often arranged as structured discussions on a given topic, so that they appear to be stenographic records of actual debates. This appearance is literary only, however, as few of these authorities lived in close proximity" (Yaakov Ulman, "The Babylonian Talmud in its Historical Context", *Printing the Talmud: From Bomberg to Schottenstein*, 20-21, <http://www.printingthetalmud.org/essays/2.html>, accessed 12-05-2208).

Filed under: [Law / Copyrights / Patents](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## The Only Illustrated Homer from Antiquity 493 CE – 508



Fifty-eight miniatures cut out of a 5th century illuminated manuscript on vellum of the *Iliad* of [Homer](#) are known as the [Ilias Ambrosiana](#). The manuscript is thought to have been produced in Constantinople during the late 5th or early 6th century, specifically between 493 and 508. "This time frame was developed by Ranuccio Bandinelli and is based on the abundance of green in the pictures, which happened to be the color of the faction in power at the time." (Wikipedia article on Ambrosian Iliad, accessed 11-30-2008).

The images from the Ambrosian Iliad are the only surviving portions of an illustrated copy of Homer from antiquity and, along with the [Vergilius Vaticanus](#) and the [Vergilius Romanus](#), one of only three illustrated manuscripts of classical literature to survive from antiquity. The Iliad images 'show a considerable diversity of compositional schemes, from single combat to complex battle scenes. This indicates that, by that time, Iliad illustration had passed through various stages of development and thus had a long history behind it. It seems mere chance that neither an illustrated *Odyssey* nor any of the other Greek epic poems has survived." (Weitzmann, K., *Late Antique and Early Christian Book Illumination* [1977] 13.)

Filed under: [Art](#), [Fiction](#), [Science Fiction](#), [Drama](#), [Poetry](#), [Manuscript Illumination](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Franks Convert to Christianity 497 CE

The [Franks](#), Germanic rulers and settlers in [Gaul](#), convert to Christianity.

## The Earliest, Most Significant Rabbinic Texts Are Preserved in Stone Circa 500 CE – 600



The theater at Bet She'an. (View Larger)

The most significant archaeological evidence for the textual history of [rabbinic literature](#), and particularly of its [halakhic](#) component, was uncovered between 1974 and 1980 in the ancient synagogue of Rehov, a site located five kilometers south of the [Decapolis](#) city of Scythopolis, called in Hebrew, [Beit Shean](#). Stone and mosaic inscriptions found at Rehov contain extensive passages of legal material relating to biblical agricultural law that are well known from rabbinic sources. The Rehov inscriptions reformulate and apply these classical rabbinic texts to life in the Beit Shean Valley during the Byzantine period, the closing years of the redaction period of the Mishnah and the Talmud.

"The synagogue of Rehov was built in three phases, consisting of a fourth-century basilica enlarged in the fifth-sixth centuries and destroyed (apparently by an earthquake) during renovation and enlargement the following century. The fifth-sixth century synagogue contained a variety of unpublished inscriptions. The excavator notes

that 'the columns bore large inscriptions in red paint, some of them in a tabula ansata and a wreath. The inscriptions, in Hebrew and Aramaic on white plaster, included a variety of texts: benedictions, dedications, a list of the priestly courses and a copy of a letter dealing with the laws of tithes in the Sabbatical year.' The so-called 'letter' is of particular interest, as it is the earliest preserved halakhic text yet discovered. According to the excavator, this inscription begins with the word 'Shalom' and contains texts that directly parallel classical rabbinic traditions in Tosefta Shevi'it 4:8–11, Sifre Deuteronomy 51, and Jerusalem Talmud Demai 2:1, 22c–d and Shevi'it 6:1, 36c. The inscription concludes with the phrase: שלום על כלבני כרסא ("peace upon all the people of the town"). S. Lieberman suggests that this text may be a transcription of a letter sent by a beit din (rabbinical court) to Rehov adjudicating practical matters of biblical agricultural law" (Goldstein & Mintz, *Printing the Talmud from Bomberg to Schottenstein* [2006] no. 1, p. 170.)

Filed under: [Archaeology](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Format of the Book Evolved with the Transition to the Codex Circa 500 CE

"With the transition from papyrus rolls to the parchment codex is connected a decisive change for the whole area of European book production. It was customary in papyrus rolls to distinguish the ending, which was better protected and in which the author and title were named in the closing script (colophon), by means of larger script or through ornamentation. This usage passed over initially also into the codices. But from roughly AD 500 on, if not already before then, the weight of ornamental layout at the end gradually shifted towards the opening, where the author's portrait and, in the gospels, the canon tables had their natural place anyway. Various factors worked together here with varying rhythm. Thus connected with the colophon was a specifically Christian ornament, the cross as a [staurogram](#), with Rho-bow on the shoulder, plus alpha and omega. It has already shifted to before the text in the [miniature codex of John's Gospel](#). Following the example of the [arch-framed canon tables](#), lists of contents are set under coloured arcades in the sixth century, and from the fifth /sixth century on they also acquire greater emphasis through such formulae as "In hoc corpore (codice) continentur. . .'" (Bischoff, *Latin Palaeography: Antiquity and Middle Ages* [1990] 188-89).

Filed under: [Book History](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#) | [Bookmark or share this entry](#) »

## Probably the Most Beautiful of the Earliest Surviving Scientific Codices Circa 512



An illustration of illustration of the species 'Akoniton napellus,' folio 67v. (View Larger)

The oldest surviving copy of [Pedanus Dioscorides's](#) treatise on medical botany and pharmacology, *De Materia Medica*, is an [illuminated Byzantine manuscript](#) produced about 512 CE. The manuscript also contains the earliest illustrated treatise on ornithology. It is one of the earliest surviving relatively complete codices of a scientific text, one of the earliest relatively complete illustrated codices on any scientific subject, and arguably the most beautiful of the earliest surviving scientific codices. It also contains what are probably the earliest surviving portraits of scientists or physicians in a manuscript.

The manuscript was produced for the Byzantine princess [Anicia Juliana](#), the daughter of [Flavius Anicius Olybrius](#), who had been emperor of the western empire in 472 CE. "The frontispiece of the manuscript features her depiction, the first [donor portrait](#) in the history of manuscript illumination, flanked by the personifications of [Magnanimity](#) and [Prudence](#), with an allegory of the "Gratitude of the Arts" prostrate in front of her. The encircling inscription proclaims Juliana as a great patron of art" (Wikipedia article on Anicia Juliana, accessed 11-22-2008).

For this and other commissions Juliana may be considered the first non-reigning patron of the arts in recorded history.

"Splendid though the figures in the *Codex Vindobonensis* are, they reveal a naturalism so alien to contemporary Byzantine art that it is obvious that they were *not* drawn from nature but derived from originals of a much earlier date—as early, at least, as the second century AD. They vary, however, very much in quality and are clearly not all by the same hand, possibly not even all after the work of a single artist. In the text accompanying eleven of them there is association with the writings of Krateuas. All these figures are admirable, and clearly by the same hand; it must therefore seem certain that they, at all events, are derived from drawings by Krateuas himself" (Blunt & Raphael, *The Illustrated Herbal* [1979] 17).

The story of the manuscript's survival is relatively well documented:

"Presented in appreciation for her patronage in the construction of a district church in Constantinople, the parchment codex comprises 491 folios (or almost a thousand pages) and almost four hundred color illustrations, each occupying a full page facing a description of the plant's pharmacological properties. . . .

"In the Anicia codex, the chapter entries of *De Materia Medica* have been rearranged, the plants alphabetized and their descriptions augmented with observations from Galen and [Crateuas](#) (Krateuas), whose own herbal probably had been illustrated. Five supplemental texts also were appended, including paraphrases of the *Theriaca* and *Alexipharmaca* of Nicander and the *Ornithiaca* of Dionysius of Philadelphia (first century AD), which describes more than forty Mediterranean birds, including one sea bird shown with its wings both folded and open" ([http://penelope.uchicago.edu/~grout/encyclopaedia\\_romana/aconite/materiamedica.html](http://penelope.uchicago.edu/~grout/encyclopaedia_romana/aconite/materiamedica.html), accessed 11-22-2008)

From the time of its creation "Nearly nine centuries were to pass before we have further knowledge of the whereabouts of the codex. Then we learn that in 1406 it was being rebound by a certain John Chortasmenos for Nathanael, a monk and physician in the Prodromos Monastery in Constantinople, where seventeen years later it was seen by a Sicilian traveler named Aurispa. After the Muslim conquest of the city in 1453 the codex fell into the hands of the Turks, and Turkish and Arabic names were then added to the Greek. A century later it was in the possession of a Jew named Hamon, body physician to [Suleiman the Magnificent](#), and it was presumably either by Hamon or by his son, who inherited it, that Hebrew names were also added" (Blunt & Raphael, *op. cit.*, 15).

"[Ogier Ghiselin de Busbecq](#), ambassador of Holy Roman Emperor Ferdinand I to the Ottoman court of Süleyman, attempted to purchase the Anicia codex in 1562 but could not afford the asking price. As he relates at the end of his *Turkish Letters* (IV, p.243),

"One treasure I left behind in Constantinople, a manuscript of Dioscorides, extremely ancient and written in majuscules, with drawings of the plants and containing also, if I am not mistaken, some fragments of Crateuas and a small treatise on birds. It belongs to a Jew, the son of Hamon, who, while he was still alive, was physician to Soleiman. I should like to have bought it, but the price frightened me; for a hundred ducats was named, a sum which would suit the Emperor's purse better than mine. I shall not cease to urge the Emperor to ransom so noble an author from such slavery. The manuscript, owing to its age, is in a bad state, being externally so worm-eaten that scarcely any one, if he saw it lying in the road, would bother to pick it up.

"In 1569 Emperor Maximilian II did acquire the Anicia codex for the imperial library in Vienna, now the Austrian National Library (Österreichische Nationalbibliothek), where it is designated *Codex Vindobonensis Med. Gr. 1.* (from *Vindobona*, the Latin name for Vienna) or, more simply, the [Vienna Dioscorides](#)." ([http://penelope.uchicago.edu/~grout/encyclopaedia\\_romana/aconite/materiamedica.html](http://penelope.uchicago.edu/~grout/encyclopaedia_romana/aconite/materiamedica.html), accessed 11-22-2008)

Filed under: [Art](#), [Art and Science](#), [Medicine](#), [Technology](#), [Book History](#), [Book Illustration](#), [Collecting Books](#), [Manuscripts](#), [Art Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Medicine](#), [Natural History](#), [Science](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Codex Argenteus, Written in Silver and Gold Letters on Purple Vellum Circa 520





A page from the Codex Argenteus. (View Larger)

The [Codex Argenteus](#), the "[Silver Bible](#)," is written in silver and gold letters on purple vellum in Ravenna, Italy about this time, probably for the [Ostrogothic](#) ruler of Italy, [Theodoric](#).

The Codex Argenteus contains fragments of the Four Gospels in the fourth-century Gothic version of Bishop Ulfilas (Wulfila), and is the primary surviving example of the [Gothic](#) language, an extinct Germanic language that was spoken by the Goths. Of the original 336 leaves only 188 are preserved at the Carolina Rediviva library at the University of Uppsala, Sweden, plus one separate leaf, discovered, remarkably, in 1970 in the cathedral of Speyer in Germany.

During the Ostrogothic rule of Italy there was a bilateral Gothic-Latin culture, of which the [Codex Brixianus](#) survives as a Latin counterpart to the *Codex Argenteus*. "With the end of Gothic rule the Gothic manuscripts in Italy were rendered valueless; what remained of them (with the exception of the Codex Argenteus) became part of that waste material which in the seventh and eighth centuries was re-used in [Bobbio](#)" (Bischoff, *Latin Palaeography: Antiquity and Middle Ages* [1990] 186).

The manuscript was discovered in the middle of the 16th century in the library of the Benedictine monastery of Werden in the Ruhr, near Essen in Germany. This abbey, whose abbots were imperial princes with a seat in the imperial diets, was among the richest monasteries of the [Holy Roman Empire](#).

"Later the manuscript became the property of the Emperor Rudolph II, and when, in July 1648, the last year of the Thirty Years' War, the Swedes occupied Prague, it fell into their hands together with the other treasures of the Imperial Castle of Hradcany. It was subsequently deposited in the library of Queen Christina in Stockholm, but on the abdication of the Queen in 1654 it was acquired by one of her librarians, the Dutch scholar Isaac Vossius. He took the manuscript with him to Holland, where, in 1662, the Swedish Count Magnus Gabriel De la Gardie bought the codex from Vossius and, in 1669, presented it to the University of Uppsala. He had previously had it bound in a chased silver binding, made in Stockholm from designs by the painter David Klöcker Ehrenstrahl" (<http://www.ub.uu.se/arv/codexeng.cfm>, accessed 11-22-2008).

Filed under: [Book History](#), [Bookbinding](#), [Libraries](#), [Linguistics / Translation / Speech](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## Theodoric Executes the Philosopher Boethius 524 – 525



Boethius teaching his students. (View Larger)

On charges of treason, [Theodoric the Great](#), Ostrogothic ruler of Italy, executes Hellenist and philosopher Anicius Manlius Severinus [Boëthius](#), who had risen to the office of [Magister officiorum](#) (head of all government and court services) in Theodoric's court. The execution took place in 524 or 525, possibly because Theodoric suspected Boethius' involvement in a plot with the Byzantine Emperor [Justin I](#), whose religious orthodoxy, in contrast to Theodoric's [Arian](#) opinions, increased their political rivalry.

♦ The date of Boethius' execution is often used as a reckoning of the onset of the Middle Ages.

"Boethius's most popular work is the [Consolation of Philosophy](#), which he wrote in prison while awaiting his execution, but his lifelong project was a deliberate attempt to preserve ancient classical knowledge, particularly philosophy. He intended to translate all the works of [Aristotle](#) and [Plato](#) from the original Greek into Latin. **His completed translations of Aristotle's works on logic were the only significant portions of Aristotle available in Europe until the 12th century.** However, some of his translations (such as his treatment of the [topoi](#) in *The Topics*) were mixed with his own commentary, which reflected both Aristotelian and Platonic concepts.

"Boethius also wrote a commentary on the [Isagoge](#) by [Porphyry](#), which highlighted the existence of the [problem of universals](#): whether these concepts are subsistent entities which would exist whether anyone thought of them, or whether they only exist as ideas. This topic concerning the [ontological](#) nature of universal ideas was one of the most vocal controversies in medieval philosophy.

"Besides these advanced philosophical works, Boethius is also reported to have translated important Greek texts for the topics of the [quadrivium](#). His loose translation of [Nicomachus](#)'s treatise on arithmetic (*De institutione arithmetica libri duo*) and his textbook on music (*De institutione musica libri quinque*, unfinished) contributed to medieval education. His translations of [Euclid](#) on geometry and [Ptolemy](#) on astronomy, if they were completed, no longer survive.

"In his *De Musica*", Boethius introduced the threefold classification of music:

1. *Musica mundana* - music of the spheres/world
2. *Musica humana* - harmony of human body and spiritual harmony
3. *Musica instrumentalis* - instrumental music (incl. human voice)" (Wikipedia article on Anicius Manlius Severinus Boethius, accessed 11-28-2008).

**Note:** "Boethius" has four syllables; the o and e are pronounced separately. This was traditionally written with a diæresis, viz. "Boëthius," a spelling which has been disappearing due to the limitations of word processors.

Filed under: [Mathematics / Logic](#), [Music](#), [Organization of Information / Taxonomy](#), [Social / Political](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## Computus 525

[Dionysius Exiguus](#), a [computist](#), uses a true [zero](#) in tables alongside Roman numerals, but he uses the zero as a word, *nulla* meaning *nothing*, not as a symbol. "When division produced zero as a remainder, *nihil*, also meaning *nothing*, was used. These medieval zeros were used by all future computists (calculators of Easter).

"*Computus* (Latin for computation) is the calculation of the date of Easter in the Christian calendar. The name has been used for this procedure since the early Middle Ages, as it was one of the most important computations of the age."

♦ This is the root of the modern word "computer."

Filed under: [Data Processing / Computing](#), [Mathematics / Logic](#) | [Bookmark or share this entry »](#)

## The Code of Justinian 529 – 533



Justinian. (Click to view larger.)

Thinking that the curriculum is contrary to Christian teachings, Emperor [Justinian I](#) closes the last surviving classical school at Athens, causing Constantinople to become the capital of Greek culture. About this time he appoints a commission of scholars to codify 2000 volumes of legal works, some dating back about 1000 years. This condensation will form the [Corpus Juris Civilis](#). Known as the Code of Justinian, this becomes the basis for all civil law in western Europe throughout the Middle Ages and into the modern era.

Filed under: [Education](#) / [Reading](#) / [Literacy](#), [Law](#) / [Copyrights](#) / [Patents](#) | [Bookmark or share this entry](#) »

## St. Benedict Introduces Monastic Life to Europe 529



St. Benedict. (Click to view larger.)

[Benedict of Nursia](#), better known as [St. Benedict](#), founds the [Abbey at Monte Cassino](#) in Campania, Italy, introducing monastic life to Europe. His [Rule](#), formulated near the end of his life (547), based the foundations of monastic life on prayer, study, and the assistance of the sick.

♦ "Every monastery, therefore, was obliged to have a doctor to attend patients and a separate place in the cloister where the sick could be treated. It thus became necessary for one, at least, of the monks to collect scientific material, to study it and to hand on his knowledge to those who would, in time, take his place. In this way was started that practical teaching which was transmitted by word of mouth from generation to generation to the great advantage of the sick brethren of the monastery. As many codices of Latin and Greek learning as could be found were collected, and translations and extracts made for the use of those who, either because their studies had been only elementary or because they lacked the time, were incapable of reading their authors in the original text.

"What was the position of the monkish doctor in these religious colonies? It is true that in Benedictine monasteries the doctor was not granted a well-defined position by the monastic rule, like the Prior, the nurse (a man, of course—with a post which was merely administrative), the chaplain, the cellarer or the librarian. The title of *medicus* was, therefore, not official; its holder had no disciplinary power, and it could not directly procure him any privileges. It was a mere name given to monks who, as a result of their studies, showed some special capacity for the art of healing. But, without having any official status among the dignitaries of the monastery, they yet had a high moral position in the community. In official monastic documents they signed after those monks who were invested with the highest monastic rank. Their elevated moral position is quite clear from the important missions entrusted to them by great personages of the day, missions of trust which would not have been given to individuals who were not held in considerable esteem. . . .

"The doctor treated his patients, prescribed the medicaments and prepared them himself, using those which he kept in the *armarium pigmentorum*. The herb garden, which existed in every monastery, allowed him to have at hand the medicinal plants he needed. The students whom he gathered round him in the monastery helped him to treat the patients and prepared the medicines. The work was done in the Infirmary, a place varying in size with the importance of the monastery, and set apart from the dormitory and the refectory of the monks themselves. Into the Infirmary were taken not only sick monks but also gentlemen, townspeople, and even labourers who applied for admission. The monastic doctor, besides his practice, had also to undertake the copying of medical texts. . . . In each great Benedictine monastery a real *studium* was formed, from which doctors were sent to the minor centres. The work of the doctor, however, was not limited by the monastery walls. At that time, when civilian medicine was generally represented by bone-setters and travelling quacks, the services of the monastery doctor were asked of the Prior whenever a person of importance or a member of his family fell ill in the neighbourhood. Permission was given freely and lasted during the whole treatment. The monastic doctor was never sent away on duty unless accompanied by another monk or by one of his pupils. Owing to his vow of poverty, he himself could receive no reward for his services, but splendid donations in lands, money or kind were made by great lords who willingly gave such gifts *pro recuperata valetudine*" (Capparoni, "*Magistri Salernitani Nondum Cogniti*". *A Contribution to the History of the Medical School of Salerno* [1923] 3-5).

Benedict's *Rule* mentioned a library without mentioning the scriptorium that would later become an integral part of monastic life.

♦ Benedictine *scriptoria*, where the copying of texts not only provided materials needed in the routines of the community and served as work for hands and minds otherwise idle, also produced a desirable product that could be sold. Early commentaries on the Benedictine rule suggest that manuscript transcription was a common occupation of at least some Benedictine communities. *Montalembert* drew attention to the 6th-century rule of *St Ferreol* that regarded transcription as the equivalent of manual labor since it charges that the monk "who does not turn up the earth with the plow ought to write the parchment with his fingers" (Wikipedia article on Scriptorium, accessed 02-22-2009).

"Benedictine scriptoria, and with them libraries, became active not in the time of St. Benedict himself, but under the impulse of Irish (and later English) monks on the continent in the seventh and eighth centuries. The influence of the Anglo-Saxon missionaries, principally the Wessex-born *Boniface* and his allies and helpers, was especially strong in Germany, leading to the foundation of episcopal centers such as Mainz and Würzburg, and of monasteries that were to become famous for their libraries such as Fulda (744) and Hersfeld (770). The Anglo-Saxons brought with them a script and books from the well-stocked English libraries. In the course of time the preparation (and even sale) as well as consumption of books became a characteristic aspect of continental monastic life and the library a central part of the monastery" (M. Davies, "Medieval Libraries" in Stam (ed) *The International Dictionary of Library History I* [2001] 105).

•The image is a portrait of Benedict from a *fresco* in the cloister of San Marco in Florence.

Filed under: [Book History](#), [Book Trade](#), [Libraries](#), [Manuscripts & Manuscript Copying](#), [Medicine](#), [Religious Texts / Religion](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

# An Almost Unique Witness to the Original Justinian Digest 533

– 555



Littera Florentina. (Click to view larger.)

The codex called the [Littera Florentina](#) or [Codex Florentinus](#) is written during these years. It is the closest survivor to an official version of the *Digesta* or *Pandectae* portion of the [Corpus Juris Civilis](#), the digest of Roman law promulgated by [Justinian I](#) for the first time in 529, of which no copies survived. What survived was the revised edition of 533-34.

"The codex, of 907 leaves, is written in the Byzantine-Ravenna uncials characteristic of Constantinople, but which has recently been recognized in legal and literary texts produced in Alexandria and the Levant. Close scrutiny dates the manuscript between the official issuance in 533 and 557, making it an all-but contemporary and all-but official source.

"Marginal notes suggest that the codex was in Amalfi—part of the Byzantine territory in Italy governed by the Exarchate of Ravenna in the 6th century— and that it passed to Pisa in the 12th century; the codex was part of the war booty removed from Pisa to Florence after the war of 1406. The manuscript became one of Florence's most treasured possessions. It was only shown to very important persons. Scholarly access was difficult. It took more than three centuries before a reliable edition of the Littera Florentina was finally made available."

"The importance of the manuscript lies in the fact that is an almost unique witness of the original Justinian Digest. Most medieval manuscripts of the Digest have a substantially different text. Its sudden reappearance in the late eleventh or early twelfth century has been much debated by legal historians" (Wikipedia article on Littera Florentina, accessed 12-05-2008).

"A compilation of pre-classical and classical Roman law (written before 245 c.e.), the work was culled from some three thousand books of the Roman juriconsults and comprises 800,000 words. It is important to note that many of these quotations had been altered during the nearly three centuries of their transmission from the end of the classical period in the middle of the third century. The sources of the Babylonian Talmud, transmitted orally, were also subject to changes in wording, context, and, occasionally, substance.

"The Digest was the major constituent of Justinian's Code, which we have only in its second edition, completed in 534 by the Roman Jurist, Tribonian. Tribonian headed a committee of sixteen Byzantine law professors, and accomplished this daunting task in just three years. In addition, the Code contained the Institutes, a first-year textbook for law students who would enter the emperor's bureaucracy trained in his version of Roman law, and the Fifty Decisions, which was supposed

to adjudicate all outstanding differences of opinion. The entire work thus runs to about one million words, and is restricted to civil, or private, law" ((Yaakov Ulman, *The Babylonian Talmud in its Historical Context IN: Printing the Talmud: From Bomberg to Schottenstein*, 19, <http://www.printingthetalmud.org/essays/2.html>, accessed 12-05-2208).

Filed under: [Law / Copyrights / Patents, Manuscripts & Manuscript Copying, Survival of Information](#) | [Bookmark or share this entry](#)

## Considered the Oldest, Well-Preserved Illustrated Biblical Codex Circa – 540



The Vienna Genesis. (Click to view larger.)

Considered the oldest, well-preserved, illustrated biblical codex, the [Vienna Genesis](#) is an illuminated manuscript, probably produced in Syria.

"The text is a fragment of the Book of Genesis in the Greek [Septuagint](#) translation. The text is frequently abbreviated. There are twenty-four surviving folios each with a miniature at the bottom of both sides. It is thought that there were originally about ninety-six folios and 192 illustrations. It is written in [uncials](#) with silver ink on calfskin parchment dyed a rich purple. This shade of purple dye was also used to dye imperial cloth.

"The illustrations are done in a naturalistic style common to Roman painting of the period. The manuscript's illustrations are, in format, transitional between those found in scrolls and later images found in codices. Each illustration is painted at the bottom of a single page. However, within a single illustration, two or more episodes from a story may be included, so that the same person may be represented multiple times within a single illustration. There are both framed and unframed illustrations. The illustrations contain incidents and people not mentioned in the text of Genesis. These incidents are thought to have been derived from popular elaborations of the story or from a Jewish paraphrase of the text" (Wikipedia article on the Vienna Genesis).

Filed under: [Art](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## Most Important Medical Center During 6th and 7th Centuries 550 – 650

The [Academy of Gundishapur](#), located in the present-day province of Khuzestan, in the southwest of Iran, which contains an important library and offers training in medicine, philosophy, theology, and science, is according to the *Cambridge History of Iran*, "the most important medical center of the ancient world (defined as Europe, the Mediterranean, and the Near East) during the 6th and 7th centuries."

Filed under: [Libraries](#), [Medicine](#) | [Bookmark or share this entry »](#)

## Codex Brixianus Circa 550



Canon tables from Codex Brixianus. (View Larger)

The [\*Codex Brixianus\*](#), a 6th century Latin [Gospel Book](#), was written on 419 folios of purpled dyed vellum. The text is a version of the [old Latin](#) translation which seems to have been a source for the [Gothic](#) translation of [Ulphilas](#). At the base of each page is an [arcade](#) very similar to that found in the [Codex Argenteus](#). The manuscript, which was probably produced in Italy, is preserved in the [Biblioteca Civica Queriniana](#) in Bescia, Italy.

Filed under: [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## Written in the Imperial Scriptorium of Constantinople and Dismembered by Crusaders Circa 550



Folios 23v and 24r of the Codex Petropolitanus Purpureus. (View Larger)

[\*Codex Petropolitanus Purpureus\*](#), a 6th century Greek New Testament codex [gospel book](#), with very many lacunae, originated in the Imperial Scriptorium of Constantinople and was dismembered by crusaders in the 12th century. The manuscript text is in two columns, 16 lines, in large [majuscules](#) (capital letters), measuring 32 x 27 cm. The lettering is in silver ink on [vellum dyed purple](#), with gold ink for [nomina sacra](#).

"The text is of the [Byzantine text-type](#) in a very early stage, but in some parts [Caesarean readings](#). The 231 extant folios of the manuscript are kept in different libraries: 182 leaves in Saint Petersburg, Russia, 33 leaves on the Isle of [Patmos](#), Greece, the rest in Rome (6), London (4 folios), Vienna (2), New York (1), and Athens (1), and [Lerma](#) (1), Greece."

"In 1896 [Nicholas II of Russia](#) commissioned [Fyodor Uspensky](#)'s Russian Archaeological Institute to buy the greater part of it for the [Imperial Public Library](#) in St. Petersburg" (quotations from the Wikipedia article on [Codex Petropolitanus](#), accessed 11-26-2008).

Filed under: [Libraries](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Anglo-Saxons Conquer England Circa 550

German tribes ([Anglo-Saxons](#)) conquer England.

Filed under: [Military / Warfare](#), [Social / Political](#) | [Bookmark or share this entry](#) »

## The Dark Ages for Study of the Classics on the European Continent Circa 550 – 750

"Although few ages are so dark that they are not penetrated by a few shafts of light, the period from roughly 550 to 750 was one of almost unrelieved gloom for the Latin classics on the continent; they virtually ceased being

copied. Among the mass of [patristical](#), biblical, and [liturgical](#) manuscripts that survive from this period there are precious few texts of classical authors; from the the sixth century we have scraps of two [Juvenal](#) manuscripts, remnants of one of the [Elder](#) and one of the [Younger Pliny](#), but at least two of these belong to the early part of the century; from the seventh century we have a fragment of [Lucan](#); from the early eighth century nothing.

"The fate that often overtook the handsome books of antiquity is dismally illustrated by the surviving palimpsests--manuscripts in which the original texts have been washed off to make way for works which at the time were in greater demand. Many texts that had escaped destruction in the crumbling empire of the West perished within the walls of the monastery; some of them may have been too tattered when they arrived to be of practical use, and there was no respect for rags, however venerable. The peak period for this operation was the seventh and early eighth centuries, and although palimpsests survive from many centres, the bulk of them have come from the Irish foundations of [Luxeuil](#) and [Bobbio](#). Texts perished, not because pagan authors were under attack, but because no one was interested in reading them, and parchment was too precious to carry an obsolete text; Christian works, heretical or superfluous, also went to the wall, while the ancient grammarians, of particular interest to the Irish, often have the upper hand. But the toll of classical authors was very heavy; amongst those palimpsested we find [Plautus](#) and [Terence](#), [Cicero](#) and [Livy](#), the Elder and Young Pliny, [Sallust](#) and [Seneca](#), Vergil and Ovid, Lucan, Juvenal and Persius, [Gellius](#) and [Fronto](#). Fronto survives in three palimpsests, fated always to be the underdog. Among the texts that have survived solely in this mutilated form are some of outstanding interest such as the *De republica* of Cicero (Vat. lat 5757. . . ) written in uncials of the fourth or fifth century and covered at Bobbio in the seventh with Augustine on the Psalms, a fifth-century copy of *De amicitia* and *De vita patris* of Seneca (Vat. Pal. lat. 24) which succumbed in the late sixth or early seventh century to the Old Testament, and a fifth-century codex of Sallust's *Historia* (Orléans 192 + Vat. Reg. lat. 12838 + Berlin lat. 4° 364) which, in France and probably at Fleury, was supplanted at the turn of the seventh century by Jerome. other important palimpsests are the Ambrosian Plautus (Ambros. S.P. 9/13-20), *olim* G. 82 sup.) and the Verona Livy (Verona XL (38)), both of the fifth century" (Reynolds & Wilson, *Scribes and Scholars* 3rd ed [1991] 85-86).

Filed under: [Destruction / Looting of Information, Survival of Information](#) | [Bookmark or share this entry »](#)

## The First Surviving Metal Bookcovers Circa 550



The Antioch Chalice, with which the bookcovers were found.

"The first surviving metal bookcovers originated in the Eastern Empire. Four pairs of [repoussé](#) silver covers are known, all dated to the second half of the sixth century. Two of the pairs were apparently found in Syria, together with the famous [Antioch chalice](#), and two were found near Antalya, in southern Turkey. In all cases, the front and back covers are virtually identical. Three pairs depict standing figures of Christ or saints, two representing the figures within arched porticoes, the third showing two saints flanking a large cross. The fourth pair represents a large cross between two trees, again within an arched portico. The earliest western metal work bookcovers (though their origin has been disputed) are the [pair presented by the Lombard queen, Theodelinda](#) (d. 625) to the Basilica of St. John the Baptist in Monza. The covers again are identical, each bearing a gem-encrusted cross over a gold background surrounded by a frame of red glass cloisonné" (Needham, *Twelve Centuries of Bookbindings 400-1600* [1979] 22).



The pair of metal bookcovers found with the Antioch chalice are preserved, along with the chalice, in the Metropolitan Museum of Art. They are described and illustrated in Minor (ed.) *The History of Bookbinding 525-1950 AD* (1957) nos. 3 & 4, plate II.

Filed under: [Art](#), [Book History](#), [Bookbinding](#) | [Bookmark or share this entry](#) »

## The Herbal of Pseudo-Apuleius Circa 550 – 625

The Latin herbal associated with the name of Apuleius Barbarus or Apuleius Platonicus or [Pseudo-Apuleius](#), in distinction to [Lucius Apuleius Platonicus](#), author of [The Golden Ass](#), may have been put together from Greek material around 400 CE or might have been compiled earlier, possibly in Roman Africa. Nothing is known about the so-called author except his name, which may have actually been a pseudonym of Lucius Apuleius Platonicus, who described himself as "half-Numidian half-Gaetolian," and who was born in Madaurus (now M'Daourouch, Algeria), a Roman colony in Numidia on the North African coast, bordering Gaetulia.

"The history of the work has been lost with the passage of time, leading to endless speculation on the identity of the author. In all probability 'Apuleius Platonicus' was a pseudonym of Lucius Apuleius of Madaura in Numidia born AD124, [author of *The Golden Ass*,] while other writers refer to the him as Pseudo-Apuleius. A study of the book shows some of the plants being endemic to North Africa and lends support to the idea that the author was African" (Wikipedia article on *Herbarium Apulei Platonici*, accessed 06-13-2009).

The earliest surviving manuscript of this herbal, a codex containing a Latin herbarium and other medical texts, was produced in Southern Italy or Southern France in the sixth or early seventh century. It is preserved in the library of [Universiteit Leiden](#), Vos. Lat. Q9.

"Its figures are much inferior those of the Vienna Dioscorides, and, like them, derivative, though of different origin; it is, therefore, in spite of being denounced by Singer as 'a futile work, with its unrecognisable figures and incomprehensible vocabulary', and by Frank J. Anderson as a 'straw desperately grasped at by despairing men', in its way a landmark in the history both of botany and of botanical illustration. It was probably written in the south of France and for many generations was unhappily to provide western illustrators from Italy to the Rhine with a storehouse for plunder" (Blunt & Raphael, *The Illustrated Herbal* [1979] 28).

The *Herbarium Apulei* was one of the most widely used remedy books of the Middle Ages. Over 60 medieval manuscripts of the text survive.

Filed under: [Book Illustration](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Medicine](#), [Natural History](#), [Science](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Earliest Manuscript of the New Testament in Christian Palestinian Aramaic Circa 550



Several pages from the Codex Climaci Rescriptus. (View Larger)

The [Codex Climaci Rescriptus](#), a 7-8th century Greek uncial manuscript of the New Testament as well as a 6th century Christian Palestinian Aramaic uncial manuscript of the Old and New Testament, represents in its Christian Palestinian Aramaic version of the New Testament, "the closest surviving witness to the words of Jesus Christ. It preserves the Gospels in the nearest dialect of Aramaic to that which he spoke himself, and unlike all other translations, those here were composed with a living Aramaic tradition based in the Holy Land."

The palimpsest-manuscript in Christian Palestinian Aramaic was probably written in Judea, the mountainous southern region of Israel, in the sixth century. It was turned upside down and [palimpsested](#) in Syriac in the ninth century. It is thought that it passed to [St. Catherine's Monastery in Sinai](#), which was built by the Emperor [Justinian I](#) between 527 and 565.

The manuscript was "acquired by the pioneering Biblical scholars and twins, [Agnes Smith Lewis \(1843-1926\)](#) and [Margaret Dunlop Gibson \(1843-1920\)](#) in three stages between 1895 and 1906 (all in the vicinity of Cairo, the manuscript having presumably been 'liberated' from its monastic home in order to supply leaves for the antiquity trade there). They were staunch Scottish Presbyterians with a consuming interest in the early versions of the Bible, and profound belief in female education, in an age when it practically did not exist. They used their own fortune to become celebrated scholars in the fields of Greek, Latin, Hebrew and Syriac, and thrilled by [Tischendorf's](#) discoveries at Sinai, they set off to St. Catherine's on a 'manuscript-hunting' expedition in 1892. They won over the difficult patriarch, partly through their insistence that nothing was to be abstracted from the library there, but only photographs taken, and on that expedition they returned with pictures of the Syriac manuscript which would make them famous, the fourth century [Syriac Sinaiticus](#) (their lives and its discovery are the subject of a recent book, J. Soskic, *Sisters of Sinai*, 2009, which was adapted for BBC Radio 4 this April). Having returned home to Cambridge they were tipped off by a mysterious informant that spectacular manuscripts were to be had through various dealers in Cairo. This was quite different from the questionable removal of manuscripts from ancient libraries, and the twins regarded it as a rescue mission, returning to Egypt and acquiring a single leaf of the present codex . . . in 1895. They acquired a further 89 leaves from the present manuscript in October 1905, and in April of the following year, while passing through Port Tewfik, Agnes Lewis bought two palimpsest - manuscripts on a whim. Upon returning home she discovered that one contained another 48 leaves of the present manuscript, and that the two portions were separated by only a single leaf - that which the twins had acquired first in 1895. They published the entire text in 1909. Only one other leaf of this scattered manuscript has emerged in the last century. . . . On the death of the twins the manuscript was left to Westminster College, Cambridge."

♦ Westminster College consigned the *Codex Climaci Rescriptus* to auction at Sotheby's London for sale on July 7, 2009. The quotations in this note were taken from Christopher de Hamel's much longer illustrated description of the manuscript as [lot 14 in the catalogue of Sotheby's sale L09740, \*Western Manuscripts and Miniatures\*](#). The estimate was £400,000-600,000. The hyperlinks are my additions. According to Sotheby's website the manuscript failed to sell.

Filed under: [Book History](#), [Book Trade](#), [Collecting Books](#), [Manuscripts](#), [Art](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## One of the Oldest Surviving Illuminated Manuscripts of the New Testament Circa 555



An illumination of Christ found in the Rossano Gospels. (Click to view larger.)

The [Rossano Gospels](#) were written following the reconquest of Italian peninsula from the [Ostrogoths](#) by the Byzantine Empire, following a war which began in 535 and ended decisively in 553. The codex includes the earliest surviving [evangelist portrait](#), showing Mark writing on a scroll.

"Also known as **Codex purpureus Rossanensis** due to the reddish (*purpureus* in Latin) appearance of its pages, the codex is one of the oldest surviving illuminated manuscripts of the New Testament. The now incomplete [codex](#) has the text of the Gospel of Matthew and the majority of the Gospel of Mark, with only one

lucanae (Mark 16:14-20). A second volume is apparently missing. Like the [Vienna Genesis](#) and the [Sinope Gospels](#), the Rossano Gospels are written in silver ink on purple dyed [parchment](#). The large (300 mm by 250 mm) book has text written in a 215 mm square block with two columns of twenty lines each. There is a prefatory cycle of illustrations which are also on purple dyed parchment.

"The codex was discovered in 1879 in Italian city [Rossano](#), in cathedra Santa Maria Achiropita.

"The text of the Codex is generally [Byzantine text-type](#) in close relationship to the [Codex Petropolitanus Purpureus](#). The Rossano Gospels, along with manuscripts [N](#), [Q](#), and [Φ](#), belong to the group of the [Purple Uncials](#) (or purple codices). [Aland](#) placed all four manuscripts of the group (the Purple Uncials) in [Category V](#)."

Filed under: [Art](#), [Book History](#), [Book Illustration](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## A Dispute over a Psalter Resulting in Battle Circa 560



St. Columba. (Click to view larger.)

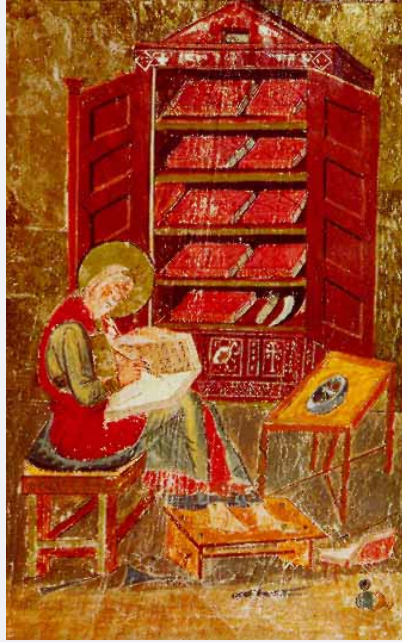
According to tradition, sometime around 560 the Irish missionary monk, [Saint Columba](#)—not to be confused with [Saint Columbanus](#)—became involved in a dispute with Saint Finian over a psalter.

"Columba copied the manuscript at the scriptorium under Saint Finian, intending to keep the copy. Saint Finian disputed his right to keep the copy. The dispute eventually led to the pitched Battle of Cul Dremhe in 561, during which many men were killed. . . . As penance for these deaths, Columba suggested that he work as a missionary in Scotland to help convert as many people as had been killed in the battle. He also promised to move from Ireland and never again to see his native island."

By tradition, the original psalter copied by Columba was subsequently carried into battle as a talisman, the word 'Cathach' meaning Battler in Old Irish. Whether or not Columba's original manuscript saw battle, the surviving manuscript dates from the mid-seventh century, and is discussed *circa* 650 in this database.

Filed under: [Manuscripts & Manuscript Copying](#), [Military / Warfare](#), [Religious Texts / Religion](#) | [Bookmark or share this entry](#) »

## The Scriptorium and Library at the Vivarium Circa 560



An image from Codex Amiantinus. (Click to view larger.)

A Roman Senator, and former [magister officiorum](#) to [Theodoric](#) the Great, the [Ostrogothic](#) ruler of Rome, after the execution of Boethius, Magnus Aurelius [Cassiodorus](#) retired and formed a school and monastery at his estate at Squillace in the far south of Italy. He named it the Vivarium, after the fishponds which were a "feature of its civilized lifestyle." The monastery included a purpose-built scriptorium, intended to collect, copy, and preserve texts. This was the last effort, at the very close of the Classical period, to bring Greek learning to Latin readers, a concern shared by [Boethius](#) who had been executed in 524.

"Cassiodorus was not so much concerned with preserving ancient literature as with educating Christian clerics. But he saw, as Augustine had seen, that a grounding in the traditional liberal arts was a necessary preliminary to the interpretation and understanding of the Bible. This program of study, set out in his treatise on divine and secular learning, *Institutiones divinarum et saecularium litterarum*, necessarily involved a supply of books and the foundation of a library. His monks were enjoined to copy manuscripts as an act of piety, paying close attention the accuracy and presentation of their handiwork. Pagan works stood on the shelves as ancillary to Christian studies. The library of Cassiodorus, apparently arranged by subject in at least ten *armaria* (book cupboards), is the only sixth-century example of which there is definite knowledge.

"The monastery of Vivarium and its library seem not to have long survived the death of Cassiodorus circa 580, but amid growing political distintegration and cultural decay it set an example that was widely followed elsewhere (M. Davies, "Medieval Libraries" in D. Stam (ed.) *International Dictionary of Library Histories* I [2001] 104-5).

At the Vivarium [Cassiodorus](#) had monks produce a vast pandect of the bible called the *Codex Grandior*. He also had them copy out nine volumes of his own work, *Institutiones divinarum et saecularium litterarum*. "Along with detailed instruction for a religious routine, the author told how manuscripts should be handled, corrected, copied, and repaired, and included what amounted to an annotated bibliography of the best literature of the time." (Harris, *History of Libraries in the Western World* 4th ed [1999] 91).

Cassiodorus also stated "that biblical manuscripts should be bound in covers worthy of their contents, and he added that he had provided a pattern book with specimens of different kinds of bindings" (Graham Pollard, *Early Bookbinding Manuals* [1984] 1). This may be the earliest detailed reference to bookbinding.

"From his [Cassiodorus's] writings we know that the library founded by him possessed 231 codices of 92 different authors, amongst which were five codices on medical subjects, including the works of Hippocrates, Galen, Dioscorides, Celsus and Coelius Aurelianus" (Capparoni, *Magistri Salernitani Nondum Cogniti. A Contribution to the History of the Medical School of Salerno*. [1923] 3).

After the death of Cassiodorus the manuscripts at the Vivarium were dispersed, though some of them found their way into the library maintained at the [Lateran Palace](#) in Rome by the Popes.

The image is from the *Codex Amiatinus*, noticed under the year 716 in this database.

Filed under: [Book History](#), [Bookbinding](#), [Education / Reading / Literacy](#), [Libraries](#), [Manuscripts & Manuscript Copying](#), [Medicine](#), [Museums](#) | [Bookmark or share this entry](#) »

## From the Monastery on the Small Island of Iona, the Conversion of Pagan Scotland and Much of Northern England Circa 563



Saint Columba (View Larger)

[Saint Columba](#), exiled from his native Ireland, founds a monastery on the small island of [Iona](#) in the Inner Hebrides of Scotland with 12 companions. From here they set about the conversion of pagan Scotland and much of northern England to Christianity. Iona's fame as a place of learning and Christian mission will spread throughout Europe and it will become a major site of pilgrimage, and the burial ground of several kings of Scotland, Ireland and Norway.

"The establishment of Iona as the centre of Celtic Christianity outside Ireland by Columba c. 563 marked the effective beginning of the conversion of Scotland and led on in time to the foundation of such important monasteries as [Lindisfarne](#) in Northumbria and [Malmesbury](#) in the south-west. Even more spectacular was the continental mission of [Columbanus](#) [not to be confused with Columba] who blazed a trail across Europe marked out by such important monastic foundations as those of [Luxeuil](#) in Burgundy (590), from which [Corbie](#) was founded a century later, [Bobbio](#) in northern Italy (614) and [Saint Gall](#), which developed from a hermitage which his pupil Gallus established in Switzerland c. 613" (Reynolds & Wilson, *Scribes and Scholars* 3rd ed [1991] 87).

Filed under: [Education / Reading / Literacy](#), [Libraries](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#) | [Bookmark or share this entry](#) »

## The Lombards Conquer Italy 568



The assassination of Alboin. (View Larger)

The [Lombards](#) under [Alboin](#)— a Germanic people—invade and conquer most of Byzantine Italy, and establish a [Kingdom of Italy](#), which will last until 774.

Filed under: [Military / Warfare](#), [Social / Political](#) | [Bookmark or share this entry »](#)

## 570

Birth of the Prophet [Muhammad](#).

Filed under: [Religious Texts / Religion](#) | [Bookmark or share this entry »](#)

## "Source Z" Circa 575 – 599



A canon table from Harley 1775, from the British Library. (View Larger)

[British Library, Harley 1775](#), a mixture of the Vulgate and Old Latin translation of the [Gospels](#), is called "source Z" in critical studies of the Latin New Testament. The manuscript was owned by [Jules Cardinal Mazarin](#). In the early 18th century it was in the French Royal Library, from which it was stolen along with several other manuscripts in 1707 by the renegade priest and adventurer, [Jean Aymon](#). It was purchased in Holland by [Robert Harley](#), 1st Earl of Oxford, and was sold in 1753 by the widow of [Edward Harley](#), 2nd Earl of Oxford and their daughter to Parliament as part of the Harleian collection which was one the founding collections of the British Museum, the library portion of which became the British Library.

The manuscript is written in Uncial (*Littera Uncialis*). "The term 'Uncial' has been thought (perhaps mistakenly) to have been coined in reference to letters an inch high and has been ascribed, probably

aporcryphally, to St. Jerome, whose reference to the script and its 'luxury' status are, in fact, somewhat disparaging. Any such remark need not to have referred to the script which we now know as Uncial. There is no word division, the text being written in the *scriptura continua* of Antiquity and set out, or punctuated, per *cola et commata* (i.e. the length of lines primarily indicating where pauses occur and serving to clarify the sense" (Brown, *A Guide to Western Historical Scripts from Antiquity to 1600* [1990] no. 5 and plate 5.)

Filed under: [Collecting Books, Manuscripts, Art, Libraries](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information, Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## The Ashburnham Pentateuch Circa 580 – 620



A folio from the Ashburnham Pentateuch depicting Cain and Abel. (View larger)

The *Ashburnham Pentateuch* (sometimes called the Tours Pentateuch), a late 6th or early 7th century illuminated manuscript of the [Pentateuch](#), has been described by some scholars as Spanish, but may have come from North Africa, Syria or Italy. Though it originally contained all five books of the Pentateuch, it now lacks the whole of Deuteronomy as well as sections of the other five books.

"It has 142 folios and 19 miniatures, and measures 372mm by 321mm. It is thought to have originally included as many as 68 full page miniatures. A full page table containing the Latin names of the books and Latin transliterations of the Hebrew names serves as a front piece to Genesis. The table is enclosed within a curtained arch. Some of the full page miniatures, such as that containing the miniature of Noah's Ark (folio 9r), contain a single scene. Other of the full page miniatures, such as that telling the story of Cain and Abel, contain many scenes which are placed in a register, with each scene having a different color background" (Wikipedia article on the Ashburnham Pentateuch, accessed 11-26-2008).

♦ The manuscript was at the National Library at Tours before being stolen in 1842 by [Guglielmo Libri](#) and sold along with many other stolen manuscripts, to Bertram Ashburnham, [4th Earl of Ashburnham](#) in 1847. In 1888 after a long dispute with the French government and [Léopold Delisle](#), the fifth Earl of Ashburnham sold the manuscript to the Bibliothèque nationale de France, where it is preserved today.

Filed under: [Art](#), [Book Trade](#), [Collecting Books, Manuscripts, Art](#), [Manuscript Illumination](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## The Syriac Bible of Paris Circa 585



Folio 46r from the Syriac Bible, depicting Job. (View Larger)

The *Syriac Bible of Paris*, an illuminated Bible written in [Syriac](#), is thought to have been made in northern [Mesopotamia](#). The manuscript has 246 extant folios. Large sections of text and the accompanying illustrations are missing. The folios are 312 by 230 mm. In the archaic style, the text is written in three columns.

"The illumination consists of miniatures introducing each of the books of the Bible and set into one or two of the text columns. The miniature for the Book of Genesis which may have been the most sumptuous miniature is missing. Although most of the miniatures are full length author portraits, some depict scenes from the following book. For example, the miniature before the Book of Job depicts [Job](#) on the dung heap. This miniature combine several scenes from the Book of Job. Job is pictured lying naked on the dung heap, covered with sores. Below him his wife is talking to him. To the left are his three friends. One of them is seen rending his garments, while the other two are seated, and talking to him. The Book of Exodus also has a narrative miniature before it. It depicts [Moses](#) and [Aaron](#) requesting permission to depart from Pharaoh. It is hard to understand why this scene, rather than one of the many more popular scenes was chosen to be the sole illustration for Exodus. Other miniatures are allegorical groups. The miniature before the Book of Proverbs shows the Virgin and Child, flanked by [Solomon](#), representing the wisdom of the Old Testament, and [Ecclesia](#), a personification of the Christian Church. Only one New Testament miniature survives, that of James the Apostle. The miniatures show mixture of [Hellenistic](#) heritage and a native Syriac tradition. Some of the miniatures, especially the miniature before Exodus, show stylistic similarities to the miniatures in the [Rabula Gospels](#). Based on this it is unlikely that this manuscript was made much later than the Rabula Gospels which were made in 586." (Wikipedia article on Syriac Bible of Paris, accessed 11-29-2008).

The manuscript is thought to have come from the Episcopal library of [Siirt](#) near [Lake Van](#) in Turkey, where it may have been produced. It is preserved in the Bibliothèque Nationale.

Filed under: [Art](#), [Manuscript Illumination](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The End of the Continuity of Late Latin Culture in Most of Italy Circa 585

The [Lombard](#) (Langobard, Longobard) Germanic invasion of Italy, which roughly coincides with the death of [Cassiodorus](#), marks the end of the continuity of Late Latin culture in most of Italy.

According to Bernhard Bischoff, "we cannot be sure whether remnants of the twenty-eight public libraries which are mentioned in a fourth-century description of the *urbs Roma* continued to survive. There was certainly a library at the [Lateran](#), and libraries and archives existed in Rome as well as in other cities like Capua, Naples, Ravenna, and Verona. There were also monastic libraries like the one in [Eugippius'](#) monastery. Copies of the [Code of Justinian](#) produced in Constantinople must have been kept ready for consultation by public administrators in their offices. If the famous [Codex Pisanus](#) of the Digest of Justinian now in Florence was not at that time in use in Italy, the papyrus copy once at Ravenna, of which a few folios are preserved at Pommerfelden near Bamberg, certainly was. We know that there still existed exemplars corrected by their authors themselves, such as [Boethius](#). There were probably manuscripts in Italy copied by [Jerome](#) himself. Marginal notes made by readers or colophons referring to the collation of texts show that many manuscripts belonged to private citizens or to specific libraries. The [Codex Mediceus](#) of Virgil was studied by the consul [Turcius Rufius Apronianus Asterius](#) (cos. 494); the name of the consul [Vettius Agorius Basilius Mavortius](#) (cos.



527) is found in the Paris codex of [Prudentius](#). In many cases, the notes and corrections of readers and grammarians were fortunately preserved for us in later copies. The activities of the families of [Symmachus](#) and Nicomachus in the pagan revival at the end of the fourth century influenced the tradition of the works of Livy. Subscriptions in a Carolingian manuscript now in the [Bibliotheca Ambrosiana](#) in Milan, G. 108 inf.s, saec. IX, testify to the existence of a school of doctors in Ravenna where the exemplar originated. Dedications in exemplars now lost were preserved by copies. The dedication page of the [Calendar of 354](#) tells us the name of the bibliophile Valentinus and of the scribe [Philocalus](#), who is well known as the designer of the inscriptions of [Pope Damasus](#). All this evidence shows that most of these now-lost exemplars, whose copies we fortunately possess, were kept in libraries in Rome, Ravenna, and Campania. Some manuscripts came from Constantinople, like the archetype of [Priscian](#) and the copy of [Solinus](#), whose scribe was the emperor [Theodius II](#) himself. I conclude this brief catalogue by referring to a small book, formerly kept in the treasure of the [cathedral of Chartres](#), which contains the Gospel of St. John. On the basis of a statement made by Jerome, it is plausible that this little book was originally a Christian amulet. I might also mention a fragment of a Hebrew scroll, Greek codices, and the manuscripts in Gothic, all of which, except for the purple [Codex Argenteus](#) in Uppsala, ended up as [palimpsests](#).

"The period of book production from the fourth to the sixth centuries was followed by a period of book distribution which lasted from the time of [Gregory the Great](#) to the time of [Otto III](#) (d.1002) and perhaps beyond. Many of the libraries still in existence as late as 567 were destroyed in the centuries that followed. Books kept in Rome, Campania, Ravenna, and perhaps in other centres which have not yet been identified, circulated as occasion demanded. The widespread circulation of books probably began with Gregory the Great (d.604), who had copies of his own works made for friends in Italy, for [Leander bishop of Seville](#), and for [Theodolinda](#), the Lombard queen who received from him a copy of his *Dialogues* as well as a Gospel book, of which only the priceless binding remains today, preserved in the cathedral of Monza. . . ." (Bischoff, *Manuscripts and Libraries in the Age of Charlemagne* [2007] 7-9).

Filed under: [Bookbinding](#), [Destruction / Looting of Information](#), [Libraries](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#) | [Bookmark or share this entry](#) »

## Signed by the Scribe Rabbula in 586 586



Folio 13v from the Rabula Gospels, depicting the ascension of Christ. (View larger)

The [Rabbula Gospels](#), or **Rabula Gospels**, an illuminated [Syriac Gospel Book](#), was completed in 586 at Monastery of St. John of Zagba, which, although traditionally thought to have been in Northern Mesopotamia, is now thought to have been in the hinterland between [Antioch](#) and [Apamea](#). It was signed by its scribe, Rabbula, about whom nothing else is known. The text is the [Peshitta](#) version of the Syriac translation of the Gospels.

"The manuscript is illuminated, with the text framed in elaborate floral and architectural motifs. The Gospel canons are set in [arcades](#) ornamented with flowers and birds. The miniaturist obviously drew some of his inspiration from [Hellenistic](#) art (draped figures), but relied mainly on the ornamental traditions of Persia. The

miniatures of the Rabbula Gospels, notably those representing the Crucifixion, the [Ascension](#) and [Pentecost](#), are real pictures with a decorative frame formed of zigzags, curves, rainbows and so forth. The scene of the Crucifixion is treated with an abundance of detail which is very rare at this period."

"The history of the manuscript after it was written is vague until the 11th century when it was at Maipuc. In the late 13th or early 14th century it came to Kanubin. In the late 15th or early 16th century, the manuscript was taken by the [Maronite](#) Patriarch to the [Laurentian Library](#) in Florence, where it is today" (quotations from the Wikipedia article on the Rabbula Gospels, accessed 11-26-2008).

Filed under: [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## St. Columbanus Founds the Monastery and Library at Luxeuil 590



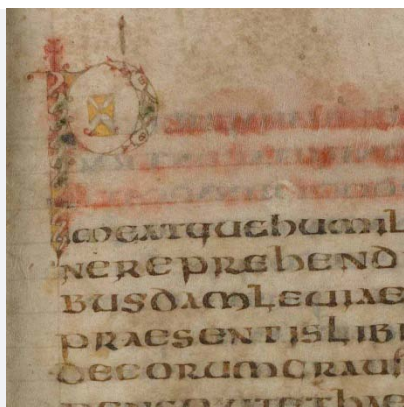
Saint Columbanus.

The Irish monk [St. Columbanus](#), Columban in Irish, meaning "white dove," (not to be confused with St. Columba) founds an [abbey](#) on the ruins of a Gallo-Roman settlement at [Luxeuil](#).

Columban brought manuscripts from Ireland to found the abbey library. Because of the treasures it held, this Celtic monastery was sacked by [Vandals](#) in 731, and after it was rebuilt it was devastated by [Normans](#) in the ninth century, and was sacked several times thereafter.

Filed under: [Destruction / Looting of Information](#), [Libraries](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#) | [Bookmark or share this entry »](#)

## A Manuscript from Pope Gregory's Scriptorium 590 – 604



The beginning of Regula pastoralis. The first three lines, in colored ink, have run or faded. (View Larger)

A late 6th century or very early 7th century illuminated manuscript of the [Regula pastoralis](#) or [Pastoral Care](#) by [Pope Gregory I](#), was written in Rome in Gregory's scriptorium, and contains his final revised text. Bernhard

Bischoff notes that two of the corrections in the manuscript are thought to be in Gregory's own hand. The manuscript contains very early decorated initials in red, green, and yellow penwork.

The manuscript is preserved in the Bibliothèque Municipale, Troyes, (MS 504). Bischoff, *Latin Palaeography: Antiquity and Middle Ages* (1990) 190 and note 2.

Filed under: [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## First Mention of Printing in China 593



Sui emperor Wen-ti. (View Larger)

First mention of printing in China: "an imperial decree of 593 in which [Sui emperor Wen-ti ordered the printing of Buddhist images and scriptures](#), but no details with regard to this enterprise were given."

Filed under: [Printing / Typography](#), [Technology](#) | [Bookmark or share this entry](#) »

## Augustine of Canterbury Preaches to the Anglo-Saxons 597



St. Augustine of Canterbury. (View Larger)

[Pope Gregory I](#) sends the Benedictine monk [Augustine of Canterbury](#) and 40 other monks to convert the pagan Anglo-Saxons of Britain. For this purpose Gregory gives Augustine precious manuscripts probably from the Lateran Library.

[King Ethelbert of Kent](#), a pagan, and his wife, Berthe, a Christian, permitted the monks to preach in the town of Canterbury. Soon Augustine converted Ethelbert and within a short time at Christmas "10,000 of the king's subjects were baptized."

"Augustine reconsecrated and rebuilt an old church at Canterbury as his cathedral and founded a monastery in connection with it. He also restored a church and founded the monastery of St. Peter and St. Paul outside the walls. He is claimed to have founded the King's School, Canterbury, which would make it the world's oldest school; however there may be little more to this than that some teaching took place at the monastery."

Filed under: [Education / Reading / Literacy](#), [Libraries](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#) | [Bookmark](#) or [share this entry](#) »

## A Volume Brought by St. Augustine to England in 597 597



Folio 129v of the St. Augustine Gospels, depicting Luke. ([View Larger](#))

The [St. Augustine Gospels](#), an illuminated [Gospel Book](#) written in a sixth-century Italian [uncial](#) hand, has traditionally been considered one of the volumes brought by [St. Augustine](#) from Rome to Canterbury, England in 597. The manuscript, from the library of Archbishop of Canterbury Matthew Parker, is preserved in the [Parker Library](#) at Corpus Christi College, Cambridge. It is characterized by the Parker Library website as the "[oldest illustrated Latin gospel book now in existence](#)." Assuming that it travelled to England with Augustine in 597, the manuscript has been in England longer than any other book. It contains corrections to the text in an [insular hand](#) of the late 7th or early 8th century, which would confirm the presence of the manuscript in England.

"It was certainly at St. Augustine's Abbey in [Canterbury](#) in the 11th century, when documents concerning the Abbey were copied into it. The manuscript was given to [Corpus Christi College, Cambridge](#) by [Matthew Parker, Archbishop of Canterbury](#). It is still produced for the [enthronements](#) of new Archbishops of Canterbury."

"The manuscript once contained [evangelist portraits](#) for all four Evangelists. However, only the portrait for [Luke](#) is still extant (Folio 129v). A full page miniature on folio 125r prior to Luke contains twelve narrative scenes from the [Passion](#)" (Wikipedia article on the St. Augustine Gospels, accessed 11-25-2008)

## The Earliest Western Metalwork Bookcovers Circa 600



(View Larger)

"The earliest western metalwork bookcovers (though their origin has been disputed) are the pair presented by the Lombard queen [Theodolinda](#) (d. 625) to the Basilica of St. John the Baptist in Monza. The covers again are identical, each bearing a gem-encrusted cross over a gold background, surrounded by a frame of red glass cloisonné.

"As with the Syrian and Byzantine silver covers, it is not known what codex Theodelinda's covers might have contained. Not until Carolingian times can the covers of treasure bindings be connected to the original codices, and even then clear-cut examples are few" (Needham, *Twelve Centuries of Bookbindings 400-1600* [1979] 22).

The source of the image may be found at [this link](#).

Filed under: [Art](#), [Book History](#), [Bookbinding](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## The Springmount Bog Wax Tablets Circa 600

Probably the oldest examples of Latin writing from Ireland are the [Springmount Bog tablets](#) — wax tablets, on which are inscribed the Vulgate text of Psalms 30-32, found in a bog in County Antrim, Ireland, in the 20th century.

"These are an unusual survival, given the climatic conditions of northern Europe; they were preserved owing to loss in a peat bog, and they convey graphically the obligation of the priest to be 'psalteratus' — to have memorised and be able to recite the Psalms, in the tradition of the Judaic priesthood — and recall exhortations to ordinands to spend whatever time possible learning them, even when travelling (as the person studying these extracts may have been)" (Michelle P. Brown, *Preaching with the Pen: the Contribution of Insular Scribes to the Transmission of Sacred Text, from the 6th to 9th Centuries* [2004]).

Filed under: [Education / Reading / Literacy](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## The Qur'an Circa 610 – 613



The name of Mohammed written in classic calligraphy. (View Larger)

"Muslims say that in 611, at about the age of forty, while meditating in a cave near Mecca, he [\[Muhammad](#) (Mohammed, Mohamet)] experienced a vision. Later he described the experience to those close to him as a visit from the Angel Gabriel, who commanded him to memorize and recite the verses later collected as the [Qur'an](#) [Koran]."

Filed under: [Book History](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#) | [Bookmark or share this entry »](#)

## During the Middle Ages the Book Trade is Concentrated in Monasteries Circa 610 – 1200

From the early seventh century until roughly the year 1200 monastic [scriptoria](#) and other ecclesiastic establishments remained essentially the only customers for books, and they had a virtual monopoly on manuscript book production. Most codices were written on vellum or parchment, but as late as the eighth century some codices were written on papyrus.

Filed under: [Book History](#), [Book Trade](#), [Manuscripts & Manuscript Copying](#), [Paper / Papyrus / Parchment / Vellum](#), [Publishing](#), [Religious Texts / Religion](#) | [Bookmark or share this entry »](#)

## During the Middle Ages Wax Tablets Are Widely Used Circa 610



A wooden wax tablet with bronze stylus and eraser, originating from Egypt circa 600. ([View Larger](#))

"During the middle ages wax tablets were in general use. Daily life cannot be imagined without them: students were supposed to carry a diptych at their belt for easy use, while writers used them for rough notes. They were also employed in private correspondence. Above all, medieval accounts were kept to a large extent on wax tablets, and most of the surviving examples served this purpose; even books of wax tablets were formed. In some places the use of wax tablets for accounting continued up to the nineteenth century" (Bernhard Bischoff, *Latin Palaeography. Antiquity & the Middle Ages* [1990] 14).

Filed under: [Paper / Papyrus / Parchment / Vellum](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## Foundation of the Monastery and Library at Bobbio 614



Saint Columbanus ([View larger](#))

Saint [Columbanus](#) founds the [Abbazia di San Colombano](#) at [Bobbio](#), in the province of [Piacenza](#) and the [Emilia-Romagna](#) region of Italy.

Bobbio became famous as a center of resistance to [Arianism](#). The abbey library, founded by Columbanus with manuscripts that he brought from Ireland and treatises which he personally wrote, became one of the greatest libraries of the Middle Ages. Bernhard Bischoff points out:

"many books in its library are older than the monastery and this demonstrates that Bobbio received many books second-hand. I refer especially to the copies of Cyprian, the biblical codex *k* of African origin, the Medici Virgil, the very ancient grammatical manuscripts, and especially, to the classical texts which lie buried in palimpsests" (*Manuscripts and Libraries in the Age of Charlemagne* [2007] 9).

"The learned [Saint Dungal](#) (d. after 827) bequeathed to the abbey his valuable library, consisting of some seventy volumes, among which was the famous '[Antiphony of Bangor](#)'."

"[Gerbert of Aurillac](#) (afterwards [Pope Sylvester II](#)), became abbot of Bobbio in 982; and with the aid of the numerous ancient treatises which he found there he composed his celebrated work on geometry. It appears that at a time when Greek was almost unknown in western Europe, the Irish monks of Bobbio read Aristotle and Demosthenes in the original tongue."

"A tenth-century catalogue, published by [Muratori](#), shows that at that period every branch of knowledge, divine and human, was represented in this library. Many of the books have been lost, the rest have long since been dispersed and are still reckoned among the chief treasures of the later collections which possess them.

♦ "In 1616 Cardinal [Federico Borromeo](#) took for the [Ambrosian Library](#) of Milan eighty-six volumes, including the famous "Bobbio Missal", written about 911, the [Antiphony of Bangor](#), and the palimpsests of [Ulphilas'](#) [Gothic](#) version of the Bible. Twenty-six volumes were given, in 1618, to [Pope Paul V](#) for the [Vatican Library](#). Many others were sent to Turin, where, besides those in the Royal Archives, there were seventy-one in the University Library until the disastrous fire of 26 January 1904" (Wikipedia article on Bobbio Abbey, accessed 12-03-2008).

♦ [Umberto Eco](#) based the location of his 1980-83 novel [The Name of the Rose](#), with its labyrinthine library, on the abbey at Bobbio.

Filed under: [Collecting Books, Manuscripts, Art, Libraries](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## 622

Muhammad's [Hijra](#) or emigration (traditionally translated into English as "flight") marks the beginning of the Islamic Calendar.

Filed under: [Mathematics / Logic](#), [Religious Texts / Religion](#) | [Bookmark or share this entry](#) »

## Possibly the Earliest Surviving Irish Codex Circa 625



The [Codex Usserianus Primus](#), an [Old Latin Gospel Book](#), also known as the *Ussher Gospels*, is thought to have been produced in Ireland, and may be the earliest surviving Irish codex. The manuscript is damaged, with the vellum leaves fragmentary and discolored. The remains of the approximately 180 vellum folios have been remounted on paper. It is also known as the *Ussher Gospels*.

"The manuscript has a single remaining decoration, a cross outlined in black dots at the end of the [Luke](#) (fol. 149v). The cross is between the Greek letters alpha and omega. It is also flanked by the *explicit* (an ending phrase) for Luke and the *incipit* (first few words) for Mark. The entire assemblage is contained within a triple square frame of dots and small "s" marks with crescent shaped corner motifs. The cross has been compared to similar crosses found in the Bologna Lactantius, the Paris St. John, and the Valerianus Gospels. Initials on folios 94, 101 and 107 have been set off by small red dots. This represents the first appearance of decoration by "dotting" around text, a motif which would be important in later [Insular](#) manuscripts" (Wikipedia article on the Codex Usserianus Primus).

Filed under: [Book History](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## The Naples Dioscorides Circa 625



Folio 90v of the Naples Dioscorides, a description of the Mandrake. (View Larger)

The [Naples Dioscorides](#) (Codex neapolitanus Ms. Ex Vindob. Gr. 1 Salerno) preserved in the Biblioteca Nazionale, Naples, is an early seventh century Greek herbal based on the *De Materia Medica* of the first-century Greek military physician [Dioscorides \(Dioscurides\)](#) containing descriptions of plants and their medicinal uses. Until the early 18th century the manuscript was preserved in the Augustine monastery of [San Giovanni a Carbonara](#) in Naples. In 1718, the [Habsburgs](#) plundered it for the Viennese Court Library. At the conclusion of the peace negotiations after World War I, in 1919, the codex returned to the Biblioteca Nazionale in Naples.

"Unlike *De Materia Medica*, the text is arranged alphabetically by plant. The codex derives independently from the same model as the [Vienna Dioscurides](#), composed ca. 512 for a Byzantine princess, but differs from it significantly: though the illustrations follow the same inferred model, they are rendered more naturalistically in the Naples Dioscurides. Additionally, in the Naples manuscript, the illustrations occupy the top half of each folio, rather than being full page miniatures as in the Vienna Dioscurides. The plant descriptions are recorded below the illustration in two or three columns. The style of Greek script used in the manuscript indicates that it was probably written in Byzantine-ruled southern Italy, where ancient Greek cultural traditions remained strong, although it is not known exactly where it was produced. Marginal notes indicate that the manuscript had contact with the medical school at Salerno in the fourteenth and fifteenth centuries" (Wikipedia article on Naples Dioscurides, accessed 02-03-2009).

Filed under: [Art and Science](#), [Medicine](#), [Technology](#), [Book Illustration](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Medicine](#), [Natural History](#), [Science](#) | [Bookmark or share this entry »](#)



## The Illuminated Gospel Book as a Tool for Evangelization 627



York Minster (View Larger)

The cathedral at York, [York Minster](#), is constructed first of wood in 627, and then in 637 in stone. "A period of instability followed with York vulnerable to attack from Penda of Mercia and the Britons of North Wales. We know that the city was overrun at least twice and probably three times between the death of Oswald in 641/2 and the Battle of the Winwaed in 654/5. In about 670 St. Wilfred took over the see of York and found the structure of Edwin's church fairly lamentable 'The ridge of the roof owing to its age let the water through, the windows were unglazed and the birds flew in and out, building their nests, while the neglected walls were disgusting to behold, owing to all the filth caused by the rain and the birds.'

"Saint Wilfred set to work renewing the roof and covering it with lead, whitewashing the interior walls and installing glass windows. Based on descriptions given of other churches built at a similar time it is possible to understand something of how Wilfred's restored church at York would have looked to the 7th century worshippers who entered it. The altar, within which relics were deposited, would have been decorated with purple silk hangings of intricate woven design. **Upon the altar, raised by a book rest and in a jewelled binding, would stand the illuminated gospel book.** The walls and probably also the testudo (a wooden partition screening the altar) would be adorned with icons painted on wooden panels depicting the types and anti-types of the Old and New Testaments. These church paintings were essential to the evangelization of England, being the only effective way of explaining the 'the new worship' to an illiterate population. Gregory the Great called them 'the books of the unlearned'."

Filed under: [Book History](#), [Bookbinding](#), [Libraries](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## A Library Containing "54,000 Rolls" 627



A portrait of emperor Taizong of Tang on a hanging silk scroll, currently preserved in the National Palace Museum in Taipei. (View Larger)

Under the reign of Chinese emperor [Taizong of Tang](#) (Chinese: 唐太宗; pinyin: Táng Tàizōng, Wade-Giles: T'ai-Tsung) a library is erected in the Chinese capital containing "some fifty-four thousand rolls" (Carter, *Invention of Printing in China*, 2nd ed [1955] 37).

Filed under: [Libraries](#), [Manuscripts & Manuscript Copying](#) | [Bookmark or share this entry](#) »

## The Origins of Printing in China 627 – 649

The Chinese practice of cutting in stone the text of the Confucian classics in order to ensure permanency and accuracy may date back as far as 175 CE. However, the earliest date to which ink rubbings on paper from these stones— a kind of pre-printing—can be assigned with certainty is the reign of [Taizong of Tang](#) (T'ai Tsung), during which "a rubbing was made which was discovered by [Pelliot](#) at [Tun-huang](#)" (Carter, *History of Printing in China*, 2nd ed [1955] 20).

Filed under: [Printing / Typography](#) | [Bookmark or share this entry](#) »

## Among the Oldest Qu'rans Known 628

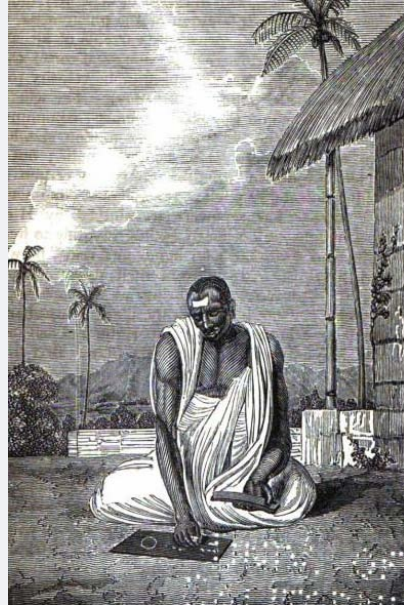


One of the Qu'ran fragments found in the loft of the Great Mosque in 1972. (View Larger)

The Library of [Maktabat al-Jami` al-Kabir \(Maktabat al-Awqaf\)](#), The Great Mosque, [San`a'](#), Yemen, built in the sixth year of Muhammad's Hijra, contains about 40 Qu'rans dating from the first century of hijra. These are among the oldest Qu'rans known.

Filed under: [Libraries](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## Early Advanced Mathematics 628



Brahmagupta

[Brahmagupta](#) writes *[Brahmasphutasiddhanta \(The Opening of the Universe\)](#)*. "It contains some remarkably advanced ideas, including a good understanding of the mathematical role of zero, rules for manipulating both negative and positive, a method for computing square roots, methods of solving linear and some quadratic equations, and rules for summing series, Brahmagupta's identity, and the Brahmagupta's theorem."

By this time a base 10 [numeral system](#) with nine symbols is widely used in India, and the concept of zero (represented by a dot) is known.

Filed under: [Mathematics / Logic](#) | [Bookmark or share this entry](#) »

## Death of Muhammad 632

Death of Muhammad.

"Muhammad, according to tradition, could neither read nor write, but would simply recite what was revealed to him for his companions to write down and memorize. Adherents to Islam hold that the wording of the [Qur'anic](#) text available today corresponds exactly to that revealed to Muhammad himself: words of God delivered to Muhammad through Jibril (Gabriel).

"According to some Muslim traditions, the companions of Muhammad began recording suras in writing before Muhammad died in 632; written copies of various suras during his lifetime are frequently alluded to in the traditions. . . . At Medina, about sixty-five companions are said to have acted as scribes for him at one time or another; the prophet would regularly call upon them to write down revelations immediately after they came."

Filed under: [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#) | [Bookmark or share this entry](#) »

## Foundation of the Monastery on Lindisfarne 634



Saint Aidan (View larger)

[Saint Aidan](#), an Irish monk from Iona, founds the monastery on the tidal island at [Lindisfarne](#) off the North-East coast of England. It becomes a center of learning with an important library.

Filed under: [Education / Reading / Literacy](#), [Libraries](#), [Religious Texts / Religion](#) | [Bookmark or share this entry »](#)

## 638 – 1099

Muslims occupy Jerusalem for 451 years, from 638 until 1099.

Filed under: [Social / Political](#) | [Bookmark or share this entry »](#)

## Arab Conquest of Egypt Resulted in Smaller Exports of Papyrus-- A Probable Cause of the Eventual Adoption of Greek Minuscule in Byzantine Book Production 641



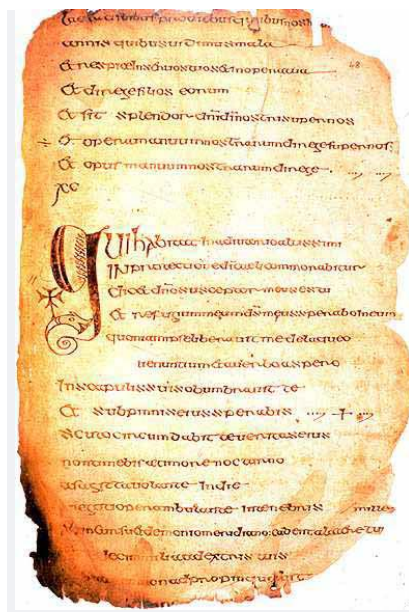
Canon 22 of the Council of Nicea II (British Museum, MS Barocci 26, fol. 140b), where the top is written in minuscule and the bottom in uncial. (View Larger)

Having conquered Egypt in 640, General ['Amr ibn al-'As](#) founds the city of [Fustat](#), later to named Cairo. This is the first city on the continent of Africa founded by Muslims.

As the only supply of papyrus came from Egypt, it is thought that the conquest of Egypt by the Arabs may have coincided with a reduced supply of papyrus in Constantinople, either because the papyrus plantations were exhausted or because the Arabs retained the available supply for their own use. This left Byzantine writers dependent on the more expensive medium of parchment, and may have contributed to the eventual adoption in book production of the more economical [minuscule](#) hand, which had previously mainly been employed for letters, documents, accounts, etc. "It occupied far less space on the page and could be written at high speed by a practised scribe" (Reynolds & Wilson, *Scribes and Scholars*, 3rd ed [1991] 59).

Filed under: [Book History](#), [Paper / Papyrus / Parchment / Vellum](#), [Social / Political](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## Possibly the Oldest Irish Manuscript Circa 650



A page from the Cathach of St. Columba. (View Larger)

The [Cathach of St. Columba](#), an early seventh century Irish Psalter, was traditionally associated with the copy made by [St. Columba](#) of a book loaned to him by [St. Finnian](#), and which led to the [Battle of Cúl Dreimhne](#) in 561; however palaeographic evidence suggests that it is a later copy.

"The Cathach is the first Insular book in which decoration begins to assume a significant role in articulating the text, with its decorated initials (their crosses and fish perhaps influenced by manuscripts associated with production in Rome under Pope Gregory the Great, combined with native Celtic ornament) and the diminuendo effect of the following letters linking them to the actual text script. Herein lie the origins of the magnificent full-page illuminated incipits of the Lindisfarne Gospels and the Book of Kells." (Michelle P. Brown, *Preaching with the Pen: the Contribution of Insular Scribes to the Transmission of Sacred Text, from the 6<sup>th</sup> to 9<sup>th</sup> Centuries* [2004]).

"The 58 folios in the damaged and incomplete vellum manuscript contain the text of Psalms 30:10 to 105:13 in Latin (the Vulgate version). [Rubrics](#) written in [Old Irish](#) appear above the text of the Psalms. It may be the oldest known Irish manuscript . . .

"The decoration of the Cathach is limited to the initial letter of each Psalm. Each initial is in black ink and is larger than the main text. They are decorated with trumpet, spiral and guilloch patterns and are often outlined with orange dots. These patterns are not merely appended to the letters or used to fill spaces. They instead distort the shape of the letters themselves. The letters following the enlarged initials gradually reduce in size until they reach the same size as the main text. Although the motifs of the Cathach decoration are not similar to

decorations in later manuscripts, such as the [Book of Durrow](#) (which followed the Cathach by as many as seventy years), the ideas of decoration which distorts the shape of the letters and the diminution of initial letters are ideas which are worked out in great detail in later [Insular art](#).

"The Cathach was enclosed in a shrine in the eleventh century by Cathbar O'Donnell head of the O'Donnell Clan and Domnall McGroarty Abbot of Kells. The shrine was carried into battle by the McGroartys as a talisman, consistent with its psalter's origins starting the [Battle of Cúl Dreimhne](#) between saints Finnian of Moville and Columba (hence the name: *Cathach* = "Battler"). The manuscript was rediscovered in 1813, when the shrine was opened. The Cathach was entrusted to the [Royal Irish Academy](#) in 1842 by Sir Richard O'Donnell. The O'Donnell family has since claimed ownership of the Cathach but the manuscript remains in the custody of the McGroartys, its official "Keepers". The Cathach's shrine is now in the [National Museum of Ireland](#), Dublin." (quotes from the Wikipedia).

Filed under: [Art](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Social / Political](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Book of Mulling Circa 650

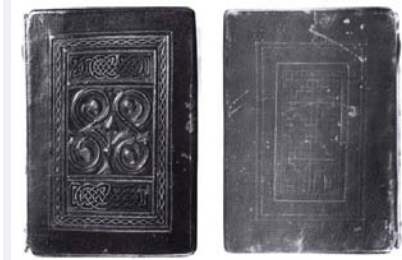


Folio 193 from the Book of Mulling. (View larger)

The [Book of Mulling](#), preserved along with its jeweled shrine in Dublin at Trinity College Library, is an Irish pocket [Gospel Book](#) that was probably copied from an autograph manuscript of [St. Moling](#). The text includes the four Gospels, a service which includes the "Apostles' Creed", and a plan of St. Moling's monastery. The script is a fine Irish minuscule. The decoration includes illuminated initials and three surviving Evangelist portraits: those of Matthew, Mark and John.

Filed under: [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## One of the Smallest Surviving Anglo-Saxon Manuscripts and the Earliest Surviving Western Binding in Europe Circa 650



The binding of the Stonyhurst Gospel. (View Larger)

The St. Cuthbert Gospel of St. John, also known as the [Stonyhurst Gospel](#), a small 7th-century pocket [gospel book](#), written in Latin, which belonged to [Saint Cuthbert](#) of [Lindisfarne](#), was discovered in 1104 when Cuthbert's tomb was opened so that his relics could be transferred to a new shrine behind the altar of [Durham Cathedral](#). It was kept with other relics until the [Dissolution of the monasteries](#) by Henry VIII between 1536-1541, when it passed to collectors.

"The state of preservation of this small volume (less than 5½ inches tall) might fairly be described as miraculous. Its leather is crimson-stained goatskin, stretched over thin wooden boards. Various details of the workmanship and decoration reveal a generally Mediterranean if not specifically Coptic influence. A direct Coptic influence is not indeed impossible, the relations between Coptic and Hiberno-Saxon art at this time having been long recognized; but it should be recalled that bookbinding models would also have been available at Wearmouth and Jarrow from the codices, already mentioned, recently imported from Italy. In any case the specific decorative technique of the upper cover of the Stonyhurst Gospel is precisely paralleled in Egyptian leatherwork. This technique involves the application of glued cords to the board, laid out in a pattern. Leather is then stretched over the board, and worked around the cords, bring out the pattern in relief.

"Three more European leather bindings of roughly comparable antiquity are preserved in the Landesbibliothek, Fulda. All come from the monastery of Fulda, where by ancient tradition they were thought to have belonged to St. Boniface (d. 754), the Anglo-Saxon martyr and apostle to the Germans, who was buried there. The binding of one of these, the [Cadmug Gospels](#) (written by an Irish scribe of that name), has many points of similarity with the Stonhurst Gospel binding. Both are small volumes; their leather is similar in color and character; and both have pigments in the scribed lines decorating the covers. They are sewn in what may very generally be called the Coptic manner: the quires are linked by the sewing thread(s), without the use of cords, and the threads are attached directly to the boards, by loops passing through holes drilled in the boards near their back edges. . . ." (Needham, *Twelve Centuries of Bookbindings 400-1600* [1979] 57-58).

"According to an inscription pasted to the inside cover of the manuscript, the Stonyhurst Gospel was obtained by the 3rd Earl of Lichfield (d. 1743) who gave it to Reverend Thomas Phillips (d. 1774) who donated it to the English Jesuit college at Liege on 20 June 1769.

"At only three and a half by five inches the Stonyhurst Gospel is one of the smallest surviving [Anglo-Saxon](#) manuscripts. The text is the [Gospel of John](#). It was written at the monastery of [Monkwearmouth-Jarrow Abbey](#) during the abbacy of [Ceolfrith](#). The original tooled goatskin binding is **the earliest surviving western binding in Europe, and the virtually unique survivor of Insular leatherwork**. It includes colour, and the panels of geometrical decoration with [interlace](#) closely relates to Insular [illuminated](#) manuscripts, and can be compared to the [carpet pages](#) found in these.

"The manuscript has been owned since 1769 by the Society of Jesus (British Province) and was formerly in the library of [Stonyhurst College](#), Lancashire. It has been on loan to the [British Library](#) since the 1970s where it has been (almost) permanently on display in its exhibition gallery" (Wikipedia article on Stonyhurst Gospel, accessed 11-22-2008).

Filed under: [Book History](#), [Bookbinding](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Finest Surviving Coptic Bookbinding Circa 650 – 750



MS M.569 of the Pierpont Morgan Library, considered the finest surviving Coptic bookbinding. (View Larger)

A [Coptic](#) bookbinding removed from an illuminated manuscript on parchment of the Four Gospels ([MS M. 569](#)) attributed to the Monastery of Holy Mary Mother of God, Perketoot near Hamuli, the Fayum, Egypt, and preserved in the Pierpont Morgan Library, is considered "the finest surviving Coptic bookbinding." It is tooled goatskin over papyrus boards; decorated with onlaid panels of red leather tracery sewn to a gilded leather ground, with plain edges.

"In 1910 the library of the ancient Coptic monastery of St. Michael of the Desert was discovered in southern Faym, near the village of Hamuli. Nearly sixty parchment volumes were found in a stone cistern, many still in their original bindings; they compose the largest surviving group of intact Coptic codices coming from a single source. The following year, Pierpont Morgan purchased the Hamuli manuscripts from a Paris art dealer, almost *en bloc*. At least five of the codices had already strayed, and are now in the Coptic and Egyptian Museums in Cairo, and a number of fragments, broken up from whole codices after the find, were more widely dispersed. That the remainder was kept together was due especially to the efforts of Professors Emile Chassinat and Henry Hyvernat.

"Before the discovery of the Hamuli codices there was no record of the monastery of Archangel Michael, but it was well known that the Fayum had been a thriving center of Coptic religious life, and that dozens of monasteries had been situated there. The Hamuli codices are all service books, intended for public reading, and their format is large. Only six are less than thirteen inches tall (33 cm.), and only one less than twelve inches (30cm.). They include various parts of the Bible, a Lectionary, an Antiphonary, and many volumes of Synaxeries, collections of readings--hagiographic, homiletic, and more generally devotional--belonging to particular feast days. The number of distinct texts, exclusive of the Bible, numbers well over one hundred, many otherwise unknown. Twenty of the codices have dated colophons, from 823 to 914, containing valuable information concerning the organization and personnel of St. Michael's, and its relations with neighboring monasteries. The relatively narrow chronological span of the codices suggests that the monastery disbanded or was destroyed sometime in the tenth century.

"It should be explained that through this period Egypt was part of the Islamic world, having fallen abruptly out of the Byzantine sphere in 641. This transfer of imperium had few if any immediate deleterious effects on Egyptian Christianity, which was already thoroughly alienated from Byzantium. Its submergence into a minority role in Egypt (but always and still an important one) came about gradually, as did the disappearance of the Coptic language. The general policy of medieval Islam toward Christian and Jewish subjects was tolerant, though they were required to pay a special infidels' tax. There were a number of sporadic instances of persecution in Egypt, the most extensive being that initiated by the [Fatimid caliph al-Hakim \(996-1020\)](#), which is known to have resulted in the destruction of many churches and monasteries. It may have been at this time that St. Michael of the Desert went under" (Needham, *Twelve Centuries of Bookbindings 400-1600* [1979] No. 2, 12).

Filed under: [Bookbinding](#), [Collecting Books](#), [Manuscripts](#), [Art](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## Codification of the Qur'an 653



The third [Caliph Uthman ibn Affan](#) causes the text of the Qur'an (Koran) to be codified. He places Zayd ibn Thabit (Zaid Ibn Thabit), the personal [scribe](#) of Prophet [Muhammad](#), in charge of the project. Identical copies are sent to every Muslim province to be used as the standard text from which all copies of the Qur'an will be made.

Filed under: [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#) | [Bookmark or share this entry »](#)

## Foundation of Corbie Abbey 659 – 661

[Balthild](#), widow of [Clovis II](#), and her son [Clotaire III](#), found [Corbie Abbey](#).

The first monks at Corbie came from [Luxeuil Abbey](#), which had been founded by Saint [Columbanus](#) in 590, and the Irish respect for classical learning fostered at Luxeuil was carried forward at Corbie. The rule of these founders was based on the [Benedictine rule](#), as modified by Columbanus.

"Above all, Corbie was renowned for its library, which was assembled from as far as Italy, and for its scriptorium. In addition to its [patristic](#) writings, it is recognized as an important center for the transmission of the works of Antiquity to the Middle Ages. An inventory (of perhaps the 11th century) lists the church history of [Hegesippus](#), now lost, among other extraordinary treasures. In the scriptorium at Corbie the clear and legible hand known as [Carolingian minuscule](#) was developed, in about 780, as well as a distinctive style of illumination.

"Three of Corbie's ninth-century scholars were [Ratramnus](#) (died ca. 868), [Radbertus Paschasius](#) (died 865) and the shadowy figure of [Hadoard](#). [Jean Mabillon](#), the father of paleography, had been a monk at Corbie.

"Among students of [Tertullian](#), the library is of interest as it contained a number of unique copies of Tertullian's works, the so-called *corpus Corbiense* and included some of his unorthodox [Montanist](#) treatises, as well as two works by [Novatian](#) issued [pseudepigraphically](#) under Tertullian's name. The origin of this group of non-orthodox texts has not satisfactorily been identified.

"Among students of medieval architecture and engineering, such as are preserved in the notebooks of [Villard de Honnecourt](#), Corbie is of interest as the center of renewed interest in geometry and surveying techniques, both theoretical and practical, as they had been transmitted from Euclid through the *Geometria* of [Boethius](#) and works by [Cassiodorus](#) (Zenner).

"In 1638, 400 manuscripts were transferred to the library of the monastery of [St. Germain des Prés](#) in Paris. In the French Revolution, the library was closed and the last of the monks dispersed: 300 manuscripts still at Corbie were moved to Amiens, 15 km to the west. Those at St-Germain des Prés were loosed on the market, and many rare manuscripts were obtained by a Russian diplomat, Petrus Dubrowsky, and sent to St. Petersburg. Other Corbie manuscripts are at the Bibliothèque Nationale. Over two hundred manuscripts from the great library at Corbie are known to survive" (Wikipedia article on Corbie Abbey, accessed 08-20-2009).

Filed under: [Architecture](#), [Book History](#), [Libraries](#), [Science](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## Earliest Western Reference to Indian or Arabic Numerals 662

"The earliest reference in the Mediterranean world to the Indian system of numeration [Arabic numerals] dated from the mid-seventh century, just after the rise of Islam. In a fragment, dated 662, of a work by [Severus Sebokht](#), the learned bishop of the monastery of Quinnasrin (located on the Euphrates in Syria), the bishop expresses his admiration for the Indians because of their valuable method of computation 'done by means of nine signs.' Severus had probably learned about the system from Eastern merchants active in Syria. This ingenious and eminently simple system of representing any quantity by using nine symbols in decimal place value (there was originally no zero) arose in India perhaps as early as the fifth century. The Indian system seems to have been known in Baghdad as early as 770, or less than a decade after its founding, but it was principally diffused through the writings of the Abbasid mathematician and geographer Muhammad ibn Musa al-Khwarizmi (al-Khwarazmi) who died around 846" (Bloom, *Paper Before Print. The History and Impact of Paper on the Islamic World* [2001] 129).

Filed under: [Mathematics / Logic](#) | [Bookmark or share this entry »](#)

## King Oswiu Causes Britain to Embrace the Mainstream of Christianity 664



King Oswiu (View Larger)

At the [Synod of Whitby](#) held at St. Hild's monastery in Whitby, England, to resolve disputes between the "Roman" church founded by Augustine and the "Celtic" church founded by Columba, [King Oswiu of Northumbria](#) decided in favor of the Roman church, ruling that his kingdom would calculate Easter and observe the monastic [tonsure](#) according to the customs of Rome, rather than the customs practiced by [Iona](#) and its satellite institutions. This decision caused Britain to embrace the mainstream of Christianity.

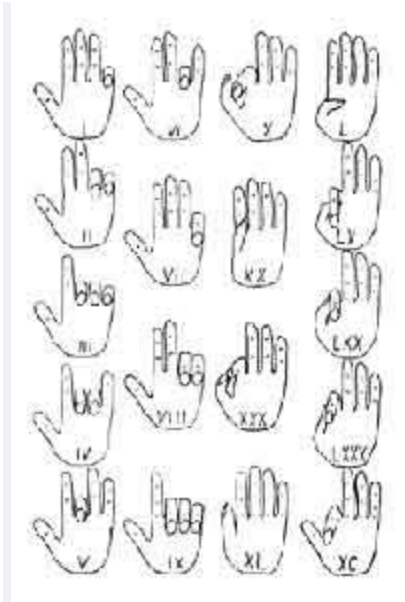
Filed under: [Religious Texts / Religion](#), [Social / Political](#) | [Bookmark or share this entry »](#)

## 670

Arabs begin their invasion of North Africa.

Filed under: [Military / Warfare](#), [Social / Political](#) | [Bookmark or share this entry »](#)

## Perhaps the Earliest Extant Treatise on Finger Reckoning 688



A chart of the positions used in finger notation. (View Larger)

A manuscript entitled [Romana computatio](#), dated 688, appears to be the earliest extant document on ancient Roman techniques of [finger reckoning](#). It was probably used as a source by the Venerable Bede for his *De tempore ratione liber* (725).

Sherman, *Writing on Hands. Memory and Knowledge in Early Modern Europe* (2000) 28.

Filed under: [Data Processing / Computing](#), [Mathematics / Logic](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## A Library Containing Manuscripts from All Parts of the Known World 690



A map of the Umayyad Caliphate at its greatest extent, in 750 CE. (View Larger)

Rulers of the [Umayyad Caliphate](#) in Damascus, Syria, establish a palace library for which they obtain manuscripts from all parts of the known world.

Filed under: [Libraries](#), [Manuscripts & Manuscript Copying](#) | [Bookmark or share this entry »](#)

**691**



The Dome of the Rock at Temple Mount in Jerusalem. (View Larger)

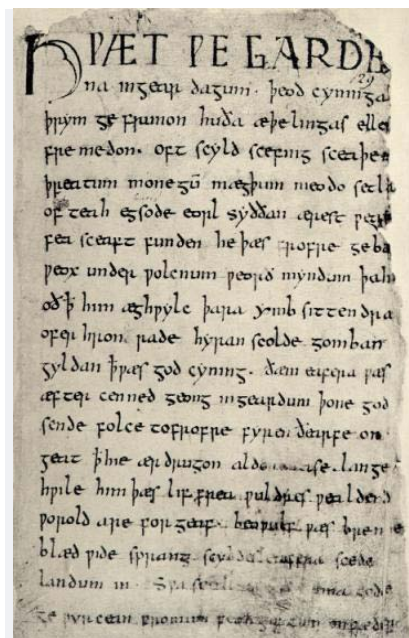
To commemorate the Prophet Muhammad's "[Night Journey](#)," [Caliph 'Abd al-Malik](#) builds the [Dome of the Rock](#) in Jerusalem on the site of the [Temple Mount](#).

Filed under: [Religious Texts / Religion](#), [Social / Political](#) | [Bookmark or share this entry »](#)

## About 1800 Latin Manuscripts Survive from 400 to 699 Circa 699

According to [Bernhard Bischoff](#), *Manuscripts and Libraries in the Age of Charlemagne* (2007) p.1, "approximately 1800 Latin manuscripts" survive from the fifth to the eighth centuries.

## Beowulf 700 – 1000



The first page of the Beowulf manuscript. (View Larger)

[Beowulf](#), a traditional heroic epic poem written in Old English alliterative verse, and representing with its 3,182 lines 10% of all surviving [Old English](#) poetry, is known from *one medieval manuscript* that dates from between the 8th and the 11th century. The manuscript, known as the [Nowell Codex](#), is preserved in the British Library.

"The unique copy of *Beowulf* is preserved in the [Cottonian collection](#) of manuscripts that suffered from a great fire in 1731. It remained in its burnt binding until the middle of the nineteenth century, when Sir Frederic

Madden, Keeper of Manuscripts at the British Museum, undertook to restore these damaged manuscripts in his care. His bookbinder first traced the outline of each burnt leaf, cut out the center of the tracing except for a retaining edge of about 2mm, and pasted and taped the vellum leaf to the paper frame. Then he rebound the framed leaves in a new cover. The method well preserved the fragile bits of text along the burnt edges of the leaves, but the retaining edges of the paper mounts, and the paste and tape used to secure the leaves to them, hide from view many hundreds of letters and bits of letters. Today they are visible only if one holds a bright light directly behind them, an ineffectual solution if one lacks the manuscript, the bright light, or the permission to use them together" ([The Electronic Beowulf](#), 1993, accessed 06-15-2009).

Filed under: [Fiction](#), [Science Fiction](#), [Drama](#), [Poetry](#), [Manuscripts & Manuscript Copying](#), [Preservation & Conservation of Information](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## One of the Oldest Hebrew Fragments Written in Europe Circa 700

One of the oldest fragments of a Hebrew manuscript written preserved in Europe is probably a Latin palimpsest written on fragments of a Hebrew roll which contained liturgy for Yom Kippur. It is preserved at the [Bayerische Staatsbibliothek](#), CLM 6325.

Malachi Beit-Arié, "How Hebrew Manuscripts are Made," Gold (ed.) *A Sign and a Witness. 2000 Years of Hebrew Books and Illuminated Manuscripts* (1988) 36.

Filed under: [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Earliest Surviving Letter Known to Have Been Written from One Englishman to Another 704 – 705

Bishop Wealdhere of London writes a "letter close" to Archbishop Brihtwold of Canterbury.

This is the earliest surviving

"letter known to have been written by one Englishman to another. . . . Although the letter has no dating clause, internal evidence shows that it cannot have been written earlier than 704, the year of Centred's accession to the Mercian throne, or later than 705, the year of Bishop Haedde's death" (Pierre Chaplais, "The letter from Bishop Wealdhere of London to Archibshop Brihtwold of Canterbury: the earliest original 'letter close' extant in the West", Parkes and Watson (eds.) *Medieval Scribes, Manuscripts & Libraries. Essays presented ot N.R. Ker* [1978] 3-4).

- ◆ Just as today, single letters stand a much lesser chance of long-term preservation than bound volumes.
- ◆ The Vindolanda Writing Tablets, excavated from the Roman fort of Vindolanda in Northern Britain in the 20th century, and noticed in this database, include letters from Roman soldiers stationed in Britannia, circa 100 CE.
- ◆ With the departure of the last Roman legions from Britain in 410 CE, and the end of Roman rule in Brittainia, literacy left England. From the time of the departure of the Romans to the arrival of in 597 of Augustine of Canterbury on a mission to convert the Anglo-Saxons, and for a period thereafter, it is believed that the people of Britain were essentially illiterate.

Filed under: [Communication](#), [Education / Reading / Literacy](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## The Oldest Surviving Block Printing 704 – 751

Blockprinting on paper is thought to have started in China in the seventh century, but no examples survive. "The oldest surviving printing was found in 1966 in a stupa in the Buddhist temple Pulguk-sa, Kyongju, Korea. It is a [small dharani scroll printed 704-751](#)" (Schoyen Collection, 21.Pre-Gutenberg Printing).

Filed under: [Paper / Papyrus / Parchment / Vellum](#), [Printing / Typography](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## Foundation of the Empire of al-Andalus in Spain April 30 – July 19, 711



A map displaying the expansion of the Umayyad empire. (View Larger)

A muslim army from North Africa invades southern Spain, creating the empire of [al-Andalus](#).

Under the orders of the Great Umayyad Caliph [Al-Walid I](#), [Tariq ibn-Ziyad](#) led a small force from North Africa that landed at [Gibraltar](#) on April 30, 711. After a decisive victory at the [Battle of Guadalete](#) on July 19, 711, Tariq ibn-Ziyad brought most of the Iberian Peninsula under Muslim occupation in a seven-year campaign. . . .

The Iberian peninsula, except for the [Kingdom of Asturias](#), became part of the expanding [Umayyad empire](#), under the name of [al-Andalus](#). The earliest attestation of this Arab name is a [dinar](#) coin, preserved in the Archaeological Museum in [Madrid](#), dating from five years after the conquest (716). The coin bears the word "al-Andalus" in Arabic script on one side and the Iberian Latin "Span" on the obverse" (Wikipedia article on Al-Andalus, accessed 12-14-2008).

Filed under: [Military / Warfare](#), [Social / Political](#) | [Bookmark or share this entry »](#)

## One of the Earliest Newspapers, Written on Silk 713 – 734



A reproduction of the Kalyuan Za Bao, one of the earliest newspapers. (View Larger)

[Kaiyuan Za Bao](#), or Kaiyuan Chao Pao, *Bulletin of the Court*, an early newspaper, is published during the [Kaiyuan era](#). It may also be considered "the world's first magazine."

Handwritten on silk, *Bulletin of the Court* collected political and domestic news, mainly for distribution to government officials.

Filed under: [Manuscripts & Manuscript Copying](#), [News Media / Journalism](#), [Publishing](#) | [Bookmark or share this entry »](#)

## Creation of the Lindisfarne Gospels 715 – 720



Folio 27r of the Lindisfarne Gospels. (View Larger)

[Eadfrith](#), [Bishop of Lindisfarne](#), undertakes the production of the [Lindisfarne Gospels](#). Among the features of this masterpiece are the compass marks, grids and lead-point drawings visible on the backs of the carpet pages showing how the scribe created the designs for the elaborate illuminations reflecting clear connections with the design methods used in sculpture and metalwork from the region. The Celtic designs of the manuscript observe the rules of sacred geometry, and are thought to reflect a blend of Eastern "[eremitic](#)" and Western monastic traditions.

"Details were added freehand with a lead-point, the forerunner of the pencil. The use of this was apparently invented by the artist-scribe some 300 years ahead of its time as an alternative to the usual hard-point of bone or metal, which would have trapped the apoint of the fine web of ornament in the furrows it produced (as it did not elave a graphic mark on the page but only dented impressions)" (Brown, *Painted Labyrinth*, 34).

According to a colophon added in the tenth century by [Aldred](#) at [Chester-le-Street](#), the Lindisfarne Gospels were created by

"the artist-scribe Eadfrith, Bishop of Lindisfarne (698-721); the binder Bishop Aethilwald of Lindisfarne (c. 721-750); the metalworker who adorned the binding or book-shrine (now replaced by a 19-century treasure binding), Billfrith the [Anchorite](#), or hermit (who died sometime before 840). Aldred says that the work was undertaken for God and [St. Cuthbert](#). An inscription added some 250 years later cannot be taken at face value, and Ireland, Echternach in Luxembourg and Jarrow have also been proposed as possible places of production of the Lindisfarne Gospels. However, historical and stylistic evidence indicate that the colophon may be right" (Michelle P. Brown, *Painted Labyrinth. The world of the Lindisfarne Gospels* [2004] 14).

"The Gospels are richly illustrated in the insular style, and were originally encased in a fine leather binding covered with jewels and metals made by Billfrith the [Anchorite](#) in the 8th century. During the [Viking](#) raids on Lindisfarne, however, this cover was lost, and a replacement made in 1852. The text is written in [insular script](#)" (Wikipedia article on Lindisfarne Gospels, accessed 12-15-2008).

The Gospels were taken from [Durham Cathedral](#) during the dissolution of the monasteries ordered by [Henry VIII](#), and were acquired in the early 17th century by [Sir Robert Cotton](#) from Thomas Walker, Clerk of the Parliaments. [Cotton's library](#) came to the [British Museum](#) in the 18th century, and from there to the [British Library](#) in London.

Filed under: [Art](#), [Bookbinding](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## **The Earliest Surviving Complete Bible in the Latin Vulgate, and One of the Earliest Surviving Images of Bookbindings and a Bookcase 716**



Folio 5r of Codex Amiatinus, showing Ezra. (View Larger)

Under the direction of Abbot Ceolfrid, teacher of [Bede](#), the huge Bible, later known as the [Codex Amiatinus](#), which weighs over 75 pounds, was completed in a monastery either at Wearmouth or Jarrow, in the north of England in the late seventh century. It was "modelled on a lost Vivarium manuscript taken to Northumbria from Rome in 678 by the founder of the monasteries, Benedict Biscop" (M. Davies, "Medieval Libraries" in D. Stam (ed.) *International Dictionary of Library Histories*, I [2001] 105). This lost manuscript was most probably one of Cassiodorus's Bibles from the Vivarium—probably the *Codex grandior littera clariore conscriptus*.

The frontispiece illustrated here shows a saintly figure, presumably the Old Testament prophet Ezra, or possibly Cassiodorus himself characterized as Ezra, writing a manuscript on his lap and seated before an open book cupboard or *armaria* which contains a Bible in nine volumes, like the *Codex grandior*, known to have been owned by [Cassiodorus](#). This is one of the earliest surviving images of bookbindings, and also one of the earliest surviving images of an early form of bookcase. Clasps holding the covers of the bindings closed are clearly visible on the fore-edges of the bound manuscripts lying on the shelves—one of the earliest images of this binding feature. In *Twelve Centuries of Bookbindings 400-1600* (1979; p. 57) Paul Needham suggested that the designs on the bookbindings as they are represented in the miniature bear similarities to the designs of early Coptic bookbindings.

To offer the [Codex Amiatinus](#) as a present to Pope Gregory II, Abbot Ceolfrid, made the long journey to Rome in old age, departing in 716. Though Ceolfrid died on the journey, his associates brought the volume to the Pope as a cultural "ambassador of the English nation."

It is the earliest surviving manuscript of the complete Bible in the [Latin Vulgate](#) version, and is considered the most accurate copy of [St. Jerome](#)'s text. It was used in the revision of the Vulgate by Pope Sixtus V in 1585-90. The manuscript, long kept in the abbey of Monte Amiata in Tuscany, from which its name is derived, is preserved in the Laurentian Library in Florence.

"For centuries it was considered an Italo-Byzantine manuscript, and it was only recognized for its English production about a century ago" (Browne, *Painted Labyrinth. The World of the Lindisfarne Gospels* [2004] 9).

"It is recorded by Bede that Ceolfrid had two other copies of the Bible made, besides that which he took as a gift to the Pope. In 1909 a single leaf, in writing closely resembling that of the Amiatinus, was discovered by the Rev. W. Greenwell in a curiosity shop in Newcastle, and within this last year eleven more leaves, which had been utilised to form the covers of estate accounts in the north of England, were . . . secured for the nation. All twelve leaves, which include parts of 1 and 2 Kings, and unquestionably form part of one of the sister codices of the Amiatinus, are now in the British Museum, where they are a monument of the time when, under the leadership of Benedict Biscop, Ceolfrid, and especially Bede, the north of England led the Western world in scholarship" (Kenyon, *Our Bible & the Ancient Manuscripts* 4th Ed. [1939] 175).

Filed under: [Book History](#), [Bookbinding](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)



## One of the Oldest, Largest, and Most Significant Medieval Libraries 719



The library in the Abbey of St. Gall. (View Larger)

The [Benedictine Abbey of St. Gall](#), Switzerland, is founded on a site that had been used for religious purposes since 613.

"Around 613 an Irishman named [Gallus](#), a disciple and companion of Saint [Columbanus](#), established a hermitage on the site that would become the Abbey. He lived in his cell until his death in 646.

"Following Gallus' death, [Charles Martel](#) appointed Othmar as a custodian of St Gall's relics. During the reign of [Pepin the Short](#), in 719, Othmar founded the Abbey of St. Gall, where arts, letters and sciences flourished. Under Abbot [Waldo of Reichenau](#) (740-814) copying of manuscripts was undertaken and a famous library was gathered. Numerous [Anglo-Saxon](#) and [Irish](#) monks came to copy manuscripts. At [Charlemagne](#)'s request Pope [Adrian I](#) sent distinguished chanters from Rome, who propagated the use of the [Gregorian chant](#).

"In the subsequent century, St. Gall came into conflict with the nearby [Bishopric of Constance](#) which had recently acquired jurisdiction over the Abbey of [Reichenau](#) on [Lake Constance](#). It wasn't until King [Louis the Pious](#) (ruled 814-840) confirmed the independence of the Abbey, that this conflict ceased. From this time until the 10<sup>th</sup> Century, the Abbey flourished. It was home to several famous scholars, including [Notker of Liège](#), [Notker the Stammerer](#), [Notker Labeo](#) and Hartker (who developed the [Antiphonal liturgical books](#) for the Abbey). During the 9<sup>th</sup> Century a new, larger church was built and the library was expanded. Manuscripts on a wide variety of topics were purchased by the Abbey and copies were made. Over 400 manuscripts from this time have survived and are still in the library today" (Wikipedia article on Abbey of St. Gall, accessed 01-17-2009).

The Abbey contains one of the oldest, largest and most significant medieval libraries, consisting of 2100 codices. It is the only major medieval convent library still standing in its original location. 400 of the codices in this library date before 1000 CE. These manuscripts are being made available on the Internet in a virtual library, the [Codices Electronici Sangallenses](#).

Filed under: [Libraries](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## Finger Reckoning and Computus in the Eighth Century 725



A portrait of the Venerable Bede, by John Doyle Penrose, c. 1902.

Northumbrian Anglo-Saxon monk, the [Venerable Bede](#), writes *De temporum ratione* (*On The Reckoning Of Time*).

"The noted historian of science, [George Sarton](#), called the eighth century 'The Age of Bede'. Bede wrote several major scientific works: a treatise *On the Nature of Things*, modeled in part after the work of the same title by [Isidore of Seville](#); a work *On Time*, providing an introduction to the principles of Easter [computus](#); and a longer work on the same subject; *On the Reckoning of Time*, which became the cornerstone of clerical scientific education during the so-called [Carolingian renaissance](#) of the ninth century. He also wrote several shorter letters and essays discussing specific aspects of computus and a treatise on grammar and on figures of speech for his pupils.

"*On the Reckoning of Time* (*De temporum ratione*) included an introduction to the traditional ancient and medieval view of the cosmos, including an explanation of how the spherical earth influenced the changing length of daylight, of how the seasonal motion of the Sun and Moon influenced the changing appearance of the New Moon at evening twilight, and a quantitative relation between the changes of the Tides at a given place and the daily motion of the moon. Since the focus of his book was calculation, Bede gave instructions for [computing the date of Easter](#) and the related time of the Easter Full Moon, for calculating the motion of the Sun and Moon through the [zodiac](#), and for many other calculations related to the calendar. He gives some information about the months of the Anglo-Saxon calendar in chapter XV. Any codex of [Bede's Easter cycle](#) is normally found together with a codex of his 'De Temporum Ratione' " (Wikipedia article on Bede, accessed on 11-22-2008).

The first chapter of Bede's *De temporum ratione liber* entitled "De computo et loquela digitorum" (On computing and speaking with the fingers) explained the method of finger reckoning which had evolved since the ancient world, as a reliable method, especially when a writing surface or writing implements were not available. Though the method was mentioned by classical authors such as Herodotus, no treatises on the topic survived, and it is thought that the technique was passed down mainly through oral tradition. Bede described "upwards of fifty finger symbols, the numbers extending through one million" (Smith, *History of Mathematics* [1925] II, 200). Undoubtedly Bede's text, of which numerous medieval manuscripts survived, was influential on conveying the method during the Middle Ages. Bede's text on finger reckoning was first published by [Johannes Aventinus](#) in *Abacus atque vetustissima veterum Latinorum per digitos manusque numerandi* (1522).

For a discussion of Bede's manual calculating methods see Sherman, *Writing on Hands. Memory and Knowledge in Early Modern Europe* (2000) 28-30.

Filed under: [Data Processing / Computing](#), [Mathematics / Logic](#), [Science](#) | [Bookmark or share this entry »](#)

## The Oldest English Translation of Any Portion of the Bible 725 – 750



Folio 30v of the Vespasian Psalter, depicting David with musicians. (View Larger)

The *Vespasian Psalter*, an illuminated Psalter produced in southern England, perhaps in [St. Augustine's Abbey](#) or [Christ Church, Canterbury](#) or [Minster-in-Thamet](#), contains an interlinear gloss in [Old English](#) which is the oldest extant English translation of any portion of the Bible.

"The psalter contains the Book of Psalms together with letters of [St. Jerome](#), hymns and canticles. It was written in Latin on vellum, using a southern English [Uncial](#) script with [Rustic Capital rubrics](#). There were additions made by a scribe named [Eadui Basan](#) in an English [Carolingian minuscule](#). The English gloss was written in a Southumbrian pointed [minuscule](#)."

"There are several major initials which are historiated, zoomorphic, or decorated. Major initials are found at the beginning of Psalms 1, 51 and 101. (This tripartite division of the Psalter is typical of [Insular](#) Psalters). In addition, the psalms beginning each of the liturgical divisions of the Psalter are given major initials. The beginning letters of the other Psalms have smaller "minor" initials which are decorated or zoomorphic and are done in what is called the "antenna" style. There is a miniature of King David with his court musicians on folio 30 verso. It is probable that this miniature was originally the opening miniature of the psalter. [Sir Robert Cotton](#) pasted a cutting from the Breviary of Margaret of York on folio 160 verso. He also inserted a miniature from a 13th Century liturgical psalter as folio 1.

"The Psalter belongs to a group of manuscripts from Southern England known as the Tiberius group. The manuscript was produced during the second quarter of the 8th century. The script of the Old English gloss is typical of the script produced in Canterbury scriptoria from about 820 to 850. Eadui Basan, who made additions to the manuscript, was a monk at Christ Church, Canterbury during the early 11th Century. [Thomas of Elmham](#) recorded a Psalter at Canterbury which may have been the Vespasian Psalter. The manuscript was at Canterbury in 1553. It was subsequently owned by Sir [William Cecil](#) and [Matthew Parker, Archbishop of Canterbury](#). By 1599 it was the possession of [Sir Robert Cotton](#), who signed it on folio 12 recto. It became national property, along with the rest of the [Cotton library](#) in 1702 and was incorporated into the [British Museum](#) when it was founded in 1753. The volume was the first in the [Vespasian](#) shelf section in the part of the library indexed by the names from a set of busts of the Roman Emperors on top of the shelves. Its current binding, with metal clasps, was provided by Cotton" (Wikipedia article on Vespasian Psalter, accessed 11-26-2008).

Filed under: [Collecting Books](#), [Manuscripts](#), [Art](#), [Manuscript Illumination](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## The Earliest Surviving Copy of St. Benedict's Rules Circa 725



A painting of St. Benedict drafting the Benedictine Rules, by Herman Nieg, c. 1926. The painting resides in the church of Heiligenkreuz Abbey near Baden bei Wien, Lower Austria. ([View Larger](#))

The manuscript of the [Rule of St. Benedict](#) written in England in during the first part of the eighth century, in uncial script on the model of Italian manuscripts, "must have belonged to one of the earliest communities of Roman monks in England" (de Hamel, *History of Illuminated Manuscripts* [1986] 13, caption to plate 5). It is the oldest surviving copy of Benedict's Rules for monastic life, including the value of scribal work. The manuscript is preserved in the Bodleian Library, Oxford (Ms. Hatton 48, f. 17v). That the earliest surviving copy of this seminal text for the operation of monasteries should originate in England at this date tells much about the instability of continental institutions from the time of Benedict's promulgation of the rules in 529 through the eighth century.

Filed under: [Religious Texts](#) / [Religion](#), [Survival of Information](#), [Writing](#) / [Palaeography](#) / [Calligraphy](#) | [Bookmark or share this entry](#) »

## The Foundation of English History Circa 731



Historia ecclesiastica gentis Anglorum, folio 3v of Beda Petersburgiensis, dated 746. (View Larger)

A [Benedictine](#) monk at the [Northumbrian](#) monastery of Saint Peter at [Monkwearmouth](#), England, and of its companion monastery, Saint Paul's, in modern [Jarrow](#), the [Venerable Bede](#) completes [Historia ecclesiastica gentis Anglorum](#) (*The Ecclesiastical History of the English People*). This work is the founding document of English History.

"His works show that he had at his command all the learning of his time. It was thought that the library at Wearmouth-Jarrow was between 300-500 books, making it one of the largest and most extensive in England. It is clear that [Biscop](#) made strenuous efforts to collect books during his extensive travels."

"Bede's writings are classed as scientific, historical and theological, reflecting the range of his writings from music and [metrics](#) to exegetical Scripture commentaries. He was proficient in [patristic](#) literature, and quotes Pliny the Elder, Virgil, Lucretius, Ovid, Horace and other classical writers, but with some disapproval. He knew some Greek, but no Hebrew. His Latin is generally clear and without affectation, and he was a skilful storyteller. . ." (Wikipedia article on Bede, accessed 11-22-2008).

Filed under: [Book History](#), [Collecting Books](#), [Manuscripts](#), [Art](#), [Libraries](#), [Manuscripts & Manuscript Copying](#), [Science](#) | [Bookmark or share this entry](#) »

## Charles Martel Stops Muslim Expansion at the Battle of Tours 732



Charles de Steuben's 'Bataille de Poitiers,' created at sometime between 1834 and 1837, now located at Musée du château de Versailles, France. (View Larger)

At the [Battle of Tours](#) (also called the Battle of Poitiers), the Frankish king [Charles Martel](#) ("Charles the Hammer") decisively stops the Muslim army's advance into Northern Europe.

"The [Battle of Tours](#) earned Charles the [cognomen](#) "Martel" ('Hammer'), for the merciless way he hammered his enemies. Many historians, including the great military historian [Sir Edward Creasy](#), believe that had he failed at Tours, Islam would probably have overrun [Gaul](#), and perhaps the remainder of western Christian Europe. [Gibbon](#) made clear his belief that the Umayyad armies would have conquered from Rome to the Rhine, and even England, having the English Channel for protection, with ease, had Martel not prevailed. Creasy said "the great victory won by Charles Martel ... gave a decisive check to the career of Arab conquest in Western Europe, rescued Christendom from Islam, [and] preserved the relics of ancient and the germs of modern civilization." Gibbon's belief that the fate of Christianity hinged on this battle is echoed by other historians including [John B. Bury](#), and was very popular for most of modern historiography. It fell somewhat out of style in the twentieth century, when historians such as Bernard Lewis contended that Arabs had little intention of occupying northern France. More recently, however, many historians have tended once again to view the Battle of Tours as a very significant event in the history of Europe and Christianity. Equally, many, such as William Watson, still believe this battle was one of macrohistorical world-changing importance, if they do not go so far as Gibbon does rhetorically" (Wikipedia article on Battle of Tours, accessed 12-14-2008).

Filed under: [Military / Warfare](#), [Social / Political](#) | [Bookmark or share this entry](#) »

## Earliest Examples of Block Printed Script, Printed on Silk 734

Date of the earliest examples of Japanese printed silk in which the date forms part of the pattern. "These dates [also 740] are the earliest examples in the world of block printed script, and it is not surprising to find that they antedate by only a few years the first block prints on paper from Japan." (Carter, *Invention of Printing in China* 2nd ed [1955] 195).

Filed under: [Printing / Typography](#) | [Bookmark or share this entry](#) »

## From the Libraries of Richard Mead and Anthony Askew 736 – 760



Folio 5r of Codex Beneventanus, Jerome's letter. (View Larger)

According to a subscription on folio 239 verso, the [Codex Beneventanus](#), an illuminated [Gospel Book](#), was written by a monk named Lupus for one Ato, who was probably Ato, abbot from 736-760 of the monastery of St. Vincent on the Volturmo, near [Benevento](#), Italy.

"The codex contains the [Vulgate](#) version of the four Gospels, the [canon tables](#) of [Eusebius of Caesarea](#), the letter of [St. Jerome](#) to [Pope Damasus](#) (*Novum opus*), the prologue of St. Jerome to the Gospels (*Plures fuisse*), and prologues and chapter lists for each of the Gospels. The text is written on vellum in two columns in [Uncial](#) script with no division between words. The running titles are in small uncials while the incipits and explicits are in capitals. The incipits and explicits are written in alternating lines of red and black ink. The subscription of

Lupus is written in uncials, and also has alternating lines of red and black ink. The text contains additional punctuation and annotations in a 10th century Beneventuan hand."

"By the 13th century it [the manuscript] was associated with St. Peter's convent in Benevento. In the first half of the 18th century it was owned by [Dr. Richard Mead](#), and was used by [Dr. Richard Bentley](#) in his collation of New Testament texts. Dr. Mead may have acquired the manuscript in the 1690s when he traveled to Italy, however, the manuscript did not appear in the catalog of the sale of his library in 1754-55. The manuscript was later owned by [Anthony Askew](#) (d. 1754). It was purchased by John Jackson in 1785 at the sale of Askew's manuscripts. The British Library purchased it in 1794 at the sale of Jackson's manuscripts" (Wikipedia article on Codex Beneventanus, accessed 06-15-2009).

Filed under: [Collecting Books, Manuscripts, Art, Manuscripts & Manuscript Copying, Religious Texts / Religion](#) | [Bookmark or share this entry »](#)

## Most of the Surviving Greek Literature was Translated into Arabic by 750

"Most of the surviving Greek literature was translated into Arabic by 750, and Aristotle, for example, became so widely studied that literally hundreds of books were written about him by Arabic scholars. The Moslems also obtained Greek works from Constantinople through regular trade channels and captured others in their various wars with the Eastern Empire" (Harris, *History of Libraries in the Western World* 4th ed [1999] 78).

"The early Abbasid Caliphs, adopting a religious philosophy that encouraged learning and debate, promoted the establishment of universities and libraries throughout their realm. Early beginnings were made under Al-Mansur (754-775) and Harun al-Rashid (785-809) of *Arabian Nights* fame, but was Al-Mamun the Great (813-833) who brought the "House of Learning" or university at Baghdad into prominence. With libraries, laboratories, subsidized scholars, a translating service, and even an astronomical observatory, this institution attracted scholars from Spain to India" (Harris 79).

Filed under: [Education / Reading / Literacy, Libraries, Manuscripts & Manuscript Copying, Survival of Information](#) | [Bookmark or share this entry »](#)

## The Earliest Known Example of an Historiated Initial and the Earliest Witnesses to Bede's Text Circa 750



The oldest known historiated initial, found in the St. Petersburg Bede, also known as the Leningrad Bede.

The earliest known example of an [historiated initial](#)—an enlarged letter at the beginning of a paragraph or other section of text which contains a picture—is in the [St Petersburg Bede](#), an [Insular](#) manuscript, which was written about 750 CE. This manuscript and the manuscript known as the "Moore Bede" are the earliest witnesses to Bede's text.

#### *The Saint Petersburg Bede*

"Traditionally, the Saint Petersburg Bede is attributed on palaeographic grounds to Bede's [monastery](#) at [Wearmouth-Jarrow](#). It is also traditionally dated to 731/732 × 746 on the basis of the so-called Memoranda, a series of retrospective dates found in the margins of Bede's *recapitulo* in Book V Chapter 24. The validity of these Memoranda (and similar notes in the [Moore Bede](#)) as evidence for the precise year in which the manuscript was copied has been vigorously challenged. While it may not be possible to assign the manuscript to a specific year, it seems unlikely that it was copied much after the middle of the eighth century." (Wikipedia article on the Saint Petersburg Bede, accessed 11-22-2008)

The Saint Petersburg Bede (Saint Petersburg, [National Library of Russia](#), lat. Q. v. I. 18), formerly known as the Leningrad Bede, is one of the two earliest surviving illuminated manuscripts of Bede's [Historia ecclesiastica gentis Anglorum](#) (*Ecclesiastical History of the English People*). It was taken to the Russian National Library at the time of the French Revolution.

#### *The Moore Bede*

"The Moore Bede is traditionally dated to 734 × 737 on the basis of the so-called Moore Memoranda, a series of chronological notes preserved on f. 128v. Although the validity of these (and similar notes in The Leningrad [St. Petersburg] Bede) as evidence for the manuscript's date has been challenged vigorously, the manuscript can be dated securely to the eighth century on [palaeographic](#) and [codicological](#) grounds.

"The manuscript is now thought "likely to be English in origin" (Ker 1990). Bischoff has shown that the manuscript was at the [Palace School](#) at [Aachen](#) around CE 800 (Bischoff 1966–1968, 56). Parkes suggests that it may have been sent to there from [York](#) at the request of [Alcuin](#) (Parkes 1982, 27, n. 35)" (Wikipedia article on the Moore Bede, accessed 11-22-2008).

Filed under: [Art](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Book of Dimma Circa 750



A portrait of St. Mark the Evangelist from folio 30v of the Book of Dimma. (View Larger)

The [Book of Dimma](#), an 8th century Irish pocket [Gospel Book](#) signed by its scribe, Dimma MacNathi, at the end of each of the Four Gospels, originated from the [Abbey of Roscrea](#), founded by [St. Cronan](#) in County [Tipperary](#), Ireland. "Dimma has been traditionally identified with the [Dimma](#), who was later Bishop of Connor, mentioned by [Pope John IV](#) in a letter on [Pelagianism](#) in 640. This identification, however, cannot be sustained. The illumination of the manuscript is limited to illuminated initials, three Evangelist portrait pages and one page



with an Evangelist's symbol. In the 12th century the manuscript was encased in a richly gilt case" (quoted from the Wikipedia article on the Book of Dimma, accessed 11-22-2008)

The Book of Dimma is preserved at Trinity College, Dublin.

Filed under: [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## Evidence of the Decline of Literacy Among the Laity in the Early Middle Ages Circa 750

"Of course, we have no early medieval Pompeii that would allow us to make a true and fair comparison of levels of casual secular literacy between Roman and post-Roman times. But we do have plenty of domestic objects from both periods, and these are a rich source of scratched letters and names in the Roman period, as well as of occasional messages (like those we have seen on tiles from Britain). In the early Middle Ages, domestic objects are almost always mute. They do very occasionally have names carved or scratched on them, but these are almost invariably very neat, suggesting that they have been applied with some care, perhaps even by a specialist writer, rather than roughly scratched by the owners themselves. There is no group of finds from post-Roman centuries that remotely compares with the 400 graffiti, mainly scratched initials, on the bottoms of pots from a Roman fort in Germany, which were almost certainly added by the soldiers themselves, in order to identify their individual vessels.

"In a much simpler world, the urgent need to read and write declined, and with it went the social pressure on the secular elite to be literate. Widespread literacy in the post-Roman West definitely became confined to the clergy. A detailed analysis of almost 1,000 subscribers to charters from eighth-century Italy has shown that just under a third of witnesses were able to sign their own names, the remainder making only a mark (identified as theirs by the charter's scribe). But the large majority of those who signed (71 per cent) were clergy. Amongst the 633 lay subscribers, only 93, or 14 per cent, wrote their own name. Since witnesses to charters were generally drawn from the ranks of the 'important' people of local society, and since the ability to write one's name does not require a profound grasp of literary skills, this figure suggests that even basic literacy was a very rare phenomenon amongst the laity as a whole" (Ward-Perkins, *The Fall of Rome and the End of Civilization* [2005] 166).

Filed under: [Education / Reading / Literacy](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## The Stockholm Codex Aureus, Looted Twice by Vikings Circa 750



Folio 11 of the Codex Aureus, inscribed in Old English. (View Larger)

The [Stockholm Codex Aureus](#) (also known as the "Codex Aureus of Canterbury") was produced in the mid-eighth century in Southumbria, probably in Canterbury, England.

"The codex is richly decorated, with vellum leaves that alternately are dyed and undyed, the purple-dyed leaves written with gold, silver, and white pigment, the undyed ones with black ink and red pigment. The style is a blend of that of Insular art . . . and Continental art of the period.

"In the ninth century it was stolen by the Vikings and Aldormen Aelfred had to pay a ransom to get it back. Above and below the Latin text of the Gospel of St. Matthew is an added inscription in Old English recording how, a hundred years later, the manuscript was ransomed from a Viking army who had stolen it on one of their raids in Kent by Alfred, ealdorman of Surrey, and his wife Wærburh and given to Christ Church, Canterbury" (Wikipedia article on Stockholm Codex Aureus, accessed 06-25-2009).

The [Old English inscription on folio 11 reads in translation](#):

+ In the name of our Lord Jesus Christ. I, Earl Alfred, and my wife Werburg procured this book from the heathen invading army with our own money; the purchase was made with pure gold. And we did that for the love of God and for the benefit of our souls, and because neither of us wanted these holy works to remain any longer in heathen hands. And now we wish to present them to Christ Church to God's praise and glory and honour, and as thanksgiving for his sufferings, and for the use of the religious community which glorifies God daily in Christ Church; in order that they should be read aloud every month for Alfred and for Werburg and for Alhthryth, for the eternal salvation of their souls, as long as God decrees that Christianity should survive in that place. And also I, Earl Alfred, and Werburg beg and entreat in the name of Almighty God and of all his saints that no man should be so presumptuous as to give away or remove these holy works from Christ Church as long as Christianity survives there.

Alfred

Werburg

Alhthryth their daughter

The manuscript remained at Canterbury until the 16th century when it travelled to Spain. In 1690 it was bought for the Swedish Royal Collection, It is preserved in the Royal Library, Stockholm (MS A. 135).

Filed under: [Art](#), [Book History](#), [Destruction / Looting of Information](#), [Manuscript Illumination](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## Chinese Prisoners of War Convey Papermaking Techniques to the Arabs 751



A map of the Silk Road. (View Larger)

Chinese [Tang](#) forces were defeated by Arabs at the battle of [Battle of the Talas River](#), near Samarkand and lost control of the [Silk Road](#) through Central Asia.

Chinese prisoners of war taken at the battle of Talas conveyed [papermaking techniques](#) to the Arabs.

Filed under: [Military / Warfare](#), [Paper / Papyrus / Parchment / Vellum](#), [Social / Political](#) | [Bookmark or share this entry »](#)

**755**



A statue of Abd ar-Rahman in Almuñécar, Spain. (View Larger)

'[Abd ar-Rahman](#) conquers [Cordoba](#) to found the [Umayyad](#) dynasty of [al-Andalus](#), the name used for the portion of Iberia (Spain) controlled by Muslims. This dynasty will last 300 years.

Filed under: [Military / Warfare](#), [Social / Political](#) | [Bookmark or share this entry »](#)

## One of the Great Treasures of Early Carolingian Metalwork 760



The ornate cover on the Lindau Gospels, located in the Pierpont Morgan Library. (View Larger)

The [gilt silver, enamel, and jeweled lower cover](#) on the [Lindau Gospels](#), MS M1 in the Pierpont Morgan Library, was executed in Austria, possibly in Salzburg, during the second half of the 8th century.

"In 1899, Pierpont Morgan purchased the Lindau Gospels from the heirs of the 4th Earl of Ashburnham; it was the first major mediaeval manuscript to enter his collections. He acquired, in this single volume, three outstanding examples of Carolingian book art: an important ninth-century illuminated manuscript from the scriptorium of [St. Gall](#), and two of the finest surviving Carolingian metalwork bookcovers. The two covers, however, may be separated by as much as a century, and it is certain that the older of the covers did not originally belong to this codex, however early it was assimilated to it. The covers and codex can be traced back as an entity no further than 1594, the date stamped on the red morocco spine of the volume. It has not been determined whether the jewelled covers were added to the codex then, or whether repairs were made at that date to an existing bound volume, already with jewelled covers. Nor has it been established where the volume was in 1594; the first explicit record placing it in the Benedictine [nunnery of Lindau](#), from which it takes its name, comes in 1691. Lindau is on a small island in Lake Constance, just offshore near the northeast corner. St. Gall, where the Gospels was written, is southwest of Lindau, across the lake and inland, at a direct distance of about twenty miles."

"It has long been recognized that the lower cover of the Lindau Gospels is considerably earlier than the date of the manuscript, and could not have been designed for it. This cover is one of the great treasures of early

Carolingian metalwork. It has elicited a considerable literature, characterized by widely varying opinions concerning its localization and date. Such a diversity of opinion is understandable, for although the cover was clearly designed as a unit, a variety of techniques and motifs make up its individual components. The basic layout consists of an enamelled cross (both *champlevé* and *cloisonné*) within an enamelled frame, over four background silver-gilt panels of complex engraved animal interlace patterns. The cross-in-frame motif is similar to that of [Queen Theodelinda's](#) bookcovers, mentioned above, though an interval of as much as 200 years separate the two pieces of work; and, on both, the arms of the cross broaden where they join the frame (*cross pattée*). The four *cloisonné* representations of the bust of Christ on the Lindau cover, one on each arm about the center of the cross, may be related to the late seventh-century gold [Cross of Duke Gisulf](#), each arm of which contains two repoussé portrait heads, presumably Christ's.

"Many scholars have been struck by the resemblance of the animal interlaces on the quadrants to Hiberno-Saxon decorative schemes, and several have noted a general resemblance in layout to several of the carpet-pages oin the [Lindisfarne Gospels](#) of ca. 700, on which a cross pattern is brought out against an animal-interlace background. An even more specific stylistic connection has been established for the animal interlaces in the two gilt silver engraved medallions laid into the vertical arms of the cross: these follow precisely the '[gripping-beast](#)' pattern of Viking animal ornament. Their earliest appearance in Viking art is on objects from the Oseberg ship-find, which have been dated to between 800 and 850. It has sometimes been asserted that the Viking gripping-beast style was derived from Carolingian prototypes, but this cannot be documented--unless indeed the Lindau Gospels lower cover is considered as a precedent Carolingian example" (Needham, *Twelve Centuries of Bookbindings 400-1600* [1979] 25-26).

Filed under: [Art](#), [Bookbinding](#), [Collecting Books](#), [Manuscripts](#), [Art](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## Foundation of the House of Wisdom 762



A modern photograph of a courtyard in the House of Wisdom, also known as the Bait al-Hikma. (View Larger)

The second [Abbasid Caliph](#), [Abu Ja'far Al-Mansur](#), founds the city of [Baghdad](#). There he founds a palace library, which will evolve into [The House of Wisdom](#). The library is originally concerned with translating and preserving Persian works, first from [Pahlavi](#) (Middle Persian), then from [Syriac](#) and eventually Greek and [Sanskrit](#).

"The House of Wisdom acted as a society founded by Abbasid caliphs [Harun al-Rashid](#) and his son [al-Ma'mun](#) who reigned from 813-833 CE. Based in Baghdad from the 9th to 13th centuries, many of the most learned Muslim scholars were part of this excellent research and educational institute. In the reign of al-Ma'mun, observatories were set up, and The House was an unrivalled centre for the study of humanities and for sciences, including mathematics, astronomy, medicine, chemistry, zoology and geography. Drawing on Persian, Indian and Greek texts—including those of Pythagoras, Plato, Aristotle, Hippocrates, Euclid, Plotinus, Galen, [Sushruta](#), [Charaka](#), [Aryabhata](#) and [Brahmagupta](#)—the scholars accumulated a great collection of knowledge in the world, and built on it through their own discoveries. Baghdad was known as the world's richest city and centre for intellectual development of the time, and had a population of over a million, the largest in its time. The great scholars of the House of Wisdom included [Al-Khawarizmi](#), the "father" of algebra, which takes its name from his book [Kitab al-Jabr](#)" (Wikipedia article on House of Wisdom, accessed 12-01-2008).

The House of Wisdom flourished until it was destroyed by the Mongols in the sacking of Baghdad in 1258.

Filed under: [Libraries](#), [Manuscripts & Manuscript Copying](#) | [Bookmark or share this entry »](#)

## One Million Copies 764 – 770



One of one million pagodas commissioned by Empress Shotoku, containing Buddhist charms, or dharani scrolls. (View Larger)

The Japanese [Empress Shotoku](#) commissions one million copies of small wooden pagodas containing Buddhist charms, or [dharani scrolls](#) printed on paper from woodblocks, as thanks for the suppression of the Emi Rebellion by Fujiwara Nakamaro in 764.

"900,000 pagodas were distributed to temples around the entire country. 100,000 were divided between the Ten Great temples in the Nara area, which erected special halls for these pagodas, known as the Small Pagoda Hall, or the Ten Thousand Pagoda Hall.

4 different texts were printed, all from the Mukujoko sutra: Kompon Dharani, Storin Dharani, Jishin-in Dharani, and Rokudo Dharani." (Shoyen Collection MS 2489).

No more printing occurred in Japan until about 1080.

Filed under: [Paper / Papyrus / Parchment / Vellum](#), [Printing / Typography](#), [Religious Texts / Religion](#) | [Bookmark or share this entry »](#)

## The Finest Library North of the Alps 767



Raban Maur (left), flanked by Alcuin (middle), dedicates his work to Archbishop Otgar of Mainz (Right), taken from a Carolingian manuscript (ca. 831/40) currently residing in the Österreichische Nationalbibliothek Wien. (View Larger)

The monk [Alcuin](#) becomes head of the episcopal school at the [Cathedral of York](#). This cathedral had been destroyed by fire in 741 and then rebuilt on a grander scale. Alcuin devoted himself to teaching and to building up the library at the Cathedral—the finest library north of the Alps at this time.

Filed under: [Education / Reading / Literacy](#), [Libraries](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## Charlemagne Becomes King of the Franks 768



A map illustrating the breadth of the Frankish Empire before and after Charlemagne's rule. (View Larger)

On the death of his father, Charlemagne (Latin: *Carolus Magnus* or *Karolus Magnus*, meaning Charles the Great) becomes [King of the Franks](#).

Charlemagne expanded the Frankish kingdoms into a [Frankish Empire](#) that incorporated much of Western and Central Europe.

Filed under: [Social / Political](#) | [Bookmark or share this entry »](#)

## Production of Manuscripts and Interest in Books Begins in Germany in the Last Third of the Eighth Century Circa 770

According to Bernhard Bischoff, the production of manuscripts and evidence of interest in books does not begin in Germany until the "last third of the eight century, just before the reign of Charlemagne. Few books written before this period were preserved in cathedral libraries. A codex written toward the year 700 for Basinus, who was perhaps the bishop of Trier, is preserved in the Biblioteca Vallicelliana. Two manuscripts of canon law, one written in South France at the time of Gregory the Great, the other written about a century later in Northumbria, are still the property of the Cathedral of Cologne, to which they probably already belong in the eighth century" (*Manuscripts and Libraries in the Age of Charlemagne* [2007] 18).

Filed under: [Law / Copyrights / Patents](#), [Libraries](#), [Manuscripts & Manuscript Copying](#) | [Bookmark or share this entry »](#)

## "The Oldest Western European Codex in Private Hands" Circa 775



A page from the 'Canones concillorum,' written in both uncial and miniscule.(View Larger)

When I accessed the website of German rare book and manuscript dealer [Dr. Jörn Gunther](#) on 06-16-2009 I found the following manuscript offered for sale under the heading, "The Oldest Western European Codex in Private Hands."

The history of the writing of this manuscript as understood through its palaeography described below, the texts which it contains, and the details of its provenance reflect significant aspects of Carolingian manuscript production, and the history of collecting medieval manuscripts. Here is Dr. Gunther's description:

"*Canones concillorum*. Manuscript on vellum, written by an insular scribe. Northern Italy, c.775.

"223 x 175 mm. 94 leaves. Internally complete, lacking one gathering at the beginning and some leaves at the end. The quires are signed with Roman numbers from II-XIII.— Written space fol.1-64v:165 x 130 mm, on fol. 65-94v: 175 x 135 mm, ruled in blind for one column of 24-25 and 19-20 lines. fol. 1-60v written in half uncials and precarolingian minuscules, fol. 61-94v in precarolingian minuscules in olive grey, light brown and dark brown ink. Many capitals in uncial with simple decoration with penwork ornament, including one initial in a form of a fish.— In fine condition for a volume of such antiquity. Right upper corner on fol.70 torn away with some loss of text.— 19th-century brown morocco by the Parisian bookbinder Marcelin Lortic.

"PROVENANCE:

1. The codex was written by an insular scribe from Ireland or Northumbria, working in Northern Italy.
2. [Monastery of Reichenau](#) in Germany (at an early date).
3. Bound in Paris by [Marcellin Lortic](#) who opened his shop in the Rue St Honoré in 1840.
4. Ms. 17.849 of the collection of [Sir Thomas Phillipps](#) (1792-1872); his oldest western manuscript and one of Phillipps's greatest treasures.
5. William Robinson Ltd., cat. 81: *Precious Manuscripts, Historic Documents and Rare Books*, London 1950, no. 92.
6. [Dr. Martin Bodmer](#), Geneva, Switzerland (1899-1971).
7. [Peter and Irene Ludwig](#), Aachen, ms.XIV 1 (1978-1983).
8. The [J. Paul Getty Museum](#), Malibu (1983-1988).
9. Now: Private collection, Europe.

"TEXT:

"fol.1-58: *Canones Concillorum*— fol.58-77v: Symmachiana, so-called '[Symmachian forgeries](#)'— fol.77v-94v: Decretals of [Siricius](#), Boniface I, [Innocent I](#), [Zosimus](#), and [Celestine I](#); end of text missing. Following the death of Pope [Gelasius I](#) († 496) [Dionysius Exiguus](#) (c.470- c.555), a skythian monk in Rome, was commissioned by the papal court to compile the '*Collectio Dionysiana*' which united the canons of the councils and papal decretals. This anthology was the first compilation of this kind carried out in the Western Church and forms the foundation of Western Latin canon law. The compilation of Dionysius exists in three editions of which the codex at issue represents the so-called 'Dionysiana II'. Manuscripts of the 'Dionysiana II' are rare uncombined

with other texts, while only one codex preserved as a complete book is of an earlier date: ms.fol.v.II.3 in St Petersburg (Rossijskaja Nacionalnaja Biblioteka), a Burgundian codex dating from the 7th century (CLA 11 no.1061). Apart from this manuscript only a fragment in the Biblioteca Amploniana in Erfurt (Ampl.2°74) can be dated earlier having been written during the second half of the 6th century, presumably in Italy.

"After the *Canones Conciliorum* there follows as an insert, which cannot be found in this form in comparable collections, the so-called 'Symmachian forgeries', dating from the time of Pope Symmachus (498-514; see Landau 1998). He was elected pope after the death of Anastasius II by a certain faction; a second faction declared the archpriest Laurence as pontiff. As a result of the turmoil which followed the elections, the 'Symmachian forgeries' were written, which strove to demonstrate by means of fictitious papal case files that the pope would not be subject to a human court of justice, but solely to the judgment of God.

"The third component of the book comprises decretals compiled under the pontificate of [Pope Hormisdas](#) (514-523) and contains the complete corpus of the old canon law, which consisted of the decrees of the Middle Eastern, Greek, African and Roman councils as well as those of the popes. The compilation is known as the Sanblasianus edition, because it was edited on the basis of a manuscript which first belonged to St. Blasien in the Black Forest and then to St. Paul in Lavanttal (Stiftsbibliothek, cod.7/1). Only seven manuscripts of this edition are preserved, three of which are older than the present codex (Paris, BN, lat. 3836, dating from the second half of the 8th century; Cologne, Dombibliothek, ms.213 dating from the first third of the 8th century and the Sanblasianus, which also dates from the mid-8th century). The oldest manuscript within the group (Cologne, Dombibliothek, ms.213) was written in Northumbria and brought to Cologne in the 8th century.

"The *Canones conciliorum* gained such an importance in subsequent decades that the text was duplicated again and again in the Frankish empire and from this later period over 100 manuscripts are preserved in the Frankish area alone. The codex was written by three different scribes. The main scribe (fol.2-60v) wrote the *Canones conciliorum* as well as the opening of the 'Symmachian forgeries'. Palaeographic analysis reveals that this scribe came to the continent from an insular scriptorium and finally settled in northern Italy. It is not ascertainable, however, in which northern Italian scriptorium the manuscript was written. The palaeographic indications cannot be used to date the manuscript to a specific year, but it is very likely that it was executed in the years around 775, making the present manuscript contemporary with the famous copy of the *Canones* compilation, the so-called [Dionysio-Hadriana](#), which was presented to the Frankish ruler [Charlemagne](#) (768-814) by [Pope Hadrian I](#) (772-795) in Rome in 774. After the presentation, the wording of the statute book was made compulsory for the Frankish empire, and numerous transcripts of the codex, originally kept in Aachen and now lost, were produced."

**Note:** I reformatted the description somewhat for this database, and left out the bibliographical references cited at the end of Dr. Gunther's description. The web page, which may be accessed at the link under Dr. Gunther's name at the beginning of this database entry, also reproduces three images of the manuscript. The hyperlinks are my additions.

Filed under: [Book Trade](#), [Collecting Books](#), [Manuscripts](#), [Art](#), [Law / Copyrights / Patents](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry »](#)

## The Earliest Surviving Document in Italian? Circa 775 – 825





The parchment on which the Veronese Riddle is written. (View Larger)

The growth of a written vernacular allowed the development of a written culture outside the religious orders.

The *Indovinello veronese* or [Veronese Riddle](#), a riddle, apparently half-Italian, half-Latin, written on the margin of a manuscript probably in the late eighth or early ninth century by a monk from Verona--a city in the Veneto region in Northern Italy--was considered the first document ever written in the Italian language for some years after its discovery by Schiaparelli in 1924.

"Many more European documents seem to confirm that the distinctive traits of Romance languages occurred all around the same time (e.g. France's [Serments de Strasburg](#)). Though initially hailed as the earliest document in Italian in the first years following Schiaparelli's discovery, today the record has been disputed by many scholars from Migliorini to Segre and Bruni, who have placed it at the latest stage of Vulgar Latin, though this very term is far from being clear-cut and Migliorini himself considers it dilapidated. At present, however, the *Placito Capuano* (960 A.D.) (the first in a series of four documents dating 960-963 A.D. issued by a Capuan court) is considered to be the first document ever written in Italian, although Migliorini concedes that since the *Placito* was put on record as an official court proceeding (and signed by a notary), Italian must have been widely spoken for at least one century" (Wikipedia article on Veronese Riddle, accessed 06-22-2009).

Filed under: [Linguistics / Translation / Speech, Survival of Information](#) | [Bookmark or share this entry](#) »

## How the Hindu Numbers Came to the Arabs Circa 776



A portrait of Brahmagupta. (View Larger)

Regarding the transmission of Hindu numbers to the Arabs, al-Qifti's "*Chronology of the Scholars*," written around the end of the 12th century but quoting earlier sources, stated:

". . . a person from India presented himself before the Caliph al-Mansur in the year 776 who was well versed in the siddhanta method of calculation related to the movement of the heavenly bodies, and having ways of calculating equations based on the half-chord [essentially the sine] calculated in half-degrees ... Al-Mansur ordered this book to be translated into Arabic, and a work to be written, based on the translation, to give the Arabs a solid base for calculating the movements of the planets. . ." (Mactutor article on [The Arabic numeral system](#), accessed 01-16-2009).

The book from which the early Indian scholar presented may have been the *Brahmasphutasiddhanta* (*The Opening of the Universe*), written in 628 by the Indian mathematician [Brahmagupta](#), which had used Hindu Numerals with the zero sign.

Filed under: [Mathematics / Logic](#) | [Bookmark or share this entry](#) »

## The Codex Aureus of Lorsch and its Dispersal 778 – 820



Folio 72v of the Codex Aureus of Lorsch, depicting Christ. (View Larger)

The [Codex Aureus of Lorsch](#), also known as the Lorsch Gospels, is one of the masterpieces of manuscript illumination produced during the period of [Charlemagne's](#) rule over the [Frankish Empire](#).

"It was located for the first time in [Lorsch Abbey \(Germany\)](#), where it was mentioned as *Evangelium scriptum cum auro pictum habens tabulas eburneas* in the catalogue of the Abbey's library, compiled in 830 under Abbot Adelung. Considering gold letters in the manuscript and its location at Lorsch it was named the **Codex Aureus Laurensius**. In the tenth and eleventh centuries, the library of Lorsch was the one of the best libraries of the world."

Just prior to Lorsch's dissolution in 1563 the manuscript was taken to Heidelberg and incorporated into the [Bibliotheca Palatina](#), from which it was stolen in 1622 during the [Thirty Years' War](#).

". . . the [codex](#) was broken in two and the covers torn off. The richly illustrated first half reached the Migazzi Library and after that was sold to Bishop Ignac Batthyani. This section is now in [Alba Iulia](#), Romania, and belongs to [Batthyaneum Library](#). The second half is in the [Vatican Library](#). The front cover is held by the [Victoria and Albert Museum](#) in London, and the back cover by the [Vatican Museums](#) of Rome" (Wikipedia article on the Codex Aureus of Lorsch, accessed 11-23-2008).

Filed under: [Bookbinding](#), [Destruction / Looting of Information](#), [Libraries](#), [Manuscript Illumination](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Carolingian Revival 779 – 814

"The classical revival of the late eighth and early ninth centuries, without doubt the most momentous and critical stage in the transmission of the legacy of Rome, was played out against the background of a reconstituted empire which stretched from the [Elbe](#) to the [Ebro](#), [Calais](#) to Rome, welded together for a time into a political and spiritual whole by the commanding personality of an emperor who added to his military and material resources the blessing of Rome. Although the political achievement of Charlemagne (768-814) crumbled in the hands of his successors, the cultural movement which it fostered retained its impetus in the ninth century and survived into the tenth.

"The secular and ecclesiastical administration of a vast empire called for a large number of trained priests and functionaries. As the only common denominator in a heterogeneous realm and as the repository of both the classical and the Christian heritage of an earlier age, the Church was the obvious means of implementing the educational program necessary to produce a trained executive. But under the [Merovingians](#) the Church had fallen on evil days; some of the priests were so ignorant of Latin that [Boniface](#) heard one carrying out a baptism of dubious efficacy *in nomine patria et filia et spiritus sancti* (*Epist. 68*), and knowledge of antiquity had worn so thin that the author of one sermon was under the unfortunate impression that Venus was a man. Reform had

begun under [Charlemagne's father] [Pippin the Short](#); but now the need was greater, and Charlemagne felt a strong personal responsibility to raise the intellectual level of the clergy, and through them of his subjects. . . .

"When it came to creating an educated class out of next to nothing, the Anglo-Saxons were past masters, and it was a shrewd move on the part of Charles to turn to [York](#), at this time the educational centre of England and indeed of Europe, and in 782 to invite Alcuin, the head of its school, to take charge of his palace school and be his advisor on educational matters" (Reynolds & Wilson, *Scribes and Scholars* 3rd ed [1991] 92-93).

Filed under: [Education / Reading / Literacy](#), [Religious Texts / Religion](#), [Social / Political](#) | [Bookmark or share this entry](#) »

## The Educator Alcuin and the Emperor Charlemagne 780 – 796



An example of the Carolingian minuscule, taken from the tenth century Freising manuscripts. (View Larger)

In 780 [Charlemagne](#), King of the Franks, met [Alcuin](#) at Parma, and recognized that Alcuin was a scholar who could help him achieve a renaissance of learning and reform of the Church. Charlemagne took scholarship seriously. He had learned to read as an adult, although he never quite learned how to write. At this time of reduced literacy outside of the clergy writing of any kind was an achievement for kings, many of whom were illiterate.

Charlemagne induced [Alcuin](#) to move to the royal court as Master of the Palace School at Aachen, where Alcuin remained from 782-796. This school was attended by members of the royal court and the sons of noble families. At Aachen Alcuin established a great library, for which Charlemagne obtained manuscripts from the [Imperial Library of Constantinople](#).

Also at Aachen, Alcuin developed the [Carolingian minuscule](#), which became the writing standard for the eighth and ninth centuries.

"The revolutionary character of the Carolingian reform cannot be over-emphasized; efforts at taming the crabbed [Merovingian](#) and Germanic hands had been under way before Alcuin arrived at Aachen . . . . The new minuscule was disseminated first from Aachen, and later from the influential scriptorium at [Tours](#), France, where Alcuin "retired" as an abbot" (Wikipedia article on Carolingian minuscule, accessed 11-23-2008).

Alcuin revised the church liturgy and the Bible and, along with another scholar, [Theodulf of Orleans](#), was responsible for an intellectual movement within the [Carolingian empire](#) in which many schools were attached to monasteries and cathedrals, and Latin was restored as a literary language. Along with these schools there was a flowering of libraries and manuscript book production.

Filed under: [Education / Reading / Literacy](#), [Libraries](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## Sources of the Exemplars Copied during the Carolingian Renaissance Circa 780

"Books are naturally attracted to centres of power and influence, like wealth and works of art and all that goes with a prosperous cultural life. Some arrive as the perquisites of conquest, or as the gifts that pour in unasked when the powerful have made their wishes plain, some in response to the magnetic pull of an active and dynamic cultural movement. Others were actively sought out by those promoting the educational and cultural aims of the revival. There was such a break in the copying of the classics in the Dark Ages that many of the books that provided the exemplars from which the Carolingian copies were made must have been ancient codices, and this immediately raises a fundamental question; where did all the books that have salvaged so much of what we have of Latin literature come from? As far as we can tell from the evidence available, the total contribution of Ireland and England, Spain and Gaul, was small in comparison with what came from Italy itself, from Rome and [Campania](#) and particularly, it would seem, from [Ravenna](#) after its capture by the forces of Charlemagne. Nor did the wholesale transference of classical texts to northern Europe exhaust the deposits in Italy, for Italy continued, down to the end of the Renaissance and beyond, to produce from time to time texts which, as far as we can tell, had been unknown north of the Alps.

"Gathering impetus with each decade, the copying of books went on apace through the length and breadth of Charlemagne's empire. Such ancient classical manuscripts as could be found, with their imposing majuscule scripts, were transformed, often at speed, into minuscule copies, and these in time begot further copies, branching out into these complex patterns to which the theory of [stemmatics](#) has reduced this fascinating process. The routes by which texts travelled as they progressed from place to place were naturally governed in part by geographical factors, as they moved along the valleys of the Loire or Rhine, but even more by the complex relationships that existed between institutions and the men who moved between them. There are so many gaps in our knowledge, and so many of pieces in this puzzle have been irrevocably lost, that we can never hope to build up a convincing distribution map for the movements of texts in this period. But certain patterns are discernible, and the drift of texts south and west through the Low Countries and northern France, and down the Rhine to the shores of Lake Constance, appears to point to a fertile core in the area of Aachen, and this would confirm the crucial importance of the palace as a centre and a catalyst for the dissemination of classical texts" (Reynolds & Wilson, *Scribes and Scholars* 3rd ed [1991] 97-98).

Filed under: [Manuscripts & Manuscript Copying](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## About 7000 Manuscripts and Fragments Survive from the Late 8th and 9th Centuries Circa 780 – 875

During the [Carolingian Renaissance](#), a period of "enlightenment" and relative stability of educational and political institutions, scholars sought out and copied in the new legible standardized Carolingian minuscule many Roman texts that had been wholly forgotten. As a result, much of our knowledge of classical literature derives from copies made in the scriptoria of Charlemagne and the Carolingian Renaissance. Roughly 7000 manuscripts written in Carolingian script survive from the 8th and 9th centuries.

"Thanks to the diversity in local styles of script among the c. seven thousand manuscripts and fragments from the late eighth and ninth century, besides the roughly one hundred which can be localised, other still anonymous large, small, and very small groups can be distinguished, but not identified. Some three hundred and fifty manuscripts still survive from [Tours](#) (i.e. basically from [St. Martin's](#)), over three hundred from St Gall, rough three hundred from Rheims (which which several scriptoria were involved) roughly two hundred from [Corbie](#), over one hundred from Lorsch, Salzburg, Lyons, and Freising. Not only does Tours surpass the others in numbers but a full forty-five of the traceable codices are or were full one volume bibles (pandects) of 420-450 leaves, with a format of c. 55 x 40cm, written in two columns of fifty to fifty-two lines. Between the last years of [Alcuin](#) (for whom Northumbrian bibles probably provided the model) and 850, St Martin's produced two such bibles every year for the Carolingians, for episcopal churches, and for monasteries. These large-format bibles were imitated in other places, for example in Freising, and in two bibles dedicated to [Charles the Bald](#), the Franco-Saxon: Paris, BN, Lat. 2, and the Bible of San Paolo fuori le mura, in Rome" (Bischoff, *Latin Palaeography: Antiquity and the Middle Ages* [1990] 208).

"Though the Carolingian minuscule was superseded by [Gothic](#) hands, it later seemed so thoroughly 'classic' to the [humanists](#) of the early [Renaissance](#) that they took these Carolingian manuscripts to be [Roman](#) originals and modelled their Renaissance hand on the Carolingian one, and thus it passed to the 15th and 16th century printers of books, like [Aldus Manutius](#) of Venice" (Wikipedia article on Carolingian minuscule, accessed 11-23-2008).

Filed under: [Book History](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#), [Writing / Palaeography / Calligraphy](#) | [Bookmark or share this entry](#) »

## Declined to About 35,000 Volumes Circa 790

By this time the Imperial Library at Constantinople is thought to have declined to about 35,000 manuscript volumes.

Filed under: [Destruction / Looting of Information, Libraries, Manuscripts & Manuscript Copying, Survival of Information](#) | [Bookmark or share this entry »](#)

## The Gellone Sacramentary: a Masterpiece of Carolingian Manuscript Illumination Circa 790



An image depicting the crucifixion of Christ, found in the Gellone Sacramentary. ([View Larger](#))

"The [Carolingian period](#) is the first great epoch of book illumination on the continent since antiquity. Its ornamental book art perpetuates types current in the [Merovingian](#) period and at the same time in many places reflects the influence of [Insular decoration](#). Furthermore, it harks back directly to motifs from antiquity (tendrils, palmettes, acanthus, meander) which then had the result that the repertoire of forms of the centuries immediately preceding were banished, or else mixed styles came about. In figural representation antique and early Christian models were followed closely and their study set free new and original facets of creativity.

"A demonstration of what richness in initial forms and motifs a virtuoso and imaginatively inspired late-eighth-century miniaturist could employ is given by the master craftsman who wrote the Gellone sacramentary" (Bischoff, *Latin Palaeography: Antiquity and the Middle Ages* [1990] 208-9).

The Gellone Sacramentary is preserved at the Bibliothèque nationale de France, from which website you can view numerous beautiful images, and possibly leaf through virtual pages of the manuscript.

Filed under: [Art, Book History, Manuscript Illumination, Manuscripts & Manuscript Copying, Religious Texts / Religion](#) | [Bookmark or share this entry »](#)

## The First Treasure Binding Associated with its Original Codex 790 – 795



A facsimile of the Dagulf Psalter, also known as the Golden Psalter. (View Larger)

"Not until Carolingian times can the covers of treasure bindings be connected to their original codices, and even then clear-cut examples are few. The earliest would seem to be the [ivory covers](#) of the [Dagulf Psalter](#), presented by Charlemagne to [Pope Hadrian I](#) (772-95); although covers [preserved in the Bibliothèque nationale de France] and text are now separate, Dagulf's dedicatory verses make explicit mention of the cover decoration. This separation of covers and codex is more the rule than the exception. Rare in any case is the book written before the fifteenth century that has not been rebound. Jewelled covers are particularly susceptible to migration from one codex to another, because they are not integral to the bookbinding. Unlike leather covers, they were tacked on the wooden boards in an operation completely separate from the binding process proper; nor would the artisans who made them be bookbinders. Jewelled covers might easily be removed and added to another codex without any necessity for disbinding or rebinding.

"The expression 'treasure bindings' has a reference broader than just to the materials used in their manufacture. In Jerome's day, when the monastic movement was young and disorganized, jewelled bindings may have been owned by private individuals. But later they almost invariably belonged to monasteries, cathedrals, and other collegial institutions. Within these institutions they played a specific role; they were part of the liturgical equipment used in celebrating the divine service. This equipment, including crucifixes, eucharistic vessels, vestments, reliquaries, the altar itself, was often of the highest luxury and constituted the 'treasure' of a church. Thus, both finds of sixth-century silver covers referred to above were excavated together with other silverwork liturgical articles. Jewelled covers were ordinarily made for service books, particularly Gospels and [Evangelaries](#), and may be considered as part of the altar fittings. Because of their special function, they would not be stored in the library presses or library room of their foundations, in or near the cloister. They would be kept quite separate, with the other liturgical objects, convenient to the altar or within the altar itself, under the care of the [sacristan](#)" (Needham, *Twelve Centuries of Bookbindings 400-1600* [1979] 22-23).

Filed under: [Art](#), [Book History](#), [Bookbinding](#), [Religious Texts / Religion](#) | [Bookmark or share this entry »](#)

## Partial Inventory of the Court Library of Charlemagne at Aachen Circa 790

The court library of [Charlemagne](#) at Aachen set an example for abbey and cathedral scriptoria throughout the Holy Roman Empire.

"The titles of classical books jotted down in a Berlin manuscript circa 790 have been shown to be a partial list of the library at Aachen. It is remarkable for the range and rarity of the authors represented—Sallust, Martial, Lucan, and Cicero, for example—some of whose books had scarcely survived the [Merovingian](#) period. Indeed, it is characteristic of many textual traditions propagated in [Carolingian times](#) from old (fifth- or sixth-century) manuscripts, with an intermediate stage. Very little that was recopied in the crucial ninth century was subsequently lost, and the diligent collecting of these earlier representatives themselves ensured the survival of many ancient codices in capitals and uncials.

"Many monastic libraries evidently relied upon copies taken from the palace library for their stock. Some such as [Corbie on the Somme](#) or [St. Martin at Tours](#), seem to have benefited spectacularly from their close connection to the court. Other books would be bequeathed by wealthy patrons or procured from outside by persistent begging for loans such as [Lupus, Abbot of Ferrières](#) (south of Paris) in the mid-ninth century, engaged in for much of his life. Monastic and cathedral libraries also freely exchanged copies of works as they were needed, along regular routes of circulation. France, especially in the north and central areas, had the lions share of this general revival of learning in terms of numbers of books produced, but the old Irish monasteries in Germany — [Fulda](#), [Hersfeld](#), [St. Gall](#)—and more modern foundations such as the imperially favored [abbey of Lorsch](#), south of Mainz, also housed and recopied large numbers of manuscripts old and new, some of them of

great importance. Of the seven ancient Italian manuscripts on which the text of Virgil rests, at least four were preserved in Carolingian monasteries in France and Germany" (M. Davies, "Medieval Libraries," Stam (ed)., *The International Dictionary of Library Histories* I [2001] 105-6).

Filed under: [Bibliography](#), [Fiction](#), [Science Fiction](#), [Drama](#), [Poetry](#), [Libraries](#), [Manuscripts & Manuscript Copying](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## Papermaking is Established in Baghdad 793

Papermaking is established in Baghdad. By 750 it had reached Damascus and Cairo.

Filed under: [Paper / Papyrus / Parchment / Vellum](#) | [Bookmark or share this entry](#) »

## Vikings Sack the Monastery and Library of Lindisfarne in the First Viking Raid on Britain January 6, 793



The ruins of Lindisfarne Abbey. ([View Larger](#))

In the first Viking raid on Britain [Vikings](#) sack the monastery of [Lindisfarne](#) and its library.

"In England the Viking Age began dramatically on January 6, 793 when Norsemen destroyed the [abbey](#) on [Lindisfarne](#), a center of learning famous across the continent. Monks were killed in the abbey, thrown into the sea to drown or carried away as slaves along with the church treasures. Three Viking ships had beached in Portland Bay four years earlier, but that incursion may have been a trading expedition that went wrong rather than a piratical raid. Lindisfarne was different. The Viking devastation of [Northumbria](#)'s Holy Island shocked and alerted the royal Courts of Europe. 'Never before has such an atrocity been seen,' declared the Northumbrian scholar [Alcuin of York](#). More than any other single event, the attack on Lindisfarne cast a shadow on the perception of the Vikings for the next twelve centuries. Not until the 1890s did scholars outside Scandinavia begin seriously to reassess the achievements of the Vikings, recognizing their artistry, the technological skills and the seamanship" (quoted from the Wikipedia article on the Viking Age, accessed 11-22-2008).

"Monasteries were a favoured target due to the riches which were contained in them. Jarrow was invaded in 794 and Iona in 795, 802 and 806. After repeated raids by the Norsemen, the monks of Lindisfarne fled the monastery in AD 875, taking the venerated relics of Saint Cuthbert with them for safekeeping" (quoted from [http://www.englishmonarchs.co.uk/vikings\\_5.htm](http://www.englishmonarchs.co.uk/vikings_5.htm), accessed 11-22-2008).

Filed under: [Destruction / Looting of Information](#), [Libraries](#), [Military / Warfare](#), [Religious Texts / Religion](#) | [Bookmark or share this entry](#) »

## 264 Manuscript Books or Fragments Survive of Texts Written before 800 799

According to the [Codices Latini Antiquiores](#), 264 manuscript books or fragments survive of texts written in Latin before 800 CE.

"Of these 264 only a tenth (26) are secular works, and most of these of a technical nature. Eight of them are legal texts, 8 are medical, 6 are works of grammar, 1 is a [gromatic](#) text. It is clear from the historical evidence that the basic arts of life went on; education, law, medicine and the surveying necessary to administration and the levying of taxes still required manuals and works of reference, and these needs are duly reflected in the pattern of manuscript survival" (Reynolds, *Texts and Transmission* [1983] xvi).

## Jews Seem to Have Adopted the Codex Around 900 Circa 900

Although for Greek and Latin literature the form of the book gradually shifted from the scroll to the codex during the second to fourth centuries CE, Jews seem to have adopted the codex form much later.

"To sum up: existing Hebrew manuscripts in the form of a codex which contain an explicit indication of their time of production date from circa 900 and later. Some codex manuscripts, mostly fragmentary, can be dated up to about a century or, at most, two centuries earlier. Indeed, literary evidence reflects the later adaptation of the codex, which had been introduced as a book form for Greek and Latin texts as early as the second century, and became the usual book form in the fifth century. However, the virtual lack of surviving Hebrew books in any form from late antiquity to the High Middle Ages cannot be attributed to their destruction by wear and tear or to conquerors and persecutors. One should also consider the possibility that the talmudic and midrashic literature, the so-called [Oral Law](#), was indeed mainly transmitted orally until the Islamic period, as is indicated explicitly in a few talmudic sources, and attested by literary patterns and reciting devices contained in these texts" (Malachie Beit-Arié, "How Hebrew Manuscripts Are Made," *A Sign and a Witness. 2000 Years of Hebrew Books and Illuminated Manuscripts* [1988] 36-37).

Filed under: [Book History](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## The Earliest Surviving Illustrated Surgical Codex Circa 900



Folio 201r of Florence, Laurentian Pluteus 74.7, depicting an orthopedic procedure involving a ladder and pulley. ([View Larger](#))

The earliest surviving illustrated surgical codex was made for the Byzantine physician Niketas about this time. It contains [30 full-page images](#) illustrating the commentary of [Apollonios of Kition](#) on the Hippocratic treatise *On Dislocations* (*Peri Arthron*) and 63 smaller images scattered through the pages of the treatise on bandaging of [Soranos of Ephesos](#). The Apollonian paintings represent various manipulations and apparatus employed in reducing dislocations, the figures in each case framed in in the Byzantine style in an archway of ornate design.

According to Sudhoff, *Beiträge zur Geschichte der Chirurgie im Mittelalter* (1914, 4-7) the origins of these drawings go back to Alexandria or Cyprus where Apollonius wrote his commentary between 81 and 58 BCE, under the patronage of the king Ptolemaius (Ptolemy of Cyprus).

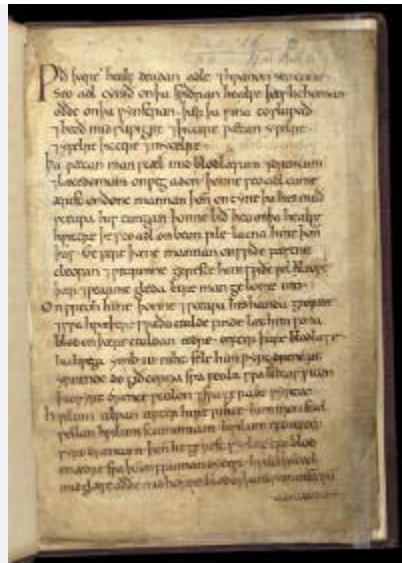
"They were undoubtedly transmitted directly from antiquity, and, therefore, represent the genuine Hippocratic traditions of surgical practice as transmitted through later Greek channels to Byzantium" (Garrison, *Introduction to the History of Medicine* 2d ed [1917] [108](#)).



In 1495 Greek scholar [Janus Laskaris](#) purchased the Niketas Codex in Crete for [Lorenzo de' Medici](#). It was later acquired by Cardinal Nicolas Rudolphi, and is preserved in the [Laurentian Library](#), Florence (Codex Lxxiv, 7).

Filed under: [Collecting Books](#), [Manuscripts](#), [Art](#), [Manuscript Illumination](#), [Medicine](#), [Survival of Information](#) | [Bookmark](#) or [share this entry](#) »

## One of the Oldest Medical or Scientific Treatises Written in English Circa 900



Folio 1r of Harley MS 55, the only surviving copy of the Leechbook of Bald. The manuscript resides in the British Library. (View Larger)

"The [Leechbook of Bald](#) is an [Old English](#) medical text probably compiled in the ninth-century, possibly under the influence of [Alfred the Great's](#) educational reforms. It takes its name from a Latin verse colophon at the end of the second book which begins *Bald habet hunc librum Cild quem conscribere iussit*, meaning 'Bald owns this book which he ordered Cild to compile.' The text survives in only one manuscript: London, British Library, Royal 12, D xvii.

"Both books are organised in a head-to-foot order, but the first book deals with external maladies, the second with internal disorders. Cameron notes that 'This separation of external and internal diseases may be unique in medieval medical texts'. Cameron notes that 'in Bald's Leechbook is the only plastic surgery mentioned in Anglo-Saxon records'. The recipe in particular prescribes surgery for a hare lip, Leechbook i, chapter 13 (pr Cockayne p 56). Cameron also notes that of the Old English Medical compilations 'Leechbook iii reflects most closely the medical practice of the Anglo-Saxons while they were still relatively free of Mediterranean influences,' in contrast to Bald's Leechbook which 'shows a conscious effort to transfer to Anglo-Saxon practice what one physician considered most useful in native and Mediterranean medicine,' and the Lacnunga, which is 'a sort of common place book with no other apparent aim than to record whatever items of medical interest came to the scribe's attention' " (Wikipedia article on Bald's leechbook, accessed 02-03-2009).

"Although on the fringes of the learned world, Bede and his English monks possessed many of the same medical writings as their contemporaries further South, even if, as Bishop Cyneheard of Worcester put it in 754, the foreign ingredients prescribed therein were unknown or difficult to obtain, even through contacts in Germany or Italy. Anglo-Saxon English, like contemporary Ireland, possessed a written medical literature (from c. 900) in a non-Latin language, but this does not mean that the Anglo-Saxon healer, the *laece* or leech, was less competent than the *medicus*. Chants and charms, and explanations of a few diseases as the result of darts hurled by mischievous elves or involving a great worm constitute only a small part of the medicine that survives, and are not unique to the Anglo-Saxons. Similar recipes are found in other regions and in earlier Latin learned texts. Anglo-Saxon knowledge of plant remedies was wide and effective, and authors recognised the problems of identifying Mediterranean with British flora. When the otherwise unknown Bald and Cild wrote their *Leechbook* around 900, perhaps at Winchester, they adapted the best Continental practical medicine to an

English environment. Their *Leechbook* has close parallels with both later Salernitan texts and with fifth- and sixth-century medical tracts common elsewhere in Western Europe. The simplified some of their Latin recipes by removing some of the more exotic ingredients and added remedies obtained from Ireland or Irish scholars. . . " (Conrad *et al*, *The Western Medical Tradition 800 BC to AD 1800* [1995] 86).

Filed under: [Manuscripts & Manuscript Copying](#), [Medicine](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## The Earliest Surviving Dated Astrolabe 927 – 928



The earliest astrolabe. (View Larger)

The [astrolabe](#), an astronomical instrument used for observing planetary movements, was indispensable for navigation. A type of analog calculator, brass astrolabes were developed in the medieval Islamic world, and were also used to determine the location of the [Kaaba](#) in [Mecca](#), in which direction all Muslims face during prayer. [Planispheric](#), or flat, astrolabes, were more common than the linear or spherical types. In planispheric astrolabes the celestial sphere was drawn on a flat surface and represented on one plate.

The [earliest known dated astrolabe](#) is of the planispheric type. Made of cast bronze, it bears the name of its maker. The inscription at the back of the kursi, or throne, is written in [Kufic](#), the oldest calligraphic form of the various Arabic scripts, and states that the astrolabe was made by Nastulus (or Bastulus) and gives the date, which corresponds to 927/28. The date is rendered in Arabic letters, whose numerical values total 315, signifying the year in the Islamic calendar in which the astrolabe was made. It is preserved in the School of Oriental and African Studies at the University of London.

Filed under: [Data Processing / Computing](#), [Mathematics / Logic](#), [Survival of Information](#), [Technology](#) | [Bookmark or share this entry »](#)

## The Earliest Surviving Manuscript of the Complete Hebrew Bible Circa 930



The Book of Judges, chapters 1:15 to 2:1, from the Aleppo Codex. (View Larger)

The [Aleppo Codex](#), the earliest extant manuscript of the complete Hebrew Bible, was written by a scribe named Salomon about this time. It was proofread, vocalized and edited by Aaron ben Moses [ben Asher](#) who lived in [Tiberias](#). Asher was the last of an important family of [masoretes](#), or textual scholars of the Bible, who preserved and handed down the commonly accepted version of the Hebrew bible from generation to generation. Since the twelfth century when [Maimonides](#) considered it the most authoritative source of the text, the Aleppo Codex has been considered the most authoritative source for the Hebrew Bible.

For more than a thousand years, the manuscript was preserved in its entirety in important Jewish communities in the Near East: Tiberias, Jerusalem, Egypt, and in the city of Aleppo in Syria. However, in 1947, after the [United Nations Resolution establishing the State of Israel](#), it was damaged in riots that broke out in Syria. At first people thought that the manuscript had been completely destroyed, and approximately one-third of the Aleppo Codex, including all of the Torah is missing. However, it turned out that most of the manuscript had been saved and kept in a secret hiding place. In 1958, the [Aleppo Codex](#) was smuggled out of Syria to Jerusalem and delivered to the President of the State of Israel, Yitzhaq Ben Zvi. It is preserved in Jerusalem in the [Shrine of the Book](#).

Filed under: [Book History](#), [Destruction / Looting of Information](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## The Morgan Dioscorides Circa 930 – 970



Folio 114v of MS M 652, in the Pierpont Morgan Library. (View Larger)

[MS M 652 in the Pierpont Morgan Library](#), written in Greek miniscule and illuminated in Constantinople during the mid-10th century, contains an alphabetical five-book version of [Dioscorides](#), *De Materia Medica*, including 769 illustrations and several headpieces and tailpieces, on 385 leaves.

Its contents, according to the Morgan Library's online description, are:

"fols. 1v-199v: Dioscorides, *De Materia Medica*, Book I. Roots and Herbs -- fols. 200r-220v: Dioscorides, *De Materia Medica*, Book II. Animals, Parts of Animals and Products from Living Creatures -- fols. 221r-242v: Dioscorides, *De Materia Medica*, Book III. Oils and Ointments. -- fols. 243r-269v: Dioscorides, *De Materia Medica*, Book IV. Trees -- fols. 270v-305v: Dioscorides, *De Materia Medica*, Book V. Wines and Minerals etc. -- fols. 306r-319v: Dioscorides, attr., On the Power of Strong Drugs to Help or Harm -- fols. 319v-327v: Dioscorides, attr., On Poisons and their Effect -- fols. 328r-330v: Dioscorides, attr., On the Cure of Efficacious Poisons -- fols. 331r-333v: A Mithridatic Antidote -- fols. 334r-338r: Anonymous Poem on the Powers of Herbs -- fols. 338r-361r, 377r-384v: Eutecnius, Paraphrase of the [Theriaca](#) of [Nicander](#) -- fols. 361v-375r: Eutecnius, Paraphrase of the *Alexipharmaca* of Nicander -- fols. 375r-376v: Paraphrase of the *Haliutica* of [Oppianos](#) (incomplete)."

The manuscript was bound in Byzantium in the 14th or 15th century in dark brown leather blind tooled in a lozenge pattern over heavy boards. It was in Constantinople in the 15th century, where it was owned by an Arabic-speaking person, who added inscriptions in Arabic and genitalia to some animals. In the 16th century it remained in Constantinople where was owned by Manuel Eugenicos, 1578 and listed in his library catalogue. By the nineteenth century the manuscript was in Italy where it was owned by Domenico Sestini, ca. 1820. Later it was in the collection of Marchese C. Rinuccini, Florence, 1820-1849 (MS Cod. 69). From the middle of the nineteenth century it appears to have been in England with the booksellers John Thomas Payne and Henry Foss, London, 1849-1857. In the Payne sale (London, Sotheby's, Apr. 30, 1857) it was sold to Charles Phillipps for Sir Thomas Phillipps (Phillipps Collection, no. 21975). In 1920 [J. P. Morgan Jr.](#) purchased the manuscript from Phillipps's estate.

Filed under: [Collecting Books](#), [Manuscripts](#), [Art](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Medicine](#), [Natural History](#), [Science](#) | [Bookmark or share this entry »](#)

## Printing Not to Make Literature More Accessible 932 – 953

[Feng Tao](#), prime minister of China, orders the printing of the Confucian classics from wood blocks.

The work of editing and printing the Classics and their Commentaries lasted for 21 years and extended to 130 volumes.

"The chief purpose of printing was not yet to make literature more accesible to the masses, but rather to authenticate the text. For more than a century after Feng Tao--up to the year 1064—the private printing of the Classics was forbidden. All printing must be done by the government and must give the orthodox accepted text."

"The work of Feng Tao and his associates for printing in China may be compared to the work of Gutenberg in Europe. There had been printing before Gutenberg—block printing certainly and very likely experimentation in typography also—but Gutenberg's Bible heralded a new day in the civilization of Europe. In the same way there had been printing before Feng Tao, but it was an obscure art that had little effect on the culture of the country. Feng Tao's Classics made printing a power that ushered in the renaissance of the Sung era" (Carter, *Invention of Printing in China* 2nd ed [1955] 72).

Filed under: [Printing / Typography](#) | [Bookmark or share this entry »](#)

## The Earliest Surviving Copy of Pappus' Mathematical Collection Circa 950



Vat. gr. 218 fols. 39v-40r, two pages of the earliest surviving copy of Pappus's 'Collection.' (View Larger)

The 10th century manuscript of the *Synagoge* or *Collection* of [Pappus of Alexandria](#), written on parchment and preserved in the Vatican Library, reached the papal library in the thirteenth century. It is the earliest surviving copy of the text, and the basis for all later versions, of which none is earlier than the sixteenth century.

Pappus (c. 290 – c. 350) was one of the last great Greek mathematicians of antiquity. In addition to his *Synagoge* or *Collection*, Pappus is known for [Pappus's Theorem](#) in [projective geometry](#). Nothing is known of his life, except that he had a son named Hermodorus, and was a teacher in [Alexandria](#).

Filed under: [Manuscripts & Manuscript Copying](#), [Mathematics / Logic, Science, Survival of Information](#) | [Bookmark or share this entry](#) »

## Possibly the Earliest Surviving Manuscript Produced in Scotland Circa 950



A portrait of Luke on Folio 29v of the Book of Deer. (View Larger)

The [Book of Deer](#) is a 10th century [Gospel Book](#), written in Latin, [Old Irish](#) and [Scottish Gaelic](#), from [Old Deer, Aberdeenshire, Scotland](#). It contains the earliest surviving Gaelic literature from Scotland, and may be the oldest surviving manuscript produced in Scotland, with the possible exception of the [Book of Kells](#), and is notable for having originated in what is now considered a [Lowland](#) area. It is preserved at Cambridge University Library.

Filed under: [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#) | [Bookmark or share this entry](#) »

## The Most Famous Manuscript of the Iliad Circa 950



Folio 12r of Venetus A. (View Larger)

The most famous Greek manuscript of the [Homeric \*Iliad\*, Venetus A](#) is regarded by some as the best text of the [epic](#). It also preserves several layers of annotations, glosses, and commentaries known as the "A [scholia](#)." These are thought to preserve editorial comments made by scholars at the Alexandrian library. The manuscript, which was most probably written in Constantinople, also includes a summary of the early Greek [Epic Cycle](#) which is considered the most important source of information on those lost poems. The Wikipedia article on Venetus A includes an unusually interesting account about the history of the manuscript, from which I quote:

"At some point Venetus A was transported to Italy, but how and when this happened is uncertain. At one point it was thought that [Giovanni Aurispa](#) brought it there. In 1424, in a letter to Traversari in Venice, he mentioned four volumes which he had brought back from Greece:

*Aristarchum super Iliade in duobus voluminibus, opus quoddam spatiosum et pretiosissimum; aliud commentum super Iliade, cuius eundem auctorem esse puto et illius quod ex me Nicolaus noster habuit super Ulixiade.*

Aristarchus on the *Iliad* in two volumes, a large and very precious work; another commentary on the *Iliad*; I think Aristarchus was the author of that, as well as of the one on the [Odyssey](#) that our friend [Niccolò Niccoli](#) got from me.

"Aurispa already owned the "two volumes" in 1421; this suggests that he may have brought them back from a trip to Greece in 1413. . . .

"Venetus A came into the possession of Cardinal [Bessarion](#), the Greek immigrant and scholar, and the man most directly responsible for the Western rediscovery of Greek literature in the Renaissance. Bessarion collected over a thousand books in the fifteenth century, including the only complete text of [Athenaios' \*Deipnosophistai\*](#); the autograph of [Planudes' \*Greek Anthology\*](#); and Venetus A.

"In 1468 Bessarion donated his library to the Republic of Venice, and the library was increased by further acquisitions from Bessarion until his death in 1473. This collection became the core of the [Biblioteca Marciana](#). Bessarion made a condition that scholars wishing to consult the library should deposit books, but no attempt to enforce this was made until 1530.

"The earliest known scholar to have used Venetus A as a source is [Martinus Phileticus](#) in the 1480s; in this he was followed by [Vettore Fausto](#) in 1546 or 1547.

"In 1554 Bessarion's library was transferred to the building designed for it by [Sansovino](#), the [Biblioteca Sansoviniana](#). It remains there today.

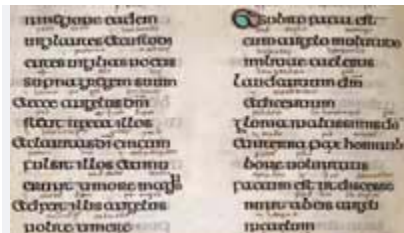
"After that, Venetus A was largely forgotten until [Villoison](#) rediscovered and published it, along with the "B scholia" from [Venetus B](#), in 1788. This was the first publication of any Iliadic scholia other than the "D" scholia (the *scholia minima*). The A and B scholia were a catalyst for several new ideas from the scholar [Friedrich August Wolf](#). In reviewing Villoison's edition, Wolf realised that these scholia proved conclusively that the Homeric epics had been transmitted orally for an unknown length of time before appearing in writing. This led

to the publication of his own seminal [Prolegomena ad Homerum](#), which has set the agenda for much of [Homeric scholarship](#) since then.

"Most recently, Amy Hackney Blackwell has [a brief article in Wired](#) on the just-concluded month-long effort to [digitize Venetus A](#) at the Biblioteca Marciana in Venice (May 2007). This work has resulted in the publication of high-resolution images of each folio of the manuscript, including details of significant areas and ultraviolet images of badly faded text; **the images are published under a [Creative Commons License](#) and are available for viewing and downloading** from the [Center for Hellenic Studies of Harvard University](#)."

Filed under: [Fiction](#), [Science Fiction](#), [Drama](#), [Poetry](#), [Manuscripts & Manuscript Copying](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## The Oldest Surviving Translation of the Gospels into English Circa 950 – 960



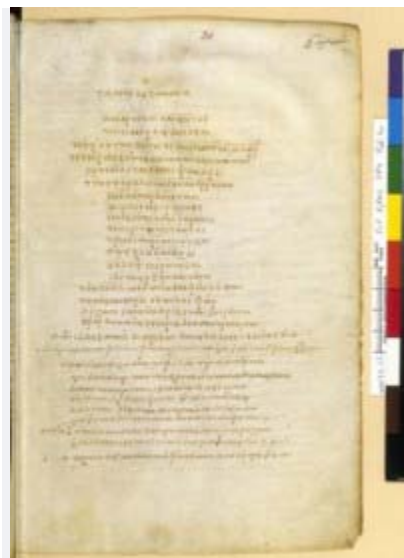
A small sampling of Aldred's gloss of the Gospels. (View Larger)

[Aldred](#), Provost of the Roman fort [Chester-le-Street](#), where the community of St. Cuthert had located along with the Lindisfarne Gospels, translates the Lindisfarne Gospels into [Old English](#), annotating or 'glossing' the Latin text in a word-for-word continuous translation between its lines. He also added a 'colophon' . . . associating his work with the names of those thought to have made the book originally. Aldred's glosses, some of which comment on the text as well as translating it, reveal concern with monastic reform and abuses of clerical power. . . Promoting the English language would have helped reunify England. Aldred translated the Lindisfarne Gospels into the Northumbrian dialect to establish his credentials upon entering the community" (Michelle Brown, *Painted Labyrinth. The world of the Lindisfarne Gospels* [2004] 12-13).

This is the oldest surviving translation of the Gospels into the English language.

Filed under: [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#) | [Bookmark or share this entry](#) »

## The Palatine Anthology of Greek Poetry Circa 950



Folio 30 of suppl. gr. 384, belonging to the Bibliothèque Nationale.

The *Palatine Anthology*, a codex compilation of 3765 poems in Greek, was once in Rome at the Vatican Library, along with other manuscripts in the *Bibliotheca Palatina*, but is now divided between the Heidelberg Universitätsbibliothek (Palat. gr. 23) and the Bibliothèque Nationale (suppl. gr. 384). It is one of the two manuscripts on which the collection known as the *Greek Anthology* or *Anthologia Graeca*, is based, the other being the *Planudean Anthology* (1299-1301 in this database). The bulk of the *Palatine Anthology* was based upon the compilation of Constantine Cephalas or Kephalas, a Byzantine schoolmaster who excerpted all the major ancient manuscript collections about 900. To material gathered by Cephalas, whose original compilation no longer survives, the compiler of the *Palatine Anthology* added Christian and "rhetorically descriptive" epigrams. A possible compiler of the *Palatine Anthology* was the 10th century poet, Constantine the Rhodian, three of whose poems are included in the anthology.

"In 1606 or 1607 [\[Claudius\] Salmasius](#) had discovered, in the library of the Counts Palatine in Heidelberg, the only surviving copy of Cephalas's early unexpurgated copy of the Greek Anthology, including the 258-poem anthology of homoerotic poems by Straton of Sardis that would eventually become known as the notorious Book 12 of the Greek Anthology. The newly discovered poems in the Palatine version were copied out by Salmasius, and he began to circulate clandestine manuscript copies of them as the *Anthologia Inedita*. His copy was later published: first in 1776 when Richard François Philippe Brunck included it in his *Analecta*; and then the full Palatine Anthology was published by Friedrich Jacobs as the *Anthologia Graeca* (13 vols. 1794-1803; revised 1813-1817). The remains of Straton's anthology became Book 12 in Jacob's standard critical *Anthologia Graeca* edition. It was only in 2001 that a full Greek-to-English translation of Book 12 was issued, by Princeton University Press" (Wikipedia article on [Claudius Salmasius](#), accessed 02-03-2009).

Filed under: [Fiction](#), [Science Fiction](#), [Drama](#), [Poetry](#), [Manuscripts & Manuscript Copying](#), [Survival of Information](#) | [Bookmark or share this entry](#) »

## Block Printing in Arabic in the Tenth or Eleventh Century Circa 950 – 1050

"In spite of the inherent difficulties, Arabic writing was printed from an early date. Some form of xylography, or block printing, was practiced as early as the tenth century, as several amulets discovered in Egypt show. Most of the known examples were block-printed on paper, but one example was printed on papyrus, and two were printed on parchment. Although these examples are undated, the use of papyrus and parchment suggests an early date, confirmed by the style of script and by another bit of evidence; scholars have interpreted occurrences of the obscure Arabic term *tarsh* in poems of the tenth and fourteenth centuries as references to printing amulets and charms with engraved tin plates. The headpieces on some of the surviving block-printed amulets have designs incorporating bold lettering and ornamental motifs, sometimes in reserve, which may have been printed with separate woodblocks. Early in the twentieth century the scholar B. Moritz noted the existence of six printing plates in the ancient Khedival Library in Cairo, which he dated to the Fatimid period (tenth-twelfth centuries), but their present location is unknown" (Bloom, *Paper Before Print. The History and Impact of Paper in the Islamic World* [2001] 218-19, figure 84).

Filed under: [Printing / Typography](#) | [Bookmark or share this entry](#) »

## Introduction of Paper Money in China Circa 960





A jiaozi from the Song Dynasty. (View Larger)

"In the 600s there were local issues of paper currency in China and by 960 the Song Dynasty, short of copper for striking coins, issued the first generally circulating notes. A note is a promise to redeem later for some other object of value, usually specie. The issue of credit notes is often for a limited duration, and at some discount to the promised amount later. The jiaozi nevertheless did not replace coins during the Song Dynasty; paper money was used alongside the coins" (Wikipedia article on Banknote, accessed 08-13-2009).

Carter, *Invention of Printing in China* 2nd ed [1955]103-04.

Filed under: [Economics](#), [Printing / Typography](#) | [Bookmark or share this entry »](#)

## Possible Inspiration for Picasso's Guernica? June 19, 960



An artwork from the 'Biblia de Leon,' or the Bible of St. Isidore. (View Larger)

The *Visigothic-Mozarabic Bible of St. Isidore*, also known as the *Biblia de León* was completed in the Monastery of *Valeránica*, Spain on June 19, 960 by Iberian Christians who lived under Moorish Muslim rule in *Al-Andalus*, the portions of the Iberian Peninsula governed by Muslims at various times in the period between 711 and 1492. It is considered the best-documented *Mozarabic* bible as it includes the names and portraits of its scribe, Sancho, and its miniaturist, Florencio. The codex contains all the books of the Old and New Testaments, as well as prologues, biblical commentaries and other texts, written in lowercase visigothic-mozarabic lettering with initial capital letters in the interlaced *Saxon* style and decorated with biblical scenes and roundels. Annotated in both Arabic and Latin, it is preserved in the *Cathedral of León*.

Florencio's miniature paintings in this work "offered new departures in pictorial art, blending elements originating in Saxon, Visigothic, and Islamic art with new features from Carolingian sources" ([http://www.omifacsimiles.com/brochures/bib\\_leon.html](http://www.omifacsimiles.com/brochures/bib_leon.html))

On April 20, 2009 the following notice appeared in Artdaily.org:

"Several experts from the world of art have stated that there is an extraordinary likeness between the figures that appear in the [Guernica](#) painted by the artist and those in a Mozarabic Bible from the 10th Century, which is housed in the Cathedral in Leon, to the point where it has been discarded that it was fruit of a coincidence. This Bible was exhibited in Barcelona in 1929 and in Paris in 1937, a time when the Cubist genius could have discovered the expressionist drawings that appear in the medieval text, according to the head of the Cathedral of Leon Museum, Máximo Gómez Rascón.

"Several experts consulted by news agency EFE arrived at the same conclusion and base it on the relative aspects of the double view, in front and to the side, of the figures in the painting, as well as in the horse and the bull.



Picasso's Guernica. (View Larger)

"In this way, the director of the museum, has explained that the similarities are seen especially in the bull, which in the Bible symbolizes Saint Luke and which is "almost exactly" as the one that Picasso painted on Guernica.

"The similarity also manifests itself in the horse's head that appears in the painting and, to a lesser extent, in the faces of the persons, as well as some of the profiles that also allude to the ones appearing in the bible.

"It has been pointed out that in the bible there is also a lion, with its tongue out, whose face and expression are very similar to the horse that appears in Guernica, or to the one that has a type of knife coming out of its mouth.

"The head of the museum has discarded the idea that the similarities are fruit of a coincidence and is convinced that Picasso "without a doubt" had seen this bible, which was created by Deacon John in 920 [sic] and written in parchment with Visigothic letters.

"Even though that during those times codices were illustrated with those kinds of symbols, Gómez Rascón has emphasized the singularity with the one in Leon, one of the most important from that era.

"Painter Benito Escarpizo, former professor from the School of Applied Arts in Leon, is completely convinced: 'If the similarities are enormous in the painting, they are even greater in the sketches' "

([http://www.artdaily.org/index.asp?int\\_sec=2&int\\_new=30316](http://www.artdaily.org/index.asp?int_sec=2&int_new=30316)).

Filed under: [Art](#), [Manuscript Illumination](#), [Manuscripts & Manuscript Copying](#), [Religious Texts / Religion](#) | [Bookmark or share this entry »](#)

## Over 400,000 Manuscript Volumes at Cordoba Circa 961



A map of the Caliphate of Cordoba circa 1000CE. (View Larger)

[Caliph of Cordoba](#) in the [Al-Andalus](#) (Moorish Iberia), [Al-Hakam II](#) was fond of books and learning, and amassed a vast library containing 400,000 books. During his reign a massive translation effort was undertaken, and many books were translated from Latin and Greek into Arabic. He formed a joint committee of Arab Muslims and Iberian [Mozarab](#) Christians for this task.

The catalogue of the royal library "alone consisted of forty-four volumes. Under Al-Haim II (961-976) this library was reported to have given employment to over 500 people. . . . Elsewhere at Moslem Spain there was a total of seventy libraries in the 10th century, several in Toledo. In addition to the royal library, these included libraries in universities in Cordoba, Seville, Malaga, and Granada , among others, and in numerous mosques. Private libraries flourished in Moslem Spain, and it was said that Cordoba was the greatest book market in the western world in the 10th century." (Harris, *History of Libraries in the Western World* 4th ed [1999] 81).

Filed under: [Book Trade](#), [Education / Reading / Literacy](#), [Libraries](#) , [Manuscripts & Manuscript Copying](#) | [Bookmark or share this entry »](#)

## Foundation of the Holy Roman Empire 962



The third imperial seal of Otto I, featuring a frontal bust of the emperor. (View Larger)

[Otto the Great](#), the first [Holy Roman Emperor](#), founds the [Holy Roman Empire](#) (German: Heiliges Römisches Reich; Latin: *Sacrum Romanum Imperium*), a union of territories in [Central Europe](#) during the [Middle Ages](#) and the [Early Modern period](#).

Filed under: [Social / Political](#) | [Bookmark or share this entry »](#)

## 5,048 Printed Volumes Containing 130,000 Pages 972 – 983



Point A marks Chendu, or Ch'eng-tu, China. (View Larger)

The whole Buddhist canon, usually called the [\*Tripitaka\*](#), is printed from wood blocks in Ch'eng-tu, China.

"This collection consisted of 5,048 volumes covering 130,000 pages. It therefore required the cutting of 130,000 blocks. This massive work, together with additions, was reprinted frequently during the Sung" (Carter, *Invention of Printing in China* 2nd ed [1955] 89).

Filed under: [Printing / Typography](#), [Publishing](#), [Religious Texts / Religion](#) | [Bookmark or share this entry »](#)

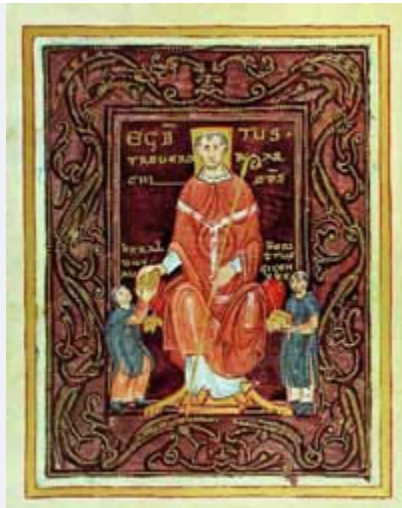
## The Earliest Record of the Use of Arabic Numerals in Europe 976

The so-called Arabic numerals were invented in India and transferred to the Arabs who developed the system in the moorish empire of [Al-Andalus](#) in the Iberian peninsula. The oldest record of the use of Arabic numerals in Europe is a leaf in the codex Virgilianus, ms. lat. DI.2f.9v preserved in Madrid at the Biblioteca S. Lorenzo del Escorial.

Ferguson, *Inventions of the Middle Ages* (2007) 52, figure 36, & footnote 95.

Filed under: [Mathematics / Logic](#), [Survival of Information](#) | [Bookmark or share this entry »](#)

## The Earliest Picture Cycle of the Life of Christ in Manuscript Illumination Circa 977 – 993



A portrait of Egbert, Archbishop of Trier, from the Codex Egberti. (View larger)

The [\*Codex Egberti\*](#), commissioned by [Egbert, Archbishop of Trier](#), opens with a dedication and a portrait of the Bishop on a double page in gold and purple. Two monks at Egbert's feet, Kerald and Heribert of [the Benedictine Abby on the Island of Reichenau](#), present the volume to the donor. This is followed by four impressive full-page illustrations of the Evangelists, and 51 narrative pictures comprising the earliest picture cycle of the Life of Christ in the history of manuscript illumination. Some of the images have been attributed to the Master of the Registrum Gregorii.

“The Reichenau school reached its apogee in the last third of the tenth century and was productive into the first half of the eleventh. Without being strongly rooted there the 'Master of the Registrum Gregorii', one of the most important Ottonian book illuminators, whose activity had been in the upper Rhine region and in Trier, stood connected with it. Reichenau manuscripts were in such demand that pope Gregory V 'pensionis nomine' requested that the abbot of the monastery should deliver a sacramentary, an epistolary, and a gospel book to Rome for the confirmation of his installation " (Bischoff, *Latin Palaeography: Antiquity and Middle Ages* [1990] 220).

The manuscript is preserved in the [Stadtbibliothek Trier](#).

Images from the *Codex Egberti* are available from the Penn Libraries [Fine Arts Library Image Collection](#), accessed 12-25-2008.

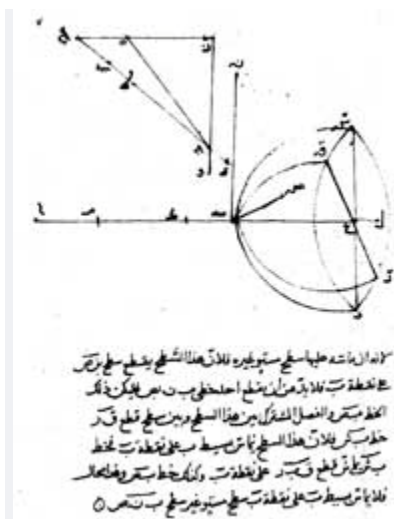
Filed under: [Art](#), [Manuscript Illumination](#), [Religious Texts / Religion](#) | [Bookmark or share this entry](#) »

## Circa 980

Though Muslim countries trade extensively with the Chinese at this time, and widely adopt the use of paper, they do not adopt the Chinese technology of printing.

Filed under: [Paper / Papyrus / Parchment / Vellum](#), [Printing / Typography](#) | [Bookmark or share this entry](#) »

## First Discovery of the Law of Refraction 984



A diagram of an anaclastic lens, reproduced from Ibn Sahl's manuscript, 'On Burning Mirrors and Lenses.' ([View Larger](#))

Arabian mathematician, and physicist [Ibn Sahl \(Abu Sa`d al-`Ala' ibn Sahl\)](#), associated with the [Abbasid](#) court of [Baghdad](#), writes a treatise *On Burning Mirrors and Lenses*, setting out his understanding of how curved mirrors and lenses bend and focus light.

Ibn Sahl is credited in this work with first discovering the law of refraction, usually called [Snell's law](#).

"Ibn Sahl used the law of refraction to derive lens shapes that focus light with no geometric aberrations, known as anaclastic lenses. In the [reproduction of the figure](#) from Ibn Sahl's manuscript, the critical part is the right-angled triangle. The inner hypotenuse shows the path of an incident ray and the outer hypotenuse shows an extension of the path of the refracted ray if the incident ray met a crystal whose face is vertical at the point where the two hypotenuses intersect. According to [Rashed](#), the ratio of the length of the smaller hypotenuse to the larger is the reciprocal of the refractive index of the crystal.

"The lower part of the figure shows a representation of a plano-convex lens (at the right) and its principal axis (the intersecting horizontal line). The curvature of the convex part of the lens brings all rays parallel to the horizontal axis (and approaching the lens from the right) to a focal point on the axis at the left.

"In the remaining parts of the treatise, Ibn Sahl dealt with parabolic mirrors, ellipsoidal mirrors, biconvex lenses, and techniques for drawing hyperbolic arcs. Ibn Sahl's treatise was used by [Ibn al-Haitham](#) [Alhazen]" (Wikipedia article on Ibn Sahl, accessed 04-24-2009).

R. Rashed found the two parts of Ibn Sahl's manuscript separated in two libraries, reassembled it, translated it, and published it in *Géométrie et dioptrique au Xe siècle: Ibn Sahl, al-Quhi et Ibn al-Haytham (1993)*.

Filed under: [Science, Survival of Information](#) | [Bookmark or share this entry](#) »

## The Earliest Universal Bibliography 988 – 990

Muhammad ib Ishaq (Abu al Faraj) called [Ibn Abi al-Nadiim](#) (Abi Ya'qub Ishaq al-Warraq al-Baghdadi), a bookseller, stationer and "court companion" of Baghdad, publishes *Al-Fihrist*, an annotated index of the books of all nations extant in the Arabic language and script.

Dodge suggests that Al-Nadim, working in his father's bookshop, "wished to assemble a catalogue to show customers and to help in the procuring and copying of manuscripts to be sold to scholars and book collectors" (Dodge p. xxiii). This was the earliest universal bibliography.

"It is reasonable to believe that when al-Nadim died the original copy of his manuscript was placed in the royal library at Baghdad, while other copies made by scribes about the time of his death were assigned to his family bookstore, where some of them were probably sold to customers who came to purchase interesting books. Farmer says: 'Yagut (d. 626/1299) averred that he used a copy of the *Fihrist* in the handwriting of al-Nadim himself. The lexicographer al-Saghani (650/1252) made a similar claim. Either of these autograph copies may have been in the Caliph's library, which was destroyed utterly in the sacking of Baghdad in 656/1258'" (Dodge p. xxii).

This work did not appear in print until an edition of the Arabic text was issued by orientalist [Gustav Flügel](#) in Leipzig, 1871-72.

The text was first edited from the earliest manuscripts and translated into English by Bayard Dodge as *The Fihrist of al-Nadim. A Tenth-Century Survey of Muslim Culture*, 2 vols., New York, 1970. For the translation of part one Dodge used MS 3315 in the Chester Beatty Library, Dublin:

"We know nothing about the history of the manuscript until it was placed in the library of the great mosque at 'Akka, when the notorious [Ahmad Pasha-al-Jazzar](#) was ruler there at the time of Napoleon Bonaparte. After the fall of Ahmad Pasha, the manuscript was evidently stolen from the mosque. It was probably at this time that it became divided, as the Beatty Manuscript includes on the first half of *Al-Fihrist*. In the course of time the dealer Yahudah sold his first half to [Sir Chester Beatty](#), who placed it in his library at Dublin" (Dodge p. xxviii).

For the translation of part two Dodge used MS 1934 which "forms part of the Shadid 'Ali Pasha collection which is now cared for in the library adjacent to the Sulaymaniyah Mosque at Istanbul. In the library catalogue it is described as 'Suleymaniye G. Kutuphanesi kismi Shetit Ali Pasha 1934" (Dodge p. xxx).

Dodge indicated that he believed that each separate portion represents half of the same manuscript made shortly after the death of al-Nadim.

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## Chinese Paper Money 994

"China had been issuing paper money for more than a century when Christendom saw its first paper. China had been on a paper money basis for four hundred years when block printing began in Europe. Chinese paper money was still being issued during Gutenberg's lifetime. . . ."

"Paper money was the first form of Chinese printing met with by European travelers, was independently discussed by at least eight pre-Renaissance European writers, and, so far as is known, the only form of Chinese printing described in European writings of the pre-Gutenberg days" (Carter, *Invention of Printing in China* 2nd ed [1955] 108-9).

♦ [Bank notes](#) from the [Song Dynasty](#), which issued the notes because of a shortage of copper for coinage, are essentially [woodcuts with captions](#), representing some of the earliest woodcuts that survived.

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## Possibly the Most Valuable Book in the World Circa 998 – 1001



A pair of facing paintings showing the peoples of the world adoring Otto III, from the Gospels of Otto III. (View Larger)

The [Gospels of Otto III](#), probably produced in [Reichenau Abbey](#), in the scriptorium headed by the monk Liuthard, for Holy Roman [Emperor Otto III](#),

"must be a candidate for the most valuable book in the world. It was made for Otto around 998 . . . It is in its original golden binding set with jewels and with a Byzantine ivory panel. It is a totally imperial manuscript with full-page illuminated initials, Evangelist portraits, twenty-nine full-page miniatures from the life of Christ, and dominating all these, it has a pair of facing paintings showing the peoples of the world adoring Otto III. The worshippers resemble the Magi bringing offerings to the infant Christ. They are four women bearing gold and jewels and their names are written above in capitals: Slavania, the eastern European with dark red hair; Germania, a fair-skinned girl with long wispy blonde hair, Gallia, the back-haired French girl, and the curly-headed Roma, who is bowing lowest of all before the ruler of the empire. Otto himself is shown the opposite page, seated disdainfully on his majestic throne, flanked by two priests with books. . . . Otto III had built himself a palace on the Aventine Hill in Rome. His library including (amazingly) a fifth-century manuscript of Livy's history of Rome, probably given to him by the archbishop of Piacenza in about 996; the transcript of it that he had made still survives in Bamberg. His seal had the legend 'Renovatio Imperii Romanorum', the restoration of the empire of the Romans. He thought himself at least as great as Caesar Augustus" (de Hamel, *A History of Illuminated Manuscripts* [1986] 67-68).

The Gospels of Otto III is preserved at Munich in the [Bayerische Staatsbibliothek](#) (Clm 4453).

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