

**Explaining the raise of the codex:  
Was Christianity chiefly responsible for this change?**

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During the first centuries of the Common Era, the Roman Empire and the world of classical Antiquity were undergoing a series of profound social changes initiated by the rise of a new religion. Christianity challenged the foundations of the beliefs, human relationships toward nature, the concept of rulers and the structure of Roman society. Although it started as a heretical sect of the Jewish faith, Christianity was eager to develop new idiosyncratic symbols and liturgy. They abolished a number of the laws and requirements particular to the Judaism – idea of the “chosen nation”, i.e., association of the religion and tribe. They also dispensed with traditional dietary and circumcision requirements, as well as with laws associated with the writing and format of the scripture. They choose to write their scripture in the codex rather than the required parchment scroll format.

In the next four centuries, Christianity rose not only to become the official religion of the Roman Empire but also to survive its fall and become a cohesive force for the whole Western civilization. During these centuries of the rise of Christianity, codex completely replaced scroll as the book format and often these two developments were seen as mutually reinforcing. However, the codex format had its technical advantages over the scroll and in time it would overcome the forces of tradition regardless to its connection to Christianity. The prosperity of the Christian Church and its dominance over the Western civilization undoubtedly helped the overcoming of the traditionally accepted scroll format for the books and replacement with the codex. It was a rather fortunate coincidence that the two newcomers in the society of the late Antiquity joined forces and reshaped ways of thinking, reading and writing for next fifteen hundred years.

There are different opinions about how exactly codex is technically superior to the scroll. Karl Schottenloher in his *Books and the Western World* excellently summarized the sentiment of many [Cavallo and Chartier 88, Chartier 19]:

“No more did the reader need (as was the case earlier) to hold the text with both hands; he could rather place the book conveniently on a desk or on a table and have their right hand free for writing. The utilization of both pages and the joining of the layers brought the text together now into a unified whole and abolished all the disadvantages of the earlier partitioning of the text in the rolls.” [15]

For Roger Chartier in his book *Forms and Meanings* codex freed the body of the reader from strenuous labor (rolling scroll back and forth), allowing deeper concentration and individual “pace from page to page, from book to book” [19-20] Although it is true that most of the visual representations of Romans reading or holding scroll show them using both hands [Chartier 19], one must not forget that they are artistic and not documentary representations of the readers or scholars. In most of the portraits of 16<sup>th</sup> or 17<sup>th</sup> century readers are shown holding books with both hands, but that is never used as the argument that book could be hold only with two hands. However, as Roberts and Skeat point out “the codex equally required two hands, one to hold the volume, the other to turn the pages, unless the book is rested on a desk or table.” [49] There are no technical impediments to spread a scroll on a table, write on its margins or put another sheet or notebook on top of it and write notes while the scroll hangs over the edge of the table or is held by some form of paper weights.

David Diringer emphasizes the quality of the codex as a reference book, where pages could be quickly flipped to find the right place. Codex also has advantage that “(1) its size could be increased at will; (2) collections of poems or short treatises, and especially of aphorisms, wisdom, or proverbs, could be more easily transcribed.” [Diringer 203] However, (1) to scroll could be added as easy as the codex by simply gluing or stitching a sheet to the end of roll and (2) Christian literature in the form we know today, as compilation of various books and psalms developed much later and was anyway often written on the scrolls.

The technical qualities of compactness and easy reference suited especially to early Christian teachers and missionaries. Diringer argues that “roll was somewhat inconvenient, especially for books so much used for reference as those of the Bible.” [161] Jonathan Bloom concludes that “small, easily concealed books would have been an appropriate technology for a mobile, persecuted religion, and that codex page lent itself to admirably new, nonlinear method of reading and reference.” [26] However, some of the advantages of the codex – writing on the both sides, compact edition - are apparent only when the codex book format is combined with parchment as the writing surface, i.e., material for the pages. And in the first centuries of Common Era, the question of exact quotation was a rather tricky business, because text (scroll or codex) was written without spacing, paragraphs, pagination or other punctuation markings. Some of the books had annotation of every hundred *stichoi* – lines of text – but that was far from common practice [Roberts and Skeat 50].

The most valuable advantage of the codex format is its superior usage of the available space on the page: text could be written on the both sides of the page. Technology of papyrus production produced page with one side grain running horizontally (used for recto or inner part of the roll) and other side (verso) grain running perpendicular. This naturally implied writing on the surface where grain runs parallel to the writing. This problem did not exist when parchment was used. However, there are examples that papyrus scroll were written on both sides if need required [Turner 10].

Roberts and Skeat argue that the ability of codex to unify different lengths of text and forms in one book did not play the role in the time of early Christianity because most of books that would later form the New Testament still circulated as individual books and fragmentary writings [47]. Evan Chartier emphasizes that all advantages of the codex were not apparent nor were utilized at the beginning of application of the codex book format [19].

At the same time as the codex was replacing scroll as the book format parchment (vellum) was replacing papyrus as the writing surface. Although it took almost a millennium for

papyrus to completely disappear as a writing surface [Lewis 92-93], the development of the parchment technology provided codex with the material perfectly suitable for the new format.

The hide (leather) was used as writing surface from the ancient times [Turner 8], however parchment is much finer material, which required complicated technology of production. While leather was cleaned and then tanned in tannin enriched solution only, parchment in addition to that required thawing in alum, stretching on the frame and extensive scraping. This process provides translucent and white material on which pen stroke flowed smoothly, and at the same time ink could be easily scraped off if a mistake was made. In contrast to papyrus, the whole surface could be easily dyed in different colors (most often blue or purple).

Apparently this technology was developed the furthest in Pergammon, which became associated with “invention” of parchment. In spite of all advantages of parchment, for long time papyrus was considered more noble and desirable surface, mostly because of its ancient tradition. [Katz 69] In Egypt where it was invented, it was perfectly suitable writing surface, however, in damp and rainy regions it rapidly deteriorated, so much that today only preserved papyrus documents are from dry desert areas of Egypt and Middle East (except for the finds in Herculaneum which was covered with mud flow after eruption of the Mt Vesuvius).[Diringer 251] Besides that, the raw material for papyrus – *Cyperus papyrus* – grew successfully only on the banks of the Nile river. There were some attempts to grow the plant in region of Mesopotamia during the 9<sup>th</sup> century, however cultivation was unsatisfactory and soon replaced by paper. The only other region reported to succeed in cultivation of papyrus was Sicily, however this papyrus production supplied only very limited local needs. [Bloom 27]

Although papyrus codices were not sewn through the folds, but as Japanese and Chinese books, through the holes pierced on the side of the pages, [Diringer 163] they still do not bear well the continuous folding of the leaves. It could be said that the scroll is probably the most optimal book format for papyrus sheets.

As the Roman Empire started to experience internal and external difficulties with uprisings in Palestine, pressure on the Northern borders and instability in Rome, disruption of the papyrus supply become severe enough to justify its replacement with parchment. In conjecture with development of the codex this writing surface proved to be superior to the papyrus in the codex format.

Besides all technical advantages of the codex, there is still the question why the early Christians adopted codex format for their scripture. There is no dispute that Christians were the first community to completely adopt codex for majority of their literary output. According Katz “by the second century, 158 of 172 Christian texts are in the next codex form, as contrasted, for the same period, only 1.5 % of some 871 Greek texts.” [70] Diringier observes the same: in contrast to the “pagan literature” by the third century of Common Era, “the majority of Christian works were already in codex form.”[163] Almost all extinct codices in museums today are of Christian writings.

One line of the argument, associated mostly with Roberts and Skeat, is that the codex book format developed from tradition of parchment notebooks. Dictations, notes, textbooks and exercises were often written down on the wooden tablets or, with beginning of the Common Era, on the codex notebooks. Especially this is common with the legal notations – *codices* – that ultimately give the new book format its name. [Diringier 161] Since the first writing of the early Christians were mostly preaching and prayers [Chartier 19] it was natural for them to be written in notebooks rather than scroll. Coming out from the same community, they were also well customized to the Jewish tradition of writing the oral laws and commentaries in codex notebooks, while scroll was reserved for the written law, i.e., Torah [Bloom 26, Diringier 203, Turner 11].

Here also must be noted that vellum (parchment) notebooks were also associated with less affluent classes, merchants and small traders [Chartier 19, Turner 11] that were in this particular time the main body of the Christian followers outside the Jewish community. This social group would also have limited access to the imported papyrus scrolls, which were domain of the official scribes and publishers. The material used the most by the

common people was, again, the wooden tablets or parchment sheets produced locally.  
[Avrin 175]

Another argument is that exactly the opposite is true, i.e., that the codex was a statement of the difference to the religious requirements of the Jews and that adopting the codex Christians tried to separate themselves from all previous literary traditions Jewish as well as pagan (Greek and Roman)[Katz 70, Avrin 172-173].

Although the Christian Church was most commonly associated with the birth of the codex, this format of the books was not of its invention. The new religion only adopted and utilized all potentials that new codex format of the book offered from compactness, easy reference, and random access to maximum usage of page space. This new format enabled development of the rendition of the text and book format, as we know today. With new format of the book and new form of the society Christian Church challenged forces of tradition and won.

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