

Ken Lees

ETEC 540 – Assignment 2

Dr. Pena

1) Introduction to writing (2:00 min) – Afternoon Deck

- a) Writing is one of the most important inventions in human history because it allows us to experience other minds and imagine new worlds. Writing represents and communicates language and expresses emotion using signs and symbols as a code for others who understand to read. In the 5000 years that humans have used writing we have built ancient colossal temples to immortality and we have sent our words and voices to the solar system and beyond. Writing was invented in the middle of the 4th millennium BCE in ancient Sumeria and we know that writing was also invented on the sub-continent of India, in China and Mesoamerica in the 3rd, 2nd, and 1st millennia respectively. The original script, Cuneiform, was made by using a reed stylus to make wedge-shaped marks on soft clay tablets that would dry and a record of personal, social, political and economic events is preserved. Walter Ong says “literacy began with writing” and the world’s first literate people were trained in religious scribal schools, or if you were wealthy enough and could pay private tutors to spread the knowledge of writing and reading. The tablet, either stone or clay, would be writings medium for the next two thousand years until the spread of the papyrus roll across the literate world. In the history of writing there have been many innovations and inventions that has facilitated the growth and spread of literacy, that is, the reading and writing of text. My name is Ken Lees and I am going to talk about two of these innovations – the scroll and the codex.

2) Scroll but really Roll (2:00) – Desk Talk

- a) We often refer to the papyrus roll as a scroll but ‘scroll’ is a better as a verb to describe the way we use the roll rather than how we describe it. The papyrus roll was the most widely used medium in the ancient world. Discovered around 3000 BCE in Egypt, papyrus rolls are made from strips of the inner ‘pith’ of the papyrus reed that grows easily along the Nile. Michael Haslam (2005) states that papyrus, as a writing medium of the ancient world, is not found in the archeological record outside of Egypt, until the first millennium BCE. Papyrus was made by splitting the long papyrus reeds and laying the inner pith strips down on a wet surface, first in vertical rows then in horizontal rows over the first row. The pith strip sheets are then “pressed and pounded together and dried and polished in the sun. The sheets would be pasted together along the grain and form a long roll or charta. Manufactured rolls comprised of no more than 15 sheets (approx. 15 ft) (Grout, 2018). Scribes would use a carbon-based pigment to write on a roll. How a roll is used is dependent on where the user was from. The convention for use in the Mediterranean was to unroll using the left hand, only enough to read one sheet; roll users would have become quite adept in ‘rolling up the used page while unrolling the next page’. The ancient Greeks referred to papyrus as *khartes* and the papyrus roll was called *biblion* (book) from the Greek word *biblios*, meaning “papyrus pith” (Bloom, 2001). Another roll convention was the writing of text in columns. A standard roll would have “columna (pagina) eight to 10 inches high containing between 25 and 45 lines, with margins about half an inch

between them wider margins at the top and bottom” (Grout, 2018) Importantly, early rolls were written without very many punctuation marks. This suggests that the user of the scroll would already be familiar with the content and had some prior knowledge of where the spacing and separation of ideas are.

3) Roll Impacts on Literacy and Writing (2:00) – Forest Walk and Talk

- a) The Ancient Egyptians invented the papyrus roll at the beginning of the 3rd millennium BCE but this writing medium does not remediate clay and stone writing around the Mediterranean Sea until the first millennium BCE. The number of people who could read and write fluctuates over time but global literacy rates are estimated to be around 10% around the 1st century CE. The tablet had many limitations including how much text one could easily and accurately transfer from one medium to another. The production and composition of a clay-tablet required coordination between the tablet producer and the writer; in the use of roll technology there is no such required coordination. While scribe training continued to be expensive but the development of papyrus rolls must have facilitated learning as longer passages could be written and much more easily stored than the tablet. Literacy was for a financial or spiritual elite, those that could afford the time and training to be able to recognize a symbol and interpret the sound or meaning of that text. Historical events and economic transactions that were recorded on the papyrus roll illustrate private and personal communications of the wealthy and powerful people of the time. Writing remediates orality but the writing produced on roll supported oralists and aural information sharing. The epics of the ancient world were written on rolls for storytellers had text information about the narrative for the speaker though not the audience. The cost of rolls was not prohibitive but scarcity and specialization of processes does raise the price of rolls. In the mid-7th century BCE Grecian agents of the King purchased two scrolls to record the work at a temple in Athens and “They paid 1 drachma, 2 obols per sheet. This was a high price at a time when a day’s work was worth 1 drachma” (Glotz, 2009). As the price of a roll may fluctuate due to natural and human interruption of the production of papyrus rolls literate society need another device to mediate daily communication or important notes before committing on a roll.

4) The Interstitial Innovations (1:30) – Deck Talk

- a) Used by Roman households and scribes to record the mundane detritus of living; the *pugillare* could be used to communicate to self and other. The wax tablet can be seen as a transitional innovation between the scroll and the codex. The *Pugillare* was a “board of ordinary wood, one or both sides shallowly recessed for the writing area, which was filled with a thin layer of wax” (Haslam, 2005). A stylus, pointed on one end and flattened on the other, was used to make marks in the wax, or smooth the used wax-surface for reuse (Bob Fleck, 2011). This wax board could be used and reused over again and leaves could be adjoined with rope cords or other hinging. The diptych wax board was most common but triptych and polyptych boards have been excavated from Roman era ruins. Parchment was another, expensive writing medium. Parchment generally refers to the highly processed skin of lamb, goat, sheep or calves. “The skins were soaked in lime and scraped, stretched and dried, rubbed smoother pumice, and cut into sheets which then could be sewn together” (Grout, 2018). The laborious process of creating parchment, including the

slaughter of the animal, ensured that parchment was hugely expensive. The quality, durability and luxury of parchment made this medium a preferred writing surface for the most important manuscripts. The substitution of parchment over the wooden leaves of the tabula to create a notebook, or codex is an important innovation in the development of reading and writing.

5) The Codex (2:00) – Desk Talk

- a) Michael Haslam describes the codex thus “A codex consists of a number of folded sheets, stitched together at the fold. By virtue of the fold each sheet has two leaves (*folia*, sing. *folium*); each leaf has two pages, front and back, a.k.a. recto and verso (recto the right-hand side, verso the side you reach when you turn the page; the terminology presupposes left-to-right progression). A simple four-sheet (8-leaf, 16 page) codex could be constructed in either of two ways: (1) fold each sheet, then place the folded sheets on top of each other; or, (2) place the (unfolded) sheets on top of each other, then fold; you then have a four-sheet ‘quire’ or gathering ... multiple-quire codex, with quires of around four or five sheets apiece. But standardization took centuries, and most early codices are composed of a single quire, even when the number of sheets is large. (Haslam, 2005)

6) The Impact of the Codex (2:00) – Urban street talk

- a) The codex transformed the reading experience. The user’s hands are liberated in a codex and the reader can flip pages to find specific passages. A codex affords more space for writing as both sides of the writing sheet can be used. The codex provides a foundation for the handicraft of writing. The codex was an innovation that facilitated the evolution of writing with “the effective use of tables of contents, indexes, folios, running heads, footnotes, endnotes and marginalia” (Agarwal-Hollands & Andrews, 2001). Pagination allowed for ease of referencing, margins allowed for annotations, and over time the codex book was a “prestige object, a thing of tremendous beauty and value” (Haslam, 2005). The codex represents an efficiency invention that improved ‘personal literacy’ but there was no immediate change to literacy rates from late antiquity to the renaissance. Estimates of literacy in this period are around 10% of the global population (Frost, 2011). Modern estimates of literacy in the 1800 suggest that 12% of the population were literate (Roser & Otiz-Ospina, 2018). The evolution of the codex set the stage for further refinements of Writing and the spread of literacy. The codex and papyrus roll were the instruments used to spread and grow the fledging faith of two cultures. The full remediation of the roll would occur once the production of paper (another innovation in writing) from the far east displaced papyrus roll production.

7) Last Impressions (1:00) - Deck Talk

- a) The stone tablet, papyrus scroll, and parchment codex allow people to transmit ideas across time and space. These media across history has helped refine the human mind and allowed us to envision new worlds. Writing and reading are learned abilities and has the potential to modify the brain. As Rita Carter from the BBC observes, “reading builds new connections in the brain which in turn allow us to use written word as a stepping stone to understand other people’s worlds” (Youtube, 2009). Literacy changes the mind and in turn offers new horizons. The slow growth of literacy has more to do with the social, political and economic

realities of the ages rather than the lack of technology to teach literacy. The papyrus roll and the codex are tools used by the literate elite to share ideas and record human history. These tools allowed for the refinement of the tools of literacy to assist with the recognition of symbols and interpretation of text. There can be no doubt that the power of literacy is to change worlds and improve the human condition.

References

- Agarwal-Hollands, U., & Andrews, R. (2001). From Scroll ... to Codex ... and Back Again. *Education, Communication & Information*, 59-73.
- Bloom, J. M. (2001). *Paper Before Print: The History and Impact of Paper in teh Islamic World*. London: Yale University Press.
- Bob Fleck. (2011, May 26). *From the Scroll to the Codex*. Retrieved from The Oak Knoll Biblio-Blog:
<https://oakknollbooks.wordpress.com/tag/william-whitley/>
- Bolter, J. (2001). *Writing Space: Computers, Hypertext, and the Remediation of Print*. Mahwah: Routledge.
- Frost, G. (2011, August 3). *Adoption of the Codex Book: Parable of a New Reading Mode*. Retrieved from Conservation OnLine: <http://cool.conservation-us.org/coolaic/sg/bpg/annual/v17/bp17-10.html>
- Glotz, G. (2009). *The Price of Papyrus in Greek Antiquity*. Retrieved from marxists.org:
<https://www.marxists.org/history/france/annales/1929/price-papyrus.htm#n2>
- Grout, J. (2018, June 8). *Scroll and Codex*. Retrieved from Encyclopedia Romana:
http://penelope.uchicago.edu/~grout/encyclopaedia_romana/scroll/scrollcodex.html
- Haslam, M. W. (2005). The Physical Media: Tablet, Scroll, Codex. In J. ed. Foley, *A Companion to Ancient Epic* (pp. 142-163). Malden: Blackwell Publishing.
- Ong, W. (2002). *Orality and Literacy*. London: Routledge.
- Roser, M., & Otiz-Ospina, E. (2018). *Literacy*. Retrieved from Our World in Data:
<https://ourworldindata.org/literacy>
- Skeat, T. C. (1994). The Origin of the Christian Codex. *Zeitschrift fur Papyrologie und Epigraphik*, 263-268.
- Vandendorpe, C. (2013, October 4). *Reading on Screen: The New Media Sphere*. Retrieved from Wiley Online Library:
<http://digitalhumanities.org/companion/view?docId=blackwell/9781405148641/9781405148641.xml&do c.view=print&chunk.id=ss1-5-4&toc.depth=1&toc.id=0>
- Youtube. (2009). Retrieved from Why Reading Matters [Part 1 of 6]:
<https://www.youtube.com/watch?v=QdwFFBPCzw>

