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Teaching Book Arts in the Classroom to Enhance Education

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A History of Book Arts for the Elementary Classroom

INTRODUCTION

Since the beginning, books have been used in education as a means of acquiring knowledge. Children have used novels for enjoyment, to interpret and comprehend ideas, and stimulate their imagination. They have used textbooks to investigate scientific theories, memorize ancient mathematical formulas, and learn about the past. Books have been used in history classes as a window into the past, enlightening us all, as far as where we came from and how our current world came to be. Though books have continued to fill our classrooms, as a foundation in education, the history of books is rarely emphasized or even included in the curriculum. Book arts have a long history, fitting into the framework of every school social studies, art history, science and even math curriculum. Given the recent focus on literacy in early elementary education, teaching the history of books and integrating book art will only enhance and give greater meaning to literacy education.

EARLY WRITING & THE TEXT and IDEAS OF BOOKS

The history of the book dates back, somewhere between 3500 and 30 B.C. During this time, book covers, pages, binding, and even alphabetic language looked very different from what we are familiar with today. In these days, there was a great need for written communication, and out of this need, developed two early forms of writing known as cuneiform and hieroglyphics. Though it is unknown exactly, whether cuneiform or hieroglyphics appeared first, both were significant in the origin of written language. Libraries in ancient Mesopotamia housed clay tablets covered in cuneiform script, which is considered “the oldest form of writing” (Olmert, 30) by many, and seems to be the most rational explanation for the first recorded writing.

To create cuneiform, a wedge-shaped tool was used to etch pictographs and eventually, simpler looking slash marks into the [clay] tablets (Al Bawaba, 1). Before any paper-like material was created, cuneiform would have been crucial to keep records, pass on information, document history, and simply to communicate in society. Today, the thought of written language without the use of paper and a computer is foreign, but it is important to recognize that early writing was recorded on simple clay tablets and other everyday objects. At about the same time cuneiform appeared, hieroglyphics was developed in another part of the world, known as ancient Egypt. This written language was made up of picture symbols to represent words or ideas. While the Egyptians used these picture symbols in their written language system, the Mesopotamians preferred the cuneiform script, considered to be a “much more efficient writing system using small wedge shapes (Wilson, 14).

Though the physical composition of ancient clay tablets and early written forms are remarkable, we are most captivated today by the text and ideas carved upon them. Books then are made up of two parts; the physical, including the cover, binding, and pages, and the text which of course communicates powerful messages, which impart knowledge and skill. It can be said then, that both the physical and non-physical parts of the book contribute to longevity of communication over time.

It is remarkable that there was such a great need for books, during this ancient period of time. We see the first writings and early books emerging as society was evolving and beginning to make major advances. Cuneiform was beneficial in meeting the need for a common language during these years. People speaking different languages were coming together from different areas, and needed a common written language that made communication possible (Wilson, 2). Living in our current age, with a fully developed alphabetic system, we rarely consider the

importance of a uniform written alphabet. It is hard to imagine writing to communicate, without the letters of our alphabet.

In the ancient period, a purely oral society was no longer enough to communicate and advance as a civilization. “This shift was crucial, for it meant that life had become so complex that memory alone was not enough; the immediacy and permanence of writing and books was demanded” (Olmert, 28). This began the tradition of writing, and increased value given to the written word. For the first time in history, written language was a reality and crucial for not only communication and recording of information, but for the advancement of society and beginnings of literacy.

Today’s children need to know that there was a need for this type of writing early on! The classroom should be a place where children explore the purpose for written language, and the history of writing that provided a foundation for modern text. There should be many opportunities for children to ask questions about where writing first began, why it was important and other such questions. Classroom exploration of written language is designed to foster the importance of text and ideas in our children. It is most important that children see the importance of written language so that they learn to view themselves as capable writers, valuing the writing they produce.

PAPYRUS, VELLUM, and PAPER

The ideas and meaning behind the text should be emphasized in the classroom, but written communication of these ideas would not be possible without the physical elements of the book. Paper is one of these physical elements, so crucial in our society. Unfortunately the importance and evolution of paper is not fully known or appreciated. It’s an item that we use

every single day; to write, draw, read pages in books, wrap presents, and to decorate living spaces. In the ancient Mesopotamian society, clay, stones, animal skins, wood, and other such objects were used as the “pages” for books. Though many of these materials containing text and pictures have disappeared over time, some hardier objects do remain and give us a window into the past, and what life was like. For longevity, convenience and uniformity, papyrus was eventually created and acted as a paper-like material for written language. “The development of papyrus was a crucial factor in the growth of writing as a means of communication” (Wilson, 12). The development of this material was more reliable in preserving text, and could be washed off to record new text when the need arose. The papyrus was frequently rolled up in scroll form, and used to record written documents of the time. To make this material, the papyrus plant was stripped, cutting the inside stalk into long strips, which were then laid and pounded flat, horizontally and then vertically on top of one another (Olmert, 32).

The Greek and Roman world is known to have borrowed the “written” language of the Egyptians from the ancient world, and as a result literacy and the evolution of the book continued on during this period. Words were written on single-sided scrolls, the primary form of the book throughout the ancient Greek and Roman world, papyrus chosen as the preferred writing material. (Whitley, 29). Though scrolls were used during this period, problems arose that led to decline in popularity. Scrolls presented the difficulty of skipping from section to section, and there were problems storing and stacking the rolls. These are just several factors leading the book to a new form called the codex. “The Roman invention of the codex transformed the book into a form that we are familiar with today” (Olmert, 38). Whitley describes the codex as, “leaves or pages folded and bound together” (32). Society was in need of a more efficient and compact book, as more complex texts were created; one of the most significant of these texts is

the bible. The complexity and length of the gospels from the bible demanded this codex. The years spanning before, and shortly after the birth of Jesus Christ, marked the beginning of Christianity which was the first religion founded upon a single book. Olmert commented that Christianity, and its rise deserve the credit for quickly spreading popularity of this new codex (38). So, although the codex had advantages of durability, storage and compact form, “the eventual replacement of the scroll format by the codex format was apparently a matter not of practicality but of faith” (Whitley, 32). The important role of religion in society greatly impacted the changes in book form.

In addition to the new codex form of the book, a paper-like material called parchment was developed and used as an alternative to papyrus. This material continued to be used throughout the classic period and into the medieval period as well. Both parchment and another material called vellum, were made from animal skin and developed to record written language. Parchment, which became a common writing and printing surface in Europe, was made from sheep or goat skin” (Hiebert, 3). Vellum was also made from animal skin and used as a paper-like surface for writing. Though many different materials have been created to hold our written language, paper is the chosen material used today. Looking back, the majority of book history, utilized, “book page” material other than paper, such as papyrus and parchment. The process to make paper is unique, and despite the inclination to generalize all book pages from history as “paper,” that is not the case. “Paper is made from a raw material that has been beaten and broken down into tiny fibers, mixed with water, and formed into sheets on a screen surface that catches the fibers as the water drains through it.” The paper is then pressed and dried before taking on the form used to write and create book pages, that we are familiar with today (Hiebert, 1).

Interestingly, paper was created long before it was actually used by society. It did not spread to Germany, England and most other countries until the 15th century! Paper was invented long before printing, “by almost 1,400 years, originating in China in A.D. 105” (Olmert, 171). It was simply distrusted as an efficient and withstanding material for book pages, and therefore was not used right away. The material had not yet proved itself as a sustainable material that could last over the ages, and hold the precious words of important documents, and literary gems.

It is a common misconception among both adults and children, that paper is a general term used to describe all surfaces used to create the pages of books. Children need opportunities to explore and ask questions about the different materials used to create book pages throughout history. The process of papermaking is also an engaging and exciting step-by-step process that children can take part in, just as paper makers do today. The connections to paper making and the public school curriculum are endless. Lessons on papermaking might fit into a recycling lesson, a ‘how-to’ writing lesson focusing on step by step procedures, or even a social studies lesson on the Oregon Trail, using different materials that might have been found on the trail, to be put into their homemade paper.

ILLUSTRATION and CALLIGRAPHY: When books were made by hand

Much of our knowledge on history comes from objects that have been found, whether architectural structures, fossils, photographs or other such findings from the past. Though these artifacts are important windows to our past, it is our *books* that really tell the story. Olmert points out the importance of early books by stating, “Most of what we know of medieval life and thought comes from manuscripts, not from archaeology or artifacts” (69). Books have carried knowledge down through the ages, and given us a glimpse into different eras. The medieval

period really gave wings to the book and as a result, we have a well recorded understanding of the period today. During the medieval period, between the 5th and 15th century, Christianity continued to spread, overflowing into the world of book arts. The classic period had “transformed and reshaped the book,” in addition to giving the bible a new medium (Whitley, 35).

The medieval period brought the elegance of calligraphy and illustration to books, while expanding their purpose in society. In short, the medieval period is characterized by the growing popularity and creation of handmade books. Handmade books of the medieval period were frequently created for religious purposes, but expanded to many other knowledge’s as well including science, art, and politics. Monasteries and religious institutions had been the primary storehouses for books, but during this period they became commercial and were finally sold to consumers despite a very high price. The laborious, intricate nature of the handmade book brought an artistic beauty to books, and it is still revered today. Not only were books sewn and bound by hand, but calligraphy and hand-drawn illustrations colored the pages with detailed embellishment.

Calligraphy is an early form of writing found in medieval books, characterized by single brush strokes, with the use of ink and some type of page-surface material. In the medieval days, a professional known as a scribe made his life’s work out of this art, creating elegant lettering to both communicate with written language, and to dazzle the eye. The scribe was an important component of society during the medieval period as well, unrecognized by most people today as a necessary professional and understandably because there is no longer a need! Scribes were entrusted with the precise work of creating fine and elegant calligraphy lettering to fill the pages of books. There was no way to mass produce text for the pages of books during this period, so a

great deal of detailed time and energy was put into hand-written calligraphy. Whitley echoes the elegance and style of this period describing books as, “elaborately created using colors of gold and silver to embellish and illuminate the written language” (xii). This act of ‘gilding’ was common during the Middle Ages and characterized books of the time. In addition to calligraphy, illustrations began to appear in books during the medieval period. Similar to calligraphic lettering, illustrations were created for individual pages of books, a great deal of time and precision put into each. Just like the calligrapher, illustrators had an important role. Over time, illustrated books increased in popularity and different methods were implemented to improve the image quality. During the medieval period, the illustrator continued to take on the important and time-consuming role in creating books. As discussed above, calligraphy and illustrations drawn by hand were an important part of the book history, however, changes were coming. “As the demand for illustrated books increased, it caused seismic changes in the way books were produced” (Olmert, 84). In such a fast paced, expanding society, handmade books would not always be the primary book form. Exploring calligraphy and the society of the medieval period, provides an opportunity to consider life before computers and Microsoft word were invented.

Questions such as, “What is calligraphy?”, “Why was calligraphy used?”, “What were the problems with calligraphy?”, and “How is calligraphy different than the letters of words found in books today?” would all be beneficial in leading children through an exploration of calligraphy. In addition, illustrations are of great interest to children and enhance literacy in education. A study on early illustrations and the hand created illustrations of the medieval period would provide students with an understanding of how the pictures in their own books are created, and how they have changed over time. Questions such as “How were early books illustrated?”, “What tools were used to illustrate books?”, and “When did pictures start to show

up in books?”, would lead children in exploring the early illustration of handmade books.

Lastly, the study of calligraphy and illustration provide an opportunity for students to explore the role of the calligrapher and illustrator during the medieval period. Students may participate in projects or explorations of what it might be like to be a calligrapher/illustrator during those days.

Though books were prized for their beauty and elaborately decorated pages, few people were given the opportunity to own and enjoy them. In an article from the Ladies Repository in 1862, Reverend Van Cleve responds to that statement, commenting, “Who can wonder that the dark wing of superstition brooded long over the Church of the middle ages when the sacred writings were scarcely known by any but the priests and monks- when the books served rather to conceal than to publish the Word of God” (304). As the medieval period came to a close, the bible became center stage in church reform. Revolutionaries leading the reform wanted to give ordinary people access to the scriptures in their own language, and without dependence on church leaders (Olmert, 47). A harsh reality stood in their way. Handmade books were very time consuming to create, with no means of mass production. The foundation for printing was set, and the need was evident.

PRINTMAKING and TYPOGRAPHY

During the middle of the 15th century, printing became a reality and the age of the printed book began. Unlike copy after copy of the handwritten book, printing by definition is “recording on paper or other surfaces graphically by making a number of copies of pictorial, typographical, lined, or decorative arrangements” (Cleeton, xiii). Though some forms of printing

such as woodblock printing, were used in earlier years, printing was accepted during this period and began to spread.

With the age of new thought and rapidly expanding industry, one man named Johann Gutenberg was more than prepared to revolutionize the book industry. Gutenberg is known for inventing the printing press and printing with movable, metal type (Olmert, 117). Woodblock printing was used for many years prior to this period, but there was now a more efficient method created for use. Letters of the Roman alphabet were cut into individual small pieces to form the type used in printing. This remarkable invention allowed more flexibility and a more uniform system of printing on the pages of books. Letters could easily be taken out and replaced, and identical copies would print with each run of the press. Finally, all the elements necessary for printing were in place, and mass production of the book took off. Using the essential hand mold, type, ink and the perfected hand press, Gutenberg printed the first bible. “Between Gutenberg’s bible in 1455 and the end of the century, a mere 45 years, more than 10 million books would be printed” (Olmert, 125). Printing spread like wildfire, increasing literacy among the middle class, increasing the ease of communication, and threatening the power of the religious authority figures who once kept the bible and religious documents from the people.

The thirteen colonies were established soon after this invention and printing began in America, during the middle of the 1600’s. Fighting for their independence and rights from Great Britain, Americans found that the printing press was a key ingredient to change. This time in history marked increases in nationalism among the American colonists, and the printing press allowed for the distribution of propaganda. This propaganda spread quickly after the invention of the press, greatly influencing and leading up to the eventual American rebellion against Great Britain.

Just as printed type replaced the hand-written calligraphy of the medieval period, a variety of printed illustration methods soon began replacing hand-illustrations and page embellishments. These forms of printing illustrations included relief, intaglio, and finally lithography in the 19th century. In relief printing, whether images or type, “the background is removed and only the image receives ink and transfers to paper” (Olmert,239). Another method developed and used to create illustrations is intaglio. Using this method, images are engraved or etched into the surface of a plate, which is wiped clean; the only traces of remaining ink left in the crevices and etched lines of the plate. Using the printing press, the ink left is then transferred from the plate to paper to create an image. Lastly, lithography was invented in the early 1900’s and used in printing for many more years. During this process, the mechanism of using rubber blankets was used to transfer images from a printing plate to paper (Levenson, 11). The ink would cling to the greasy drawn areas of the plate and the water would resist the oil-based ink everywhere else on the plate.

Though a typical educational curriculum might briefly address the invention of the printing press during the era of the thirteen colonies and American Revolution, the two topics are richly intertwined. Students should be given opportunities to make connections, and ask further questions. The ramifications of the invention of the printing press, help piece together the pieces of our history leading up to independence, and reveal the great impact that the evolution of books had on our country, and the rest of the world. Most of our children don’t have much background knowledge about typewriters or any form of printing before computers and photographic processes became the societal norm. Printmaking gives children the opportunity to consider what machines and materials it took to print words onto book pages before computers were invented.

BOOK BINDING

Printing continued to thrive over the years, and the printing press was established as a central component of society. The printing press completely changed the way that type was transferred to the pages of a book, which led to changes in the book binding industry as well. “With the rapid rise of printing, a similar demand for bookbinders arose” (Meiric, 26). Looking back to the beginnings of book binding, sheds light on advances in the industry, by the time the printing press had been established. In ancient Egypt and other early societies, the book binding industry was much less uniform and consistent. In the earliest years, “wooden cases held papyrus rolls” and Babylonian clay tablets were protected inside clay jars (Olmert, 188). The way a book was bound depended on the needs of the society and the ability of citizens to pay for the binding. Bindings in Ireland, Italy and France looked very different from one another based on the needs of the society. In some areas, the covers and bindings of books were simple, and without embellishment so they would be light and easy to carry on long trips. Many other societies prized the appearance of the cover and bindings, putting great effort into embellishing the book with jewels of gold and silver to please the eye. For example, one cover for a copy of the Gospels is entirely composed of gold and jewels (Meiric, 14). Over time, and throughout different regions, the materials used to bind and cover books varied greatly, including the use of wood, ivory, metal and leather. Speaking into the societies and time period they were created in, “bindings offer many clues to the life of the book” (Olmert, 191). Most importantly, book binding over the years has created both protection and a home for pages of valuable text. Without the work put in to cover and bind these ancient books, we would not have the recorded text that we do today. ”Bookbinding is greatly indebted to the patronage of the wealthy lovers of

books and it is largely through their collections that the art must be traced (Meiric, 26). Though the wealthy citizens paid for the binding of some books, many books did not receive the expensive covers, and strong bindings, and were given papyrus or other paper-like covers instead. The codex form of the book was composed of precious pages in need of protection, but the high cost associated with book binding prevented many publishers from following through with the process. During the years after printing, as bookbinding really came to light in society, consumers were also given the option of re-binding their books.

Children must be given opportunities to examine this time in history when pages of books were sold without being bound or completed with a cover. The art of the book binder is also a significant consideration for the elementary school curriculum. Guest authors and illustrators are fairly frequent in schools, and most children recognize their value and importance in our society. Book binders were so important in the creation of the many books that have been passed on to our current day. It is important for children to recognize the two stages that books go through to become bound, the first, putting the book together and the second, the decoration or embellishment of the cover. While many children aspire to be authors and illustrators when they grow up, these experiences will open them up to the art of the binder and what it takes to put a book together. It is interesting to consider the various different bindings and covers that existed over the course of book arts history, and exploration of these differences will lead children into a greater appreciation for the art of book binding.

CONCLUSION

The history of the book continues to be written even up to this day. The primary form of printing has changed to fit the needs of our fast paced society, consisting of digital printing and

offset lithography. Many aspects of the book arts have faded, as digital replacements have taken over. Though these changes are significant, it was not until the late 1980's, less than thirty years ago, "when desktop publishing became a practical reality for producing first text, and then graphics for printing" (Levenson, 12). Though our digital age of technology has transformed the printing industry, many older forms of printing still exist today and serve to preserve the art of the book.

The rich past and intricate history of books is clearly of great value. Integrating book arts into education will not only give children a greater appreciation for books and understanding of their great impact on our society, but it will enhance literacy and keep the power of written text alive. Technology and digital additions to literacy are a reality and in many instances save money, resources, and are offer a more efficient way to communicate. In the midst of this reality, however, we must not lose sight of how books have enhanced our connections with others since the ancient ages, and they continue to do so. In her video interview, Ann Silvey discusses the effect of technology, as preventing this innate need for human interaction that is every child and every person. "In the end, I just think the power of the book is extraordinary" (Silvey). Integrating book arts into the classroom, through the teaching of book history and open conversations with children about books, as well as opportunities to create and integrate hands-on book art into the rest of the curriculum will keep the power of the book alive in our children, and foster an appreciation and understanding in generations to come.

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