

taste, intelligence, and liberality of these noble Romans have been swept away, and how narrowly some of the most important works of ancient authors have escaped a similar fate. For instance, there exists only one manuscript of Tacitus, which was discovered in a monastery in Westphalia.

Among the few specimens of ancient books that have survived the wreck of ages are the Herculaneum manuscripts written on Papyrus paper. Some Egyptian Greek manuscripts of about the same date, and notably the orations of Hyperides, were recovered by Messrs. Harris and Arden, in the year 1847.

One of the most fertile sources of the irreparable loss which letters have sustained by the destruction of ancient manuscripts, arose from the scarcity of parchment at different times and places. This led to the erasure and obliteration of the original writing of manuscripts, in order to make the vellum again available. This barbarous practice appears to have prevailed from a very early period, and to have been most in vogue during the three or four centuries which preceded the revival of learning. The manuscripts thus erased and rewritten are called *Palimpsests* or *Codices rescripti*. It is impossible to calculate the amount of mischief which was thus perpetrated; as the works of the obscure schoolmen which were written on the twice used parchment but ill repay us for the loss of the priceless treasures for which they were substituted. Modern ingenuity has to a certain extent found the means of repairing the damage by discharging the more recent ink, and restoring the original writing. That learned scholar, the late Cardinal Mai, was I believe, the inventor of this process, by means of which he succeeded in recovering a lost work of Cicero, the *Book de Republica*, as well as some fragments of his orations. A portion of one of the lost books of Livy was also recovered at Rome by the same means.

The spread of Christianity, of course, produced a great effect upon the character of the books which were thenceforward written, and consequently furnished a different class of subjects to the skill of the transcriber. Yet the same description of ornamentation with that to which I have alluded continued to prevail. We find St. Jerome, in the fourth century, very severe on the prevailing taste for magnificence in books, and particularly specifying the fondness for purple vellum, written in letters of silver and gold, adorned with uncial letters, and bound in covers shining with gems.

A purple manuscript, known as the *Harmonia Evangelica*, is among the *Cottonian* manuscripts in the British Museum. In it the two first leaves of the Gospel of St. Matthew are of a purple colour, and the two or three first pages of each Gospel are in gold capital or initial letters. Its date is not later than the sixth century. The Imperial Library at Vienna possesses a copy of the book of Genesis at least as old as the time of St. Jerome. It is on purple vellum and written in letters of gold and silver. The *Codex Aureus* or *Golden Manuscript* of the Royal Library at Stockholm contains the Gospels. This is said to be a gorgeous book. The leaves are purple, the letters partly golden and partly white, with black capitals. The Electoral Library at Munich has a manuscript of the four Evangelists, of the ninth century, written on violet coloured paper in gold and silver letters. The *Codex Argenteus*, or *Silver book* of Ulphilas, preserved in the library at Upsala, contains the four Gospels in letters of silver and gold on violet coloured parchment, and is not earlier than the fourth nor later than the sixth century.

I need not tell you that an illuminated manuscript is one which is beautified with paintings. These are sometimes illustrative of the text, while they are often mere borders in which the taste and fancy of the artist indulged itself by the introduction of birds, flowers, insects, and animals, grouped in the most fantastic manner, and often delineated in the most graceful forms, and with the most delicate colouring. The illustrative paintings are sometimes of a small size and inserted in the text of the book, and sometimes take up the whole leaf; but it was on the capital letters that the artist or transcriber generally expended the fullest measure of his labour and his taste.

Natural history appears to have been a favorite subject in the middle ages, and several *Bestiaria*, or *Histories of Animals*, are preserved, in which the habits of the brute creation, real and imaginary, are delineated in the strangest and quaintest manner, but still with a good deal of imagination and artistic skill.

THE INVENTION OF PRINTING—CLAIMANTS OF THE DISCOVERY.

We now come to the great invention, without which the revival of letters would have been incomplete, and probably short lived, to that turning point in the history of the world when the results of genius, of intelligence, of study, and of fancy, were to be thrown open to all who chose to avail themselves of them, instead of remaining the sealed and hidden treasures of the wealthy, the high born, and the learned. No question has been more obscured by the efforts made in the attempt to clear it up than that of the origin of printing. Only seven cities contended for the honour of having

been the birth-place of Homer, but at least fifteen have at different times set up their claims to the credit of having seen the invention of this inappreciable art. The pretensions of the majority of them have been long since satisfactorily disposed of; and there are now only three, Haarlem, Strasburg, and Mayence, that can with any show of reason lay claim to this great discovery.

It was not, however, until the fifteenth century that printing in its rudest form, namely block-printing, as opposed to the use of moveable types, appears really to have been in use in Europe. It has been asserted that playing cards were produced at Venice either by rubbing off, or by block-printing, nearly two centuries earlier; but religious prints, having a line or two of inscription under them engraved upon the same block, appear to have given the first real stimulus to the invention. I think that the town of Haarlem is entitled to the pre-eminence first assigned to it by Ulric Zell, an eminent printer of Cologne, who is quoted in the *Cologne Chronicle* of 1499, and afterwards by Adrian Junius in his Latin work, entitled *Batavia*, published in 1588.

The account which Junius gives, is as follows: Lawrence Janssen, surnamed Coster, from his office of warden of the Cathedral Church at Haarlem, was one day walking in a wood near the town, when the idea struck him of cutting out letters in the bark of a beech tree and taking impressions from them for the amusement of his grandchildren. Encouraged by the success of his first essay, he, with the assistance of his son-in-law, Thomas Peter, invented a thicker and more tenacious ink than any before in use, and printed engravings, to which he had appended lines struck off from his letters of beech bark. He subsequently improved his invention by substituting metal type for these wooden characters. Junius goes on to say that a profusion of purchasers of the works thus produced flocked to Haarlem, and that Lawrence Coster was obliged to call in the assistance of several workmen. One of these, named John, whom Junius believes to have been Fust, but whom others assert to have been Gutenberg, robbed his master's workshop, while he was at church one Christmas night, of some of the type and printing materials, with which he fled to Mayence, where in the year 1442 he printed with the stolen characters two books, one the *Doctrinale* of Alexander Gallus, the other the *Tractatus*, or *Treatise* of Peter Hispanus.

As early as the year 1462, Louis the Eleventh of France had begun to see the importance of the new discovery, and had sent Nicholas Jenson, one of the cleverest engravers attached to the mint of Tours, to Mayence. His mission was, in the words of Gabriel Naudé, secretly to gain information as to the cutting of punches and dies, by the help of which the rarest manuscripts could be multiplied. Nicholas Jenson did not, however, return to Paris, but betook himself some years after to Venice, which reaped the fruits of the knowledge he had acquired in the workshop of Schoeffer; and it was not until 1469 that three Germans, Ulric Gering, Martin Crantz, and Michael Friburger, set up the first printing press in Paris, at the expense of John Heynlin, himself a German, and prior of the Sorbonne, then the great University of France. The press was set up within the walls of the University, and the prior himself, assisted by Guillaume Fichet, the Professor of Rhetoric, revised the sheets and corrected the press.

One disastrous effect followed close upon this vast and sudden increase of printed books, namely, a disregard for the manuscripts of ancient authors, whose works had already been given to the press. This undue and unfortunate disparagement of manuscripts led to the destruction of numbers, which fell into the hands of the binders, and doubtless to this cause, and to this period, may the loss be attributed of valuable works, which we know to have been in existence but a short time previous to the invention of the art of printing.

It is to William Caxton, who, in spite of attempts to rob him of the credit justly due to him, still keeps the designation of the father of English printing, that we owe its introduction into this country. He is supposed to have been born about the year 1412, and to have resided as a merchant in the Low Countries for about thirty years, having gone abroad in 1442. In 1464, he was appointed by Edward the Fourth to negotiate a treaty of commerce with his brother-in-law, the Duke of Burgundy, and we may imagine that by that time he had acquired a taste for literature, an intimate knowledge of the French language, and a practical acquaintance with the mysteries of the printing press.

Caxton returned to England soon after this time, and in 1474 he was established with his implements in one of the Chapels of Westminster Abbey,* where he printed the "Game and Play of the Chesse," which was the first book printed in England. By far the most interesting product of his press was the *Canterbury Tales* of Chaucer, also printed in Westminster Abbey, about 1476. Of this

* It was from this that the technical expression of the Chapel as applied to a printing office is supposed to have arisen.