

The  
Transition from  
Manuscript to  
Printed Book

*An Inaugural Lecture*

GIVEN IN THE UNIVERSITY COLLEGE OF  
RHODESIA AND NYASALAND

B. H. Rasmussen

OXFORD UNIVERSITY PRESS

THE  
TRANSITION FROM  
MANUSCRIPT TO  
PRINTED BOOK

*An Inaugural Lecture  
given in the University College of  
Rhodesia and Nyasaland  
on 24 June 1960*

*by*

B. H. RASMUSSEN  
*Professor of Modern Languages*

SPECIAL ORDER

LONDON  
OXFORD UNIVERSITY PRESS

1962

*Oxford University Press, Amen House, London E.C.4*

GLASGOW NEW YORK TORONTO MELBOURNE WELLINGTON

BOMBAY CALCUTTA MADRAS KARACHI LAHORE DACCA

CAPE TOWN SALISBURY NAIROBI IBADAN ACCRA

KUALA LUMPUR HONG KONG

© *University College of Rhodesia and Nyasaland 1962*

*Distributed in Central Africa  
solely by Messrs. Kingstons Ltd.  
on behalf of the University College of  
Rhodesia and Nyasaland*

PRINTED IN GREAT BRITAIN

## THE TRANSITION FROM MANUSCRIPT TO PRINTED BOOK

THE occasion of an inaugural lecture is, in a sense, a return to the Middle Ages, since the medieval student, having satisfied his examiners in regard to his academic attainments, was required to give a specimen lecture and demonstrate his ability to transmit his knowledge to others. He was not granted the *licentia docendi* and transferred from the corporation of students to that of the professors until he had given proof of his qualities as a teacher. In medieval times, therefore, the inaugural lecture was just as much a part of academic life as it is today.

I propose to take as my topic this evening the replacement of the manuscript by the book printed with the use of movable metal type, to describe the transition from one to the other, and to attempt to discern some of the consequences of this change more especially as it affected the universities.

In order to place the invention of printing in its proper perspective, it is necessary to go back as far as the twelfth century when Europe, emerging from the period generally known as the Dark Ages, reached one of the summits of achievement in the history of culture. The twelfth century has justly been called the period of the first Renaissance, for it is characterized by intense intellectual activity which culminated in the establishment of the earliest universities in Europe, those of Bologna and Paris. The University of Bologna was the great centre for legal studies and was founded as the direct consequence of the revival of interest in Roman Law. The University of Paris, on the other hand, became the centre for the study of dialectical philosophy

and theology. The reputations of scholars like Abelard, his teacher Guillaume de Champeaux, and many others attracted students from all over Europe to Paris and constituted as early as the twelfth century what was, in fact, a *studium generale*, a centre of study where all with the necessary qualifications, i.e. a competent knowledge of Latin, could become students. The formal constitution of this centre of study as a university came only later, in the middle of the thirteenth century.

This rebirth of intellectual activity in the twelfth century was not confined, however, to law and religion. The new surge of vitality sent thousands of people, high and low, from all parts of Europe on pilgrimages and Crusades to the Near East and thus familiarized them with a highly developed culture to which they did not remain indifferent. One of the most important results of this contact with the Moslem world was the revelation of Aristotelian thought through the medium of the Arabic commentaries. Awakening energies found expression in a wide variety of other ways and more particularly for our present purpose in the Cluniac and Cistercian reforms which injected fresh vigour into monasticism. A direct and immediate consequence of the renewed interest in learning was the greatly increased reproduction of manuscripts in the monasteries.

It was characteristic of this changed mental attitude and of the new intellectual activity that they should be accompanied by an increasing demand for literature of all kinds. During the period extending from the break-up of the Roman Empire until the twelfth century, literary culture had sunk to a very low level and had been almost exclusively the prerogative of the Church. It is not surprising to find, therefore, that such manuscripts as were copied were generally those required by the Church together with

a very few Latin authors whose works had survived precariously and were still treasured. By the end of the twelfth century, however, education was no longer confined to the monasteries and the monastery schools. More people were beginning to read and write and to recognize the usefulness of these accomplishments. The emergent bourgeois class, itself another sign of the fundamental changes taking place in the life of the twelfth century, comprised members of the learned professions and merchants who, as their numbers increased, experienced an ever-growing need for books, chiefly of a practical nature. Their needs were not exclusively professional, however, for they also required prayer books, lives of saints, and gradually, too, books of pure literature, the epic poems and romances not only in verse but also in the new medium, prose. This demand, moreover, was mostly for books in the vernacular. Literature intended for the general public had hitherto been oral; the audiences had listened to it as it was provided for them in the castle hall and in the market place, or read to them as a group in the orchard or to the ladies in waiting in the Châtelaine's chamber. Social life was now organized differently and from listening the public was turning to reading. Such a demand, which steadily increased from the twelfth to the fifteenth century, could not, of course, be met by the monastic scribes. It was bound to lead to a reorganization and rationalization of the methods employed in the reproduction and dissemination of books.

The method adopted to achieve the increase in the number of copies of books available was fundamentally that of specialization. It would appear that ateliers were established which specialized in the various stages of manuscript production. The actual text to be reproduced was first copied by a scribe in his atelier. When this operation was com-

pleted, the manuscript was passed on to another atelier where the rubrics would be added and then on to yet another where the illuminators set to work. We thus have not only specialization in the various stages of the work, but an early form of serial production. When finally ready, the manuscript seems to have passed into the hands of the *librarii* or university booksellers to be sold or let out on hire. These booksellers had early become members of the university and had established a monopoly in the hiring out and selling of books whether intended for university purposes or not.

But what was the situation in regard to the books needed by students and professors? They were relatively few in number, for the whole system of education was based upon a limited number of textbooks which in some cases had been in use for centuries. One of those most frequently mentioned is the *De octo partibus linguae latinae* of Aelius Donatus, commonly known as the 'Donet' or 'Donat', which dates from the middle of the fourth century and is mentioned in Villon's *Testament*. Indeed, it survived even beyond Villon for it was one of the earliest books to be printed and many fifteenth- and sixteenth-century editions of it are known to us. Another favourite textbook was the compilation by Orosius, known as the *Historiae adversum paganos*. Based upon the Bible and Latin historians, it was written at the suggestion of Saint Augustine and dates from about A.D. 420. It becomes apparent, therefore, that the content of education had remained constant for some hundreds of years and, in spite of the teachings of men like Abelard and other original and questioning spirits, it was, generally speaking, to remain unchanged until the revival of classical learning.

Books, and by 'books' we must understand manuscripts,

were scarce and costly. To supplement this lack, professors resorted to the lecturing technique and since their audiences were large—the students, by the way, sat on straw spread over the floor—this method of teaching soon deteriorated into the straight dictation of the lecture by the professor. The students took down the notes verbatim and learned them by heart. The *disputatio* method of question and answer was also used, but the dictated lecture persisted for a very long time in spite of the obvious abuses to which it inevitably led.

But whatever lecturing methods were used, books and more books were required to meet the needs of the large numbers of students who flocked to the universities. The University of Paris attracted students from all over Europe and consequently it is probable that the book shortage was felt there more keenly than anywhere else. In any case, Paris soon evolved a system which provided a constant supply of books for sale or hire to university students. So successful was this system that Paris rapidly gained a reputation as a centre of the book trade. I have already referred to the specialized system devised with the object of providing books for the general public and to the fact that the university controlled the *librarii* or booksellers. It also controlled the *stationarii* or stationers, that is to say the men who employed scribes in their own ateliers. These ateliers operated exclusively for the university and under university supervision. A combined board of stationers and university professors watched over and was responsible for the accuracy of every manuscript sold or hired. Obviously any person requiring a text could either copy it out himself or have it copied for him, but such methods are somewhat unreliable for a variety of reasons. The essential requisite is that the text shall be authentic, but every time a manu-



script is copied, more and more mistakes creep in until the cumulative effect is disastrous. In such circumstances, when a student is obliged to copy out any text that he can manage to borrow, however many times removed from the original, he has no control over its reliability. Recourse was had, therefore, to a different system having two main objectives. The first of these was to ensure the authenticity of the text. This was achieved by selecting as reliable a text as possible, called an 'exemplar', and using it as the basic manuscript from which all other copies were to be made.

The second objective was to ensure rapid dissemination of the texts. To achieve this an ingenious system was devised. The 'exemplar' was divided into a number of sections each of which was called a 'pecia' or piece. The 'pecia' could then be hired out for limited periods and copied. The advantage of this system was that it did not involve the immobilization of a whole manuscript as all the sections could be in use at one and the same time. In the most favourable circumstances, it meant that in no more time than it would have taken to make a single copy, as many copies of the entire manuscript could be made as the 'exemplar' was divided into sections. Moreover, the 'pecia' system offered an additional advantage—each piece of work allotted to a scribe was of a specified length easily definable in terms of pages, columns, and lines. This provided a guarantee of the amount of work performed, since it could be simply and quickly checked, and it also made the question of payment a matter which could be arranged even before the actual copying work was commenced. It was a system of piecework which functioned admirably for a very considerable period. Judging by the number of 'exemplars' which have been identified and the texts still

extant in spite of the ravages of time and the wear and tear to which they were subjected, this 'pecia' work must have been quite successful in meeting the very considerable demands made upon it.

It becomes apparent, therefore, that by the fifteenth century there was both an intellectual and an economic need for the invention of printing. Materially, too, the way leading to the invention of printing with a press had been well prepared. The various processes involved in printing were known and indeed many of them were in common daily use, although for other purposes. They needed only to be adapted to the specific purpose. Europe was already familiar with the use of wood-blocks and they were commonly used in the East for printing on silk. The earliest woodcuts appear to date approximately from the first quarter, perhaps the first decade, of the fifteenth century. They were made simply by carving one face of a wooden block to the appropriate shape, treating the surface with an oily ink, and pressing the block face on paper. Such woodcuts were invariably of sacred subjects; their popularity increased very rapidly. Originally it was intended that the impressions should be coloured, but such was the demand for them that the practice of adding colour was soon abandoned and they were left in black and white. It was customary to indicate the identity of figures by giving them a name and to add a banderole with a few explanatory words. Subsequently another development took place when a number of woodcuts illustrating the various stages in a story from the Bible or an episode in a Saint's life were gathered together, sometimes with a page or two of text, to form a book. A very early example, the *Exercitium super Pater Noster*, has the text in manuscript combined with pictures printed from woodcuts. A similar

composite edition of the *Biblia Pauperum* is also known, but in the great majority of cases both the text and the illustrations in these block books, as they are called, were made from woodcuts. They achieved a very considerable degree of popularity, for, being largely pictorial, they appealed to those unable or only scarcely able to read. Such indeed was their popularity that they did not immediately disappear on the advent of type printing, for the last of them were still being produced in the second half of the fifteenth century. In no technical sense can these humble blockbooks be regarded as genuine forerunners of the printed book, yet they have intrinsic merits of their own and performed a most useful function in supplying pictorial stories of a didactic nature to an almost illiterate public. Their very numbers and popularity provide convincing evidence of how necessary the invention of type printing had become and of how propitious the moment was for its introduction.

I mentioned in passing that for printing the woodcuts an oily ink was used. Such an ink had been available for some time, but even if this had not been the case, the oil paints and varnishes already widely used by artists would have needed only slight adaptation to make them suitable for use in printing processes. Three other items were essential, however, before printing as we understand it could become a reality—metal type, the press, and paper. For the preparation of the type, the printer could rely on the gold- and silversmiths for experience in the making of alloys and moulds and for ways of casting metal. The first printers were, in fact, members of the guild of goldsmiths.

The press itself was not used by the makers of woodcuts. At first the blocks were simply applied to the paper and pressed by hand. Later the damp sheet of paper was spread

on the inked block and smoothed over with a frotton so that it was pressed on to the block and received the impression. But the printer did not have far to look for inspiration since the screw press had been invented at least a century before the birth of Christ and was in daily use all around him for a variety of purposes.

The most important single factor was the ready availability of paper. For some time already it had been a common commodity. We are so familiar with it and its applications are now so numerous that we never pause to consider how indispensable it has become. The majority of medieval manuscripts, however, were written on parchment which was made from the specially prepared skins of calves and lambs. Various calculations have been made as to the cost of parchment, but all agree that it was relatively expensive. Indeed, when the monks in their scriptoria required more parchment, they were not averse to scraping away the text of some pagan author in order to use the skin again for the life of a saint or some other pious work. Our attitude towards the pagan authors has altered and we would willingly exchange the extant text on many of these palimpsests for the original author's work. We shall never know what priceless treasures were ruthlessly sacrificed by the monk's scraper!

But it is interesting to see what the demand for parchment entailed. One skin provided an area of some four and a half to five square feet. If we assume a volume of 150 folios measuring approximately nine by six inches, it would be necessary to use about a dozen skins. For many centuries every single document of whatever kind was necessarily written on parchment, so that it obviously needed the slaughter of vast numbers of calves and lambs to meet the requirements of a whole nation.

As education extended and more and more people began to learn how to read and write, and particularly after the foundation of the universities, the demand for parchment inevitably rose. Local and State affairs became considerably more complicated with the result that there was a great increase in the consumption of parchment. It was in the fourteenth century that paper began to be manufactured in Europe and we may well say that it saved the situation. Certainly printing on any large scale would not have been possible without it, although books printed on parchment are by no means unknown.

The story of paper is a romantic and fascinating one. In the year A.D. 105 Ts'ai Lun, who is generally regarded as the inventor of paper, is said to have reported its existence to the Chinese Emperor. This date can be accepted as approximately correct, since in 1907 Sir Aurel Stein discovered a quantity of Chinese documents written on wood, silk, and paper which internal evidence shows to have been written not later than A.D. 137. These documents were found in a sealed container which had been stored in a watch-tower in an outlying sector of the Great Wall of China. Further paper documents have since been discovered by the Swedish explorer Sven Hedin in parts of Central Asia, thus proving that the process of paper-making had become known farther afield even at an early date. By the fifth century the use of paper was quite general throughout China. Gradually it spread westwards to Samarkand which achieved fame as a paper-making centre since the region was very suitable for the cultivation of flax.

In A.D. 751, however, Samarkand fell to the Moslems who in their religious zeal had invaded Turkestan. Among the prisoners were several Chinese paper makers and from

them the Arabs learned the art of paper making. The fall of Samarkand meant that paper could no longer pursue its westward line of advance towards Europe; its progress was now diverted southwards through the lands held by the Arabs until, having reached North Africa, it resumed its westerly direction and passed along the southern shores of the Mediterranean and ultimately reached Morocco. The Moors had already been established in the Iberian Peninsula since A.D. 710 and paper, like so many other things with which the Arabs were acquainted and Europe was not, now crossed the Straits of Gibraltar and entered the Peninsula, although it remained within the territories under Moorish rule. By this time, however, paper was not completely unknown to Europeans as they must have encountered it during the Crusades and in their other contacts with the Moslems. Those European territories in closest contact with the Arab world certainly knew it, for the oldest European paper document is a deed of Count Roger of Sicily, dated 1109, written in Latin and, significantly, Arabic.

The earliest paper mill built in Europe, if we exclude that at Jativa (1154), in the Moorish Kingdom of Valencia, was that brought into operation at Fabriano in northern Italy about the year 1270. At an early stage this mill began supplying paper to northern Italy, France, and Germany until the first French mill was set up at Troyes in 1348 and the first German mill, the Stromer mill, at Nuremberg, about 1390. Paper was not manufactured in England until the end of the fifteenth century.

Although paper was somewhat cheaper than parchment, it was not at first so cheap that the low price outweighed the several disadvantages from which it suffered. It was slow to establish itself, since, compared with parch-

ment, it was certainly inferior in quality, being porous and having an uneven surface. At first, too, the demand for cheap books was limited, as education was still spreading only slowly. Furthermore, paper did not enjoy the approval of the Church on account of its Moslem origins. In consequence, it was used only for unimportant writings whilst parchment still held pride of place. With the more rapid extension of education, with the ever increasing demand for material on which to make records of all kinds, and, above all, with the introduction of printing, paper came into its own. It can be seen, therefore, that parchment was not driven from the field from one day to the next, but as the quality of paper improved and the manufacturing costs were reduced, parchment was less and less able to sustain the competition and in the end its use for ordinary purposes died out completely.

But even more important than these material conditions was the intellectual atmosphere of the moment. Italy had already experienced the revival of classical learning and the flowering of her own literature, but elsewhere, generally speaking, the fifteenth century is regarded as a barren period. Certainly in France, at the end of the Hundred Years' War, when great cities and vast regions of the country lay devastated, in spite of the ultimate victory over the English, a certain lassitude in inspiration is clearly visible as far as creative literature is concerned. But if the literature of the period is, in a sense, disappointing, it cannot be said that intellectual activity was entirely lacking in the fifteenth century. The earliest signs of the new learning, of the Renaissance, can be perceived in the work of Jean Lemaire de Belges, Mellin de St. Gelais, and others. Literature was beginning to draw fresh inspiration from the Classical writers and just as frequently if not perhaps more

frequently from their Italian imitators, foremost among them Petrarch. Contact with antiquity had been re-established, scholars were busily studying the Classical authors, pagan as well as Christian, and such intellectual inquiry could not but result in the questioning of established and traditional values. In addition to the Latin authors, Greek literature was also becoming available, although, naturally enough, we have to wait some time before we find any direct influences in the vernacular literary output. It is usual to think of the Greek scholars arriving suddenly in Europe laden with Greek manuscripts as they fled from Constantinople when it fell to the Turks in 1453. In fact, there had been a gradual flow of Greeks from the Near East for some time before this, but the flow certainly assumed greater proportions in that fateful year.

Chronologically the fall of Constantinople in 1453 coincides remarkably with the advent of printing in Europe. The earliest fragment of printed matter preserved seems to be a small scrap from the sibylline 'World Judgement' in German which may date from the middle forties of the fifteenth century. A more definite date can be given to a fragment of an astronomical calendar which from the data it contains undoubtedly refers to the year 1448 and was, therefore, in all probability printed towards the end of 1447. There are also some pages of early editions of the grammar of Aelius Donatus, but the first piece of printing we have which bears a date is a papal indulgence of 1454, the year after the fall of Constantinople. Several papal indulgences were issued in 1454 and 1455; it can be presumed that they appeared in printed form as so many were needed for distribution. Appropriately enough, these indulgences were granted by Pope Innocent V to all the



faithful who contributed gifts of money towards the campaign against the Turks. There is also in existence a copy of a pamphlet, printed in 1454, warning Christendom of the Turkish danger.

At about the same time the forty-two-line Bible with which Gutenberg's name is so often linked, and which is generally although perhaps erroneously regarded as Europe's first printed book, was nearing completion. It was probably completed before 1456, or early in that year, since we have two volumes of a copy now in the Bibliothèque Nationale, bearing the date 15 August 1456, the day on which Heinrich Cremer, vicar of a church at Mainz, where Gutenberg had his presses, completed the rubrication and binding of the volumes.

The fragments I have mentioned and the so-called Gutenberg Bible give us an indication of the type of books produced by the first printers. Obviously they were not only inventors but practical business men who had to sink quite considerable sums in their concerns. Moreover, book distribution was a hazardous affair in which costs ran high, while for certain kinds of book the purchasing public was relatively small and, moreover, spread all over Europe. In any case, there can scarcely be any doubt that the first printers conceived their work simply as a convenient technical device for the multiplication of the texts most in demand. Manuscripts, as we have seen, were being copied in hundreds, and, indeed, in thousands. The wholly fictitious account of the travels of a person calling himself Sir John Mandeville has come down to us in some 250 manuscripts in a variety of languages, about forty being in English and fifty in Latin, while the editor of the *Roman de la Rose*, Ernest Langlois, informs us that there are more than 300 manuscripts of this poem of nearly 22,000 lines.

The manuscripts of certain texts for university use are particularly numerous; the thirteenth- and fourteenth-century copies of Aristotle number about two thousand! Soon, however, printers will have become aware of how much more easily printed books found access to the public than manuscripts ever could. If we refer only to incunabula, and I propose to confine my remarks on the printed book to the period up to 1500, the era of the incunabula, we find that some 30,000 to 35,000 different editions were produced in the short period of fifty years. These impressive figures from the early years of printing comprise only such editions as have reached us. There could easily be a considerable number of editions, particularly of popular literature, which have not survived, since the chances of survival for such literature are very slight. To give only one example from my own experience, I have been concerned for some time with the different versions of a romance of adventure, *Le Roman de Jourdain de Blaives*, of which the first printed edition appeared in 1520 so that it is of slightly more recent date than the incunabula. Only two copies of this first edition are known. Subsequently there were four further editions, all by different printers, but three of these editions are known in only one copy whilst the fourth is known in only two copies. Is it not reasonable to suppose that there may well have been several other editions of which no trace remains? If the average size of the more than 37,000 editions described in the *Gesamtkatalog der Wiegendrucke* is estimated at 400, and this seems to be about the average of the estimates made by various scholars, then we reach the truly amazing figure of more than fourteen and a half million books printed between 1450 and 1500.

Several important questions now arise. Which will be the texts most frequently in demand? Which of the

medieval texts will continue in favour and which will be cast aside? Will the advent of printing lead to the creation of a new literature to the detriment of the traditional authors? Or, on the other hand, by multiplying copies of the old authors, will printing assure them, at least for some time, an extension of popularity?

In the event we are not surprised to find that, as businessmen, the printers select for their first texts those which have enjoyed the greatest favour in manuscript. The first and immediately noticeable effect of the introduction of printing is to multiply the most popular works and let others slip quietly into oblivion. In other words, we have here a conscious process of selection which must reflect the mental attitude of the middle of the fifteenth century and will provide us with valuable signposts in our further investigation.

About three-quarters of the incunabula are in Latin, the remainder nearly all in Italian, French, or German. Of the total almost half are of a religious nature and we shall expect them to be more numerous than any other category. Some thirty per cent. are of a literary nature, ten per cent. legal, and ten per cent. representative of other branches of knowledge. If we bear in mind the fact that the largest proportion of readers at this date are clerics, we shall not be surprised at the preponderance of religious literature. Furthermore, it was becoming customary to give such books as wedding presents and, in any case, the need for books of hours, prayer books, missals, breviaries, and Bibles was both enormous and constant. It is no accident that among the first books to be printed was the Bible. For the period with which we are concerned, Copinger enumerates no less than 124 editions in Latin, which were, of course, intended for the use of clerics and students, but

apart from these there were quite a number of editions in a variety of European languages. These were editions of the complete Bible and do not take into account the still more numerous partial editions.

The great masters of medieval theology and philosophy are not nearly so well represented, although the number of printings is nevertheless quite considerable in order to meet the requirements of the thousands of students at the universities. The *Imitation of Christ* of Thomas à Kempis is already a best-seller and the works of Saint Augustine and Saint Bernard are also reprinted many times. Their success is attributable to their popularity not only with the clerics and students but also with pious members of the public. There was in fact a very considerable market for books of a religious or semi-religious nature and in particular for the *Golden Legend* of Jacques de Voragine, a compilation of lives of saints, of which no less than 88 editions in Latin and numerous others in various languages are known before 1500.

It thus becomes evident that the chief task of printing in its earliest days was to make the Bible more accessible to a greater number of readers both in Latin and the vernaculars, to provide the students and professors with the texts of and commentaries on the chief medieval philosophers, and above all to make available not only religious books for daily use but also the works of mysticism and general books on pious subjects.

But printing had also a very valuable contribution to make in spreading a better knowledge of classical Latin and of the classical authors. The Renaissance in Italy had awakened an enthusiasm for classical literature which was now to extend throughout Europe. The desire to achieve perfection in Latin style was increasing and scholars consequently required correct and authentic texts of the Latin

Classics. In this sphere, then, the primary task of the printers was not only to disseminate the traditional grammars and other books from which the knowledge of Latin could be acquired, but also to provide authentic texts of the Classical writers. I will refer only to Donatus, whom I have already mentioned, and of whose work *De octo partibus linguae latinae* there are some 300 editions known to us.

The chief Latin authors to be encountered among the incunabula are the traditional medieval favourites, Aesop and Cato. By 1500 there were no less than sixty-nine Latin editions of the *Disticha* of Cato and more than eighty of the *Fables* of Aesop as well as a considerable number of both texts in vernacular languages. In the same way, the *Consolation of Philosophy* of Boëthius (fifth century) is constantly reprinted just as it had been constantly recopied throughout the Middle Ages. The fifteenth century learns its Latin, however, chiefly by reading the early Fathers, particularly Saint Augustine and Saint Jerome who enjoy immense popularity together with two Classical Latin poets who never lacked favour throughout the Middle Ages, Virgil and Ovid. Other Latin writers who figure prominently among the incunabula are Terence, Juvenal, Plautus, Sallust, Livy, and Vegetius.

The two most successful philosophers are Seneca and Cicero; the latter has more than 300 editions of various works, including his letters, before 1500. This return to Classical literature and thought did not fail to stimulate a reaction in favour of Christian authors with the result that a number of them such as Prudentius and Sedulius were printed. On the whole, however, the public preferred the contemporary or near contemporary writers like Peter of Blois who strove to imitate the usage and style of their Classical predecessors.

As far as science is concerned, about ten per cent. of the printed books fall into this category. But which books were they? Again we find that recourse is had to the medieval compilations, especially to the *Speculum Mundi*, a vast compilation in four books of which three are attributable to Vincent of Beauvais, tutor to the children of the French king, Saint Louis. It is true, however, that something more than fifty per cent. of the scientific works are by modern authors, but a closer examination reveals that a large number of them are merely pseudo-scientific, with works on practical astrology more numerous than anything else.

In the sphere of theoretical sciences, the fifteenth century seems, therefore, to have been completely uncritical and not to have made any notable progress. But it is symptomatic that it was considered worth while to offer to the general public treatises on agriculture, machines, and architecture.

The works of a purely literary nature in the vernacular constitute only about twenty per cent. of the total book production before 1500 and most of these are books on moral and pious subjects, Bibles, and translations from Latin. The number of works written directly in the vernacular is comparatively quite small, although the works of Dante, Petrarch, Boccaccio, Villon, and Chaucer are repeatedly printed. In France, one of the most popular books is the *Roman de la Rose*, but it is the prose versions of the romances of chivalry and the old epic poems which are constantly reprinted. Throughout the Middle Ages they had been continually rewritten, enlarged, and brought up to date. Once more it is the medieval literature which appeals to the public. Moreover, both the verse and prose versions of these tales had already been translated and

adapted, particularly into German, Italian, and Dutch, and in those countries, too, the stories of Fierabras, Merlin, Lancelot, Tristan, Charlemagne, the sons of Aymon, and a host of other heroes provide entertainment whose popularity does not flag until considerably later. Edition after edition of these works appeared right into the seventeenth century and, in a few cases, modernized versions in cheap paper-backs are known in the nineteenth century.

Such then are the chief characteristics of printing during the first half-century of its existence. What conclusions can we draw regarding the impact of printing on the fifteenth century?

To begin with, we note that there is no sudden change, no upheaval, and that the culture of the fifteenth century, at least at first, does not appear to be affected. Yet, as we have seen, the medieval texts reproduced by the new method were selected with an eye to their best-selling qualities, that is to say, they were those that enjoyed the greatest popularity in manuscript form. These texts were widespread as manuscripts and became still more widespread as printed books. They now reach a larger public than before and exert their influence on a greater proportion of the population, but we must be careful to avoid drawing any hasty conclusions since the selection made by the printers was certainly in conformity with the public's tastes and needs. The very fact of selection meant, however, the virtual disappearance of the texts which did not find favour, but which had still been read in manuscript. In effect, it was generally the philosophers and theologians who wrote prior to the thirteenth century who suffered this fate. But certain forms of literature also disappeared, including the verse romances and epics which are preferred in their inferior prose versions, and among them the

*Chanson de Roland*, a neglect which seems incomprehensible to us today. The chroniclers and historians such as Matthew Paris and William of Malmesbury were also not given a new lease of life in print, for we have seen that the encyclopedic compendiums of knowledge were preferred, the digests of the age. But we must not condemn this apparently random selection, for it corresponds to the tastes and needs of the fifteenth century.

Does this all mean that the advent of printing did not cause men to look forward, did not stimulate them to fresh mental activity, did not inspire them with fresh creative genius not merely in literature but in philosophy and theology as well? Or did its coming cause men to look back to the past for what they needed and render them sluggish?

Such would certainly be our first impression. Yet in Italy a significant number of Latin and Greek works had already been exhumed and made available in fine editions. Inspired by their classical studies, Italian authors had created masterpieces which in both form and inspiration excelled anything then being produced and in the sixteenth century still excited the admiration and envy of Du Bellay, Ronsard, and their friends. On the other hand, the introduction of printing had further stimulated the desire to establish the best possible text, a desire already noticeable in the 'pecia' system of reproducing manuscripts. Moreover, the earliest printed books had naturally had, to a large extent, the appearance of manuscripts, but very soon printers had begun to experiment with new type and with attractive page designs. The book trade, too, had been established and organized on an international basis, so that books published in one country were readily available in others.



These were undoubted achievements. But the great impulses, in the Europe of the fifteenth century, were, on the one hand, the religious movement which had begun in Germany and was to culminate in the Reformation, and, on the other, the stimulus of the rediscovered literatures of Greece and Rome which opened new vistas, drawing men's minds away from the narrowness of medieval concepts and leading on to Humanism with its emphasis on the individual, on liberty of thought, on beauty and culture. These two forces, destined to reshape the world, saw printing come into its own and, after its first hesitant steps and backward glances, serve as the instrument which hastened the processes of change.

Little by little new works flow from the presses in an ever-increasing stream submerging the outworn texts by the medieval authors who for so long had been traditional. By producing books rapidly and making them available to all, by disseminating new ideas to people of whatever nationality, convictions, and creeds, printing had begun to banish ignorance and challenge established values. The way to modern times was open.

## SELECT BIBLIOGRAPHY

- BRUNET, J.-C. *Manuel du libraire et de l'amateur de livres*, 5th edition, Paris, 1860-5, 6 vols.  
— *Supplément*, Deschamps, P., et Brunet, G., Paris, 1878-80, 2 vols.
- CHRISTIAN, M. A. *Origines de l'imprimerie en France*, Paris, 1900.
- CLAUDIN, A. *Histoire de l'imprimerie en France au XV<sup>e</sup> et au XVI<sup>e</sup> siècle*, Paris, 1900-14, 4 vols.
- DELALAIN, P. *Étude sur le libraire parisien du XIII<sup>e</sup> au XV<sup>e</sup> siècle*, Paris, 1891.
- DENIFLE, J. *Die Universitäten des Mittelalters bis 1400*, Band I. *Die Entstehung der Universitäten des Mittelalters bis 1400*, Berlin, 1885.
- DESTREZ, J. *La Pecia dans les manuscrits universitaires du XIII<sup>e</sup> et du XIV<sup>e</sup> siècle*, Paris, 1935.
- DOUCET, R. *Les Bibliothèques parisiennes au XVI<sup>e</sup> siècle*, Paris, 1956.
- DOUTREPONT, G. *Les Mises en prose des épopées et des romans chevaleresques du XIV<sup>e</sup> au XVI<sup>e</sup> siècle*, Bruxelles, 1939.
- FEBVRE, LUCIEN, et MARTIN, H.-J. *L'Apparition du livre, L'Évolution de l'Humanité xlix*, Paris, 1958.
- GOLDSCHMIDT, E. P. *Medieval Texts and Their First Appearance in Print*, London, 1943. Supplement to the Bibliographical Society's Transactions, No. 16.
- GROTHER, W. *Wiegendrucke in der Zeitwende*, Klagenfurt, 1950.
- HAEBLER, K. *Handbuch der Inkunabelkunde*, Leipzig, 1925.
- McMURTRIE, DOUGLAS C. *The Book, the Story of Printing and Book-making*, 3rd revised edition, New York, 1957.
- RASHDALL, H. *The Universities of Europe in the Middle Ages*, a new edition edited by F. M. Powicke and A. B. Emden, Oxford, 1936, 3 vols.
- SCHUTZ, A. H. *Vernacular Books in Parisian Private Libraries of the Sixteenth Century*, University of North Carolina Studies in the Romance Languages and Literatures, No. 25, Chapel Hill, University of North Carolina Press, 1956.
- STEINBERG, S. H. *Five Hundred Years of Printing*, London, 1959.
- VOULLIÉME, E. *Die deutschen Drucker des fünfzehnten Jahrhunderts*, 2te Auflage, Berlin, 1922.
- WOLEDGE, B. *Bibliographie des romans et nouvelles en prose française antérieurs à 1500*, Genève, Lille, 1954.