

PART I

THE BACKGROUND OF PRINTING
IN CHINA

CHAPTER I

THE INVENTION OF PAPER

BACK of the invention of printing lies the use of paper, which is the most certain and the most complete of China's inventions. While other nations may dispute with China the honor of those discoveries where China found only the germ, to be developed and made useful to mankind in the West, the manufacture of paper was sent forth from the Chinese dominions a fully developed art. Paper of rags, paper of hemp, paper of various plant fibers, paper of cellulose, paper sized and loaded to improve its quality for writing, paper of various colors, writing paper, wrapping paper, even paper napkins and toilet paper¹—all were in general use in China during the early centuries of our era. The paper, the secret of whose manufacture was taught by Chinese prisoners to their Arab captors at Samarkand in the eighth century, and which in turn was passed on by Moorish subjects to their Spanish conquerors in the twelfth and thirteenth centuries, is in all essential particulars the paper that we use to-day. And even in our own times China has continued to furnish new developments in paper manufacture, both the so-called "India paper" and "*papier maché*" having been introduced from China into the West during the nineteenth century.²

Though the invention of paper is carefully dated in the dynastic records as belonging to the year A.D. 105, the date is evidently chosen rather arbitrarily, and this invention, like most inventions of our own day, was a gradual process. Up to the end of the Chou Dynasty (255 B.C.), through China's classical period, writing was done with a bamboo pen, with ink of lacquer made from tree sap,³ upon slips of bamboo or wood. Wood was used largely for short messages, bamboo for longer writings and for books. The bamboo was cut into strips about nine inches long and wide enough for a

single column of characters. The wood was sometimes in the same form, sometimes wider. The bamboo strips, being stronger, were capable of being perforated at one end and strung together, either with silken cords or with leather thongs, to form books. Both the wooden strips and those of bamboo are carefully described in books on antiquities, written in the early centuries of the Christian era. The abundance of wooden and bamboo slips dug up in recent excavations in Turkestan conform exactly to the early descriptions.

The invention of the writing brush of hair, attributed to the general Mêng T'ien in the third century B.C., worked a transformation in writing materials. This transformation is indicated by two changes in the language. The word for chapter used after this time means "roll"; the word for writing materials becomes "bamboo and silk" instead of "bamboo and wood." There is evidence that the silk used for writing during the early part of the Han Dynasty consisted of actual silk fabric.⁴ Letters on silk dating probably from Han times, have been found together with the earliest extant paper in a watch tower of a spur of the Great Wall.

But as the dynastic records of the time state, "silk was too expensive and bamboo too heavy." The philosopher Mê Ti, when he travelled from state to state, carried with him three cart loads of bamboo books. The emperor Ts'in Shih Huang set himself the task of going over daily a hundred and twenty pounds of state documents. Clearly a new writing material was needed.

The first step was probably a sort of paper or near-paper made of raw silk. This is indicated by the character for paper, which has the silk radical showing material, and by the definition of that character in the *Shuo-wên*, a dictionary that was finished about the year A.D. 100. A bit of this early near-paper may also be among the finds of Dr. Stein, but it is not yet certain.

The year A.D. 105 is usually set as the date of the invention of paper, for in that year the invention was officially reported to the emperor by the eunuch Ts'ai Lun. Whether Ts'ai Lun was the real inventor or only the person in official position who became the patron of the invention (as Fêng Tao did later with printing) is

uncertain. In any case his name is indelibly connected with the invention in the mind of the Chinese people. He has even been deified as the god of paper makers, and in the T'ang Dynasty the mortar which Ts'ai Lun was supposed to have used for macerating his old rags and fish nets was brought with great ceremony from Hunan to the capital and placed in the imperial museum. The following is the account of the invention, as written by Fan Yeh in the fifth century in the official history of the Han Dynasty, among the biographies of famous eunuchs:

"During the period *Chien-ch'u* (A.D. 76-83), Ts'ai Lun formed part of the Imperial Guard. The emperor Ho Ti, on coming to the throne, knowing that Ts'ai Lun was a man full of talent and zeal, appointed him a privy counsellor. In this position he did not hesitate to bestow either praise or blame upon His Majesty.

"In the ninth year of the period *Yung-yüan* (A.D. 97) Ts'ai Lun became inspector of public works. By his plans and according to his arrangements, engineers and workmen made, always with the best of materials, swords and arms of various sorts. Later generations could do no better than imitate his methods of work.

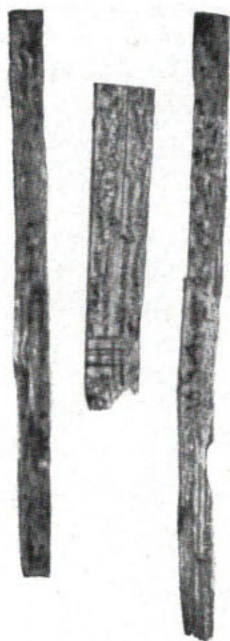
"In ancient times writing was generally on bamboo or on pieces of silk, which were then called *chih*.⁶ But silk being expensive and bamboo heavy, these two materials were not convenient. Then Ts'ai Lun thought of using tree bark, hemp, rags and fish nets. In the first year of the *Yüan-hsing* period (A.D. 105) he made a report to the emperor on the process of paper making, and received high praise for his ability. From this time paper has been in use everywhere and is called the 'paper of Marquis Ts'ai'.⁶

The biographical note goes on to tell how Ts'ai Lun became involved in intrigues between the empress and the grandmother of the emperor, as a consequence of which, in order to avoid appearing before judges to answer for statements that he had made, "he went home, took a bath, combed his hair, put on his best robes, and drank poison."⁷

Two statements in this quotation have received ample confirmation from discoveries along the Great Wall and in Turkestan. The rapid spread of the use of paper, attested by many notices in Chinese literature, is rather surprisingly shown by the discovery along with letters on silk and wood, of nine letters on paper in a watch tower of a western spur of the Great Wall, which must have been written some time within the first fifty years after Ts'ai Lun's invention.⁸

The statement concerning the materials used has also been thoroughly confirmed. Examination of paper from Turkestan, dating from the second to the eighth centuries of our era, shows that the materials used are the bark of the mulberry tree; hemp, both raw fibers and those which have been fabricated (fish nets, etc.); and various plant fibers, especially China grass (*Boehmeria Nivea*), not in their raw form but taken from rags.

The discovery of rag paper in Turkestan, while confirming the statement in the Chinese records, came as a surprise to many western scholars. From the time of Marco Polo till some forty years ago, all oriental paper had been known as "cotton paper," and it had been supposed that rag paper was a German or Italian invention of the fifteenth century. Wiesner and Karabacek in 1885-1887 showed as a result of microscopic analysis that the large quantity of Egyptian paper that had at that time recently been brought to Vienna, and that dated from about A.D. 800 to 1388, was almost all rag paper. A subsequent examination of the earliest European papers showed that they too were made in the main from rags. The theory was then advanced and generally believed that the Arabs of Samarkand were the inventors of rag paper, having been driven to it by inability to find in Central Asia the materials that had been used by the Chinese. In 1904 this theory suffered a rude shock. Dr. Stein had submitted to Dr. Wiesner of Vienna some of the paper found by him during his first expedition to Turkestan, and Dr. Wiesner, while finding in that no pure rag paper, did find paper in which rags were used as a surrogate, the main material being the bark of the paper mulberry. The theory



STATIONERY OF
BAMBOO AND
WOOD OF THE
HAN DYNASTY

Bamboo 20 x 1.3 cm.

Wood 11 x 2 cm.

Schreib und Buchwesen



THE EARLIEST PAPER THAT HAS SO FAR BEEN DISCOVERED

Date about A.D. 150. Found in 1907 by Sir Aurel Stein in the ruins of a spur of the Great Chinese Wall, together with some fragments in Chinese of about the same date, and eight other letters which like this are in the Sogdian language. When

found, the letters were sealed in envelopes of paper and rag.

(19 x 24.5 cm.)

was changed to suit the facts. The Arabs of Samarkand were no longer the first to have used rags in the production of paper, but the first to have produced paper *solely* of rags. Finally in 1911, after Dr. Stein's second expedition, the earliest paper—that from the watch tower in the Great Wall—was laid before Dr. Wiesner, and was found to be a pure rag paper! Rag paper, supposed till 1885 to have been invented in Europe in the fifteenth century, supposed till 1911 to have been invented by the Arabs of Samarkand in the eighth century, was carried back to the Chinese of the second century, and the Chinese record, stating that rag paper was invented in China at the beginning of the second century, was confirmed.

The use of paper, so far superior to bamboo and silk as a writing material, made rapid headway. Extensive improvements in its manufacture were made by Tso Tzū-yi, a younger contemporary of Ts'ai Lun. The records of the next centuries contain abundant references to the use of paper and to certain special fancy and beautiful papers that from time to time appeared. In Turkestan, at each point where excavations have been undertaken, the time when wooden stationery gave way to paper can be fairly accurately dated. By the time of the invention of block printing all Chinese Turkestan, so far as excavations show, was using paper.⁹ The use of paper in China proper had apparently become general much earlier.

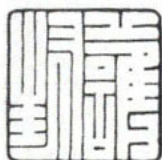
The papers found in Turkestan show a certain amount of progress, especially in the art of loading and sizing to make writing more easy. The earliest papers are simply a net of rag fibers with no sizing. The first attempt to improve the paper so that it would absorb ink more readily consisted of giving the paper a coat of gypsum. Then followed the use of a glue or gelatine made from lichen. Next came the impregnation of the paper with raw dry starch flour. Finally this starch flour was mixed with a thin starch paste, or else the paste was used alone. Better methods of maceration also came into use that proved less destructive of the fibers and produced a stronger paper. All these improvements

were perfected before the invention was passed on to the Arabs in the eighth century and before the first block printing in China began. So far as an invention can ever be said to be completed, it was a completed invention that was handed over to the Arabs at Samarkand. The paper making taught by the Arabs to the Spaniards and Italians in the thirteenth century was almost exactly as they had learned it in the eighth. The paper used by the first printers of Europe differed very slightly from that used by the first Chinese block printers five centuries or more before.



CHINESE PAPER MAKERS IN PEKING

Asia Magazine.



CHINESE SEALS AND SEAL IMPRESSIONS

These impressions are made with ink on paper like the impressions of a rubber stamp.

Schreib und Buchwesen.

CHAPTER II

THE USE OF SEALS

THE fact that the same Chinese word to-day denotes both print and seal is suggestive. A study of the history of the word sheds considerable light on the origin of Chinese printing. During the Han Dynasty the word *yin*¹ meant to authenticate by the impression of a seal on clay. When clay impressions gave way some time about the fifth or sixth century of our era to inked impressions in red, the same word was used. When Taoist priests used as charms the impressions of wooden seals several inches square inscribed with the name of Lao-tzŭ or some other worthy, these larger seals were *yin*. When later the manifolding of Buddhist pictures and texts began, this block printing was *yin*. With the advent of every new invention, from that of moveable type in the eleventh century to that of the linotype in the twentieth, the same word has done duty, and the word *yin* to-day, which still means seal, signifies also every form of printing, taken in the broadest sense.

As the relation between Chinese printing and Chinese seals has not previously been traced, so far as the author is aware, it may be well to examine this genealogy in more detail.

Back of the seal and the seal impression—away back in the Chou Dynasty (before 255 B.C.)—lies a practice that reminds one of the tearing of the laundry check in the Chinese laundries of America.² When a contract was made, it was written in duplicate on the two ends of a stick of bamboo. The bamboo was broken and one end retained by each party. The fitting of the broken ends was the authentication of the contract. In like manner, when the emperor bestowed a patent of nobility, the token of that patent was one half of a broken piece of jade—the other half being kept in the imperial possession.³

With the advent of the great emperor Ts'in Shih Huang (246–209 B.C.), the unifier of China and the builder of the Great Wall, and with the more complex organization that then began, the broken pieces of bamboo and jade gradually gave place to seals and seal impressions.⁴ The great seal of the conqueror, brought from the southern state of Ch'u by the minister Li Ssü, and engraved with eight characters, was for centuries the seal of empire, and its fortunes figure both in history and in romance.

The transition from the broken jade to the seal—from the primitive matching of broken edges to the more advanced and complicated matching of impression and die—was a natural one. But it may have been hastened by events that were taking place in another part of Asia. Just a hundred years before Ts'in Shih Huang's conquests, Alexander the Great had conquered a part of India and had brought Greek culture to certain countries of Central Asia which were not so far removed from the expanding borders of China. In the land that lies between Alexander's empire and that of China—the country now called Chinese Turkestan—there was found a few years ago by Sir Aurel Stein a collection of deeds, the seals upon which show the strange mingling of influences, Eastern and Western, that was going on during the Han Dynasty, the dynasty that followed Ts'in Shih Huang. The documents, written on wood, are all closed, bound with cords, and sealed, the devices of the seal impressions being in some cases Chinese characters, in others elephants and Indian emblems, in still others heads of Zeus, Eros and Medusa.⁵ It is of course far from certain that this Hellenistic influence had penetrated beyond Turkestan and into China—still less certain that it had penetrated as early as the reign of Ts'in Shih Huang. On the other hand it is not an impossibility.⁶

With the Han Dynasty (B.C. 206–A. D. 220) the use of seals grew steadily more common, both for private and for imperial use. Seal cutting came to be a fine art, and for perfection of workmanship the seals of this time have never been surpassed.⁷ They were

made of jade, of gold, of silver, of copper, of ivory and of rhinoceros horn.⁸

The seal impressions of the Han Dynasty that have been found are in one respect quite different from those of later times. The impressions were made, like those of Europe,⁹ in a soft substance (in China a sort of clay was used) and without coloring matter, like the seal impressions in wax to which we are accustomed in the West.¹⁰ From the T'ang Dynasty on, on the other hand, such seal impressions as have been found have been made not in clay, but with ink (usually red ink of cinnabar) on paper, like the impressions of a rubber stamp. It is this stamped seal impression that developed naturally into the block print. For the stamping of a seal with ink on paper is not very far removed from block printing. The seal was small and its purpose was authentication. The block print was larger and its purpose was reduplication. The idea of authentication—a survival from association with the seal—was never quite lost in Chinese printing. When Rashid-eddin of Persia in the fourteenth century—in the days of large scale book publication—described Chinese printing, he described it as a method of authentication of documents.

When the transition took place from the clay seal impression of the Han Dynasty to the paper and ink impression of later times, it is impossible to determine with accuracy. Very few seal impressions of the transition time have been found in Turkestan. From Chinese records, combined with such evidence as can be gathered from Turkestan finds, it would seem that the transition took place about the fifth and sixth centuries of our era.¹¹ At one point in Turkestan where documents of the transition period were found, those written on wood were sealed with clay, while those written on paper were sealed with ink.¹² The transition was without doubt gradual, and followed naturally the increasing use of paper.

As for the transition from the stamped seal to the true block print, there seem to have been two lines of development. The Buddhist line—the line which finally bore fruit and yielded not only charms but woodcuts and books in abundance—will be

traced in a later chapter. The Taoist line of approach is much more vague and uncertain, yet it seems rather likely that the Taoists in their desire for charms developed the seal impression into something very closely resembling a block print even earlier than the Buddhists.

A Taoist writer, Ko Hung, in the fourth century made the curious statement, "The ancients, whenever they entered the mountains, wore a *yüeh-chang* seal of the Yellow God, four inches in breadth and bearing a hundred and twenty characters, with which they made impressions in clay, in consequence of which, whenever they halted, neither tigers nor wolves ventured to approach. If while travelling they saw a fresh foot-print and impressed the seal there in the same direction in which the beast moved, they made the tiger proceed, and, if they did so in the reverse direction, they made it return. . . . A Taoist doctor in Wu named Tai Ping made some hundreds of *yüeh-chang* impressions in clay, and strewed that clay broadcast into the abyss; on which after a while a large tortoise rose to the surface more than ten feet in diameter. When it was slain the sick all recovered."¹³

These large charm seals, large enough to contain a hundred and twenty characters, were used not to print with ink, but to make impressions on clay—but they were made in the fourth century when all seal impressions were on clay. Some time in the next two hundred years or so, the fashion in non-Taoist seal impressions changed from clay to red ink. The question is, whether the Taoists with their large seals kept abreast of the times. There is evidence that these large seals were made of wood,¹⁴ and there is abundant evidence that the Taoists loved red ink—that they loved it especially for their charms, on account of the extra authority that the red seemed to give.¹⁵ Exact evidence that their stamped seals, as well as their written charms, were made with red ink is yet to be found. The earliest block printing of which we now have clear proof consists of Buddhist charms and dates from the eighth century.¹⁶ When the evidence is all in, it is likely to show that before this date the Taoists had dipped their wooden



PRIMITIVE CHARM PRINTS IN THE TIBETAN LANGUAGE

(Charms 10.4 x 2.06 cm. each)

Museum für Völkerkunde.



CLAY CONTAINERS IN WHICH TIBETAN CHARM PRINTS
WERE FOUND

To find the charm, the clay container must be broken open. Though these charms may not be earlier than the twelfth century, they represent a survival of the most primitive form of block printing. From Sangim Agiz near Turfan.

Museum für Völkerkunde.

seals in red ink of cinnobar and had made charms of such form that they will take rank as the world's first block printing.

It is not impossible that these Taoist seal-charms were the ancestors also of playing cards, but before that can be stated with confidence much fuller research must be done.¹⁷

In any case, whether Buddhist or Taoist, the charm was the transition from the seal to the block print. For with the advent of the stamped charm, reduplication, and large scale reduplication, came to be the dominant purpose.¹⁸

CHAPTER III

RUBBINGS FROM STONE INSCRIPTIONS

WHILE the connection of seals with the beginnings of block printing has never been especially noted by Chinese writers, there is a practice of taking inked rubbings or squeezes from stone inscriptions, which has always been recognized as having directly led the way to the making of books by inked impressions from wood.

Rubbings are still made in China by a very simple process, which is no doubt essentially the process employed from the beginning. A sheet of thin, tough paper that has previously been moistened to make it soft and adhesive is laid on the surface of the stone inscription. With a stiff brush the paper is then forced into every depression and crevice of the stone. As soon as the paper is dry, a stuffed pad of silk or cotton is dipped in sized ink and passed lightly and evenly over it. When the paper is finally peeled off, it is found to be imprinted with a perfect and durable impression of the inscription, which comes out in white reserve on a black ground. The process is similar to block printing, but the characters of the inscription are cut into the stone instead of standing out in relief as they do in wood. Furthermore, as the ink is applied to the surface of the paper that is away from the stone, the text on the stone is not reversed. The direction of the text on the paper is the same as that on the stone from which it is taken.

As the seal charm was the Taoist preparation for printing, developing in Buddhist hands into the printing of religious texts and pictures, so these rubbings from stone may be said to have constituted in the main the Confucian preparation.

The practice of cutting in stone the text of the Confucian Classics in order to insure permanency and accuracy goes back as far as the year A.D. 175. The statement in the annals of the Han Dynasty is as follows:



A STONE INSCRIPTION AND A PAPER
RUBBING MADE FROM IT

Schreib und Buchwesen.

"Because the time of writing the canonical works of the sages was long past and many errors had entered in and were being passed on by scholars of inferior worth, it was found that for later students there would be no correct text. Therefore in the fourth year of the period *Hsi-ping* (A.D. 175) Ts'ai Yung and others [names and titles] joined in a memorial to the emperor to have the text of the Six Classics thoroughly revised. The emperor granted the request. Ts'ai Yung then wrote the corrected text with his own hand on stones outside the gates of the state academy. Thereupon later scholars and students all took these inscriptions as standard. As soon as the stones had been set up, the people who came to see them and to make exact copies¹ were so many that there were thousands of carts every day and the streets and avenues of the city were blocked by them."²

The traditional interpretation of this passage is that the words here translated "make exact copies" actually refer to the making of rubbings, and that this form of printing or pre-printing goes as far back as the second century.³ Whether this is true or not, the process certainly began early, and there is little doubt that it was earlier than the taking of impressions from wood. The earliest date that can be set with certainty is the reign of T'ai Tsung of the T'ang Dynasty, during whose reign (A.D. 627-649) a rubbing was made which was discovered by M. Pelliot at Tun-huang.⁴

The practice of cutting in stone the text of the Classics persisted, each important dynasty considering it a duty thus to conserve the results of the best textual criticism of the day. The Stone Classics of the T'ang Dynasty, of which very many rubbings were made, and which served ultimately as the model for the printing of the Classics, were set up between the years 836 and 841, and a portion of this ancient stone inscription has been recently discovered. The official history of the T'ang Dynasty records the appointment of certain officers called "makers of rubbings," whose duties seem to have been to issue authorized rubbings of the inscriptions in stone.⁵

But the discoveries at Tun-huang reveal the fact that these

Confucian texts were not the only ones that were being cut in stone and reproduced by rubbing. Parallel with the early development of block printing this sort of lithography was also going on in Buddhist monasteries—developing until whole books were being produced. The manuscript chamber at Tun-huang, that contained the earliest block printed book, the Diamond Sutra of 868, contained a copy of the very same book in the form of lithograph rubbing. The two copies, the one printed from wood, the other from stone, both date from the ninth century.⁶ The stone prints found at Tun-huang make it evident that already in the ninth century the practice had begun of preparing stones with the special purpose of taking rubbings from them, and that at least as early as the first books from blocks of wood (and probably earlier) both single sheets and roll-books were thus being printed from specially prepared blocks of stone.⁷

However it was in orthodox Confucian circles and as an aid to the correct transmission of the Classics that the stone inscription and the inked rubbing had their chief importance. Even after block printing began, and had remained for a century or two locked away in the Buddhist monasteries, the rubbing from stone was still the one official and orthodox method for the reduplication of standard texts. It was the union of these two processes, the Buddhist block print (itself perhaps based on the earlier Taoist seal charm) and the Confucian rubbing, that produced the great official block printing activity of Fêng Tao's time and instituted the era—during the tenth to the fourteenth centuries—when all of China's great literature was printed. The important memorial of 932 by Fêng Tao and Li Yü, that lay back of this awakening, began, "In the time of the Han emperors Confucian scholars were honored and the Classics were cut in stone in three different scripts. In T'ang times also inscriptions of the Classics were made in the Imperial School. Our dynasty has too many other things to attend to and cannot undertake such a task as to have stone inscriptions erected. However we have seen men from Wu and Shu (Kiangsu and Szechuen) who sold books that were printed from

blocks of wood. There were many different texts, but among them no orthodox classics. If the classics could be revised and thus cut in wood and published, it would be a very great boon to the study of literature."⁸

It is thus evident that when the Confucian Classics were cut in wood—the event that marked the beginning of large scale block printing—those in charge of the work had no idea of printing, but thought they were continuing the ancient practice of cutting inscriptions, using wood instead of stone—after the analogy of certain Buddhist prints that they had seen—for the sake of ease and economy. It was thus that the wooden block and its printed impression developed naturally from the stone inscription and its rubbing. The Buddhist prints—which had developed from charms and seals—gave the idea of cutting the inscription in reverse and gave also a new technique for taking the rubbing. The stone inscription gave the official precedent.

Having thus been one of the influences that gave birth to wide-spread block printing, the use of rubbings did not cease, but continued a parallel existence. Gradually during the tenth century, the century that showed the greatest activity in the development of all duplicating processes, the emphasis veered more and more from the inscription to the rubbing made from it. In the year 992 there is a record of the making of lithograph books which contained duplicates of the autographs of the great men of the Tsin and the Wei dynasties, taken from some tombs that had recently been looted.⁹ Lithography was thus the recognized method of preserving exact copies of beautiful calligraphy.¹⁰ When the stone blocks became broken through constant use, they were mended with silver wire, the impression of which could often be detected in the rubbing. During the later years of the Sung period these lithograph books of 992 were treasured as great rarities.

Throughout the Sung Dynasty books from stone blocks continued to be published.¹¹ From China the art spread to Japan and in 1315 a large collection of books was there printed by this

process. The taking of rubbings still continues in China as a means of making exact duplicates of ancient inscriptions, and there is no indication that the method has materially changed from the earliest times.

CHAPTER IV

THE DYNAMIC FORCE THAT CREATED THE DEMAND FOR PRINTING, THE ADVANCE OF BUDDHISM

ART is not the only expression of human genius that has been dependent for its greatest manifestations on strong religious feeling. It can be said with equal truth that every advance into new territory made by printing has had as its motive an expanding religion. In the whole long history of the advance of printing from its beginnings in China down to the twentieth century, there is scarcely a language or a country where the first printing done has not been either from the sacred scriptures or from the sacred art of one of the world's three great missionary religions. China began by printing Buddhist pictures and texts.¹ Japan had printed for six centuries and brought the printing of books to the highest degree of perfection before the printing of anything but Buddhist sacred literature was attempted. The great mass of printed literature found in Central Asia continuing up to the time of the Mongol Conquest is almost exclusively religious, consisting of Buddhist pictures and Buddhist books. The printing that was going on in Egypt through the time of the Crusades consists of verses from the Koran and of prayers. The block printers of Europe produced biblical pictures and the *Poor Man's Bible*, while Gutenberg printed the Bible itself. And in the nineteenth century the languages of Africa and the islands of the sea have been reduced to writing and to printed form almost wholly by missionaries for the purpose of printing the scriptures. Even in China herself after the use of movable type had been almost forgotten, it was missionaries who re-introduced them to the land of their birth.

If we expect then to find a strong religious impulse back of the invention of printing in China, we shall not be disappointed. The time when all sorts of experiments were being tried in various forms of reduplication—experiments that finally led the way to printing—was the one strongly religious period in Chinese history. Under the powerful Han Dynasty that ruled China for two centuries before and two centuries after Christ, men had not felt so strongly the need of religion. Reverence for the masters of the classical age just gone by seemed to be enough. True, there are records of Buddhism in China during the first century of our era, but so long as the united empire remained, the new religion made rather slow progress. About the beginning of the third century however the Han Empire broke up, and four hundred years of anarchy set in, corresponding to the Dark Ages in Europe, and caused by that same restlessness among the populations of Central Asia that spread such terror in Europe. For four centuries war was chronic, civil war and war with the northern barbarians. This age of anarchy may be roughly divided into the time of the Three Kingdoms, when three warring Chinese Dynasties strove for the mastery; the Tsin Dynasty, when China was again rather weakly united and fighting a losing battle against the barbarians on the north; and the period of division between North and South, when north China was in the hands of various Tartar dynasties. During this time literature went backward, and the settled, rather static culture of the Han times was broken up. It was no time for the conservative virtues of Confucian society. A religion that offered a way of escape from this sinful, distressed world had more chance. Through the four centuries Buddhism steadily advanced. Everywhere, wherever there was an especially beautiful spot or a location hallowed by some sacred memory, a temple or a pagoda was built, and the religious life, the life of retirement from the world, came to be the ideal of an ever increasing multitude. A number of the pagodas of this period are still standing—among the oldest monuments we have of China's Buddhism. The age of anarchy, especially its last century, was also an age of faith.



A METAL STAMP FOR MAK-
ING FIGURES OF BUDDHA,
MARKING THE TRANSITION
BETWEEN THE SEAL AND
THE BLOCK PRINT

(Height 6 cm.)

Museum für Völkerkunde



**FRAGMENT OF A ROLL OF THIN PAPER WITH STAMPED BUDDHAS,
SHOWING THE BUDDHIST FONDNESS FOR REDUPLICATION**

Such rolls and fragments have been found in various parts of Turkestan
in great quantities by British, French, German and Japanese expeditions.
(15.5 x 22 cm.)

Museum für Völkerkunde.

With Buddhism came art. Not that all Chinese art is of Buddhist origin, as has sometimes been claimed. There was an art of purely Chinese growth, that formed the foundation for the development of this and the succeeding age. But it was the new life that came in with Buddhism which touched that old art and made it great. All through the dark ages, while literature languished, art grew. For the "barbarians" who ravaged China were not the rude hordes of Attila. They had become strong Buddhists, and, as Buddhists, were the inheritors of that Greco-Indian art which had grown up in the wake of Alexander's armies. Ku K'ai-chih, the father of Chinese painting, lived in the fourth century. Through the fifth and sixth centuries most of the little dynasties that strove for the mastery have more names of artists recorded than they have years to their credit. The painters were in the Chinese South rather than in the Tartar North. Their art was Chinese. But it was the new religion, pouring in through the North and seen first in the sculptures of Northern Wei, that transfused it and gave it new life. Soon after the establishment of the T'ang Dynasty, Chinese art entered upon its greatest, most creative period. With religion had come art. With religion and art came the impulse to print.

