Buddhism arrived in China via northern India and Central Asia shortly after, early in the Later Han dynasty (AD 25–220) and, by the middle of the second century, there were a considerable number of translators, mostly of Central Asian origin such as Parhians and Sogdians, working, often in teams, to translate Buddhist texts into Chinese. Over the succeeding centuries, thousands of Sanskrit Buddhist texts were translated into Chinese and, in the seventh and eighth centuries, also into Tibetan. In some cases, the Sanskrit originals have disappeared, destroyed in the Muslim invasions of India in the eighth to thirteenth centuries, and only the Chinese or Tibetan versions remain.

There is a surviving Sanskrit version of the Diamond Sutra, and several Tibetan and Mongolian versions, amongst others. There are also eight Chinese translations: the earliest by Kumarajiva (344–413) in about 401, two versions made in 648 and the early 660s by Xuanzang (602–644), possibly the most famous of China’s pilgrim monk-translators, and the last by Yijing in 705. Our version is the Kumarajiva translation which, though not considered the most accurate, remains to this day the favourite version for chanting. Chanting a sutra – repeating the words of the Buddha – is one way of gaining merit. The Diamond Sutra is short and can be chanted in about 40 minutes. It was clearly popular in Dunhuang in Tang times for the 615 manuscripts and two printed versions of the text collected by Stein from Cave 17 came second in number only to copies of the Lotus Sutra.

Like so many of the early translators, Kumarajiva was not Chinese. Born in Kucha, his Indian father was a Brahmin noble and his mother a Kuchan princess. When he was nine years old his devoutly Buddhist mother took him to Kashmir
to study. Captured at the age of about 48 by a Chinese force, he learnt Chinese and such was his fame as a Buddhist teacher and scholar that he was sought over by local rulers though he eventually settled in the Chinese capital, Chang'an (today's Xi'an) and made many translations, characterised as smooth and elegant renderings rather than strictly literal versions. Despite his vocation and his skill, he is supposed to have said that reading a sutra in translation, rather than the Sanskrit original, was like eating rice that someone else had chewed.5

The Diamond Sutra is one of the Prajñaparamita or Perfection of Wisdom sutras, texts of the Mahayana or Great Vehicle school of Buddhism which developed in southern India in the first century BC or a little earlier, whose aim was Bodhisattvahood: the achievement of enlightenment but postponing personal nirvana to help others on the way. Its title in Sanskrit is Vajrachedihaprajñaparamita, and it was first translated into English by the Reverend Samuel Beal in 1864 as the 'Kin-kong-king'; but is best known in the English-speaking world as the 'Diamond Sutra', the title of Max Muller’s translation (1894). Another possible translation of 'vajra' is 'thunderbolt', in this case 'the perfection of wisdom which cuts like a thunderbolt', and it is clear from the vocabulary and grammar of the Mongolian translations, for example, that this is the more accurate rendering, but the Diamond Sutra remains nonetheless the more popular title.7

Our printed edition of the Diamond Sutra begins with an exhortation that is not found in the Sanskrit, nor in any of the standard printed versions of the Kumaraśīva translation, such as the great Taksha Tripitaka printed in Japan (1924-
1934). It is a 'mouth purifying' recitation, which encourages all who wish to recite the sutra to first purify the mouth so as to allow the words to penetrate by repeating certain sounds (transliterations of Sanskrit) and praising the eight vajras or thunderbolts, 'the disaster-dispelling, the poison-dispersion, saving, pure, resounding, catastrophe-averting, all-knowing...'.

After this unique beginning, which emphasises the power of the sutra as a vehicle of pious recitation (a theme that is repeated in the sutra itself), the text opens in the same way as many other sutras, with a description of the scene. 'Thus I have heard that once the Buddha was staying in Jetavana grove in Savhasti with a large community of 1250 monks.' The next paragraph is shorter in the Chinese version than in the Sanskrit and describes simply how the Buddha put on his robe, picked up his alms bowl and went into the city to beg for food, going from house to house. When he returned to the grove, he ate his meal and then washed his feet and sat down. In the Sanskrit version, he sat down with his legs crossed as the many monks approached him, prostrated themselves, walked around the Buddha three times and then sat down to one side. In both Sanskrit and Chinese versions, the sutra proceeds in a question and answer format with questions posed to the Buddha by the Venerable Subhuti, shown in the frontispiece as an elderly monk kneeling on a mat in the left foreground.

Subhuti first refers to the high favour which the Buddha grants to the Bodhisattvas and asks how another person seeking to follow the Bodhisattva path should proceed: 'How should he control the mind?' In effect, his question is repeated
several times throughout the sutra and the Buddha gives similar answers each time. Bodhisattvahood cannot be defined in terms of the physical world, for if a Bodhisatta abides in the signs of self, person, sentient being, or life-span, she or he is not a Bodhisatta. Their acts of charity cannot be measured, as long as they ‘practise charity while not abiding in charity’. As if to stress the point, the Buddha then asks Subhuti if it is possible to define the physical characteristics of Buddhahood? Having listened to the Buddha, Subhuti must answer no and the Buddha repeats, ‘All things that have characteristics are false and ephemeral.’ Another repeated theme is introduced by the Buddha who asks Subhuti if ‘someone were to fill this trigarlicic megagalactic world-system with the seven treasures [or jewels in the Mongolian translation] as many jewels as the grains of sand on the banks of the Ganges ... would that generate a lot of merit?’

The Buddha continued to say that simply learning one four-line verse from the sutra and teaching it to others would, by comparison, produce an ‘incalculable, immeasurable’ amount of merit. In the next passage, this is emphasised yet again as the Buddha states that completely memorising the sutra would bring a state of heightened awareness and make even the place of recitation sacred. The teaching of the sutra, and the act of committing it to memory and repeating it, are infinitely more valuable than countless heaps of jewels. This theme is repeated later in the sutra, as a refutation of the misguided idea that the Buddha or Bodhisattvas can be discerned through their physical characteristics. Subhuti seems to need telling twice for he refers to the 32 bodily characteristics of the Buddha whereupon the ‘World Honoured One’ replies, ‘if you try to seek me in form or discern me in sound, these are not Buddhist ways and you will not see me’. In his summary of the non-existence of all things, the Buddha uses verse to state that everything must be seen as ‘a dream, an illusion, a bubble, a shadow; like dew, like lightning.’

Some aspects of argument in the sutra were in forms familiar to Chinese. The use of high numbers, of ‘countless heaps of jewels’ as many as ‘the grains of sand on the banks of the Ganges’ is a familiar style in Chinese where ten thousand stands for myriad and ten thousand times ten thousand for forever. And the negative-positive answers of the Buddha recall the philosophical arguments of Gongsun Long (c. 325-250 BC), most famously the statement ‘A white horse is not a horse’. He argued that ‘‘Horse’ is that by which we name the shape, “white” is that by which we name the colour. To name the colour is not to name the shape. Therefore ... a white horse is not a horse.’

But the complexity of argument in the sutra stands in contrast to the simplicity of the message that to learn and recite it would bring merit. One Diamond Sutra specialist has said that to read it without chanting is like reading a musical score without hearing the music, and Chinese Buddhists would have been familiar with the chanted form, as part of temple ritual. However, listening to the mumbled hum of ritual chanting (when a cat purrs, the Chinese phrase is ‘the cat is reciting the sutras’) is a very different activity from intellectual engagement with arguments about form and substance.
HOW WAS the Diamond Sutra made? The invention of paper was a significant prerequisite for the production of multiple copies of pictures or text, and Stein knew something of the invention of paper from two articles published by his mentor Rudolf Hoernle in 1903 and 1904. Hoernle, Secretary of the Asiatic Society of Bengal, had accepted Stein's edition of the Sanskrit epic Rāmāyana ("Chronicles of the Kings of Kashmir") for publication by the society in 1903 and had become a friend. In 1891, with reference to Hoernle, Stein described the pleasure, almost unknown for several years, of being able to talk con amore with someone in my own field. 1 In the first of his articles, "Who was the Inventor of Rag Paper?", Hoernle stated that "mixed rag paper ... was known to the Chinese from the very beginning of its invention by Cai Lun, early in the second century AD." 2 On 26 June, studying a manuscript that Jiang had wrongly dated to AD 86, Stein wrote in his field diary, "paper was not supposed to have been invented till 40 years later." 3 Jiang had made a double error in reading a cyclical date (referring to a 60-year cycle commonly used in dates in pre-modern China) on a manuscript, ascribing it to AD 86 rather than the actual date of 416. The manuscript, a unique fragment of a local census, bears the second oldest date in the collection, even if it cannot be pushed back in time to the first century and before the official invention of paper.

In the Huo Han Shu ('Official History of the Later Han', AD 25–220, compiled long after, in the fifth century) Cai Lun, a court official who served from AD 89 in the imperial manufactory of instruments and weapons, was recorded as reporting to the emperor in AD 105 on his achievement in "making paper from the bark of trees, remnants of hemp, rags of cloth, and fishing nets ... from this time, paper has been in use everywhere and is universally called "the paper of Marquis Cai"." 4 As one historian pointed out, the compilation of the official history took place at a time when "archival materials were no longer available", for, with the fall of the Han and the sacking of the capital at Luoyang, the bamboo slip archives were destroyed and 'the silk scrolls were used as curtains', but the story of Cai Lun's paper production was recorded in another historical account from which the official history was probably derived. 5 He initiated the idea of making paper from tree bark, old rags and fishing nets. He submitted the process to the emperor in AD 105 and received praise..."
paper map and fragments with the names of medicines written on them. Some Chinese historians, intent upon following the official histories, contend that such early fragments are not true paper but felt, and Denis Twitchett suggested that these early papers, made mostly of hemp fibres, were very coarse and could hardly have served as writing materials and were probably intended for wrapping, although the medical wrapping paper served both to carry written text and to wrap. It is probably safest to conclude that Cai Lun's report to the emperor concerned the perfection of paper manufacture, rather than its invention.

Above right: The resulting suspension is poured into a square tank and a weald screen, consisting of a removable net of very fine split bamboo in a frame, is dipped in and raised slowly so that a thin layer of fibres rests on the net. Above left: The sheets of wet paper are pressed down to remove much of the moisture.

Paper and felt are very close in manufacture and composition, although we now think of felt as a rather thick cloth made from wool. Paper has been defined as 'a matted or felted sheet of fibres formed on a fine screen from a water suspension whilst our felt is usually pressed, rather than formed on a screen.' The manufacture of paper in China, in the earliest phase using hemp fibres, later fibres from the bark of the paper mulberry and, even later, bamboo, remained consistent for thousands of years and is illustrated in the early seventeenth-century Ming work on technology, Song Yingxing's Tiangong Kaiwu ('Exploitation of the Works of Nature').

Above: The last process is depicted in a single illustration running right to left (as all traditional Chinese books were read right to left). The sheets of paper were finally dried on a heated wall, a hollow construction heated by a fire on the right. On the left, the dry sheets of paper are peeled off the wall.
The raw material, whether hemp, mulberry bark or bamboo, is first pounded, saturated in lime, heated and then steeped in water. A frame, holding a mould, essentially a base made of fine bamboo strips stitched together, is placed in the mixture and carefully raised, so that a layer of fibres rests on the mould. When the water is drained off, the resulting sheet of matted fibres is dried, often against a heated wall and a sheet of paper can then be peeled away.

The great significance of paper in the history of printing is that it provides a very cheap medium for the printed text. In China in the fourth century BC, texts were inscribed on silk, an expensive product. In the Han dynasty, 206 BC–AD 220, everyday documents were written on narrow slips of wood or bamboo, a cheap form of writing material of which many examples were discovered by Aurel Stein near the Caves of the Thousand Buddhas, in the refuse heaps left by the garrisons of Han dynasty soldiers at the western end of the Great Wall. The use of this format led to the Chinese tradition of writing from top to bottom (as if still on a narrow slip of bamboo) rather than horizontally left to right, a style which persisted until the early twentieth century and is still used today for traditional calligraphy.

The perfection of the manufacture of paper, just at a time when the Chinese government was creating a massive bureaucracy, commissioning censuses, collecting a huge variety of taxes and reporting on conditions in a vast and varied land mass, meant that the central government could easily and cheaply amass and use a vast amount of paper. Even though the majority of the tens of thousands of paper documents collected in Cave 17 were Buddhist, they were not all sutras, for there are even accounts of special funerals held for animals such as donkeys, horses and dogs, not just because they had been loved but because in Buddhist belief, all animals represent a soul in the hierarchical cycle of rebirths. One of the manuscript copies of the Diamond Sutra brought back by Stein was dedicated to a beloved animal: ‘Humbly, on behalf of my old ploughing ox, that its soul may be reborn in the Pure Land...’

There were also a number of secular papers: legal documents including wills, contracts, arrangements for the repayment of debts, the record of a man bartering ‘a three-year-old black cow, quite unmarked’ for a quantity of wheat and millet, local government regulations and proclamations and letters, both official and private, all of which reveal the widespread use of paper in the area in the fifth to tenth centuries.

Paper was indubitably invented in China, even if the exact date of its discovery remains unknown. That the manufacture of paper was transmitted from China to Europe through the Arabs is also clear. A traditional story is that the secret of paper-making was only known to the outside world after some Chinese paper-makers were captured by the victorious Arabs at the Battle of Talas River in 751 and taken to Samarkand where they established a paper manufactory. However, finds of paper in the deserts by Sven Hedin and Aurel Stein make it quite clear that paper was already known and used throughout Central Asia by the fourth century. The most famous pieces of evidence are the ‘Sogdian letters’ of 313–14, found by Stein near Dunhuang in 1907. Apparently abandoned by a fourth-century postman, the letters were written by a Sogdian woman living in Dunhuang who seems to have been left penniless by her absent husband, ‘I would rather be a dog’s or a pig’s wife than yours!’ Paper did eventually make its way to Europe, brought by the conquering Arabs to Spain by the tenth century and Italy, through Sicily, by the twelfth century. Ironically, despite the survival of early paper in Central Asia, it was regarded at first with suspicion in Europe and considered unsuitable fragile for important documents. And though the invention of paper and its transmission westwards is easily documented, the invention of woodblock printing is another matter altogether.

Though the technology of paper-making was described as early as the second century and illustrated in the Tiangong Kaiwu (‘The Exploitation of the Works of Nature’), there was no detailed written description of the process of woodblock printing in Chinese until an article based upon an oral account by a printer was published in 1497. In the Tiangong Kaiwu (1637) a variety of technologies such as porcelain production, bronze and iron casting and the manufacture of cinnabar were described. All involved the transformation of an unlikely raw material into a remarkably different product: lumpy clay into translucent porcelain, stiff, spiky bamboo into smooth paper and earthy ore into bronze bells. The simple carving of a wooden printing block offered no such obvious transformation and was almost completely ignored in Chinese literature. Such passing references that did exist to copying were frequently so vague that it was not possible to tell what form of reproduction was involved, whether hand copying by scribes or woodblock printing.
One obscure reference to printing in traditional Chinese sources that was taken up by Stanislas Julien (in 1874) and other western writers was an account of the activities of the Sui emperor Wen in 593. Through a misunderstanding of a couple of terms, they proposed that in 593 Emperor Wen ordered that texts be carved on wooden blocks and published. Scholars now agree that the account does not refer to printing but to an imperial order to re carve worn-out (three-dimensional) images and to collect classic texts. The misunderstanding was clarified in 1919 but the chance discovery of the Diamond Sutra with its date of printing and subsequent similar finds in the Far East have led scholars to search for further references in traditional texts. However, the terminology used to describe imperial patronage in the form of commissioning multiple copies of religious works for wide distribution, as practised by the Sui and Tang emperors, remains vague and it is virtually impossible to know whether copies were manuscript or printed.

With its elegant frontispiece and exquisitely carved and spaced characters, it is clear that the Diamond Sutra was the product of a mature industry whose precise origins are, as yet, unknown. Though it might be assumed that since paper was invented in China, woodblock printing was, too, other earlier examples of printing have been found elsewhere in the Far East.

A hundred years before the printing of the Diamond Sutra, an earlier printing enterprise was undertaken in Japan under the patronage of the empress Shotoku who ordered the printing of a million ‘charms’ (dharani), and the manufacture of small wooden pagoda-shaped containers in 764-70. The short Buddhist text on Empress Shotoku’s ‘charms’ came from ‘The Great Spell of Unassailed Pure Light’, translated into Chinese just before 705 by a monk of Sogdian origin, Yizang. The short sutra seems to have been associated with funeral ritual in India and promised great benefit to those who copied it. As the title suggests, it invoked the goddess Pure Light, the future female ruler of Buddhist prophecy, which may have influenced its selection by the Japanese empress.

Adding a certain confusion to the origin of woodblock printing, a different woodblock print of the same text was found in 1966 in a pagoda in a Korean temple whose construction was completed in 751. Both the Japanese and the Koreans at the time used the Chinese script, and the Korean dharani even incorporates some of the special ‘taboo’ characters invented by the Chinese empress Wu (625-705) and used during her reign, 690-705. The use of these special characters does not necessarily imply that the dharani was produced between 690 and 705 for they continued to be used long after the death of the empress, nor does it necessarily imply that the

ABOVE Small stamped images of the Buddha may indicate one of the ways that woodblock printing began. Quite a number of sheets of repeated images such as these have been found in Cave 17 and many of the caves at Dunhuang have walls decorated with repeated Buddha images made by puffing red dust through the holes stamped around the outline of a Buddha image on paper. Creating a stamp with a Buddha image enabled rapid reproduction of the image, instantly earning merit.