THE SILK ROAD

Luce Boulnois

Translated by Dennis Chamberlain

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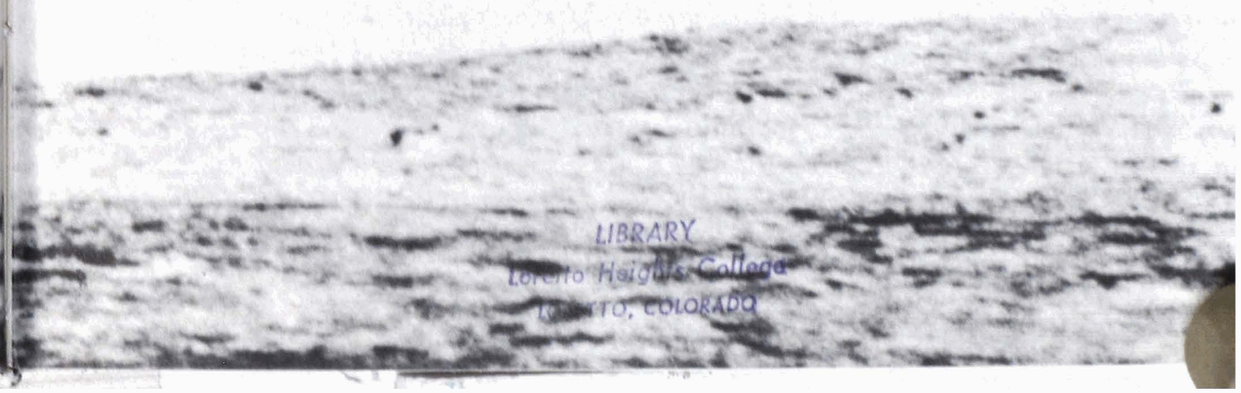

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TITLE PHOTO: *A caravan in Mongolia. Editions Arthaud-Collection, Claude Arthaud, François Hebert Stevens, Paris*

Introduction

In the early summer of the seven hundredth year following the foundation of Rome (53 B.C. by our reckoning), Marcus Licinius Crassus, Consul-triumvir of Rome and Governor of Syria, committed the folly of leading seven legions across the Euphrates in pursuit of a fleeing and elusive enemy.[1]

Long days of uncertainty spent waiting for a battle which never seemed to materialize sapped the courage of his men. Ever since their departure from Syria, they had been haunted by a series of evil omens, including Crassus and his son falling as they left the temple of Heliopolis and the death of Marcus Licinius's horse, which had bolted and been drowned in the Euphrates. Far from their bases, in an atmosphere of doubt and anxiety, the superstitious troops could not forget that even in Rome itself mysterious and ancient curses had been uttered against Crassus in the open streets. And who could estimate the power of such curses?

The army well knew that this war, unpopular in Rome, was sheer folly. They felt that its sole purpose was to enhance the personal glory of their general, who was jealous of the other two triumvirs, Caesar and Pompey.

Morale was low, and the attack when it came was terrible. The hirsute Parthian warriors, uttering inhuman cries, accompanied by the deafening noise of big leather drums filled with bells, and preceded by a veritable hail of arrows, advanced and surrounded the Roman formation. The armies clashed. The Romans, the hands of some of them literally nailed to their shields by the Parthian arrows, were shocked and bewildered. They made repeated efforts to get to close quarters—which would have been to their advantage—but the Parthians always remained close enough for their arrows to take effect and far enough away to avoid a mêlée.

Moreover, they were supported by a number of camels laden

[1] Plutarch—*Life of Crassus.*

with arrows, so that there was not even a hope of them running out of ammunition. Their long arrows went through everything, piercing both shields and tunics, and even felling two men at once. Thanks to the skill of the archers firing at the legs of men and horses, they even managed to stave in the Romans' testudo formation and breach the wall of shields.

For a long time the Romans held firm. But when, towards midday, the Parthians suddenly unfurled their gleaming banners, the effect was such that, added to exhaustion, thirst and fear, the famous valour of the Roman legions came abruptly to an end. It was a rout. A few hours later, the campaign had come to an end with the death of Crassus, lured by the enemy into a trap. His son had had himself killed so as not to fall into the hands of the Parthians. 20,000 Roman soldiers had lost their lives, and a further 10,000 had been taken prisoner. So ended the battle of Carrhae, one of the most disastrous in the history of Rome.

The head of Crassus was sent to the Parthian king, Orodes, who was at that time in Armenia, and some time later the prisoners were taken to Antioch in Margiana, a town which had been founded by Alexander the Great. They were never heard of again. Crassus had dreamed the ancient dream of Alexander—and how many more were to have that same dream later?—but instead of entering the country as conquerors, his men had entered it as prisoners. After their long advance, the Roman eagles had ended up decorating the temples of the Parthians.

As for the brilliantly coloured, gold-embroidered banners which had so dazzled the legionaries in the course of this disastrous battle, they were, if the historian Florus is to be believed, the first articles of silk that the Romans had ever seen.[1]

But it was not long before silk, a material more iridescent than any known hitherto, became familiar to the Roman world. This generation who fought in the Syrian campaigns was the first to come by it, whether by trade or as booty in more fortunate encounters, but less than ten years after the defeat of Carrhae, the crowd witnessing Caesar's triumph at Rome were astonished to find that, among the luxuries exposed to the public gaze, the triumphant general had caused canopies of silk to be stretched above the heads of the spectators. So much at least is related in the account written by Dion Cassius several generations after the event. It is certainly possible that this was the first time silk had been seen by the

[1] Varron; Tesnières.

1. *Roman Expansion in the eastern Mediterranean at the time of the Battle of Carrhae*

Romans, apart from those who had had an opportunity of travelling to the East.

As years went by, the taste for silk grew. To such an extent that in the year A.D. 14, a few months after the death of Augustus, the Senate had to issue a decree banning silk to men (who were 'dishonoured' by it) and limiting its use to women.[1] In barely fifty years, the use of this new and exotic product had grown to such proportions that it could be considered a social menace.

Ignorant as they were of its true nature, the Romans called it 'Seric cloth' (*sericum*),[2] after the inhabitants of its land of origin, a people to whom the Greeks had given the name Seres. They called it *sericum*, in fact, as we say nankeen, astrakhan or loden. Naturally, it could not be the Parthians, those wild archers and ferocious warriors, who manufactured this marvellous cloth—so light and yet so warm, so supple, fresh and soft, so iridescent—which lent itself so well to embellishment and ornamentation. Nor was it the Greeks; they had done no more than give it its outlandish name.

It was no mere coincidence that silk should appear in Rome after the conquest of Syria. After being for so long cut off from the eastern shores of the Mediterranean by the triple barrier of enemy Parthians, the hostile Greek kings of the Black Sea and pirates so virulent and so numerous that a large-scale campaign had had to be mounted against them, the Romans, once they had taken root in Syria about 70 B.C., at last found themselves on the frontiers of a completely unknown world: the Orient. It was now that they discovered silk and learnt that it came from neither the Parthians nor the Greeks, but was manufactured by a distant people called the Seres. This was something not conceived of hitherto, for the first author to mention the Seres, a Greek who had died some thirty years before the battle of Carrhae, had said little about them beyond indicating that they lived somewhere east of the territories once conquered by Alexander, in a land which no one had ever visited.[3] In short, this new material came from the very edge of the world.

How had it made its way from the edge of the world to that battle in which it was seen by the legionaries of Crassus? How had it come about that it now joined with purple mantles and golden crowns to enhance the splendour of great and solemn occasions in Rome?

[1] Varron. [2] Tesnières and Laufer. [3] Needham.

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I

The Land of Silk

Long before Marcus Licinius Crassus dreamt of following in the footsteps of Alexander the Great, long before the birth of Alexander even, four full centuries indeed before the Flood, Lei-tsu, the chief concubine of the legendary Chinese Emperor Huang-ti, invented the basic methods of weaving and embroidering with silk thread.[1] The same legend goes on to relate that it was in Huang-ti's reign that a government official invented writing, making use of a brush and tablets of bamboo. Huang-ti is also supposed to have built the first temple for sacrifices and to have been the first emperor to concern himself with the calendar. Tradition thus includes silk among the most fundamental elements of Chinese civilization.[2] Moreover, the words for silkworm, mulberry and silk itself have been found in most ancient texts and in inscriptions upon bone and tortoise-shell going back to the twelfth century B.C. And in Shan-Hsi in 1926 Chinese archaeologists found a silkworm cocoon among objects dating from the neolithic age.[3]

The idea of manufacturing silk is said to have come to Lei-tsu one day as she was closely watching a silkworm spin its thread. (The inventor of writing was inspired by the sight of birds' footprints in the sand.) Already, two centuries before, another mythical emperor, Fu Hsi (usually depicted with a serpent's tail), had invented a musical instrument made of wood and with silken strings. (The root word 'silk' is still part of numerous Chinese characters designating musical instruments.) It may be noted that the name Lei-tsu in Chinese is made up of the word Tsu, ancestor, and the word Lei, which is composed of the three following elements: woman, field, silk. The name Hsi-ling-shih, which is sometimes used for her in stories and legends, was the clan name of her father, borne by herself before her marriage to Huang-ti. The achievement which

[1] Hirth; Varron; Chang Chih-Yun. [2] Hirth. [3] Chang Chih-Yun.

caused her to be venerated by the Chinese people as a sort of 'patron saint' of silk was that of discovering how best to treat the silkworm and its thread and of ensuring that the resultant tissue would surpass all the other materials of the Orient. As far as one can tell from the geography of the ancients, the discovery took place in the north of China, in Shantung to be precise, and it seems that Huang-ti did indeed push the eastern borders of his empire to the sea of Shantung. The province is still a great producer of wild silk. Perhaps the famous empress discovered the silkworm in a country freshly conquered by the Chinese? But this would be no more than a hypothesis, and it is wiser not to try to be too definite about the events of that remote and shadowy period.

The *Shu-ching* or *Book of Annals*, a collection of ancient documents relating to the history of China compiled and rewritten by Confucius in the fifth century B.C.—though the Chinese doubtless have only much later versions—contains a chapter entitled 'Tribute of Yü' (a list of the taxes due to the Emperor Yü), which catalogues the principal products of the various Chinese provinces. The period dealt with in this work is very ancient, for Yü, the model emperor, is described as having devoted years of his reign to subduing tremendous floods which menaced half his empire. The date corresponds with that of the Flood, and it could be that these were the eastern extremity of that disaster.

At that time China already had the frontiers characteristic of the pre-Han period: the sea to the east, the Yang-tzu to the south, and to the west the immeasurable Kan-su stretching away to the lands of the barbarians. According to the *Tribute of Yü*, there were six provinces producing silk. One province is mentioned as supplying 'mountain silk', which might perhaps be a kind of wild silk. Apart from that, the six provinces sent their tribute to the capital, usually by river: silks blue, white and 'of mixed colours'; 'flowered silk tissues imitating the veins of precious shells' (a speciality of the province of Yang-chou in the region of the Yang-tzu, which at that stage had but recently become Chinese); 'lengths of silk of blue or red'; 'lengths of silk with warp of black and weft of white'.

Other materials were also in use in China at this time, and these too are mentioned in the *Tribute of Yü*: cloth made of vegetable fibres such as hemp; 'flowered tissues', whose composition is unknown; 'garments from the isles' (perhaps decorated with birds' feathers?); and 'tissues made from the hair of bears, foxes and wild cats'.

Discovered or invented by a princess, habitually paid as tribute to the emperor, silk was to begin with reserved exclusively for the use of the ruler. Whether as winding-sheet, tunic, belt, parasol or banner, it was permitted only to the emperor, his close relations and the very highest of his dignitaries. Within the palace, the emperor is believed to have worn a robe of white silk; outside, a robe of yellow silk. His principal wife and the heir to the throne also wore yellow.[1]

And when the empire split up into a multitude of smaller states, each battling to gain dominion over its rivals, each ruled over by a prince only too ready to proclaim himself emperor, silk was invariably reserved for the use of the court. Production figures soared to meet the increased demand occasioned by the multiplication of princely families. Then, by a perfectly logical process of economics —though perhaps also thanks to the perfecting of more rapid methods of manufacture—output began to exceed the demands of the aristocracy and silk came into ever more general use.

The *Shih-ching* or *Book of Verses*, a collection of odes assembled and arranged by Confucius, contains a short song which well shows how little account was taken of silk in about the sixth century B.C.:

> 'This man is stupid; in his arms he bears hempen
> cloth which he would exchange for silk!
> But no! In truth he comes not to barter but to
> speak to me of marriage. . . .'

This hempen cloth seems to have been much more valuable than silk, and this is confirmed by a passage in the *Lün-yü*, the dialogues of Confucius and his disciples, also dating from about the sixth century:

> 'The bonnet of hempen cloth is in conformity with ancient usage; nowadays a bonnet of silk is worn. . . .'

and Chinese commentators add the note: 'Because it was cheaper'.

Gradually the various classes of society began wearing tunics of silk: government functionaries, landowners, civilian officials and military officers, even merchants. Merchants were not greatly respected; indeed, in the ancient hierarchy they came between the artisans and the women, way below farmers and scarcely higher than domestic servants. But at the same time only the richest citizens could afford such delicate and precious tissues as brocaded

[1] Varron.

silk, silks woven together with the minute multicoloured feathers of birds, and embroidered silks—though the last did become more widely used with the passing of time.

We must now define what exactly Chinese silk had been ever since ancient times, and what it was that had given it its essential character. Real silk is 'the thread which one obtains by unravelling and joining the strands of cocoons made by the caterpillars of the mulberry-tree'.[1] The thread must be continuous, must be unravelled from one end to the other, just as the caterpillar span it. Once its cocoon is made, the caterpillar turns into a chrysalis; then, in due course, it is reborn as a moth and breaks its way through the cocoon into the world outside. If the cocoon is pierced, the thread gets broken and can only be carded and spun like any other textile material. For the thread to remain unbroken, therefore, it is necessary to kill the chrysalis, without damaging the cocoon, before hatching takes place. That was where the secret lay. Moreover, in order for the thread to achieve its true strength, fineness and elasticity, the spinning caterpillar has to be fed on one thing and one thing only. This is another piece of technique which has to be mastered. And only if these two conditions are fulfilled will the silk be of really high value.

Cocoons in nature must certainly have been known to man from the earliest times, but before even thinking of making use of the thread he had to learn how to spin. Sericulture properly speaking, however, did not exist until he had thought of preventing the moth from hatching out and perfected the diet on which the caterpillar should feed. Centuries must have passed before a really high quality tissue could be produced, but archaeology has revealed nothing of the earliest attempts.

As well as being used for clothing and decoration, silk was quite quickly put to industrial use by the Chinese. This was something which happened in the West only in modern times. Silk, indeed, rapidly became one of the principal elements of the Chinese economy.

We have already seen how the Emperor Fu-Hsi invented a musical instrument with silken strings. It was not long before silk was being used also for fishing-lines, bowstrings and bonds of all kinds. Floss silk, a waste product unknown in the West, was used for padding winter garments, and it was a Chinese who invented rag paper, the world's first luxury paper. To this last we shall have

[1] Pariset.

occasion to return later. By weaving and doubling silk in a certain way the Chinese were able also to make waterproof containers for the transport of liquids. Among their articles of luxury were even cups of lacquered silk. It is commonly said that a Chinese could neither be born, live nor die without the assistance of bamboo; we might add: nor could he do so without the assistance of silk. His very language reflects the importance of this most precious material; more than 230 of the 5,000 most common characters have silk as their 'key', including the character for paper.

It was under the Han dynasty, which began two centuries before our era and reached its height about the same time as the Roman Empire, that silk ceased to be a mere industrial material and became an absolute value in itself. Perhaps gold, silver and copper grew hard to come by, but at any rate silk (like grain) began to be used for paying civil servants and rewarding subjects for outstanding services to the state. It began to be hoarded as one hoards gold; values were calculated in lengths of silk as they had been calculated in pounds of gold. Before long it was to become a currency used in trade with foreign countries. It is possible that this added importance was the result of a major increase in production; perhaps technical improvements were introduced at this period. What seems certain—and this shows how great production must have been—is that in every silk-producing province the daughters, mothers and grandmothers of every family devoted a large part of the day for six months a year to the feeding, tending and supervision of silkworms and the unravelling, spinning, weaving, dyeing and embroidering of silk. The entire silk industry seems to have been in the hands of women; it was a family affair. The well-being of the whole household depended on the women; if they were patient, diligent and economical, prepared to work at times by moonlight in order to save fuel, the prosperity of the family was assured—for it was more often than not in lengths of silk that the taxes had to be paid. If they were idle or negligent, hardship could befall the entire family. History tells of the abuses of certain grasping officials who demanded so much silk from their tax-payers that the womenfolk just could not cope; when the head of the family could not pay up, they would beat him. The responsibility of the Chinese woman is symbolized by the fact that the legitimate empress herself attended to a silkworm rearing house. (In the same way the emperor epitomized the roles of farmer and breadwinner by himself cutting a furrow each springtime.)

The raising of silkworms demands constant close attention.[1] From the egg stage onwards a fixed temperature has to be maintained, and when the caterpillars hatch out they must be fed to satiety on fresh, finely chopped mulberry leaves gathered at half-hourly intervals. While they are growing they have to be protected from loud noises, draughts, strong smells such as those of fish and meat, and even the odour of sweat. When the caterpillars are about to start spinning, they are taken and placed on trays of rice straw and kept in a gentle heat which will stimulate the formation of the cocoon and produce a silk more easy to boil. The formation of the cocoon is closely observed, and when it is almost complete it is thrown into boiling water to dissolve the gum. The boiling water is then gently beaten with branches; the cocoons are caught by the twigs, and all that remains is to unravel them with great care and join the threads of several cocoons into a single strand. The result is raw silk, which has then to be prepared for dyeing and weaving.

This process, which is briefly outlined in a Chinese text of the thirteenth century A.D.,[2] had doubtless changed no more in the preceding 1,000 years than it did in the centuries which followed. It may be that more ancient expositions have been lost or destroyed in wars and fires, but it is more likely that such things never even existed. In antiquity the technique of raising silkworms and the processes to which the cocoon had to be subjected were closely guarded secrets; so much so that it was forbidden, under pain of death, for eggs or cocoons to be taken out of the Chinese provinces. As we shall see, the secret was kept centuries longer than any other in the history of the world—except just possibly that of the alchemists.

[1] Pariset; Mao Tun; Shirakawa; Varron; Tsing Tung-Chun; Chambre de Commerce de Lyon. [2] Varron.

II

Rome the Unknown

Under the Han dynasty Chinese sericulture was in full flower. It prospered, and the whole country prospered; China was entering a golden age. But would not the vigorous people of a wealthy state end up by bursting their own frontiers? Would not the increasing population which accompanied the economic expansion oblige them to seek new lands and fresh living space? In fact the Chinese pushed to the south beyond the Yang-tzu, colonizing the tribes they met as they slowly advanced through bush and forest. In the north there was no possibility of advance; the Great Wall just about saved them from having to retreat. For to the north were the Huns, enemies, always harrying, ever stronger and more aggressive. They never ceased nibbling away at the northern frontier; all too often the signal fires blazed their warning. With the disintegration following upon the end of the Ch'in dynasty from 210 B.C., the Chinese defence of the Great Wall—which was manned by ill-disciplined forces consisting largely of deported criminals—grew lax and ceased to be a serious protection. Moreover, at the very moment of the fall of the Ch'in, the Huns developed into a vigorous and united state, determined to jostle their neighbours at every opportunity. Already the Yüeh chih, a distantly related people, had been obliged to remove themselves to the west. Their king had been captured, and the leader of the Huns, in accordance with custom, had fashioned his skull into a drinking-bowl.[1]

For the Chinese, with their already highly developed civilization, the Huns epitomized the full horror of the barbarian. They did not cultivate the soil, but drove their camels and horses wherever waterholes or pasture were to be found, carrying their tents and womenfolk with them. They were crude and ignorant, unlettered, having neither rites nor art; but they were also redoubtable warriors, daring, pitiless and indefatigable.

It was a tradition of warfare among the Huns that a man who

[1] For the following story of Chang-Chi'en, see Ssu-ma Ch'ien *Shih-chi*.

brought back the head of an enemy was rewarded with a bowl of wine and was allowed to retain for himself all the booty he had taken. This custom naturally encouraged their marauding tendencies; and their cupidity, together with the warlike qualities fostered by their hardy nomadic way of life, made them fearsome enemies and disastrous neighbours. There was no assessing the numbers of Chinese soldiers killed or captured by the Huns.

As if this were not enough, Chinese military law stipulated that a defeated general who returned to the capital should be put to death; while the emperor carried out reprisals against the family of any officer who surrendered and allowed himself to be taken prisoner by the Huns. The first of these laws ensured that no defeated general returned home; they either took their own lives or went over to the enemy. The second law meant that captured officers whose families had been persecuted by the emperor also joined the enemy, determined on vengeance at all costs. This odd practice, which would hardly find favour with a modern defence minister, eventually caused a veritable procession of troops over to the Huns.

To remedy this state of affairs, Wu-ti, the sixth emperor of the Han dynasty, had the idea of taking the Huns in the rear by contracting an alliance with their old enemies, the defeated Yüeh chih. And so, in the Chien-yüan period (140–134 B.C.), he dispatched 100 men to carry out this delicate and dangerous mission in the west. Their leader was a certain Chang-Chi'en, commander of the guards at the imperial palace gates, a man known for his great physical strength and noble character. They abandoned their warm beds for freezing tents and frost-bitten hands, said good-bye to the safe nights of the city with the regular tapping of the watchman on his rounds, left their wives and the images of their ancestors, and set off on a hazardous journey which in all probability would end in an obscure death.

To appreciate the danger of the enterprise and the unlikelihood of its having any success, it is enough to remember that their way to the Yüeh chih would inevitably take them through the territory of the Huns. For the China of the Han was largely confined to the basin of the Yellow River and had no possible outlet to the south-west. This area too was occupied by barbarians and was completely unknown territory. Their knowledge of the geography of the regions to the west and north was sketchy in the extreme, and for good reason: neither the harsh climate nor the character of the inhabitants was in the least conducive to exploration.

In spite of all this, Chang-Chi'en—as we are told by the Chinese historian Ssu-ma Ch'ien, who was writing about 100 B.C.—bravely set off with his 100 men.

He did not get very far. Hardly had he crossed into Hun territory (in the region now known as Kansu, the north-western province of present-day China), when he was spotted, captured and taken immediately before the Shan-yü, as the chief of the Huns was called.

'The lands of the Yüeh chih lie to the north of my territory,' the Hun protested, 'by what right do the Han send thither an ambassador? If I wanted to send an ambassador to a country situated to the south of China, would they let me do it?'

And he kept Chang-Chi'en within his own dominions—and married him off just to be on the safe side.

Chang-Chi'en stayed there for ten years. During his sojourn there—with his wife, by whom he had a son—he was given a good deal of liberty, and at last one fine day he took advantage of this to make his escape with his old companions and continue his imperial mission to the west. Ever faithful to his master, he had carefully preserved upon his person the yak's tail which would prove him to be a genuine ambassador.

They marched for 'many periods of ten days' and came to Kokand, which Chang-Chi'en reckoned to be about 10,000 li (about 3,600 miles) from Ch'ang-an. Kokand, in the valley of the Fergana, is today a small town in the oblast of Fergana in the Soviet Socialist Republic of Uzbekistan.

This is virtually the sum total of what we know about Chang-Chi'en's journey from the Chinese capital to Fergana. We can read only that he passed 'over the steppes and through the mountains'.

After their primitive life with the Huns, the Chinese travellers must have found Kokand quite enchanting. Here at last were civilized people, farmers, craftsmen; here were towns instead of tents. This little state supported several hundred thousand inhabitants, who were, amongst other things and like the Huns, excellent archers on horseback. The Chinese officers were particularly struck by the fine horses they found in Kokand. These horses, it was said, 'sweated blood' and were of the race of 'celestial horses'. The historians had something to say on this subject: 'In the country of Kokand there are high mountains. There are horses there which cannot be captured. Leopard-spotted mares are released at the foot of the mountains so that they might couple with these horses.

The foals which result sweat blood, which is why they are said to be of the race of celestial horses.'

Chang-Chi'en must have heard of these horses, and perhaps indeed have seen some of them during his time with the Huns, for they had come across them among their neighbours the Yüeh chih. The 'celestial horses' were powerful chargers and they came into their own when the Huns, following the example of the Yüeh chih, formed a corps of heavy, 'armour-plated' cavalry to operate in conjunction with their faster light cavalry. These big Fergana horses were far better suited to the carrying of heavy armoured riders than the smaller Mongol and Chinese horses.

The horses of Kokand fascinated Chang-Chi'en. Han China, warlike both because of the newness of the dynasty and out of sheer necessity, had a very high consumption of horses; they played a vital part in the constant struggles with the Huns. At that time there was no shoeing of horses, and on active service their hoofs would soon get worn down to such an extent that the animals became useless. The 'celestial horses', bred in the mountains, had much harder and more resistant hoofs, and this was something sure to be appreciated by a military man like Chang-Chi'en; were they not called 'horses to do a thousand li a day'?

The 'sweating of blood' which characterized these horses long remained a mystery for the people of the West. The explanation was found only in quite recent times;[1] it was caused quite simply by a parasite which burrowed under the skin in the region of the shoulder or the back and in the space of two hours produced little swellings which burst and bled. In the nineteenth and twentieth centuries travellers have noted horses 'sweating blood' in the valley of the Ili and in Chinese Turkestan; the disease must have contaminated all the breeds of horses of those regions.

But let us return to Chang-Chi'en. The ruler of Kokand had long since heard tell of 'the riches of the house of Han' and he was very anxious to enter into relations with China. Chang-Chi'en could not have arrived at a better moment, and he took advantage of his host's goodwill to further his own mission. 'My lord, instruct your guides to conduct me to the Yüeh chih; if, in spite of everything, I manage to return to my own country, the house of Han will send you gifts without number.'

The prince of Kokand allowed the Chinese ambassador to depart

[1] Dubs.

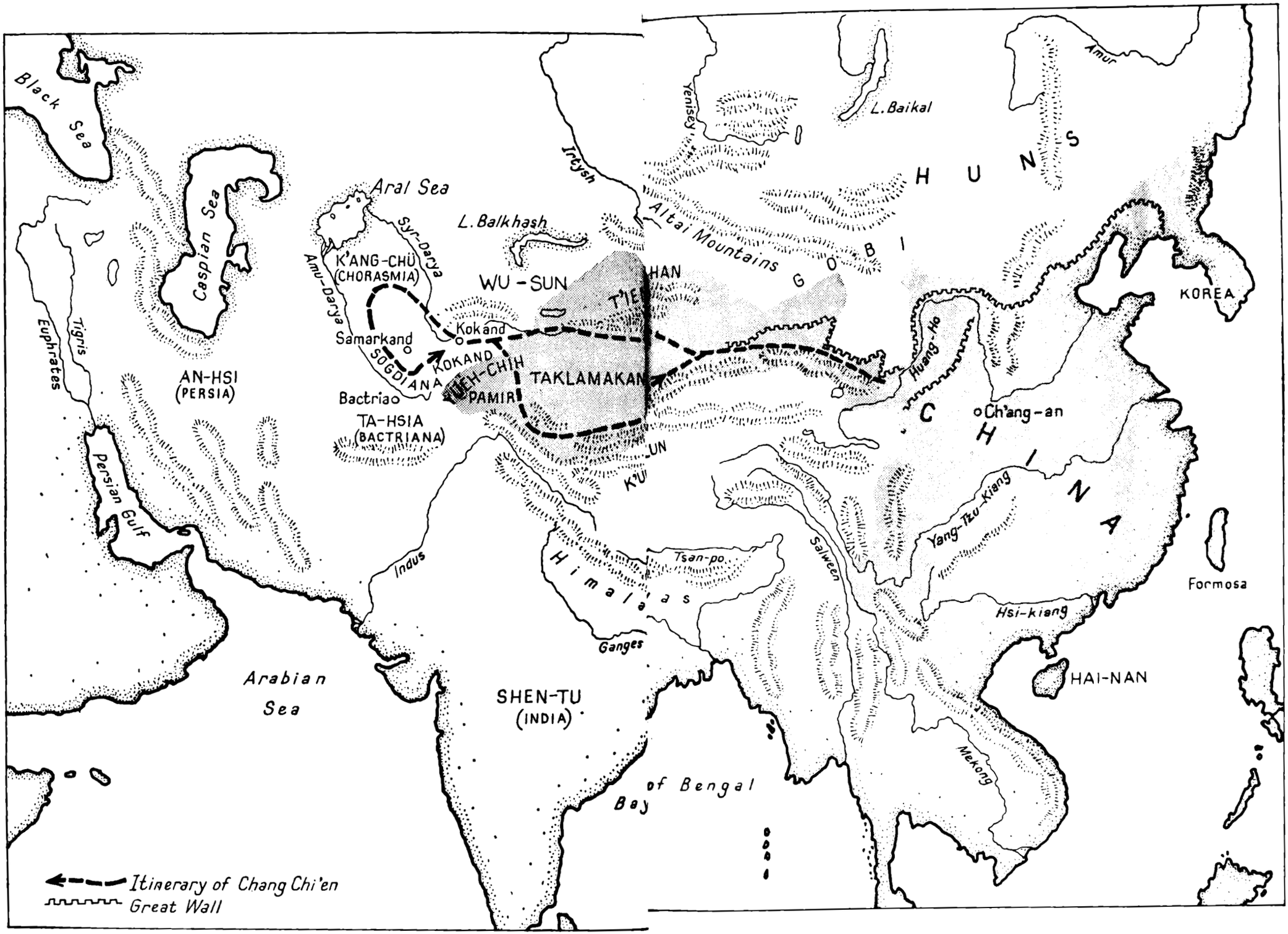
and gave him guides to lead him on his way. The travellers came first to a country called K'ang-chü, and from there they were taken to the land of the Yüeh chih. It seemed as if Chang-Chi'en was at last on the point of completing his mission.

But alas, notwithstanding the information received by the Chinese emperor (ten years previously admittedly), he found that the ruler of the Yüeh chih had not the slightest wish to fall out with the Huns. China was very remote; the Huns were near at hand, and terrible. Moreover, the Yüeh chih were settled in a smiling and peaceful country seldom subjected to the raids and incursions of enemies. Their ruler temporized so long that Chang-Chi'en was finally obliged to take his leave without any definite answer to his overtures and turn his back on his uncomprehending hosts.

The country of the Yüeh chih was the most westerly land the Chinese had so far heard tell of. It covered a vast area comprising roughly Russian Central Asia and part of Chinese Turkestan. They were a people, or rather a collection of peoples, of nomads and horsemen, and 'with customs similar to those of the Huns'. K'ang-chü, which Chang-Chi'en had to traverse before reaching the Yüeh chih, was '2,000 li north-west of Kokand'. 'They are a nomadic people whose customs resemble those of the Yüeh chih and who, lacking strength, recognize the sovereignty of the Yüeh chih in the south and that of the Huns in the east.' Their territory lay between the Aral Sea and the lower reaches of the Syr-Darya and the Amu-Darya.

The Yüeh chih and the people of K'ang-chü have been identified on good evidence with the Massagetae, who are mentioned by Herodotus and Strabo. The Yüeh chih had come from the east, retreating before the pressure of the Huns, and at the time of Chang-Chi'en's journey their capital was situated approximately where Khiva stands today, on a tributary of the Amu-Darya. K'ang-chü was thus more or less subject to them. Both the Chinese and the Greeks may well have failed to distinguish between peoples who, in fact, were very different one from another; moreover, both Westerners and Chinese, doubtless inspired by feelings of superiority, stressed that these Central-Asian peoples were primitive and uncultured and dismissed them rather casually as 'inferior' nomads who were incapable of carrying on agriculture. Modern archaeology does not altogether agree with the verdict of ancient texts.[1]

[1] Tolstov.



2. *Chang-Ch'ien's journey and the expansion of China between* 140 *and* 100 B.C.

Having thus failed in his mission, Chang-Chi'en passed to the country of Ta-hsia (Bactriana, between the middle reaches of the Amu-Darya and the sources of the Murghab in Afghanistan). He headed south, intending to return to China by a route different from that which he had used on his outward journey. He spent more than a year in Ta-hsia, studying the country, then set off once more towards the south, planning to pass through the country of the Ch'iang, the Tibetans. But he was again taken prisoner by the Huns!

As luck would have it, within a year the Huns were plunged into civil war over the succession to the throne, and under cover of these troubles Chang-Chi'en once again contrived to escape, this time with but one of his companions, and at last returned to Ch'ang-an and presented himself to his emperor.

He had set off thirteen years previously with 100 men. Two men only returned. The steppes and the Huns had accounted for all the rest.

Chang-Chi'en had, strictly speaking, failed in his mission, but the emperor recognized his achievement, loaded him with honours and conferred on him the title of prince. The government acknowledged the value of the information he had brought back with him, not only about the lands he had visited personally, but also those which he had got to know by hearsay during his travels. These were regions of which the Chinese had never even dreamt.

In Central Asia Chang-Chi'en had learnt that, beyond the lands of Kokand, the Yüeh chih, Ta-hsia and K'ang-chü, there were five or six other important states. There was An-hsi (Persia) for example and, some thousands of li to the west of An-hsi, the T'iao-chih. These people lived 'near the western sea. The climate there is warm, the soil damp. They go in for agriculture and sow rice. There are birds' eggs in that country the size of a small vat. The population is very numerous. There are a great many petty sovereigns, who, though subject to An-hsi, are considered as foreign princes. The inhabitants are expert conjurors. The old men of An-hsi relate that the dead water and Hsi Wang Mu are to be found there – but they have never seen them . . .'

The 'western sea' has been identified with the Mediterranean, and T'iao-chih may have included Asia Minor. As for Hsi Wang mu, she was a mythical princess of Chinese legend. She lived in the west and was supposed to have received a visit from the Chinese Emperor Mu-Wang about 1,000 B.C. The fact that Chang-Chi'en brought back information supposedly relating to this mysterious

princess shows that the legend was still alive at this period—and the mystery remained as great as ever, for the old men confessed that they had never actually seen her.

Chang-Chi'en also reported that 'to the north of An-hsi there lies a country called Li-chien'. He gave no account of this land, but from their studies of other texts most Orientalists conclude that it must have been Rome. This was the first time the Chinese had heard of this country, and the reports were so vague, so rooted in hearsay, that they were quite unable to form any true idea of its importance. Consequently the emperor took but little interest in the distant Li-chien. In any case Chang-Chi'en had brought him at least one piece of information of immediate and practical value.

While he was in the land of Ta-hsia, prior to his return to China, Chang-Chi'en had seen 'cloths and bamboo' which had come from Ssu-ch'uan and another country of southern China. These articles had been purchased by merchants of Ta-hsia (they were poor warriors but splendid traders) in India, whither they arrived by direct route. Clearly, there were opportunities for trade to be explored in that direction. To trade with the people of Ta-hsia, who for their part did not ask for anything better, it was obviously out of the question to use the route that Chang-Chi'en had followed; there would be too much risk of being intercepted by the Huns. Also, if they went through the territory of the Tibetans they would have to face bandits and the hostility of the natives. It would thus be preferable to leave directly from Ssu-Ch'uan, which China at that time knew under the name of Shu, with which state it might be possible to come to an agreement.

The emperor followed Chang-Chi'en's advice. Dreaming of extending his empire 'over 10,000 li', of spreading Chinese influence throughout the world, he spared no expense in sending out Chinese embassies laden with goods to be exported from the land of Shu. Their task, as we shall see, was not going to be easy.

For all the honours he had received, Chang-Chi'en still had violent changes of fortune to undergo. He suffered a defeat while commanding an operation against the Huns in 123 B.C., and this led to his being condemned to death. He managed to save his neck, but was stripped of all his honours and titles.

A few years later, however, when China had managed to instil a little respect into the Huns, the emperor was able to return to his ideas for expansion towards the west. He again consulted Chang-

Chi'en, and following their deliberations another mission was organized, this time to the Wu-sun, a nomadic people comprising some tens of thousands of warriors and dwelling about 2,000 li to the north-west of Kokand. Their land lay along the western frontiers of Hun territory, and they had long been subject to the Huns. At the time when Chang-Chi'en advised the emperor to send a mission to them, they had almost managed to break away from their neighbours, for whom they nursed an implacable hatred. The idea was that Chang-Chi'en, who now set off with 300 men, should propose to them the same alliance that had previously been offered to the Yüeh chih.

But alas! the Wu-sun returned the same answer as the Yüeh chih, and for the same reasons: they were too much afraid of the Huns, and China was too far away. All that Chang-Chi'en could do now was to send envoys in the name of the Chinese emperor to all the states he had visited during the course of his earlier journey. Then, accompanied by Wu-sun guides, he set out on his return journey to Ch'ang-an, taking with him a small delegation from the ruler of Wu-sun and a few dozen fine horses which that prince had sent as a gift to the emperor of China. Once again, when he reached home, he was lavishly rewarded for his services. A year later, in 104 or 103 B.C., he died and was laid to rest in Chinese soil, finaily at peace after a lifetime of travel and danger.

III

The Barbarians of the West

Some years before the death of Chang-Chi'en, as we have seen, the emperor of China, anxious to open up a southern trading route with Ta-hsia (Bactriana), had sent a number of expeditions to the country of Ssu-ch'uan. Unfortunately, and for all the expense that had gone into their preparation, all four of these missions were intercepted and detained by the barbarians of the mountains; not one of them reached its destination. The emperor decided therefore to send a series of embassies to the north-west, whither Chang-Chi'en had travelled, charged with 'gifts' and instructed to bring back 'tributes' (tokens of friendship and vassalage), and as much information as possible about the lands they visited.[1]

More than one historian has compared the Emperor Wu-ti with Louis XIV of France. He has been criticized, however, for certain illusions of grandeur which led him to spend fabulous sums on military and territorial expansion. Having defeated the Huns, he wished to extend his sovereignty still further and receive tribute from the lands of the south (he conquered the region of Canton), the east (he subdued Korea), as well as the 'western territories'—Hsi-yü, which thereafter in Chinese history signified all the more or less dependent states of Central Asia.

'After his victories over the Huns', we read in the annals of Ssu-ma Ch'ien, 'the Chinese Government founded the province of Chiu-ch'üan ('Fountain of wine'), so as to keep in touch with the lands to the north-west. For this reason embassies were again sent to An-hsi, T'iao-chih and other countries. But the Son of Heaven greatly loved the horses of Kokand, and embassies set out one after the other on the road to that country. The largest of them comprised several hundred men; the smallest fewer than 100. Some years the Chinese court would send off ten embassies or more; in other

[1] Ssu-ma Ch'ien, *Shi-chi*. Grousset.

years the number would be five or six. The ambassadors returned from their missions to the most distant lands in eight or nine years; it took them but two or three years to return from nearer countries. . . .'

In about 111 B.C. the submission of Canton was secured. The 'foreigners' who dwelt in Ssu-ch'uan took fright and sent tributes to the court of China, which encouraged the belief that they would not oppose the passage of Chinese expeditions. The government therefore revived its plans for a southern trade route to Bactriana. 'As many as ten embassies in a year were dispatched in this direction, only to find that the newly "opened" territories on the route to Ta-hsia had again been closed. Killing and robbery were again rife in that region, and the rich presents sent by the Chinese never reached Ta-hsia. . . .' The central authority was just too remote. The Emperor Wu-ti himself complained that certain of his decrees had failed to reach all parts of his dominions even as much as a year after their promulgation in the capital.

Vainly the court tried to intimidate the brigands by sending an expeditionary force to the region. This force was composed partly of condemned criminals—an expedient frequently resorted to for bringing military units up to strength. But in spite of such punitive measures the road was never open, and the Chinese decided they would have a better chance of controlling the northern route. This began at Su-chou in the north-west corner of Kan-Su, an outpost on the very edge of the desert, and reached Bactriana by way of the various countries of Turkestan, which, if not actually under the sway of China, were at least neutral in their attitude. It was, above all, horses that the Chinese brought back from Central Asia. Chang-Chi'en's men also brought back seeds of lucerne, which Wu-ti caused to be sown immediately in his own dominions, while the ambassadors returned home with the vine, whose Chinese name, Pu-t'ao, would seem to be a phonetic transcription of the Greek word *bodrus*.[1] What they took with them, for presents, was silk. And this was hardly surprising, for inside the Chinese Empire rewards, bounties, and even, in some provinces, taxes were normally payable in lengths of silk. Metal coins were far from being the only currency in circulation, and as a general rule the government had no wish to see coins leaving the country.

At the time of Chang-Chi'en or a little later the Chinese began to include weapons, and particularly armour, in their 'presents'.

[1] Laufer.

According to the annals of the period, silks and weapons were greatly appreciated by the rulers of the Western Territories.

But abundance can lead to satiety, and familiarity breeds contempt: 'as these embassies were excessively numerous, the presents began to pall on foreign rulers and the products of Chinese craftsmanship were not very highly valued'. It also happened—and this was more serious—that the embassies themselves were sometimes made up of men whose characters and honesty left something to be desired. Volunteers for such journeys being, it may be assumed, none too numerous, the government could not afford to be too fussy about their qualifications and references. Often enough the footloose and the idle managed to get themselves sent off on missions of this kind, and eventually Chinese expeditions earned themselves a very poor reputation in the West. Foreign rulers finished by refusing even to allow them to provision themselves en route. When faced with the possibility of dying of hunger, the ambassadors would misappropriate the gifts they were carrying and trade with them on their own account. All too frequently also they would be set upon and robbed while crossing the steppes, either by roving bands of Huns or by downright brigands.

If relations with Bactriana and Fergana were to be kept up, the safety of the convoys would have to be ensured.

The Son of Heaven not only 'loved the horses of Kokand', he also needed them, for the campaigns of 121–119 BC against the Huns had cost him more than 100,000 of them.

Ssu-ma Ch'ien tells us with his customary precision how the emperor set about obtaining what he wanted:

'To the court it was explained that the people of Kokand possessed, in the town of Erh shih, a great number of magnificent horses; but they kept them hidden and refused to give them to the Chinese ambassador. The Son of Heaven therefore sent the giant Chü-lin and a number of other men to Kokand. He gave them a great quantity of silver and a horse made of solid gold, which they could offer to the ruler of Kokand in exchange for the horses he had at Erh shih. The court of Kokand already had many Chinese objects in their possession, and the elders, taking counsel together, spoke thus: "China is far off and the road is long; travellers lack both fodder and water; in the north they run the risk of being attacked by the Huns; in the south there is neither water nor grass. Moreover, as the country along the road is but thinly populated, the

travellers themselves are often short of food. The Chinese ambassadors bring with them a suite of several hundred men, and they are always so short of food that about half of them die of starvation. How could an army ever reach us? China can do nothing to harm us. The inestimable horses of Erh shih shall remain the horses of Kokand." '

They refused therefore to give horses to the Chinese. But China's need, or the emperor's will, was not to be thwarted, for after two or three years of inconclusive campaigning an army of 60,000 men —excluding camp-followers—together with 100,000 head of cattle, 30,000 horses and 10,000 pack animals—mules, asses and camels—was sent against Kokand. They took with them also vast quantities of food and arms—especially cross-bows, the 'bazooka' of the period, which were borne by men of outstanding strength. The whole Empire stirred into activity; even the humblest had their part to play, supplying non-perishable foodstuffs (cooked and dried rice) for the expeditionary force. The frontier zone was vigorously 'consolidated'; the lines of transport stretched interminably along the road. The advance on Kokand proceeded according to plan, even though the Chinese who actually arrived there numbered no more than 30,000.

The siege of Kokand then began.

The Chinese army included a number of engineers, whose task was to divert the river which watered the town. There were no wells in the town, and the inhabitants drew the whole of their water from the river. This plan succeeded, and after a siege of forty days the Chinese, having first demolished the outer defences, entered the stronghold, captured the civic dignitaries and massacred the military leaders. The court had barricaded themselves into the inner precinct.

At this point the Kokand Government informed the attackers that they were prepared to deliver up the horses of Erh shih and provide food for the Chinese troops if the besiegers would agree to grant them honourable terms; if they were not, they would slaughter all the horses and fight on themselves to the death.

News now came that reinforcements were hastening to the relief of Kokand, sent by the neighbouring state, Kang-kin, which had something of a tradition of stirring up trouble for powerful enemies without actually going so far as to declare war on them. The Chinese leaders learnt also that engineers were on their way to sink wells for the defenders. These engineers were coming from Ta-Ch'in—the Roman Empire. This is one of the earliest references to Rome in Chinese history.

After some consideration the Chinese commander accepted the king of Kokand's proposals. The experts he had prudently brought with him selected the finest beasts in the stables. They took several dozen of the most valuable horses and in addition 3,000 stallions and brood-mares. Satisfied with their work, they deposed the king of Kokand, replaced him with a man of their own choosing, concluded agreements and brought an end to the war. They departed at last in triumph, and all the petty sovereigns along their route hastened to them to offer hostages in token of their submission to the Chinese emperor.

The mission had been successful, but, like all Wu-ti's undertakings, it had been ruinously expensive. Only 10,000 of the original force returned to the homeland—and no more than 1,000 horses. The mares and stallions of Kokand would be hard put to it to provide replacements. The emperor himself took the greatest interest in the matter, setting up stud-farms close to the capital and fixing a high price for foals in order to encourage his people to go in for horse-breeding. The introduction of lucerne (thanks to Chang-Chi'en) was of great help to this new branch of the economy, and within a few years the horse of Kokand had become the war-horse of China. Art experts have drawn attention to the fact that the horses depicted in the period prior to Chang-Chi'en are very different from those of the period which followed.[1]

Around the year 90 B.C. Marius and Sulla were engaged in their struggle for supreme power, and Sulla was beginning his battle with Mithridates, King of Pontus. Roman legionaries were about to advance eastwards, into lands hitherto unknown. It was at this time also that traditional China seems to have discovered the West. In fact archaeology has shown that Greek influences had penetrated far to the east at the time of Alexander's conquests and the Hellenized kingdoms, but these were not associated with any precisely defined nation in the Chinese consciousness of the time. Apart from vague hearsay and rumour, the West beyond the hundredth meridian was *terra incognita*. Knowledge of the past was limited to shadowy legends—and these were barely mentioned, and without any great show of belief, by the writers of the Han period.

Wu-ti and his successors did all they could to consolidate their position in the Western Territories. The *Ch'ien-Han-shu* or *History of the first Han* (206 B.C. to A.D. 9), which was written towards the end

[1] Grousset.

of the first century A.D. by Pan Ku, gives us the best information we have about the work of organizing and pacifying the new colonial empire.

The first necessity was a solid 'bridge-head'. Following the victories over the Huns in 121 B.C. the province of Chiu-ch'üan had been founded, and this was steadily populated with deported criminals. Then, again to the west, three more provinces were set up and the fortresses of Yü-men Kuan and Yang Kuan were built in the most north-westerly corner of Kansu. These were to be the solid bases for further adventures to the west.

Gradually, step by step, they advanced to the west, and always they made use of the prisoners and exiles furnished by the short, sharp justice of the period. Military posts were set up and state commissioners appointed to be responsible for the safety of the colonies and the provisioning of official embassies journeying to other lands.

The problem of feeding the occupation troops, which had so bedevilled China's earlier attempts at colonization, was solved by combining cultivation with the military duties of the settlers. Being thus capable of producing their own food, the soldier-farmers of the army of occupation no longer had to beg or take provisions from the natives.

From Yü-men Kuan and Yang Kuan two roads ran to Hsi-yü. The 'southern route', as sketched in the *Ch'ien-Han-shu*, skirted the northern slopes of the 'mountains of the north', which we now call the T'ien-shan or Celestial Mountains, then followed the Tarim and the Yarkand-Darya to Yarkand. Crossing the 'Onion Mountains', the Pamirs, it then went on to Ta Yüsh-chi and An-hsi, northern India and Persia. The 'northern route' skirted the T'ien-shan, followed the course of the river to Kashgar, crossed the Pamirs and ran on to Kokand, K'ang-chü and Yen-ts'ai (in Soviet Central Asia).

These two routes were not properly speaking in Chinese hands much before A.D. 60. In that year the office of Commander of the Western Territories was set up. He was stationed in the very heart of these territories, in a town called Wu-lai 2,738 li from the frontier. The commanders of all the military posts were subject to him, and it was his duty also to keep an eye on Wu-sun, K'ang-chü, and the other western states and keep the Chinese court informed of their doings. According to Pan Ku his job was to 'keep peaceful those regions which were peaceful, and to subdue by force those which were not'.

Pan Ku gives us a clear picture of Hsi-yü during the period 74–39 B.C.—the time of Pompey's eastern wars, the defeat of Crassus by the Parthians, the Gallic war. . . . Central Asia, he tells us, was divided up into an infinity of small states, some quite powerful, others comprising just a few hundred families.

One of the most important and most westerly of these was An-hsi, Persia, which Chang-Chi'en had heard tell of. Since his time China had been sending ambassadors to Persia.

'. . . The king of An-hsi's capital is the town of P'an Tou, which lies 11,600 li from Ch'ang-an. He is not subject to the Commander (of Hsi-yü). . . . They use silver coins, which depict the head of the sovereign on one side and the head of his wife on the other. When the sovereign dies, new coins are struck. There are ostriches in this country. An-hsi contains about 100 towns, large and small, extends over a vast area and is considered a very great nation. The country lies along the river Kuei Shui. Her merchants trade with neighbouring states both by land and by water. They write on parchment, and their characters go across the page.

'Wu-ti sent the first embassy to An-hsi. The sovereign ordered his military chiefs to meet the Chinese ambassador at the eastern frontier with 20,000 horsemen—and from the frontier to the capital there is a distance of several thousand li. The road passed through some dozens of towns. The population covers the land almost without a break.

'When the Chinese mission left, the sovereign of An-hsi sent with them an ambassador of his own that he might learn something of China. To the Chinese court he presented an ostrich egg and some conjurors from Li-Chien. The Son of Heaven took great pleasure in these. . . .'

This famous Chinese embassy to An-hsi, that is to the Parthians, took place in 105 B.C. or perhaps 115 B.C. in the reign of Mithridates II. Its aims were commercial, and, the Parthian sovereign having responded so courteously, it must be considered a success. It is from this mission that historians usually date trade relations between China and Persia and the latter's purchasing of Chinese silks. And it was thus that, fifty years later, the Parthians were able to dazzle the Romans with their banners of embroidered silk. For their part, the Chinese now began to suspect the existence, over towards those distant lands of Hsi Wang mu, of a shrewd and able people of builders, hydraulic engineers, jugglers and conjurors.

IV

The Opening of the Sea Route

Of the civilization of the Han, the campaigns in Central Asia, the mysterious presence of her own lost technicians in the land of Kokand, Rome knew nothing. Even when 'Seric cloth' had become an indispensable element of every great Roman household, the patricians and savants knew nothing of its manufacture or of the lives of those who made it. At the time of Augustus—whose reign saw the beginning of the Christian era—we find an allusion to this people in Virgil's *Georgics*: the writer speaks of the 'fine fleeces' which the Seres took 'with combs' from the leaves of trees. This would seem to have little connection with silk as we know it, and yet later texts prove conclusively that it was the same material. The fact that they could suppose silk was some sort of vegetable fibre, a kind of cotton in short, shows how ignorant the Western world was of the Orient—and how well the East had guarded its technological secrets. The very name which they gave to silk shows this: 'ser', the Greek word taken over by the Latins, probably came, directly or *via* an Iranian language, from the Chinese word 'ser', silk (today pronounced 'ssu').[1] So that if, for the Romans, silk was the material made by the Seres, the Seres must, necessarily, be the people who made silk—a definition which tells one precisely nothing.

Known, valued and sought after as it was, silk remained a very rare material in Rome; in Virgil's time it was almost priceless. As the Empire climbed towards its zenith, certain members of society —landowners, colonial governors, victorious generals—accumulated fortunes so vast that they had no idea how to spend them. It must be admitted that this great wealth derived less from the industry, tenacity and cleverness of the Romans themselves than from the profits of war and the economic exploitation of conquered nations and 'satellites'. Some of the foreigners resident in Rome, particularly

[1] Tesnières; Laufer.

merchants, were also insatiable customers for the new articles of luxury. To begin with, silk was just one luxury among many. It was the period in which gourmets, idle and apoplectic, would gorge themselves on *foie gras*, cockscomb stew,[1] fattened snails cooked in wine, oysters brought all the way from Lake Lucrino, or even Spain or Brittany. The period in which at a single feast (Lucullus's triumphal banquet) 3,000,000 litres of wine could be consumed—and whenever possible they did their drinking out of cups of amethyst. The period in which the youth of the country, softened by seven baths a day, shod and clad in garments heavy with gold and pearls, poured out diamonds, topazes and opals at the feet of fashionable courtesans as once these treasures had been offered to the statues in the temples. Seneca possessed several hundred citron-wood tables imported from Mauritania; games were staged featuring wild beasts fetched from the furthest corners of Egypt. Great ladies would powder their hair with gold and scatter rare and perfumed plants upon the floors of their houses, squandering a fortune for a few hours' luxury. In a society given over so completely to extravagance and snobbery silk was destined for a brilliant career. It was not used for the capacious and supple tunics that fashion had borrowed from the Greeks; still less for togas. Two centuries were to pass before a Roman emperor was to dress himself entirely in silk —Heliogabalus seems to have been the first to do so. But there were small ornaments of purple-dyed and embroidered silk which were sewn on to tunics or togas of wool, Egyptian cotton or Palestinian byssus, which was probably a fine cloth of flax or cotton. Parallel stripes were sometimes sewn on to the front of tunics, as also were squares and round pieces; it was also used for hemming. Perhaps remnants were unravelled and the thread re-woven, either into the very light material which was becoming fashionable—and which the censors were beginning to find indecent—or in combination with other fibres into a 'mixture'. Excavations in Syria lead us to believe that these precious fragments were being used to envelop the embalmed corpses of great personages. At all events the outer wrapping was of this material.

Of materials known to the Romans, we have mentioned linen, wool, cotton and 'Seric cloth'. There was another, a light material which provoked something of a quarrel among Orientalists during the nineteenth century. This was a tissue, mentioned in the period we are considering, which came from Cos and Assyria. Cos is an

[1] Pliny.

island in the Aegean where, according to contemporary writers, the people had discovered the art of spinning and weaving 'bombycine'. This comes from the word 'bombyx', which means: 'caterpillar forming, like spiders, webs from which is made a material used for women's garments'. This product was very widespread, and it has inevitably been wondered if the material in question were not quite simply silk. The black mulberry tree was known in all the countries of the Mediterranean, but there is no evidence that the 'bombyx' were actually fed on mulberry leaves. Moreover, it was the white mulberry that was used for the silkworm—and that was only imported into Europe from Asia many years later. Finally, there is nothing to suggest that this material was obtained by unwinding a cocoon—and the unwinding process is essential to the production of high quality silk. A writer in Lyons at the end of the last century, Ernest Pariset, developed this last argument. He concluded that 'bombycine' was indeed a light material obtained from the cocoon of a caterpillar, but that it was one of the many kinds of caterpillars producing what is known as 'wild silk'. Such insects are still widely used in China, Japan and India. In the manufacture of this material the cocoon was carded and the thread spun, as is the case with most of the wild silks; only in the case of 'Seric' silk was the chrysalis stifled and the yarn unwound. The difference in quality might not be too great in our own days and with our modern spinning techniques, but then, with their primitive wheel and twisting by hand, it was most marked. There was also a difference of colour; wild silks are either too dull or too bright, and they do not dye well. The white Chinese silk of today is in fact of a very light cream colour and is very easy to dye; the dyeing of ancient silk, which is believed to have been pure white, must have been even easier. Perhaps the controversy on this point will one day be revived by the findings of archaeology. At all events, from the time when 'Seric cloth' came into vogue in Rome, little or no mention seems to have been made of the 'bombycine' of Cos. Production was in truth too slight for the growing needs of an ever more insistent market. Another reason for the preference accorded to 'Seric' silk was the fact that it lent itself admirably to the purple dye which was at that time the very height of fashion.

The question of dyeing had been assuming greater and greater importance in the cloth industry.[1] The traditional white of the ancients was still in favour, but the habit had grown up of super-

[1] Beaulieu; Born.

imposing coloured ornamentation upon the white background. Even the togas and tunics of the men were striped with purple and gold. The conventional band of purple along the edge of the patrician's toga, the scarlet stripes and band of purple of the augurs—these were no longer enough; decoration was now coming in for its own sake. As purple and gold were the only colours that the upper classes could indulge in without offending against good taste, the goldsmiths and dyers in purple soon found themselves hard put to it to meet the demands of their customers.

Pliny, who was writing between A.D. 50 and 80, gives us an account of how they obtained the purple which was usually employed for the decorative silks sewn on to the garments of contemporary Roman men and women.

The purple dye deriving from a certain kind of shellfish had been known along the shores of the Mediterranean from very ancient times. A legend relates how, about sixteen centuries before Pliny's time, a god of the Phoenicians called Melgarth was walking along the beach when his dog crunched up a shellfish, which action filled the animal's throat and mouth with red stain. The god made use of the liquid from the shellfish to dye a tunic which he offered to his beloved. Mythical though this event was, the Phoenicians were credited throughout antiquity with the invention of purple. The Hebrews also knew of it very early on: the holy of holies of the Ark of the Covenant during the march to the Promised Land was closed by 'a curtain of purple and byssus'. In Roman times Tyre and Siddon were still famous for their production of purple; indeed, according to Pliny, this was all that remained of the glory of Tyre.

'Purple' was in fact a whole range of colours, including various blues, dark reds and violets, but the most prized was always red-purple, the 'colour of congealed blood'. This may have been on account of the numerous powers which magicians attributed to the colour red: it was the colour of blood, the sun and fire; it induced fertility, kept demons at a distance, ensured victory and power. Followers of the Hermetic philosophy even attributed a secret etymology to the word 'purple' (*purpuris* in Latin), evoking the 'fire' of the alchemists. For all of these reasons doubtless it was long reserved for priestly and royal use. The high priest of the Hebrews had a robe of purple, while both Darius, king of the Persians, and Alexander of Macedon wore purple mantles. Among the Romans, too, it was the prerogative first of all of the kings and then, when kings no longer existed, of the magistrates of the highest rank.

Gradually it became simply the outward sign of wealth and patrician status—though one superior variety was reserved by the emperor for his own use. Nero even decreed that it was a capital offence to wear or purchase the 'imperial purple', and such laws were later periodically renewed under the Byzantine emperors.

The secret of purple,[1] which for so long brought fortune to Tyre and Sidon, and later to many towns of Greece, Italy, Spain and North Africa (Hermione in Argolis, Salona, Cissa, Aquileia on the Adriatic), remained lost throughout the period from the Middle Ages to the seventeenth century—at least in Europe. It was recovered in modern times, but is no longer put to industrial use. The secret lies in a small gland in the wall of the respiratory canal of certain shellfish found around the shores of the Mediterranean. 'Bleeding-mouth purple', 'Turk's blood'—such are the names that have been given to it; and very expressive they are, though experts know the shellfish in question as *purpura haemastoma*, *mures brandaris*, *mures trunculus*, *mures erinaceus*.

When the liquid comes from the shellfish it is yellow. It only becomes red on exposure to the sun, by a phenomenon of photochemistry, and according to the length of the exposure changes from bluish violet to violet, to reddish violet, to a violet which is almost black. With practice therefore one can obtain an extensive range of colours.

The use of this liquid is, however, subject to one condition: it has to be collected and used immediately following the death of the mollusc. Manufacturers of purple consequently had to be close to the sea shore. Morever, work could be undertaken only in those seasons—autumn and winter—when the molluscs were available.

Trade in textiles thus had necessarily to pass through the towns of the dyers. It was only much later that it was learnt how the shellfish might be kept alive for a period of time, and dye-works could be set up in Egypt far from the sea.

Pliny tells us something of the employment on the spot of the juice secreted by these creatures. In the case of large shellfish the liquid was extracted from each one individually; small ones were simply ground up alive. This substance was steeped in salt for three days (548·8 cubic centimetres of salt to 32·745 kilograms of pulp), and then gently boiled in lead vessels for ten days. When the mixture was reduced to about a sixteenth of its original volume, a cloth was dipped in it to check the quality of the dye.

[1] Born; Pliny.

What with the enormous numbers of living molluscs that had to be kept available, the lengthy technical process and the need for constant supervision, it is not difficult to imagine how costly purple-dyed material must have been. The price was high even for the most ordinary quality; it was fabulous for the so-called Tyrian purple, which was dipped twice—first in a mixture which was barely ready, then in the liquid of a different shellfish, which Pliny called the whelk. This double dyeing produced a shimmering bright red colour. In the reign of Augustus purple wool cost 1,000 *denarii* per Roman pound, while the best quality white wool was no more than 100 *sesterces* per pound—barely a fortieth as much. The all-purple togas which generals wore for their triumphs must have cost close on 10,000 *denarii*. No modern army would dream of spending such sums on mere display. As for purple silk—which was used only in minute quantities—it was literally worth its weight in gold; and at a time when the spending power of gold was many times greater than it is now. But in any case these figures are in no way absolute, for the price of silk was to rise and fall through the centuries, through twenty centuries of history, according to the facility or otherwise of communications between the West and the distant country of origin. As for the purple which was so highly honoured, it was faked by some, monopolized by others, until at last it was replaced by more easily produced and consequently cheaper dyes.

Had anything new been learnt about 'Seric cloth' and the Seres in the seventy years or so which separated the death of Virgil from the death of Pliny in the Vesuvius eruption which buried Pompeii? A brief look at certain passages in Pliny's *Natural History* may throw some light on this question. The *Natural History* is a sort of encyclopaedia of Roman knowledge as it stood around the years A.D. 70–80. It is a work of enormous erudition, though perhaps it owes rather too much to the writings of other authors. Pliny is said to have drawn his material from some 2,000 volumes, the majority of which have been lost. According to Cuvier, the *Natural History* is 'one of the most precious monuments left to us by antiquity'; but he adds: 'though the true and the false are present in it in almost equal quantities'.

True or false, Pliny does tell us broadly what was being said and what was believed at that time. He writes of everything, including the Seres, who are 'famous for the wool of their forests. They remove the down from leaves with the help of water, and then the women

have the double task of unravelling and weaving. It is thanks to these complicated operations in far-off lands that the Roman matron is able to appear in public in transparent garments. The Seres are civilized; but, like savages, they shun the society of other races and are content to wait for trade to come to them.'

Later, Pliny passes on to us the information—second-hand—which an ambassador had brought to Rome from Ceylon:

'The Seres are of more than average height; they have red hair, blue eyes and harsh voices, and they have no language in which to communicate their thoughts. The merchandise (of the Cingalese) was deposited on the bank on the Seres' side of the river, and they would carry it away and leave the price if they agreed to it. Has one ever better reason for hating idle luxury than when one travels in spirit to those lands and remembers the price at which it is obtained?'

So Pliny, too, thought that Chinese silk was a form of cotton, or at any rate some spun vegetable fibre. The rest of his account was also full of errors. Those blue-eyed, red-headed Seres obviously have nothing in common with the Chinese, but they do remind one of certain, now vanished, Central Asian peoples who were of the white race and had red hair; or just possibly of an Afghan-like people who may already have begun to dye their hair with henna. At all events it is in Central Asia that we must locate these silent but skilful people supposed by the Romans to be the manufacturers of silk. What we call China did not exist for them—even though they had known Chinese silk for more than 100 years.

Circumstances had not been exactly conducive to the development of international contacts, especially in Eurasia. During that very period which separated Pliny from Virgil, in the years immediately preceding the Christian era, the first Han dynasty crumbled amid social and economic crises, court scandals, sorcery (they had their poisonings), general corruption and the intrigues of eunuchs and favourites. A high official named Wang Mang successfully brought about a *coup d'état* and reigned from A.D. 9–25. In the latter year the legitimate Han dynasty was restored, but the disorders of the period had caused the breakdown of the already difficult relations with the Western Territories.

'The Western Territories were roused to indignation; they broke their bonds of vassalage, put an end to their relations with the Central Empire and submitted once more to the Huns', wrote the fifth-century Fan Yeh in his history of the second Han dynasty. For the

sixty-five years prior to A.D. 73 the Chinese rulers turned their backs on the West, but then: 'Ming-ti . . . reopened communications with Hsi yü. The sovereigns of Kokand and the other states sent their sons to serve at the court of China. . . . In A.D. 74 a Commander and military commissioners were again appointed.'

These events help to account for the continuing rarity of silk. Nevertheless it was not only by way of Central Asia and the lands of the Parthians that silk came to Europe; it could also be purchased in certain distant ports in India, though no one knew exactly how it got there. It was there, but it had to be fetched, and hitherto neither Greeks nor Romans had ventured so far afield. But at the time of Pliny, just as the Central Asian land-route was being reopened under Ming-ti, a new way to the East was becoming available. It was discovered how use could be made of the winds to help mariners along a route that had up to then been redoubtable in the extreme.

A Roman pilot, bolder or more fortunate than his fellows—or perhaps better informed—discovered the monsoon and the direct route across the Indian Ocean.

When he left port—Ostia perhaps, or Alexandria, or Sherchell, or Puteoli, or Tyre—with his cargo of corn, wine, oil, iron, gold, papyrus, citron-wood, wild beasts for the arena, or even a handful of passengers—legionaries of the armies of occupation, some wealthy governor returning to his province—the mariner never knew if the morrow would bring riches or disaster, life or death, liberty or slavery; every time he set sail his life and fortune were in hazard. Having neither compass nor sextant he was unable to determine his position, and so he generally navigated from one shore landmark to another, which immeasurably lengthened his voyage. At night he could use the stars, but that meant he had to limit his travels to the summer, when the sky was clear of clouds. And then, too, as Pliny complained, he was in danger from those 'stars which perch upon the yards and other parts of the vessel, with a sort of vocal sound, like migrating birds. This kind of star is dangerous when it comes singly; it causes the ship to sink.' This must have been some natural phenomenon like St Elmo's fire.

Few captains liked straying out of sight of the coast—but even following the coast was not without its hazards. For there, in their flat-bottomed galleys, lurked the pirates—a danger more formidable than Scylla, Charybdis and the Sirens all rolled into one. They hid themselves away in bays and inlets and when darkness came emerged

to fall upon any ship which had had the misfortune to drop anchor there for the night.[1]

In the Mediterranean, piracy was as old as navigation itself. At times it flourished exceedingly, and the Roman epoch, following the ruin of Carthaginian sea-power in the Punic wars, was one of its most successful periods. Many of the defeated nation's sailors took to the sea on their own account. Moreover, ancient society produced a great many men who had nothing to lose and fleeing slaves, political exiles and the survivors of defeated armies drifted into piracy, trafficking above all in human flesh, until such time as they were captured and crucified.

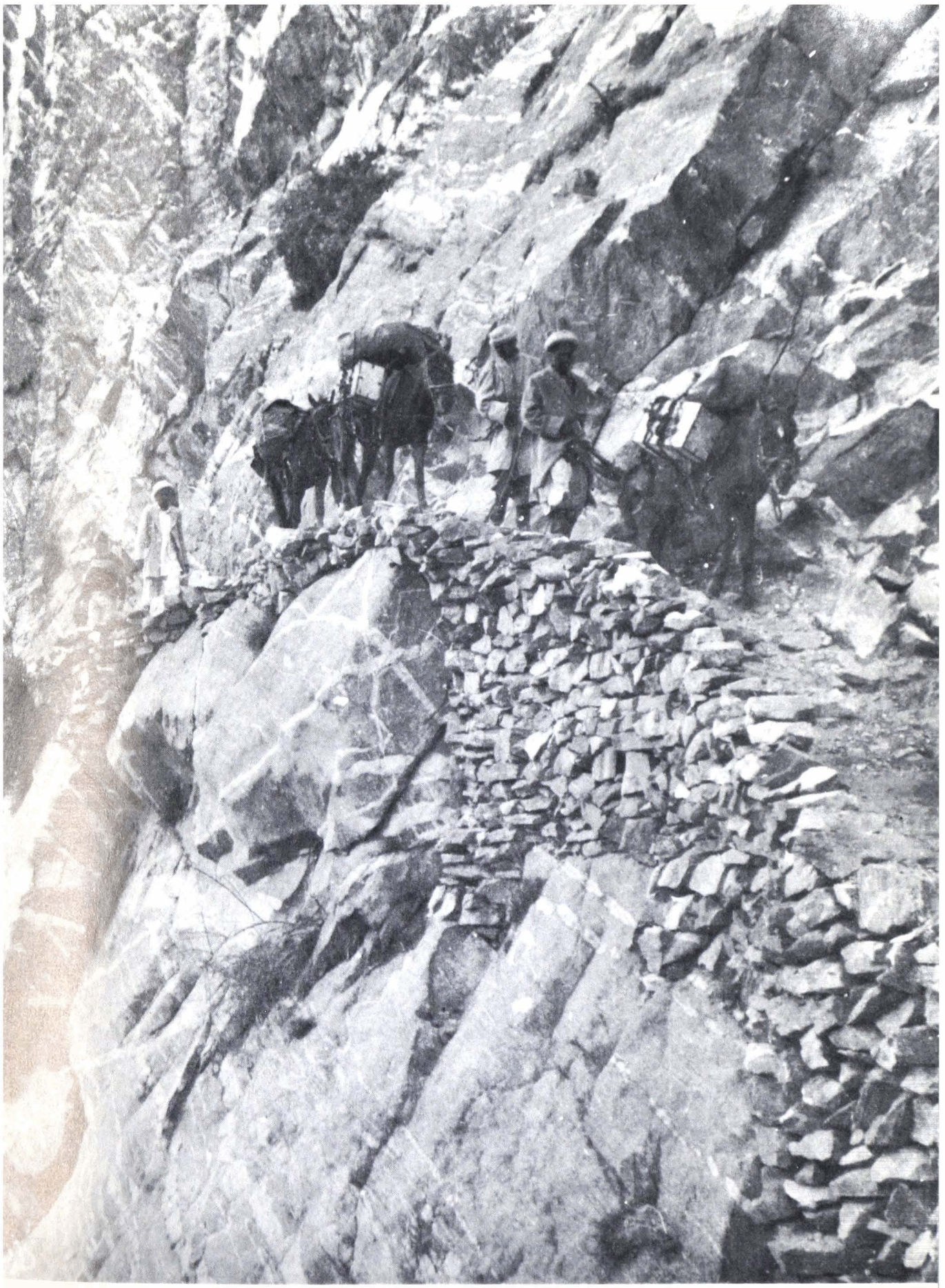
The most famous pirates of Roman times were the Jewish ones of Jaffa and those of Cilicia and Isauria on the southern coast of Asia Minor. Robbers by both land and sea, they were doubtless much the same at this period as they were when Ammianus Marcellinus described them at the end of the fourth century:

'As Cicero once said, wild beasts when hungry generally return to places where they once found food; so the Isaurians came down like a gale of wind from their high and inaccessible mountains to the coast and, as night approached, hid themselves among the crevices of rocks and spied on mariners dropping anchor for the night. When they saw that the crews were asleep . . . they would creep up on all fours, careful not to raise the alarm, slip into their little boats and fall upon the silent ships. Their cupidity sharpened their fury, and they would massacre everyone they found, not even sparing those who surrendered. . . .'

The menace of these pirates of Asia Minor was all the greater because they were supported by Mithridates, king of Pontus and enemy of Rome. It was mainly against them that Pompey waged his east-Mediterranean campaign. After sweeping the western Mediterranean clean in the space of six weeks, he set off with sixty galleys and hunted the pirates down, pursuing them to their lairs in Cilicia. Another six weeks, and the greater part of his task was accomplished. He captured at least 400 ships and destroyed about 1,300; 10,000 pirates were drowned and 20,000 taken prisoner. Among the prisoners was a Roman admiral whom the pirates had long held captive in the hope of getting a ransom.

These victories were so rapid and so spectacular that their long-term effect must remain doubtful. Piracy is a social phenomenon, not merely something which can be settled by policing the seas, and it

[1] Gosse.



A difficult pass in the Karakorum Mountains of Kashmir

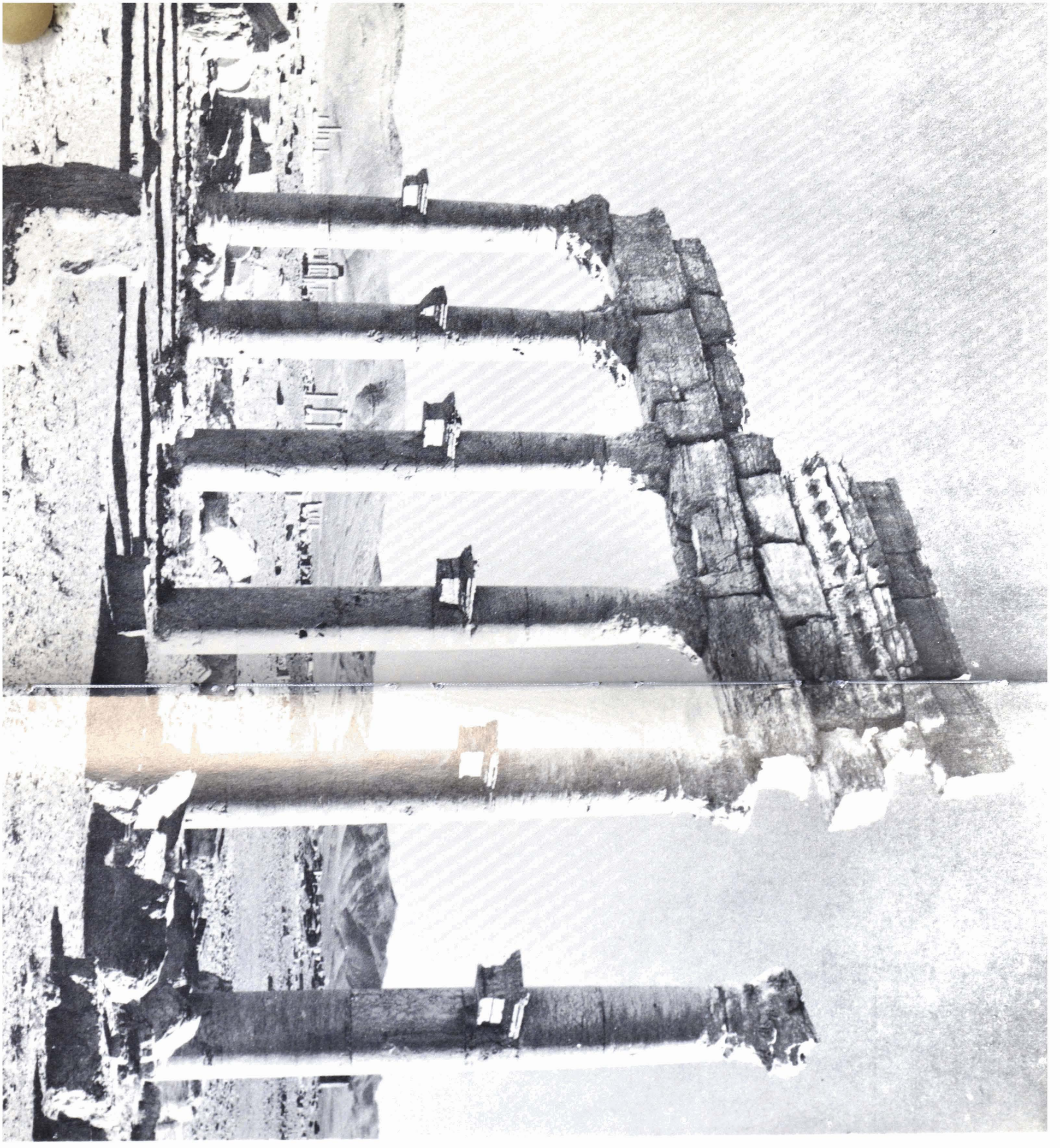


Photo: M. Audrain, Editions Arthaud, Paris

Columns at Palmyra

Photo: Editions Arthaud – Collection Claude Arthaud, François Hebert Stevens, Paris

The Great Wall of China

certainly continued in the Mediterranean, though on a reduced scale, so long as there was prey for the taking and outlaws willing to chance their arm. Sailors and passengers were even more precious than cargoes; slaves were the most convenient and profitable merchandise to deal in. There was always a market for them, for slaves were the principal 'means of production' in ancient times.

Nevertheless the conquest of Syria and Pompey's action against the pirates gave Rome mastery of the seas from one end of the Mediterranean to the other, and enabled her to bring pressure to bear on Petra and Palmyra, at the heads of caravan routes carrying the products of the East.

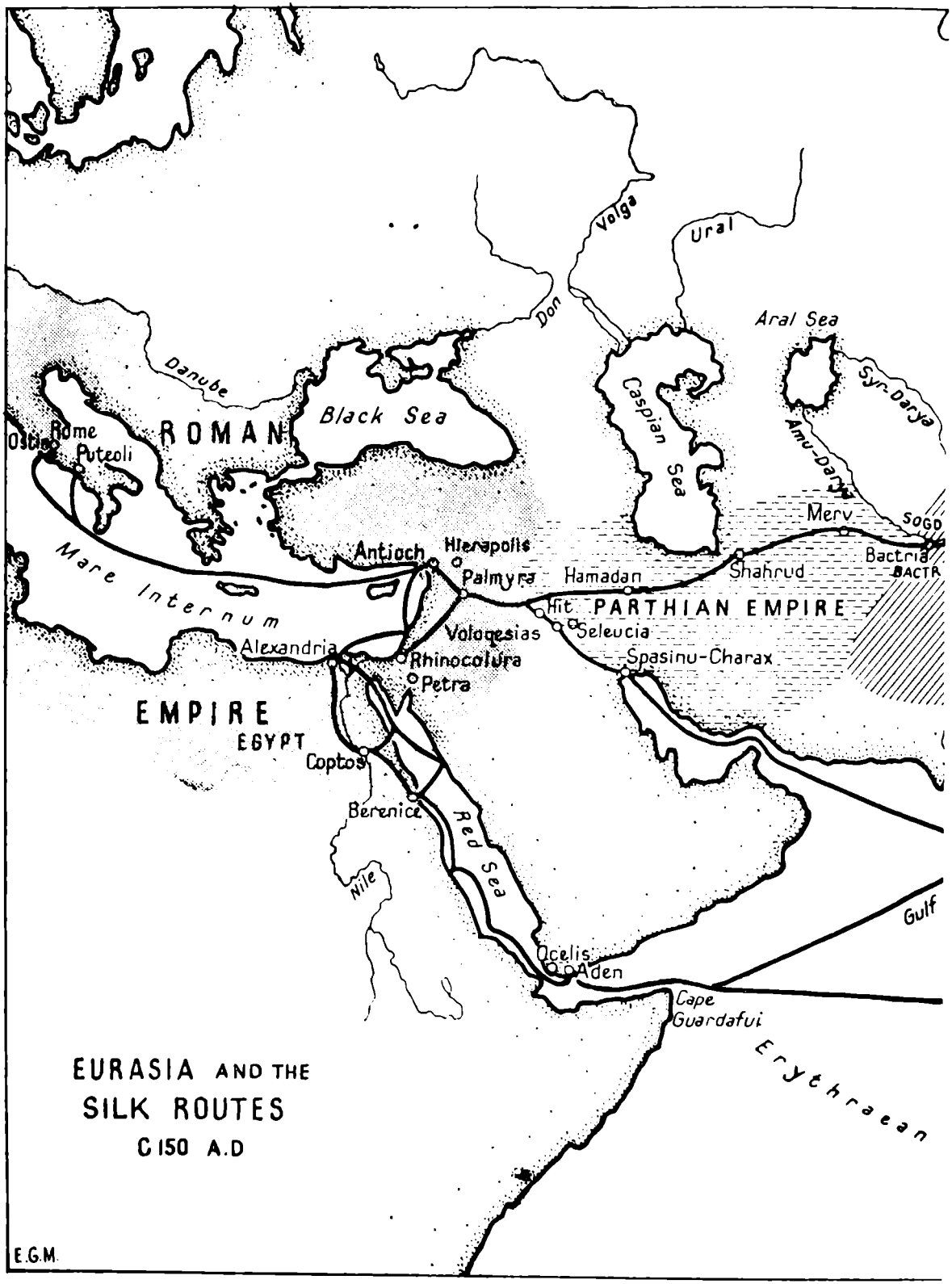
'Palmyra,' wrote Pliny, 'a town famous for its situation, the richness of its soil and its agreeable waters, is surrounded by a vast belt of sand. Virtually cut off by nature from the rest of the world, she enjoys independence though lying between the two powerful empires of Rome and Parthia. When there is discord the first thoughts of both of these are for her.'

And so Palmyra, small as she was and belonging to no one but her own merchants, commanded the caravan routes to the Orient: that which crossed the lands of the Parthians to Northern India, Central Asia and China, and that which went down the valley of the Euphrates to Seleucia, Vologesias and Spasinu-Charax, the port at the mouth of the Tigris on the Persian Gulf which served the ports of India.[1] Even when the Central Asian route was closed, the products of the Far East came by sea, river and caravan and found their way just as surely to the warehouses of Palmyra. As the Parthians long refused to trade directly with Rome, all commerce had to pass by way of Palmyra, and this little kingdom endured, as intermediary and buffer-state, until the year A.D. 273, when Rome was at last strong enough to bring her under her sway.

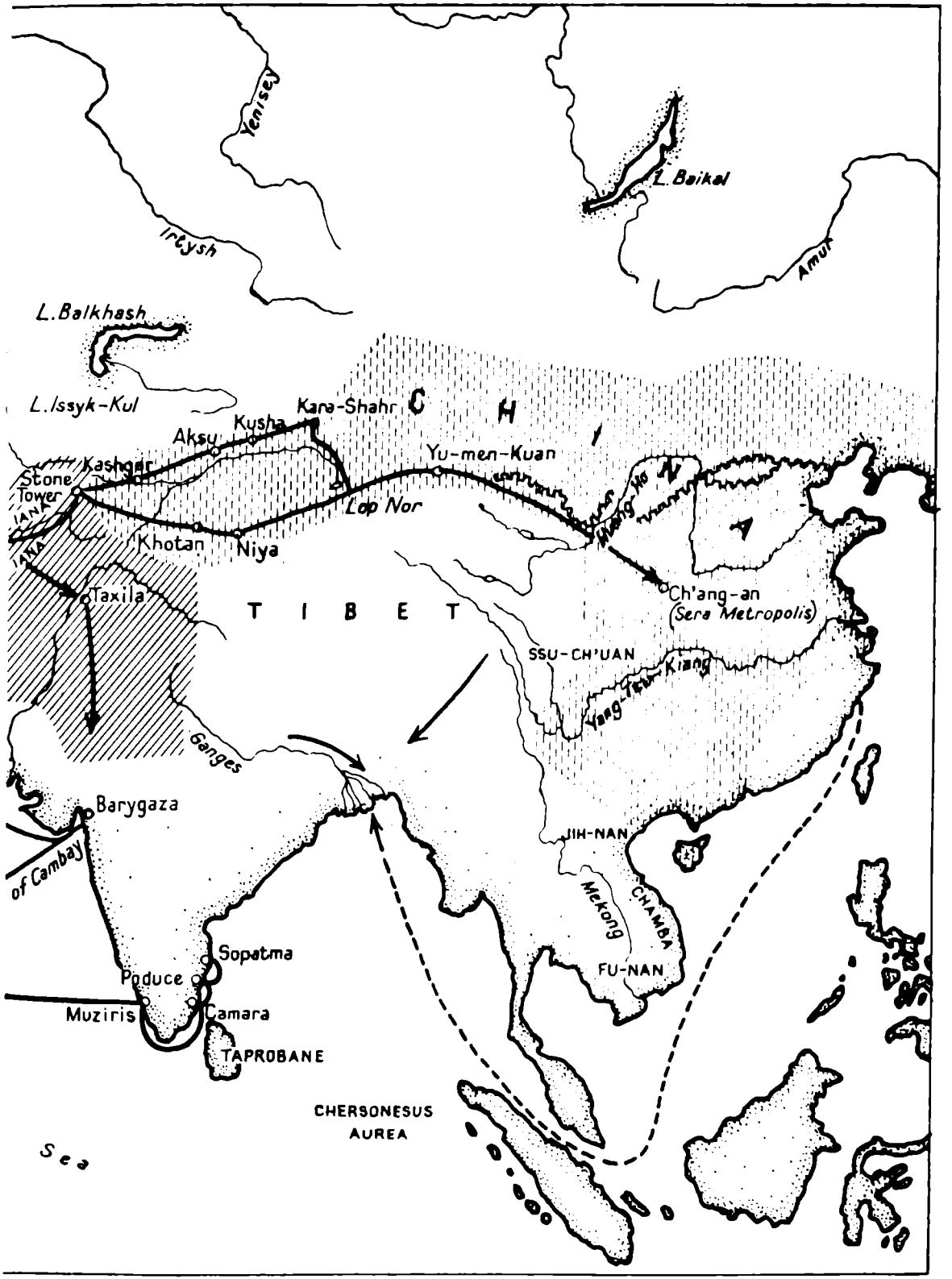
Petra, the town of the Nabataeans, was linked on one side with Palmyra and on the other served as end-point for the sea trade of the Red Sea (the ancients' Erythraean Sea) and the Indian Ocean. Merchandise arrived *via* the port of Leuke Kome on the Red Sea opposite Berenice, and Megra, which is believed to have been what we now call Medain Saleh. Petra also dispatched her merchandise from the Mediterranean port of Rhinocolura (now El Arish).[2]

Trade between western India and the coasts of Arabia had long existed. The merchandise was brought by Indian mariners to the mouth of the Red Sea; then traders belonging to various coastal

[1] Starcky. [2] Schwartz; Wheeler.



3. *Eurasia and the silk routes*, c. 150 A.D.


Yenisey
L. Baikal
Irtysh
Amur
L. Balkhash
L. Issyk-Kul
Kara-Shahr
Kusha
Aksu
Kashgar
Stone Tower
Yu-men-Kuan
Lop Nor
Khotan
Niya
Taxila
C H I N A
T I B E T
Ch'ang-an
(Sera Metropolis)
SSU-CH'UAN
Yang-Tse-Kiang
Ganges
Barygaza
of Cambay
JIH-NAN
CHAMBA
Mekong
FU-NAN
Sopatma
Poduce
Muziris
Camara
TAPROBANE
CHERSONESUS
AUREA
Sea

peoples would carry it northwards, partly by land, partly by sea, to the Mediterranean termini—Alexandria on the Egyptian side, Gaza and Petra on the Arabian side.

Virtually the whole of the Red Sea coastal trade was in the hands of the Arabs—the Nabataeans and others mentioned by Roman writers—or of tribes who were subject to them. It was their policy to prevent the Indian sailors from passing through the straits of Bab el Mandeb and so preserve their monopoly of the transit trade. This presented no difficulty. The coasts of Arabia are singularly inhospitable; baked by the sun, they offer the traveller neither water nor foodstuffs, and a ship which had crossed the Indian Ocean from the Gulf of Cambay or Ceylon would have no possibility of indulging in trade or taking on provisions against the will of the local population. Foreigners were barely suffered to pass through, and then only on condition that they kept their distance and paid the set fees.

Robbers by land and pirates by sea were enjoying a period of great prosperity, and yet their activities scarcely seemed to affect the more orthodox traders of the coast. Beneath the blazing summer sun or in the gentle warmth of winter, the Arab sailors would ferry their mysterious, heavily-wrapped cargoes from port to port—breathing never a word about their true origin—and their cousins the pirates regularly helped themselves to a share of the profits. In this way the entire Arab peninsula benefited, as Pliny, not without humour, confirms:

'Of the innumerable peoples of this land, half live by trade and half by brigandage. In short they are the richest nations in the world, and the treasures of the Romans and the Parthians flow thither. The Arabs sell the produce of their forests and their seas—and they buy nothing.'

During the reign of Augustus, Egypt truly entered into the Roman scheme of things, and Alexandria, which was undoubtedly the greatest Mediterranean port in Roman times, joined Puteoli and Ostia as one of the ports serving Rome itself. This was in spite of the fact that a journey of anything from ten to twenty days separated the two cities. Alexandria handled thousands of cargoes of corn destined for the Roman *annona*, and everything that passed through the city provided revenue, whether in the form of taxes or tribute, for the treasury of Rome.[1]

With economic power over both Alexandria and Syria, the

[1] Loane.

Romans had only two obstacles between them and the treasures of the Orient: the Parthians and Palmyra on the Syrian side, and the Arabs along the Red Sea. The time was not yet ripe for action over the Parthians, but there was a way to cut out the Arabs—they could strike boldly through the straits of Bab el Mandeb (the 'Gate of Tears'), cross the Indian Ocean and deal directly with the trading ports of India.

For many years Western pilots had lacked the audacity to do this. Had not the fleet of Darius taken two-and-a-half years for this crossing? But under Claudius (A.D. 41–54), a tax-gatherer[1] named Annius Plocamus[2] sent one of his freedmen to look after his interests in the Red Sea. When he reached Cape Guardafui, the unfortunate man was 'carried off by the north wind', as Pliny put it, and after fifteen days on the high seas was wrecked off Hippuros, the port of Taprobane (Ceylon). 'Received with great hospitality by the king of this country, and having in six months learnt the language of the inhabitants, he was able to reply to this prince's questions about the Romans and the emperor. The prince . . . admired above all the probity of the Roman Government, for he noticed in the money saved from the shipwreck that the *denarii* were all equal in weight, though the different images they bore showed that they had been minted under different sovereigns. Drawn by this into an alliance, he sent off four ambassadors, the chief of whom was Rachias.'

It was this same Rachias who gave the Romans the first information—false, incidentally—which they had received about the Seres. Though there may or may not have been a connection between the two events, it was very shortly after this exchange of ambassadors that a pilot named Hippalus entrusted himself to that same 'north wind' and made a voluntary crossing of the Indian Ocean to the west coast of India. These winds were none other than the monsoon, which was familiar to Indian mariners but apparently quite unknown to those of the West. It was the monsoon which was to dominate trade with the Orient right up to the days of steamships. It is not known whether Hippalus's voyage was crowned with good fortune, but at least he had the honour of giving his name to that beneficent wind; henceforth the ancient world was to speak of the 'wind of Hippalus'.

From then on Western merchants sailed the Red Sea and the

[1] A 'capitalist' to whom state taxes (in this case those of the Red Sea) were farmed out. He paid a certain sum to the Treasury, and it was up to him to get as much—plus a profit for himself—out of his contributors. [2] Pliny.

Indian Ocean. We have two detailed accounts, which agree reasonably well, of their voyages: Pliny's *Natural History*, an inexhaustible mine of details about ancient life, and a manual known as the *Periplus of the Erythraean Sea*, which was designed for the use of merchant mariners.

The date and authorship of this brief guide have given rise to some controversy. By some it is attributed to Arrian, the second-century historian and traveller, while others, fewer in number, place it later, in the third century. It would appear, however, that most people believe it to be more or less contemporary with the *Natural History* shortly after the exploit of Hippalus.[1] Most likely it was the work of a Greek merchant who lived in Egypt, probably a native of Berenice, a Roman citizen, and with experience of the voyage to India. These notes, which were written for the author's employees or his own personal use, guide the traveller down the Red Sea, along the southern coasts of Arabia, to the ports of northern India. They even contain some information (though there is no telling whether or not it is first-hand) about the far-eastern countries of Chryse (Malaysia) and Thys (southern China).

In truth, those gold pieces bearing the head of Augustus or Tiberius had a long way to go before they entered the counting-houses of the rich Indian merchants, and there was every chance of their ending up in some quite different destination: a pirate's strong box, the scorching beaches of Hadhramaut, or in the depths alongside coral, wrecks, pearls, drowned men and lost treasure beneath the eternal eye of the Southern Cross.

The voyage began from Berenice, whose rocks and violent winds endangered the ships at the very outset of their adventure. To reach Berenice from Alexandria the desert had to be crossed: overland from Alexandria to Juliopolis,[2] down the Nile by boat from Juliopolis to Coptos, and again by caravan and travelling by night from Coptos to Berenice. According to Pliny it took about twenty-four days to reach Berenice. Then they set sail—in mid-summer so as to catch the monsoon winds—and made their way down the Red Sea, which took roughly a month. They travelled in convoy and 'with cohorts of archers to protect them from the pirates infesting those seas'.

According to the works we have mentioned, the mariners bound for India would put in at Ocelis (Cella), a port on the coast of Arabia, separated by a narrow strait from the island of Perim, just before

[1] Schoff. [2] Pliny.

leaving the Red Sea. This port was the end of the line for the Indians; they had no right to proceed further. The travellers would not call at Muza (Massala) or Cana (Hisn Ghorab), for these ports were frequented only by traders in incense and Arabian perfumes. This branch of commerce did not take place at the same time of year as the India trade: ships bound for India left Berenice in summer because of the monsoon, while those who had no intention of passing through Bab el Mandeb preferred to go down the Red Sea in winter, when the winds were more favourable. The myrrh and incense were harvested in spring, and their transport up to the Nile delta took place in summer, just when ships were setting off in the opposite direction for India.

The voyage from Ocelis to Barygaza (Broach) in north-west India took about forty days. So that, allowing an average of fifteen days from Rome to Alexandria, twenty-four or twenty-five days from Alexandria to Berenice, a month for descending the Red Sea, and forty days from Ocelis to the nearest port of India, and taking into account time spent on loading and unloading, repairs, provisioning, and so on, it must have taken at least three-and-a-half months to get from Italy to India. The travellers would arrive in October and leave with the opposite monsoon in April.

At Barygaza and the other ports of India—Muziris (Cronganore in Cochin), or, on the Coromandel Coast, Camara (Tranquebar?), Poduce (Pondicherry), Sopatma (Markanam?)[1]—one could, with the help of numerous interpreters, purchase both local products and merchandise which had come from China. The latter would have travelled by one of three distinct routes. The first of these was the famous and dangerous Bactria–Taxila[2] road, which crossed the Himalayas and was open for only part of the year. The second was the way discovered by Chang-Ch'ien, by which cloths and bamboo were brought from Ssu-ch'uan; this seems to have been none other than the 'Burma Road', which followed an equally dangerous course over rivers and mountains and through thick bush swarming with wild beasts and warlike tribes. The third route was used particularly following the end of the first century, and recent researches have caused Orientalists[3] to underline its importance. It was a sea route starting from the southern coast of China in the region of Kuang-chou (Canton), rounding the peninsula of Indo-China, through the Malacca Straits and up to the mouth of the Ganges. So far as we know, this route was followed exclusively by Indian vessels. From

[1] Schoff; Wheeler. [2] Foucher. [3] B. M. Stein.

the Bay of Bengal the merchants sailed up the Ganges to the point at which navigation ceased and the merchandise was carried overland to the ports of the west coast, where it was collected by Persian, Arab and, later, European traders. As we shall see, archaeological excavation enables us to differentiate between the products which came from southern China by way of north-east India and those which came from northern China *via* the Central Asian route. It seems that towards the end of the first century A.D. the majority of the silk imported by Mediterranean countries was carried by sea and not over the land route through Persia.[1] The *Periplus of the Erythraean Sea* states quite categorically that 'Seric silk' was shipped from the Indian ports together with furs, which also came from China, pepper, cinnamon, perfumes, metals, dyes and medical products.

The Arab middle-men took good care not to reveal where they got their cinnamon, so that the Romans, and before them the Greeks, thought it must grow in Arabia.[2] No trace, however, has ever been found of the cinnamon tree in Arabia, where the soil and climate would hardly be suitable for its cultivation. It is in fact a native of India, Burma and China, and the Persian annals refer to it as 'bark of China'. It was one of the innumerable products which played a part in the arts of cosmetics, drugs, balms, oils and perfumes, which were so highly developed in ancient times and the principles of which survived until the dawn of modern chemistry. Cinnamon was one of the most important of these products, and its price in Rome was high: 1,500 *denarii* per Roman pound for the best quality, *cinnamomum*, and 50 *denarii* per pound for the cheapest variety, *cassia*.

From India came also pepper, which was stored in the port of Cottonara and brought to Barace by 'long-boats made out of a single tree-trunk'. Used in East and West, both in medicine and in the kitchen—it is known today that it can be used as a tonic, a stimulant, an aphrodisiac and an insect-repellent!—pepper was consumed in such quantities that, as a concession to the people, there was no duty on its importation into Rome. Its price in the city was 15 *denarii* per pound. No one in the West knew how or where those little black, grey or white berries might grow; it was probably as late as the sixth century that Westerners saw the pepper plant for the first time.

Dyes also came from India—dyes less costly than the purple which was still not being produced in sufficient quantity to satisfy

[1] Pfister. [2] Schoff.

demand. There were crimson red, extracted from the abdomen of the lac insect, indigo, and vegetable cinnabar or 'dragon's blood',[1] a resin used in dyeing and in medicine. This last has often been confused with mineral cinnabar or sulphide of mercury, which found its uses rather in the field of alchemy.

Then there were items used in medicine, such as sandalwood, palm oil and cane-sugar (which had not yet been put to use in the kitchen). And perfumes: bdellium, a sort of inferior incense; costus, a root related to ginger or cardamom, which sold in Rome at 5 *denarii* a pound; lycium, a kind of berberis, much used in beauty preparations. Some of these products were taking the place of myrrh and incense, which were becoming rare as consumption of them increased.

One of the most keenly sought after products of India was the famous cotton muslin, which was so fine and light that the Romans gave it the name of *nebula*. Medieval travellers relate (and this has been confirmed by modern observers) that the test of quality for this material was to pass the entire piece, 90 centimetres wide by 18 metres long, through a ring. Indian weavers would spend months on the manufacture of a single piece. The Roman fashion for transparent garments led to the large-scale importation of such muslins.

The Greek, Syrian and Egyptian captains carrying for Rome brought back all manner of luxuries for the rich citizens of the capital, the proconsuls and favourites, and for the temples of the various religious cults. There was ivory, for example, to take the place of that which had come from Africa, where the elephants were disappearing. There were pearls from the Gulf of Manaar, diamonds and beryls, agate and cornelian to be engraved and set, or carved in imitation of those rare and fragile murrhine vases sold by the Persians.[2] These products, which with the exception of medicines could hardly be described as necessities of life, were purchased for large sums of money or exchanged for coral, incense and glassware.

The red coral of the Mediterranean, which is not very highly rated nowadays, was much valued in antiquity, both in East and West, and was accredited with rather special powers. It was said to lose its colour when placed on the skin of one who was going to be seriously ill—this saved the trouble of proper diagnosis—and was

[1] Pliny.

[2] The summary of a controversy occasioned among Orientalists by these murrhine vases is given by the Abbé Grosier in *De la Chine*, Paris, 1820. See also Wheeler.

supposed to protect the carrier from danger. It played a part in certain medieval charms, and something of its magical nature still remains in the more superstitious areas of the Mediterranean, where it is carried as a protection against the 'evil eye'. It is still much sought after in Central Asia and Tibet, while the Chinese have long made use of it in medicine.[1]

Incense also had its place in the realms of magic, religion and medicine.[1] Fragrant resins and aromatic plants grow throughout South-East Asia, but the true home of incense is Hadhramaut in southern Arabia. (Some kinds of it are also to be found in Somaliland.) It was from Hadhramaut that the Egyptians and the Hebrews obtained it, and from there, too, came the incense which the Three Kings carried across the desert to Bethlehem. Gold, frankincense and myrrh symbolized the triple destiny of the new-born Child: divine (incense), royal (gold), power of healing (myrrh). This at least is the interpretation offered by a Persian legend. Incense was burned at the time of the Pharaohs; it perfumed the beard of Aaron and the hair of Egyptian princesses; it was burned in the temples of Belus at Babylon, at the funerals of wealthy Romans, in all the churches, mosques and holy places of the ancient world; it is still used in all parts of the world to help the spirits of the faithful rise towards their aspirations. And whatever other gods and saints and prophets may come, incense will be burned so long as any trace of religion remains in the world.

In keeping with its role in religious ritual perhaps, this precious resin trickling in brilliant droplets down the trunks of the incense-trees could be gathered only by one chosen tribe, the Sabeans. No one, said Pliny, attempted to infringe their monopoly. Even if anyone had been prepared to brave malaria, heat-stroke and pirates (the word 'Hadhramaut', it was said, meant 'land of death') not even the most down-to-earth of men would have dared to offend against the deep-seated religious beliefs of the time. The gathering of incense was accompanied by all sorts of rites and precautions. It was sold ready for shipment, but still had time to make the fortunes of middle-men before fulfilling its religious function. It was sold in Rome at from 3 to 6 *denarii* per pound, though the cost of transport by caravan to Gaza or Petra has been worked out by one expert at not more than one *denarius* per pound. (The calculations were based on information in Pliny.)[2] So there was a good profit in the trade; though not so good as that to be made out of merchandise brought

[1] Pliny. [2] Loane.

from India, which could sell for as much as a hundred times its original purchase price.

One of the most widely exported products of Rome was glass, and especially coloured glass,[1] vessels of all kinds, cut-glass, and glass beads for necklaces made in the workshops of Syria or Puteoli. These beads have been found from Britain to Annam, in Central Asia and in the Ukraine. There were round ones and oval ones, pear-shaped and cylindrical, disc-like and jar-shaped, in glass both opaque and translucent. There were blue ones and green ones, and others made of alternating layers of blue glass, red glass and white porcelain.

One is reminded irresistibly of the glass beads which sailors used some ten or twelve centuries later for bartering with American Indians and the 'savages' of the South Sea islands. The Roman beads, too, could be exchanged for articles whose value was out of all proportion to that of cleverly produced trinkets. Beads were of course small and easily carried, but perhaps, too, there was the vague hope that the 'natives' would take them for diamonds or emeralds, whose value they certainly appreciated. The Roman craftsmen were expert forgers;[2] glass diamonds awed them no more than false purple or false gold. (One old manuscript gave thirteen recipes for making gold—with such fantastic ingredients as white of egg and bile of tortoise.) Marcelin Berthelot[3] suggests they may even have known how to make unbreakable glass. We know at any rate that until quite modern times people believed that the best way to test the genuineness of a diamond was to give it a good blow with a hammer; it was held (wrongly) that a true diamond would resist the blow, while a false one would shatter to pieces.[4] Perhaps they did in fact make some sort of unbreakable glass and try to pass it off as diamonds; and perhaps that accounts for the story of Tiberius causing the factory making unbreakable glass to be destroyed and its inventor assassinated. However, this is no more than supposition, and it must be said that in no Oriental text has any mention been found of such double-dealing on the part of Roman merchants.

Nevertheless, the principal means of exchange with India was gold. Political events in Central Asia had cut India off from her former sources of supply in Siberia, and her navigators were having to seek gold in such far-off lands as Indonesia and Indo-China—which in fact they called the 'Town of Gold' or the 'Land of Gold'.[5] It was from this that the Greeks at the beginning of the first century

[1] Schoff; Pliny; Tolstov; Wheeler. [2] Numerous examples in Pliny.
[3] Berthelot. [4] Pliny; Dieulafait. [5] Coedès.

A.D. got the name Chryse ('golden'), which they used for Indonesia. Consequently Indian merchants were only too pleased to receive fine Roman coins in exchange for their goods. Pliny tells us that Roman coins had been greatly prized by the King of Ceylon, and they seem to have been no less appreciated in northern India, for archaeologists have unearthed large quantities of them in those areas. The *aureus*, a fine gold coin which originally weighed just over 8 grammes, was, Tiberius complained, all too often used to pay for 'articles which flatter the vanity of women, jewels, and those little objects of luxury which drain away the riches of the Empire; in exchange for trifles our money is sent to foreign lands and even to our enemies'. Tiberius wrote to the Senate in those terms in the year A.D. 22. If Pliny is to be believed, the situation deteriorated still further in the years that followed: 'There is not a year in which India does not take at least 50,000,000 *sesterces* from the Roman Empire. In return she sends us goods which are sold here for a hundred times what they originally cost.'

The gold which came from pillage and taxation in Spain and later in Dacia merely passed through Rome. It flowed gently away towards the Orient, in that constant flow which has continued, with or without the knowledge and acquiescence of governments, ever since the first goldsmith cast the first nugget. The flow was strong enough for Tiberius to notice it, but there was no way of checking it and eventually Rome herself began running short of gold.

At all events the sea-route to the East remained so long and so dangerous for the little sailing ships of the West, that as soon as ever it was possible trade was carried out on the overland route.

It was possible around the end of the first century, when four powerful and prosperous empires had firmly established themselves over the greater part of Eurasia. In the west was Rome at the height of her imperial power; in the Far East, the China of the later Han dynasty; next to China, the Great Kushan Empire, which covered Afghanistan and northern India and was now at its peak; and in the middle the Parthians, the unavoidable intermediaries. All these empires had a consistent policy towards trade, and it was as a result of this exceptional state of affairs that the land silk route came into being.

V

The Caravan Route

FROM THE STONE TOWER TO THE JADE GATE

Setting off on a journey to the land of silk, a traveller had to be prepared for dangers of all kinds. How many wild beasts, merciless bandits and evil spirits would haunt his road! In the deserts there would be voices and apparitions, terrestrial sirens, to lead him astray and lose him forever in the interminable sands. There would be avalanches, bloodthirsty tribes to ambush him in the mountain passes, deadly vapours rising from the marshland. And yet men passionately sought for this endless road to the East and the mysterious land of the Seres, and they were ready to fight for it when necessary. They risked their all to drive their mules or horses or camels along the trail and arrive ahead of their rivals. Vast fortunes depended on the maintaining of that frail and hazardous link with the East; and how many citizens and adventurers, who could scarcely perhaps have been prevailed upon to cross Rome on foot, lost their lives in the desperate search for gold and profit! How many skeletons lined the trail! How many graves whose occupants have found no place in history!

At the time when Rome's consumption of silk was increasing year by year, and her navigators were beginning to reach the east and west coasts of the Indian sub-continent, every piece of silk which came overland had to pass by way of Persia. And it goes without saying that the Persian merchants took care to be well rewarded for the risks they had run in fetching their merchandise from Central Asia, or even from the land of the Seres. And it was equally natural that the Syrian, Greek and Jewish merchants who catered for the more 'exotic' tastes of the Roman market should seek some way of by-passing such a demanding intermediary.

There must have been many vain attempts to solve this problem,

but only one of them has come down to us in history: that of one Maes Titianus, a member of a Greek merchant family in Macedonia, who carried out a reconnaissance of the entire Mediterranean-China route towards the end of the first century A.D. This enterprise was recorded by the Tyrian geographer Marinus, and the information has come down to us by way of Ptolemy, writing about the year A.D. 140. Maes, who must have been the head of a large commercial undertaking, did not actually make the trip himself. The work was done by his agents—and one can only wonder at the size of an undertaking that could afford to maintain agents and representatives over such a vast distance. From Central Asia to the land of the Seres the journey took seven months, but the total time taken by the exploration remains unknown. We do not know if the enterprise was ever repeated; nor do we know whether or not the agents later managed to conduct their business over the route surveyed. Such men were merchants pure and simple, and they never seemed to bring back any interesting information about the lands they traversed. Marinus himself deplores this and says of merchants in general that 'they concern themselves only with their own trade, care little for exploration and are often given to boastful exaggeration of distances'. Of the envoys of Titianus in particular he says: 'From their seven-month journey they brought back not a single piece of worthwhile information, and what they reported of their travels when they returned was sheer extravagance.'[1] So it would appear that there is little hope of ever learning further details of their journey.

Some time earlier, writing of navigators, Pliny had remarked that 'the great number of men who sail the seas do so for love of gain, not love of knowledge, and never dream, in their blindness and greed, that navigation itself would become safer with an increase in knowledge'.

Ptolemy, taking the information provided by Maes Titianus, in conjunction with that brought back by travellers of his own time, reckoned that the distance from Hierapolis in Syria to the capital of the Seres was about eleven thousand kilometres. Just before the halfway mark stood the 'Tower of Stone'. To reach this, the agents of Maes Titianus would have had to pass right round enemy Persia in order to get to Bactra (Balkh) in Afghanistan; while goods transported by the Persians reached that town by way of Hamadan, Shahrud and Merv. From Bactra to the halting-place at the Tower of Stone, the road ran eastwards over the Pamir mountains. We do

[1] Ptolemy.

not know exactly where this 'tower' was, though in Ptolemy's day it was a quite unmistakable landmark. Now we cannot but hesitate, for at least three localities in Central Asia bear the name Tash-kurahan, which actually means 'tower of stone'. One of these is near Yarkand, in Sarikol, on the eastern slopes of the Pamirs and, according to Sir Marc Aurel Stein, at the start of one of the known stretches of the Silk Road; this is most probably the place referred to in Ptolemy. The others lie, one to the north, in Soviet Central Asia, and the other to the west, in Afghanistan. According to Al Biruni, an Arab writer of the Middle Ages, Ptolemy's *Lythinos Pyrgos* was none other than Tashkent, which in fact means 'castle of stone'.[1] Wherever it may have been, the Stone Tower lay at the head of the trail which led to the land of the Seres by way of the Tarim and the double track encircling the desert. Ptolemy goes on to tell us that the caravans followed a route 'exposed to the storms of winter', for it lay on the same latitude as Byzantium, and it has been possible to identify with a fair degree of accuracy the oases he mentions and which lie along the route to the north of the Tarim: Casia, which may be either Kashgar or Aksu; Issedon Scythica (Kucha, according to Grousset); Damna (Karashar); Issedon Serica (Lop); Daxata (Yü-men Kuan); and their final goal, Sera Metropolis, which may have been either Ch'ang-an, the Chinese capital, or Kan-chou, the head of the caravan route.[2]

Such a journey is food for dreams. But one thing is certain: traces of Chinese occupation have been found in all the known oases of the Tarim. There is evidence in plenty of Chinese garrisons, and hundreds of documents have been unearthed. But there is no sign of any European ever having been there; not one administrative text, not one Roman coin, not one official document written in the Greek of the period. It was extremely rare for any European to pass that way—a genuine European, that is, not merely some local travellers on the payroll of Maes the Macedonian. No Western trading organization attempted anything so adventurous in Ptolemy's time; and in any case it is highly unlikely that the Persians would have allowed their commercial rivals to go to and fro across their territory. Throughout the second century and the first part of the third, the silk trade between the Mediterranean and the Han Empire was conducted in stages.

Of Europeans in Central Asia and China at this time, the only evidence we have is that contained in the Chinese annals of the Han

[1] Pariset. [2] Grousset.

period; and this refers to events that took place prior to the Christian era. There was the employment by the Chinese of Roman engineers at the siege of Kokand, and the king of Persia's gift of Roman conjurors to the Chinese court. In addition to these, there was one other occurrence—something which, curiously enough, leads us back to one of the most famous battles of Roman antiquity. In the early years of the first century A.D., the land register of the Han annals mentions a town called Li-chien, which was situated in the north-west of China between Kansu and Lop-nor, just south of the present-day commune of Yung-ch'ang. And Li-chien was the most ancient Chinese name for the Roman Empire. In 36 B.C. two Chinese generals, Kan Yen-shou and Ch'en T'ang, besieged and captured a Central Asian town held by the Huns and took prisoner 145 foreign mercenaries. Professor Homer H. Dubs, to whom we are entirely indebted for this odd piece of history, has shown that these mercenaries might well have been Roman legionaries, survivors of the battle of Carrhae, some of those ten thousand prisoners taken by the Parthians. Transported to the eastern extremity of the Parthian Empire, they may then have escaped or been sold by their masters and ended up fighting for the Huns against the Chinese in defence of a stronghold 6,000 kilometres from the scene of their defeat. A strange fate indeed for these warriors born on the shores of the Mediterranean, or even in Gaul (we know that the son of Crassus fought at Carrhae with Gaulish warriors), to be captured once again, this time by the Chinese, and end up founding that small frontier town mentioned in the annals of the Han. It is said that they astonished their new masters with two artifices of war which were specifically Roman: the construction of wooden stockades, and the testudo formation, which the Chinese called 'fish-scale formation'.[1]

This frontier town, so far from the capital and the traditional centres of Chinese civilization, continued to be mentioned in Chinese registers, always by that same foreign name of Li-chien, until the fifth century. The Roman legionaries had very probably settled down and married Chinese women, or natives of the Hunnic, Tibetan or Scythian races. The establishment of such a colony might be expected to have brought about the introduction of other Western ideas besides those of building stockades and fighting in

[1] The way in which Professor Dubs managed to bring these facts to light is a story in itself. At first sight it appears to have been an amazing piece of good fortune, but in fact it was the result of tremendous patience and endless hard work.

testudo formation. But this does not seem to have been the case; so far as the Chinese were concerned, this town was just one more distant outpost to be manned by foreign mercenaries. The Romans installed there stayed put, and apparently never came into contact with other Westerners. If Romans or subjects of the Roman Empire had travelled in those parts, they would surely have come across their compatriots, and some mention of such encounters would have been made in the annals of either East or West. So we can be reasonably certain that it was Central Asian merchants, and not the men of 'Ta Ch'in', who crossed the desert near Li-chien on their way to the Jade Gate. Documents suggest, moreover, that towards the end of the first century a powerful kingdom lay between the Chinese producers of silk and the Persian middle-men: the kingdom of the Great Kushans.

The little Yüeh chih principality of 'Kuei-chuan' (the Chinese transcription of a native Kushan word), mentioned by the Chinese historian as one of the thirty-six kingdoms of Central Asia, gradually absorbed her neighbours of the same race. Her kings then went on to subjugate what is now Afghanistan, Kashmir, the Indus basin, the Punjab, the western oases of the Tarim basin (Kashgar, Yarkand, Khotan), and what we now call Soviet Central Asia as far as the Aral Sea and including the ancient K'ang-chü or Chorasmia. Her empire was as extensive as that of the Parthians. It was strong and united—and contained all the major junctions of the transcontinental trade routes.

The population was a well-mixed blend of Yüeh chih (whom we would call Scythians) and aboriginal Indians, already much influenced by Hellenism under the Indo-Greek kings who succeeded the princes installed by Alexander the Great. In the heart of this empire lay Sogdiana, between the two great rivers Amu-Darya and Syr-Darya, in what is now Uzbekistan and Tadjikistan. The people were hard-working traders, as Chang-Ch'ien had already reported. All this was more than enough to guarantee them a leading position in world trade, and in fact it was henceforth from Kushan caravans that the Persians had to purchase their lengths of silk and hanks of yarn.

It was in this empire of the Kushans, under the reign of the great King Kanishka or one of his descendants, that the agents of Maes Titianus set out from the Stone Tower for the eastern deserts and the land of the Seres. Their way then took them from one to another

of the oases of the Tarim. The more westerly ones had recently passed into the hands of the Kushans, while those to the east had been under China ever since the brilliant campaigns of Pan-Ch'ao. And it was undoubtedly the ascendancy of these two great empires over the many small and turbulent states in their area that enabled the caravans of this period to go about their business in peace and with a reasonable degree of security. For ten and even fifteen years at a stretch authority held sway—the nomads behaved themselves, civil strife came to an end, and local rebellions were few and far between. There were garrisons everywhere; the bands of robber Huns drifted back to their icy plains, and the marauding Tibetans took refuge among their inaccessible mountains. In short, it was a highly favourable period for trade.

From the Stone Tower—assuming this to have been at Tash-kurghan on the headwaters of the Yarkand river—the travellers had a good ten-day march before reaching the Tarim. Their way lay over rocky spurs and through defiles where even today caravans annually lose both men and beasts in the wind and snow. There were gorges where a sudden swelling of a river could sweep away an entire caravan. And there were high mountain pasturelands blooming with white jonquils and Kashmir irises. But then one day they would see bare ridges rising in the east from out of a sort of yellowish mist and, farther off still, a line of orange, undulating waves—the dunes and drifting sands of the Tarim. And soon they would catch the sweet fragrance of Jigda and arrive either at Kashgar or Yarkand. Then they could set out on the next stage of their journey to the east—to the oasis of Khotan.

Some years previously, the principality of Khotan, at that time still partly subject to the Huns, had witnessed the arrival from the desert of the armoured knights of the Chinese general Pan-Ch'ao.

Like all the petty sovereigns of Central Asia, the king of Khotan lived in the menacing shadow of two great powers: the Huns and the Chinese.[1] And, the Chinese being the more distant of the two, he was concerned above all not to antagonize the Huns. Pan-Ch'ao, then, entered the town for a 'diplomatic visit'—and the king of Khotan was bold enough to pass on to him a message from the high priest. It appeared that the gods of Khotan were demanding the sacrifice of Pan-Ch'ao's horse! And, as at the time of the campaign against Kokand, war broke out over a horse.

It is true that Pan-Ch'ao took Khotan—more by the fear he

[1] Grousset; Fan Yeh—*History of the Later Han*: in various translations.

inspired than by the strength of his force—and that the Huns did not make too many bones about it. But it is also true that a few years later the Chinese garrisons of the three neighbouring oases, Yarkand, Kashgar and Khotan, were driven out by the local population and, having no support in the rear, were obliged to withdraw far to the east. The Chinese position was always precarious in this western area of the Tarim. Yarkand, Kashgar and Khotan shook off the Chinese dominion some time between A.D. 105 and 125 in all probability, in the reign of Kanishka, and it is not known for sure whether that dominion was ever renewed. It may be that the three western oases fell within the sphere of influence of the Indo-Scythian kingdom of the Kushans. Or could it perhaps be that the isolated Chinese garrisons got together with the local population and the representatives of the Kushans and formed a united front against the Huns in order to ensure the continuance of the trade from which they all benefited so much?

It is certain that some measure of agreement existed between China and the empire of the Kushans. Pan-Ch'ao sent an ambassador to Rome, and he with his whole suite crossed the Kushans' territory from side to side with no trouble at all. Moreover the two empires needed to be on good terms with each other: the Chinese wanted an ally against the Tibetans and the Huns, while the Kushans were anticipating trouble with the Persians in the west and so had every reason for wanting to preserve peace in the east.

And yet history records that they had at least one serious disagreement: a rejected proposal of marriage, following which the Kushans long chafed against the power of their long-armed neighbours.

In A.D. 90 the king of the Kushans sent an ambassador to the court of China to ask on behalf of his sovereign for the hand in marriage of a Chinese princess. This ambassador was stopped *en route* by the Commander of the Western Territories, who had no intention of allowing the visitors to carry out such an audacious project. The reaction to this decision was swift indeed: 70,000 Kushan warriors appeared in eastern Turkestan. It was Pan-Ch'ao, then at the height of his glory, who preserved Chinese control over the Tarim.

The Pan family was already famous. A brother, Pan Ku, was writing the history of the first Han; his sister was a woman of letters; while Pan-Ch'ao himself was a soldier who brought undreamt of glory to the profession of arms.

He, too, was one of those who had given up comfort and even

luxury in exchange for a life of adventure. In about A.D. 74 he set out from the fortress of Yü-men Kuan, the Chinese outpost at the Jade Gate on the frontiers of Kan-su, and made for the little principality of Lop-nor, which lay about three to four weeks' journey away. The route which he and his men had to follow lay across frozen marshes and vast steppes of barren sand where, as the water they found became daily more brackish, the menace of thirst grew ever more real and frightening. They had also to pass through the land of the wild camels, where lay the fantastic City of the Dragon, which, according to an ancient Chinese legend, was later to be swallowed up in the rising waters of Lop-nor. There the travellers were beset by mirages, voices and spirits bent on leading them astray. There, too, roved bands of Huns, and Tibetan marauders came down from their mountains to fall upon the stragglers.

Pan-Ch'ao's party was not a large one, and the prince of Lop-nor was on the point of handing his Chinese visitors over to the Huns. But Pan-Ch'ao struck first. When night fell, he fired the native houses and took advantage of the resulting confusion to massacre the inhabitants. He had won the day, and the principality, though keeping its native civil administration, became the seat of a Chinese garrison and was subject to the Commander of the Western Territories. The road to the West was open to the Chinese: Khotan, the Pamirs, Persia—and who knew what beyond?

General Pan Ch'ao dreamt of carrying the Chinese flag to the far western sea, to the very limits of the world where the sun went down to rest. But this was an ambition he never achieved, for in Central Asia no conquest was ever made for keeps. Scarcely had he subdued Lop-nor and Khotan, when he was obliged to re-conquer Yarkand and Kashgar; and as soon as Kashgar had been brought to heel, trouble blew up at Turfan and Kusha on the northern trail of the Tarim. For thirty years, unwearying and almost always victorious, Pan-Ch'ao went from one oasis to another, sometimes making use of bluff or ruse, sometimes resorting to the sword. The journey of exploration to the West was entrusted to one of his lieutenants, Kan Ying.

Let us see what the chronicler has to say of this mission:

'[In the year 97] the Commander Pan-Ch'ao sent Kan Ying on an embassy to Ta-Ch'in [to Rome]. When he reached T'iao-chih, near the great sea, Kan Ying wanted to press on still farther. The captains of the ships at the western frontier of An-hsi told him that the sea was very extensive and that the return voyage would take three

months with favourable winds and as much as two years if they were unfavourable. For this reason people who embarked on that sea took supplies of grain for three years. During the navigation the traveller was seized with more and more violent pangs of home-sickness, and it was not unusual for some to die of it. Hearing this, Kan Ying abandoned his intention.'

So we read in the *Hou-Han-shu* or *History of the Later Han*, which was written about the year A.D. 430.

Which route did Kan Ying follow? Where was T'iao-Chih? Of all Western countries, this is the most difficult to identify, for the annals of different epochs simply do not agree with one another. Some have seen it as Mesopotamia, others as Asia Minor; or may it even have been Arabia? And the 'great sea'? Was that the Caspian, the Persian Gulf or the Mediterranean? Could not the sea voyage taking sometimes three months, sometimes two years, be the crossing of the Indian Ocean with and against the monsoon winds? And the home-sickness mentioned reminds one of certain feelings still experienced by sailors on passing through the Red Sea.

At all events, it is evident that Kan Ying, though an intrepid enough traveller on land, was reluctant to entrust himself to the open sea. We are left with the impression that he allowed himself to be dissuaded rather easily by the Western mariners he met. Was this an example of a typically Chinese distrust of the sea? Or did the Westerners in question use methods of dissuasion which the Chinese historians preferred not to admit? Whatever may have happened, Kan Ying returned home and left a detailed account of his travels, parts of which were used by the historians. He spent a long time in Persia, and as a result of his stay there a trade agreement was probably reached between China—still the only silk-producing country—and Persia. No doubt the object of this would have been to cut out the Kushan intermediaries. Kan Ying's journey in fact took place between two Persian embassies. One of these, which was in about the year A.D. 87, brought the emperor of China gifts of a lion and 'a strange animal referred to as a *fu-pa*'; the other took place in the year A.D. 101 and brought the emperor a lion and an ostrich, a creature whose eggs held a great fascination for the Chinese. If we are to believe later historians, the ambassadors returned home with quantities of silk in their baggage. The Chinese could sell their silk either to the Persians or the Kushans; and the presumptuous offer of marriage may well have been made in the hope of securing the monopoly of silk purchase and resale—which would have been a

serious blow for the Persians. By refusing the Kushan offer, China may have been expressing her wish for an alliance with Persia; though it is possible that she did business with both these states. One can imagine the profits that must have accrued from an alliance with China—and the intriguing that went on in order to conclude one. Persia seems to have come off best in these struggles.

Some years after the difference of opinion between China and the Kushans, and just about the time China and Persia were making their trade agreements, the Kushan king sent an embassy to Rome. Squashed between her two powerful neighbours, now allies, the kingdom of northern India was hoping to form an association which would, in its turn, trap Persia between two friendly powers. The king probably suggested that the Kushans and Rome should engage in direct trade. Roman and Kushan coins mark out for us the routes over which such exchanges must have taken place. On the one hand there was the sea route between the Gulf of Cambay and the Red Sea; on the other, there was a northern route which circled the Caspian as far as the mouth of the Volga, then ascended this river to the Kama and approached the Roman Empire by way of the Caucasus and the Black Sea. During the period now under consideration, however, this last route was not so important as others we have mentioned.

And so for a period spanning two or three generations great empires were reaching out for one another and failing to make contact. The efforts of Maes the Greek came to nothing; Kan Ying's journey was never properly completed; the Kushans sent off a mission to Rome following their lack of success with China. Persia and China regularly exchanged ambassadors and seem to have enjoyed uninterrupted trade relations.

But it appears that Chinese merchants were not altogether happy about the dealings they were having with Persia. Were the Persians too grasping? Or were the Chinese feeling the attraction of far-off Rome? Kan Ying had told them that a sea route existed between India and Rome, that India was full of 'rare and precious' articles imported from the Roman Empire, and that the Romans themselves were anxious to make contact with China. The *Hou-Han-shu* recounts that 'the sovereign of Ta-Ch'in tried long since to enter into communication with China; but the people of An-hsi, who wished to be the only ones supplying Chinese silks to Ta-Ch'in, would not let his representatives cross their territory . . .'

No Roman ambassador ever travelled overland to the court of the

Han. The *Hou-Han-shu* states that 'communications were opened for the first time' in the year A.D. 166, when the Emperor 'An Tun'—no doubt the writer meant Antoninus Pius—sent an envoy over the sea route and by way of the Indo-Chinese state of Jih-nan. This ambassador brought with him elephants' tusks, rhinoceros' horns and tortoise-shells—gifts which, incidentally, the Chinese author did not rate very highly. The unfortunate ambassador probably thought he was paying the Chinese emperor a rare compliment by offering 'exotic' articles which he had bought in Alexandria or Indonesia; in fact such things were commonplace at the court of Tch'ang-ngan. This was probably the West's first blunder in its diplomatic exchanges with the Orient.

The Chinese historian neglects to tell us the outcome of this Roman mission. They probably decided that the journey was too long and dangerous for regular trade to be carried on over this route.

There is evidence of the presence of Romans in Indo-China, however. In 1944, at Oc-Eo, about twenty kilometres from the Gulf of Thailand, an archaeological party working under the French scholar Louis Malleret made an interesting discovery: together with a number of Indian and Chinese objects, there were gold and silver ornaments, intaglios of Roman origin or inspiration, mostly in cornelian, and medals of the Antonine period. According to the latest interpretations of experts, these objects 'prove that in the first two or three centuries of the Christian era Oc-Eo produced artists who executed intaglios in the purest Roman style and were capable of reproducing advanced Roman techniques. These are not stray objects which drifted across from the West and got washed up on the shore of a distant Asiatic peninsula; they are the creations of an art fundamental to the domestic and social life of that country . . .'[1]

What conclusions may be drawn from this find? Did some large Roman mission visit this area and teach Western techniques to the local craftsmen? Was there even a small Roman colony there? And if so, for what reason? We do not know. These objects, which had probably travelled out from the Mediterranean just about the time Pompeii was being destroyed by the eruption of Vesuvius and had been found again by French scholars centuries later in South Vietnam, were brought back to Paris and put on show in the Guimet museum in 1948. But when she became independent in 1959, Vietnam

[1] *Bulletin of the Société des Etudes Indochinoises*, Vol. XXXIV, No. 1, 1959. Vol. 3 of Louis Malleret's work on the Roman period of Oc-Eo had not yet appeared at the time these notes were written.

demanded their return, and they were sent to the museum in Saigon, the irony of history condemning them to yet a third journey half-way round the world.

This find of Indian and Roman objects on the same site may be compared with the discoveries which have been made at Virapatnam (which is probably the ancient Poduce or 'New Town of Ptolemy').[1] There, near Pondicherry on that east coast which was thought to have been relatively little frequented by Mediterranean navigators, they have found beads of glass, cornelian, agate and jasper, as well as garnets, coloured quartzes, a cornelian ring engraved with what may be the head of Augustus, and pottery which appears to have come from the celebrated manufactory of Arezzo in Tuscany. All these objects date from the first century of our era. Lapidary's tools have been found on the same site: mills, grinding and polishing stones, and precious stones both rough and semi-worked. The lapidary art is very ancient in India and it has consequently been supposed that most of these articles were not imported from Rome, but are local imitations. Here, as at Oc-Eo, local craftsmen working under the direction of Roman agents may have been producing for export articles whose style was dictated by Mediterranean buyers; or, just as likely, in view of the fact that the stones were cheaper and the local craftsmen no less skilful, the profitable industry of imitation may have grown up quite spontaneously. There may even have been a true Roman colony founded perhaps by groups of Western mercenaries in search of a better life or craftsmen who had thrown off the yoke of slavery and escaped from some ship. . . . How these Roman finds stir the imagination!

The *Hou-Han-shu* also reports the arrival in China in the year A.D. 120 of acrobats from Ta Ch'in capable of working charms, breathing fire, knotting and unknotting their limbs unaided, interchanging the heads of cows and horses, and dancing while juggling with a thousand balls.[2] This gift was brought to the court of China by an ambassador from the land of Chan on the Burmese frontier, and the petty king of this country was probably expressing in this way his desire for the continuance of trade with his powerful neighbour to the north. He afterwards resold Chinese products, including silk, to his Indian neighbours, transporting the goods over that 'Burma Road' which we have already referred to. It should be remembered that it was roughly in this part of Burma that the *Periplus of the Erythraean Sea* placed the terminus of the annual journey made by that 'scarcely

[1] Wheeler; Filliozat. [2] Needham.

civilized tribe called the Besatae—small-bodied men with broad, flat faces and peace-loving characters'. Once a year they came to sell their baskets of malabathrum leaves, which were prepared on the spot and exported to India in the form of small balls.

If Oriental studies are continued in this field, and provided always that the political situation does not prevent archaeologists from carrying out their work, a great deal more will be learnt in years to come about early international trade and the influence of Rome in South-East Asia.

VI

The World of the Ancient Geographers

There is no doubt that, following these embassies, geographical knowledge increased at both extremities of the ancient world, and by the end of the second century A.D. Europeans, or at least the peoples of the Mediterranean, were beginning to have a slightly clearer idea of the continent of Asia.

At the time of Pliny's *Natural History*, the Westerners, who had pushed as far as Britain, Scandinavia and Denmark in the north, Morocco in the west, and the Sahara or even beyond in the south, still knew very little about Asia. Their misconceptions began with the eastern coast of Africa, which they supposed to come to an end just below Cape Guardafui; the importance of the southern hemisphere entirely escaped them. They made another error when they came to India believing Ceylon (Taprobane) to be almost as big as Arabia. Of Russia, their ideas were of the vaguest. They thought that the Caspian, the Black Sea and the Mediterranean were all linked together, and that their waters flowed out into the great Ocean. They knew of Siberia only by hearsay and vaguely imagined it to be inhabited by barbarians and cannibals; it was 'a region called Pterophoros on account of the perpetual falling of snow, whose flakes resemble feathers; a part of the world condemned by nature, plunged into darkness, serving only to bring forth the cold and to harbour the bitter north wind'.[1] And beyond the north wind there lay 'a fortunate people called the Hyperboreans. . . . There are the hinges of the world and the ultimate limit of the stars' revolutions. . . . It is a mysterious land where discord and illness are unknown; the whole population honours the gods, and men die only when they are satiated with life . . .'

[1] Pliny.

Knowledge of Central Asia and India was based upon accounts of the journeys of Alexander the Great, and of more distant countries they knew nothing—apart from the few pieces of information (already mentioned), which they had concerning the quiet and peace-loving Seres, who dwelt at the very edge of the world and made silk from the 'down' of certain kinds of trees.

The *Periplus of the Erythraean Sea* tells us rather more, and on the whole its information is first-hand. The later sections of the work, following the description of Chryse or the Isle of Gold, give us some information about the land of This:

'After this region (Chryse, Malacca), and far to the north, the sea ends at a place called This.[1] There is a great town inland called Thinae, from which raw silk, silken thread and made-up cloth are carried on foot through Bactriana to Barygaza; they are also exported to Damirica by way of the Ganges. . . . But the land of This is not easy of access; visitors to this country are few and far between. . . .' Moreover the gods sometimes took a hand: 'The regions lying beyond are difficult to reach because of the hard winters, or cannot be reached at all because of some divine influence.'

The *Periplus* uses the name This (from which our 'China' and other related European words derive) to designate the country which silk came from. The silk in question was that fetched by sea from the north-west coast of India. Our anonymous navigator does not mention any direct trade with the town of Thinae; he knew only that it was from there that silk was exported into countries accessible to Westerners. We are still dealing with a little-known and almost unreachable country, with which no direct contact existed.

Two or three generations later—if we accept that the *Periplus* was written but shortly after Pliny—we find in Ptolemy evidence of a fuller, though still by no means complete, knowledge of the Far East.

Ptolemy, who, as we have seen, reported the great journey of Maes Titianus, was also able to give some information about the western approaches to China. He tells us that Serica lay immediately to the east of Scythia and that it was a seven-month journey from the Stone Tower to Sera Metropolis, the city to which foreign merchants went for their silk. To the east of Sera Metropolis lay the unknown, a waste of stagnant marshland where the reeds grew so thick and strong that a man could walk upon them over the very surface of the marsh. From Sera Metropolis two routes set out—one to Bactriana by way of the Stone Tower, and the other to India. Nothing was known of

[1] Somewhat different translations in Schoff and Coedès.

the lands to the north, and even the northern part of Serica itself was supposed to be inhabited by cannibal shepherds.

All this is reasonably accurate, but what seems odd is that Ptolemy writes of Sina or Sinae (the Thinae of the *Periplus of the Erythraean Sea*), as being quite separate and distinct from Serica; Sinae, he writes, is 'bounded to the north by the accessible part of Serica, to the east by the line which marks the beginning of unknown territory, and to the west by India . . .

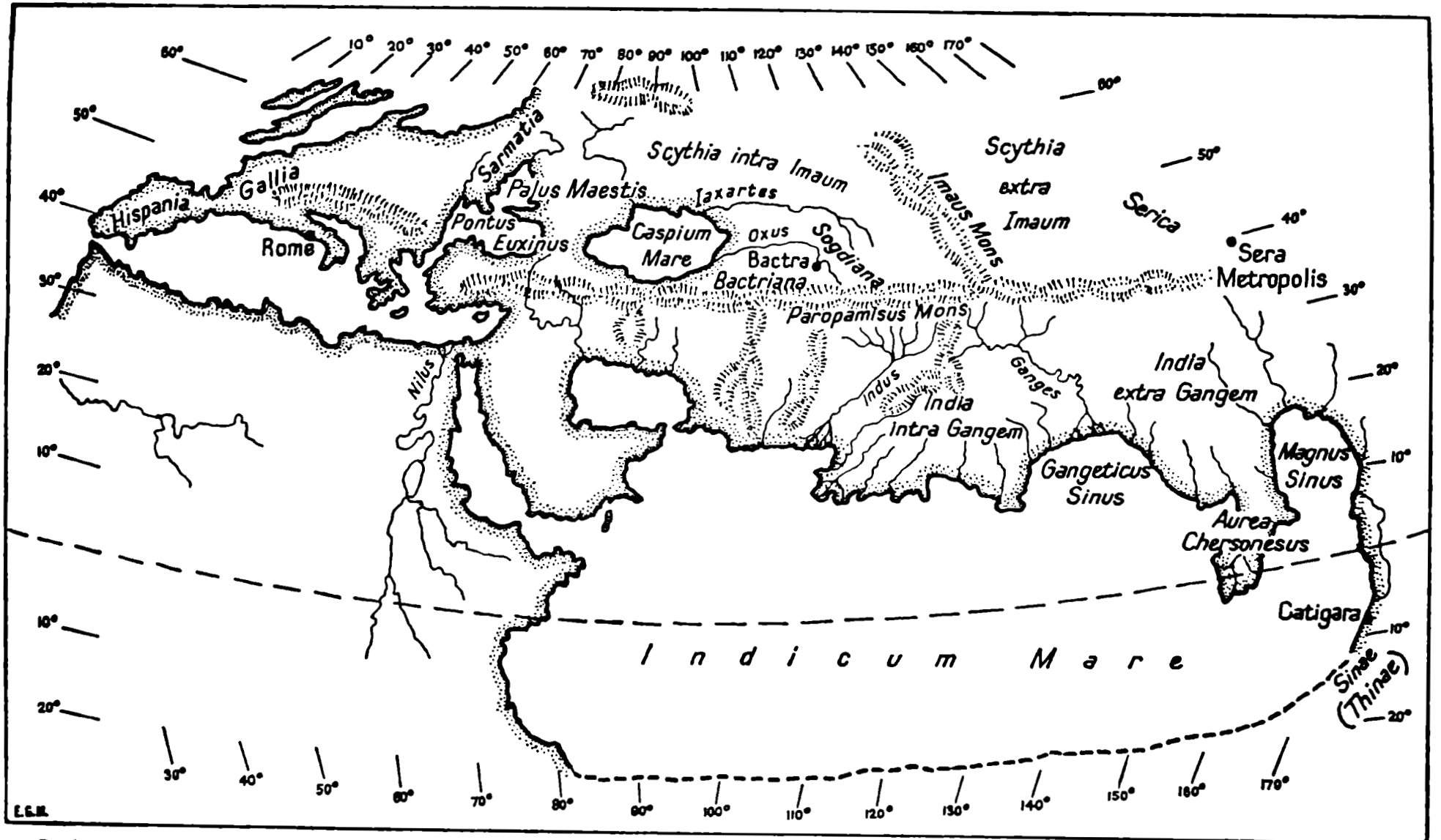
'. . . travellers say that beyond Sina lie the land of the Seres and the town of Sera.'

For long afterwards Westerners continued to differentiate between two countries which exported silk: Sina, which could be reached by sea, and Serica, which lay to the north and was reached by land. Now both of these must have been what we call China, Han China at the limit of its power, when Canton was subject to the imperial court just as surely as the great emporia of the north—Kan-Chou for example, which may have been Sera Metropolis. Thinae, that 'great inland town', may have been Ch'ang-an; and it is not entirely out of the question that Sera Metropolis and Thinae were in fact one and the same town. It is clear that Western navigators took astonishingly little interest in political and economic geography; the only thing they wanted to know was where to buy their merchandise. They cared nothing for the politics of the countries they visited, nor for the inhabitants and their way of life. One can well appreciate the irritation which Pliny and Marinus felt at their negligence!

Ptolemy suffered from yet another curious misconception: he believed that the Indian Ocean was bounded not only by Africa in the west and Asia in the north, but also to the south and east by the continuation of these two continents. His map[1] shows the coast of Africa running away towards the east just after Bab el Mandeb and joining up with the coast of Sinae. Other geographers soon corrected this error, though Pausanias considered that the Seres lived on an island in the Erythraean Sea[2] and were either Ethiopian in origin or else a mixture of Scythians and Indians. But wherever it may have been, this land was, for Westerners, the extreme limit of the world, beyond which there was nothing. They were as ignorant of Korea and Japan as the Chinese were of Spain and England.

Nevertheless, a few lines written by that same Pausanias show that Chinese silk, which was coming in in ever greater quantities, both as rolls of material and skeins of yarn, was beginning to lose just a little

[1] Reinaud. [2] Coedès.



4. *Ptolemy's map of the world*

of its mystery. In one passage Pausanias refutes Strabo's opinion on the subject:

'The threads which the Seres use for their clothes do not come from the bark of a tree. In their country they have a little animal which the Greeks call the *ser* but which they themselves call by quite a different name. In its size this animal is twice as large as the largest beetle. For the rest it resembles the spiders which spin their webs beneath trees, and like them it has eight legs. The Seres raise these creatures in special buildings protected from heat and cold. The little animals produce very fine threads which they roll about their feet. . . .

'The Seres feed them for the first four years of their existence on millet-grass, but in the fifth year—knowing that their charges will not live much longer—they give them a certain kind of green reed. This is the best possible food for these animals. They eat voraciously of the reed until they die; it is inside the dead body that the majority of the thread is found. . . .'

The information concerning the animal and the origin of the thread is not too remote from the truth, but Pausanias obviously knew nothing about the treatment given to the cocoon. That remained an absolute secret. And the odd thing is that two centuries later people were even farther from the truth, and the misconceptions of Pliny and Virgil were being repeated. Marcellinus Ammianus wrote:

'In the land of the Seres there are many gloomy forests. The trees are constantly sprinkled with water, as is done with skins that have to be softened, and from the down so obtained they weave the fine and delicate material known as Seric cloth.'

So at the time of Marcellinus Ammianus they were still thinking of silk as coming from some sort of tree-bark. Perhaps there had been a slight leakage of information at the time of Pausanias, later refuted and allowed to fall into oblivion. Or it could be that Pausanias, who had in fact come closest to the truth, was simply not believed by his contemporaries.

Geographical knowledge was no less hazy among the Chinese.

In the second century A.D. the chronicles show that China, as might be expected, was fully informed as to the geography and the political and economic life of Asia as far as the Pamirs. She had first-hand knowledge of the petty kingdoms of Central Asia, as well as the Huns and Chorasmia, which she still called K'ang-chü. Farther to the west there were three countries which particularly

interested her: the land of the Kushans, whom she still referred to as the Great Yüeh chih; An-hsi, or Persia, with whom she had regular contact; and the mysterious T'iao-chih, land of lions, rhinoceroses, aurochs, peacocks and ostriches, surrounded on three sides by water, which was the farthest limit of Kan Ying's journey of exploration. Of Rome itself she knew little; it was not until the fifth century that a chronicle contained any consistent information about Ta-ch'in.

But there is one striking difference: though Greek and Latin authors write of travel by both land and sea and of ports just as frequently as inland towns, the Chinese chronicles deal exclusively with land-travel and the crossing of Eurasia. They had gathered their information on the Far East from Persians and the men of Sogdiana and Khotan at those crossroads of Central Asia which served as halts for the caravans and centres for the exchange of news (though the travellers were probably not nearly as communicative as they might have been). At this time there was no question of there being a *periplus* for Chinese sailors; there were still a good many years to wait before Chinese high-seas junks reached Ceylon, and some centuries before they got as far as the coast of Africa. Civilized China was still northern China, a nation of landsmen resolutely turning their backs upon the sea.

The Chinese knew Central Asia so well because, ever since the campaigns of Pan-Ch'ao, they had genuinely occupied all the principalities of the eastern Tarim, and maintained a rather less secure dominion over the western part as far as the Pamirs. We have been able to piece together something of the life lived in these desert garrisons thanks to the excavations made fifty-odd years ago by European archaeologists among the inhospitable sands and gravel-beds of Lop-nor, from Miran to Tun-huang, amid red-hued clay terraces eroded by the wind, salt-flats, groves of tamarisks and reed-encumbered marshes.[1] The landscape must have been much the same at the time of the Han, apart from a few oases swallowed up by the sand when some nearby river changed its course. Each Chinese garrison—the smallest ones amounted to no more than 150 men—watched over the trail from its little stronghold clustered round a central tower; while nearer the capital, within the frontiers of China itself, the Great Wall was extended as far as the Jade Gate so as to protect the most easterly province of Kan-Su and the head of the caravan route. It must have been a thankless task building fortifications in that land of sand and gravel, where stone and water

[1] Sir M. A. Stein.

were in equally short supply, and the wind was ever likely to whip up clouds of evil yellow dust. There was no water and no mortar; the only building materials were the earth itself and bundles of tamarisk branches and reeds. In the construction of the Great Wall large unfired bricks, placed now longwise now crosswise, alternated with bundles of branches. And yet for centuries these ludicrously simple materials have withstood the attacks of both men and nature. And though for us today it is no more than a symbolic barrier, it was at one time a true defensive shield. The Huns never learnt how to take a fortified town, never developed a machine capable of hurling a large projectile. Against archers and cavalry the Great Wall was more than adequate, provided it was properly kept up and garrisoned.

A great many men were needed for the effective manning of all these isolated positions, and they included some who had been deported and others who had escaped from poverty into banditry and thence found their way into the frontier battalions. This system at least had the advantage of skimming off the more unruly elements of society, which considerably lightened the work of the civil authorities. Those banished to the frontier stations enjoyed certain material benefits: two days' service there were the equivalent of three days' normal service, and they were paid in grain (six-tenths of a bushel per day) and in coin.

Their greatest hardship was isolation. Each little garrison was out on its own, at the mercy of the Huns, the Tibetans, and the chieftains of the neighbouring Tarim principalities. Strung out along the trail, these strongholds enabled trade, supplies and communications to flow in some measure of security.

In the Tarim the soldiers never dared to stray very far from their forts, and if a hunt after stag or wild camel led them far afield, their comrades in the post would anxiously await their return. At night the beacon fires would spread the alarm from post to post, filling the men with the fear that they would die without ever returning to their quiet, mulberry-shaded villages; that they would never again see those warm little houses filled with the rippling of laughter, never see their families clad in new garments for the new year celebrations, never again enjoy the willow-trees and lotus-blossom of their homes; and, even worse, that they would die without offspring. . . . For if you had no children, who would there be to perpetuate your name and honour your ancestors?

Even when danger did not threaten and the silence of the desert remained unbroken by the pounding of horses' hoofs, another enemy

lay in wait for them: boredom. When the fuel and water fatigues had been completed, and they had done their firing practice for the day, and exercised the horses, and overhauled their crossbows and cleaned their swords and armour, what remained to pass the time for these rude men of action? Like any other soldiers, they gambled, and their games were dice and mora. And so they managed to kill the time, waiting for the relief garrison and looking forward to the rare passage of some caravan, while the commander of the post busied himself with the inevitable administrative red tape.

A great deal of this official correspondence has survived.[1] There are letters written by brush on strips of bamboo or on tablets of poplar wood fastened in pairs. They bear clay seals affixed to cords which lie bedded in a groove. Messengers on horseback carried such correspondence from post to post and to and fro between the local captains and the Commander of the Western Territories. From these relics we learn something of the problems that beset the officers whose posts were strung out along the east-west trail: the need for supplies, the shortage of grain or arrows, the difficulty of controlling a garrison made up of brigands and native mercenaries, the lack of understanding on the part of the central authority, the feeling of being cut off and alone.

Wherever there was a sufficiency of water the soldiers would try their hands at farming, digging irrigation canals and cultivating a few fields. Patient gardeners as they were, they might well have worked a small miracle in Central Asia, if only there had been a sufficiently long period of peace.

The soldiers of the Han Empire were not the only ones to experience this sort of colonial life. In the neighbouring Kushan Empire there was a ring of fortresses and strong-points laid out protectively to the north of the Chorasmian oasis, and here the regular soldiers of Kanishka kept watch over the confines of the desert, faithfully doing their lonely duty in a vassal state—for Chorasmia was now a part of the Kushan Empire. From their huge brick fortresses, powerfully defended by labyrinths,[2] from their thick ramparts of unfired brick, from the loopholes of their towers and from the little outposts strung out between the forts, they, too, were keeping a wary eye on the nomads. And at the same time they were on the watch for any move on the part of the Chinese, who were still challenging Kanishka, or his descendants, for command of the western oases of the Tarim. And at the other end of the world,

[1] Sir M. A. Stein. [2] Tolstov.

on ramparts built amid the snow and fog to keep out Scots, Germans, Slavs and, before long, Goths, the legionaries of Rome were also standing firm against the barbarians. The Roman walls were the strongest in the world; none knew better than they how to build a stronghold of palisades and stone, and no race was more expert at taking or defending a citadel. And yet which of these walls were to hold out longest against the onslaughts of the barbarians: the Roman ones of stone and cement? or the Asian ones of clay and reeds? Which were to be more effective: Chinese crossbows, or the engines of war created by Italian military experts? History has supplied the answers to these questions—but this second century of our era, this century of the four empires, this time of economic prosperity and cultural development, was already threatened by the 'Barbarians'. The empires looked to their defences and constructed walls and strongholds, towers and forts in an effort to stem the tide of nomad raiders. On one side of the defensive system lived the 'civilized' and sedentary peoples, farmers, craftsmen and artists cultivating the things of the spirit; on the other were the nomads and semi-nomads, driving their flocks and herds wherever water and pastureland were to be had, harsh and rude folk, scornful and yet envious of the possessions of their settled neighbours. For economic necessity drove the barbarians to take what they needed, by force if necessary, from their civilized neighbours. Grain and clothing were at times absolutely essential, for life was hard out on the steppes, and when that happened they would come down in packs, like wolves, to pillage and destroy and then return once more into the wilderness. And behind their walls the people of the towns and the cultivators of the fields would tremble as they went about their work. From time immemorial these two, the nomads and the settled folk, had hated each other with an implacable hatred; it was the race hatred of antiquity, and it ended only when one of the adversaries disappeared. And the gipsies, the last of the nomads, have the same scorn for the middle classes and the peasants that the barbarians had for their cowardly and degenerate half-brothers skulking behind their fortifications.

And along the dividing line between these peoples, and across the great empires, from Antioch to Hamadan, from Bactra to Khotan, from Tun-huang to Ch'ang-an, the caravans passed slowly, patiently, unfalteringly.

In the snowy passes of the Pamirs, the lumbering, obstinate yaks would pick their way, indefatigable and regardless of the height,

their bulging sides now grazing the cliff face, now overhanging the void. Sometimes, for a particularly difficult passage, the men themselves would carry the bundles of merchandise, the animals following as best they could. Or a mountain torrent would have to be crossed by a narrow, fragile bridge or by a shaky and half-rotten tree-trunk, with icy water foaming and bubbling thirty feet below; and the beasts would make great detours in search of a ford and have to be driven into the heart of the current. Horses suffered as much as men in the mountains, and the travellers were only too pleased to be able to exchange them for mules. The men almost always proceeded on foot to avoid overloading the animals. It was hard going in the rarified atmosphere; their ears sang, and they suffered from mountain sickness. The Chinese had attributed this illness to the pernicious influence of the onions which grew in the Pamirs—they had called this range the 'Onion Mountains'. Sometimes a snowstorm would block the pass just as the caravan was beginning its descent; and always the travellers were a prey to frostbite, snow-blindness, rheumatism, pneumonia—and always they could expect to lose some of their animals.

At last, having crossed the mountains, they were faced with the desert: curving dunes of sand, clay terraces furrowed by the wind, with sharp ridges that played havoc with the unshod hoofs of horses and camels, bleached salt flats even harder on the feet of the animals, endless searching for water, which then turned out to be undrinkable —and sand-storms, which would pin a caravan down for as many as four days at a time and cover the trail so completely that the rear-guard would lose all trace of the leaders.

In summer the long caravans would escape the heat of the day by travelling at night, navigating by the stars like mariners. And isolated shepherds or peasants would turn over on their piles of skins and their felt carpets and listen for a moment to the distant tinkling of a bell and the far-off drumming of hoof-beats; a dog would bark furiously, catching the powerful scent of camel. And as the caravan doggedly went on its way, the tinkling bells would fade into the distance, the shepherds would fall asleep once more, and the dogs return to their dreams.

There might be 50, 100, sometimes even as many as 1,000 camels in a single caravan, for the merchants preferred to pool their resources and travel in convoy for greater security against the attacks of robbers. The richest among them maintained companies of archers, and the less wealthy would pay for the privilege of being

under their protection. The heavy bundles of silk and the precious packets of gems, incense and spices were an almost irresistible temptation to the barbarians. The merchants carried their gold and precious stones on their own persons, knowing full well, however, that this would avail them nothing if they fell into the hands of brigands. A man's life was nothing to them; they would kill for a handful of gold as casually as a merchant would abandon an exhausted pack animal. For the caravan must never stop. If you fell behind, it was no good expecting it to wait for you. The loss of a couple of days might mean finding a pass blocked by the snow, or a river in flood; or perhaps the water was running out, and the nearest well was thirty hours' march away.

When the journey was going according to plan, a halt might be used for pasturing the camels and tending to the horses, donkeys and mules. Their raw backs and damaged hoofs would soon heal up, and they would rapidly put on weight. The men, too, would take a breather. They would check their merchandise, patch up their boots and their garments of fur and skins, and polish their weapons. Often they would need to sign on a new guide or buy fresh pack animals. And when everything was in order they would set off on the next stage of their journey. The Stone Tower was the most important of these halting places. Very probably the merchandise changed hands during such halts, for at that period men did not travel all the way from one end of the trade route to the other; it was probably divided roughly into sections as follows: in the Far East the Chinese zone, which extended as far as Lop-nor, or perhaps only to Tun-huang; in the west, the region dominated by the Greeks, Syrians and Jews; from Syria to the kingdom of the Kushans, perhaps even as far as the Pamirs, there were the Persians; and from the Persian-Indian frontier right across Central Asia to the borders of Kan-su, there were the Kouchans, the people of Sogdiana.

VII

Trading Peoples

GREEKS—JEWS—SYRIANS—PALMYREANS

The Greeks' love of the sea is apparent from their earliest legends: Hercules and the garden of the Hesperides, Jason and the Golden Fleece, the Odyssey. And in time, as traders or conquerors, they established themselves on all the shores of the Mediterranean. The epic achievements of Alexander the Great, which attracted adventurers by land and by sea, scattered Greek colonies from Marseilles to Babylonia, as well as in the Indo-Greek kingdoms of Afghanistan and Central Asia. Everywhere commercial enterprises prospered. At the beginning of the Roman Empire, a large proportion of the trade in and around the Mediterranean was in the hands of Greeks and Syrians. In Rome itself many of the employees of foreign commercial agencies were Greeks, both freedmen and slaves. The agencies of Greece and Tyre were the most successful; they had premises in the very heart of the capital. Greek was the commercial language, and even the Jews expressed themselves in it—though it is claimed that in Persia and Afghanistan Greek was beginning to be challenged by an Aramaic dialect. The captains and crews of the ships were Greeks or Syrians. From Alexandria and the coasts of Syria, to Ostia and Rome they carried the products of the Orient—including silk, which had come from China and been reworked in Syria. On the return journey to Tyre or Alexandria they would ship wine, manufactured products, raw materials from Gaul and Spain, and barbarian slaves from far-off Germany; but sometimes they would return empty, or ballasted with sacks of lentils.[1] Before long they burst the bounds of the Mediterranean and sailed to the conquest of a greater world. As we have seen, it was the Greek Maes who explored the possibilities of trade as far as Serica; the author

[1] Loane.

of the *Periplus of the Erythraean Sea* was certainly a Greek; all the famous geographers were Greeks. The Syrians, for their part, founded a colony on the west coast of India. Further mention will be made of this later.

The Greeks have always remained adventurous traders. Even today we find them dealing in European products all over the Red Sea and along the Indian Ocean (the ancient Erythraean Sea), from Port Said to Madagascar. Recent research has shown that the Palmyreans, too, as well as the Greeks and Syrians, played an important part in ancient commerce. Archaeology has revealed that their depots and garrisons were dotted along the caravan route from the Mediterranean to the Persian Gulf. They have been found as far to the east as Spasinu-Charax at the mouths of the Tigris. It appears that the Palmyreans were above all caravan operators acting as intermediaries for goods coming in from the Persian Gulf or from Bactria and Central Asia by way of Ecbatana and Ctesiphon-Seleucia. From Spasinu-Charax they would go up the Euphrates, then cut across to the west and Palmyra. There were three relay stations along the route: Vologesias, to the south of Babylon; a place on the Euphrates near Hit; and Gennaes (near Umm el Amad?).[1] From Palmyra, and still by Palmyrean caravan, the goods then proceeded to Antioch and Seleucia in Syria. Greek or Syrian ships then transported them to Rome. The merchants of Palmyra acted as middle-men between the Parthians and the Romans for more than two centuries, until the Persian Empire of the Sassanids and the Roman Empire were no longer prepared to tolerate competition and cut them out of the picture.

Another enterprising people specializing in commercial affairs and playing a significant part in international trade was the Jews.

The Judaeans, Aramaeans, Palestinians or Hierosolymitans—as the Jews were called—including those in Palestine and those who had emigrated elsewhere, were about 6,000,000 or 7,000,000 in number: roughly 7 per cent of the total population of the Roman Empire at the time of Augustus.[2] This seems a strangely low proportion when one thinks of the important part these people played in the political, economic and spiritual life of the Mediterranean. They were a prolific and hard-working race, skilled in matters of business; they were also peaceful folk, never making trouble—provided their faith was not interfered with. And their tenacity and talent had

[1] Starcky; Schwarz. [2] Juster.

been turned to profit—Rome's profit as well as their own—wherever colonies of them were to be found. And in truth there were colonies of them everywhere. 'One will not readily find a corner of the inhabited world which has not given refuge to these people and which has not been occupied by them,' it was said in Rome. There were Jewish colonies in Babylonia, set up by Alexander following his conquests, and another in Alexandria, where the Jews numbered 100,000 out of a total population, slaves included, of about 1,000,000. Smaller colonies were to be found almost everywhere: Italy, Sicily and Sardinia, Spain and the Balearic Islands, southern Gaul, Germany, Britain, the Danube provinces, the Black Sea coasts, the Greek islands and mainland, Asia Minor and Syria, Armenia, the Persian provinces, Arabia and North Africa. In Rome itself the little Jewish colony whose enterprise and moral unity Cicero had noted in 59 B.C. grew in importance as its numbers increased from about 7,000 in the time of Augustus to roughly a sixteenth of the total population of the capital. This increase was due partly to the large families they had (this was a duty laid on them by their religion), and partly to the favourable circumstances in which they lived. Thanks to the military aid formerly rendered to the Roman Republic by the city of Jerusalem, they retained the privilege of practising their religion freely throughout Roman territory, in all its severity and all its intolerance. (In the cult of the emperor, they alone were permitted to substitute other words for the qualifications of divinity; they were allowed to modify the oath of allegiance to the emperor and the rites of compulsory festivals; and in their synagogues the sacrifice to the emperor was replaced by a special prayer to Jehovah.) Judicious governments, recognizing the prosperity that resulted from their enormous activity, granted them yet further privileges. They had the right of not being called before a court on Saturdays and not being drafted into the army—the observation of the Sabbath and the keeping of their strict dietary rules would have been virtually impossible on active service, except in the case of an entirely Jewish corps. They also retained the right of forming communities of their own within the Empire; they had their own public buildings, their own leaders, tribunals and religious schools; their synagogues had the right of sanctuary, and the sanctity of their ceremonies and religious objects was guaranteed. The senate even granted them economic concessions. In 59 B.C., when a senatus consult prohibited people from sending gold out of the Empire, the Jews were still allowed to send their ritual tithe to Jerusalem, the

two drachmas which from ancient times they owed to the Temple. Caravans guarded by thousands of armed men continued, once each year, to take gold to Jerusalem from all sections of the Diaspora. Roman law not only granted these privileges to the Jews for more than 300 years—with brief intervals following the great Jewish wars of A.D. 70, 114 and 131—it also obliged all the other communities of the Empire to respect them.

Thus protected (and if they had not been able strictly to carry out their religious duties, they would have gone elsewhere), the Jews formed a vast network covering the whole of the Roman Empire. And their colonies were not small and insignificant; on the contrary, they were invariably well-knit communities, bound one to another by ties of family, friendship and business, by regular correspondence, and by their allegiance to the Patriarch of Jerusalem. The head of the Jews in Palestine was the national leader of all Jews, including the Diaspora, and it was as such that he negotiated with the Romans. He appointed the local patriarchs who held civil and religious authority over their compatriots throughout the Diaspora. It was this political, legal and religious set up which ensured that Jewish society was a single entity in spite of the vast area over which it was distributed. The Jews were a unifying influence in the Empire, an element always working against disintegration. In their hands, any branch of the economy was sure of coherent development, expanding and increasing proportionally with the Jewish community itself.

This was the case with the textile industry, caravans and river transport, the slave trade, tax-farming, the glass industry and wrought gold.

Jews held the monopoly of the river trade in Alexandria; they organized caravans in Palmyra; they had bazaars in Syria. They were celebrated for their work in glass, byssus and silk, as well as for their dyeing. Silk—dyeing—glass—caravans: the combination of these four elements might well lead us to suppose that they took some part in the far-eastern silk trade.

They had learnt the techniques of the textile industry in Babylon, and Palestinian byssus was to become famous and remain so throughout antiquity. Jerusalem and Alexandria were the great centres of Jewish weaving. It is not surprising therefore that they should have begun weaving silk as soon as this material became available to the cloth industry. In fact it was not long before Beirut became a centre of Jewish silk-weavers. Dyeing was also a Jewish speciality, and at

Hierapolis in Syria their dyers in purple were sufficiently numerous in the second century to form exclusively Jewish professional bodies. In Palestine itself, Sarephta, Neapolis (Shechem) and Lydda were exporting dyed cloth to all parts of the world. In certain localities the entire population was engaged in dyeing in purple. There can be no doubt that 'seric' silk was included among the materials which passed through their hands; indeed, Hebraic writings specificially mention two Jewish silk merchants operating in Tyre at the beginning of the third century. We know that under the Roman régime manufacturers often took on the marketing of their own products, and that merchant families entrusted their business abroad to slaves or dependents. From its arrival on Roman territory to its purchase by the consumer, silk passed through relatively few hands; often enough it was one family that bought the silk from the Persian middle-man, wove it, dyed it and re-exported it to other parts of the Mediterranean. And that family was just as likely to be Jewish as it was to be Tyrian or Greek.

As expert glass-workers, the Jews also had ready to hand one of the means of exchange used as payment for silk—especially the famous glass beads. Finally, as a result of their skill in business, they frequently became bankers, and the funds which they thus had at their disposal enabled them to engage in another trade, which was both profitable and hazardous: tax-farming. They would pay a fixed sum to the exchequer, representing the direct taxes of a certain number of contributors; then it would be up to them to collect the money. Sometimes the profits were enormous; sometimes, following drought, war or plague, the population were unable to pay and the affair was disastrous. Only men of substance could entertain such a venture—and men of substance they were, those Jews of Alexandria who sent to Jerusalem enough for the great doors of the Temple to be entirely covered with gold! One can only imagine the power wielded by a family in possession of such a fortune—and the pressure they could bring to bear. . . .

When, especially from the fourth century onwards, persecution, together with their own sure instincts, led the Jews to limit themselves more and more to banking and commerce, they concentrated their attention on the more exotic products—including silk. We shall come across them again more than once in these pages.

VIII

The Caravanserais of the Gods

THE INTRODUCTION OF BUDDHISM TO CHINA AND OF BRAHMINISM TO THE WEST

A century of regular contacts between two advanced civilizations inevitably led to exchanges in all fields of life. Whether as a cause or consequence of this, the fact remains that the Graeco-Roman world and China were both at this time seething with ideas. These ideas, like the products of different industries, met and mingled on a world-wide scale, for all that the number of people actually on the move was very small.

When, at the close of antiquity and the beginning of the Middle Ages, the Turkish-Mongol tribes invaded and occupied ancient Russia, Siberia and half of Europe, they left virtually nothing standing. Each wave of barbarians overlaid, or even annihilated, those who had come before, and in some 600 or 700 years they never managed to establish a civilization; they preferred rather to be assimilated into the culture of those they had conquered. With Rome, the Indo-Scythian Empire of the Kushans and Han China in full development, however, things were different. In this case a relatively small number of individuals were able to communicate a few ideas and products powerful enough to have a profound and lasting effect on a whole civilization.

Thus it was that Rome became acquainted with silk to obtain which Western merchants travelled to far-off India, China and Central Asia. Central Asia was the pivot of the two routes—overland *via* Persia, and by sea *via* India—and for at least 100 years it was the scene of constant comings and goings. Throughout the Kushan Empire at this period, and particularly in the western part of the Tarim, the Buddhist religion made great strides. Before long it was being fostered by wide-ranging missionary activity, and the trails

blazed by the merchants inevitably favoured the advance of religious ideas. And so it was that the intake of air from the West, occasioned by the Romans' appetite for Chinese silks, contributed in no small measure to the introduction into China of the 'doctrine of Fo'—Fo being the name by which the Chinese designated Buddha.

By the time Pan-Ch'ao led his horsemen clad in scarlet leather through subjugated Hsi-yü to the Pamirs, the capital of the Kushan sovereigns had become the world's leading centre of Buddhism. A variety of cults existed side by side in these lands, as we have been able to tell from the coins of the period. Some bear representations of the Hindu Siva, complete with bull; others show Buddha, Helois or Selene, Mithras the sun-god, Mah the moon, Artoasp the god of the waters, or Nanaia the Semite goddess of fruitfulness. But, whether as the result of the personal preference of some king or under the influence of outstanding religious leaders, it was Buddhism that made the most marked advance during this period. It has more than once been stated that this religious syncretism (favoured by the ruling elements of Kushan and proved by the existence in this period of such widely differing coins), this great liberty of thought reflecting the fusion of four distinct religious currents, might well be compared with the syncretic character of Mahayana Buddhism. Predominant in Bactriana and widespread in Sogdiana, the Buddhist faith spread next to Chorasmia, which had hitherto been a land of Zoroastrians. And with it, as it advanced to the shores of the Sea of Aral, it took the Graeco-Buddhist art of Gandhara. In Chorasmia for example archaeologists have unearthed Greek-style draperies and miniature stupas. Indo-Greek art in these far-off lands even represented monkeys, which had never actually been seen there in the flesh. Farther to the north, along the land and river route across the Caspian steppes and up the Volga and the Kama, Kushan coins have been found, but not, to our knowledge, any statues or other typically Buddhist objects.

To the east, Buddhism made a steady advance. From the first century onwards typical features of Indo-Greek art—the acanthus leaves of corinthian capitals, the realistic interpretation of forms—began to appear along the new routes of Central Asia. This happened first of all in Khotan, which was the scene of the earliest Kushan expansion. Farther to the east, at Niya, wooden chair-arms and door-lintels have been found decorated with leaves and flowers arranged as on corinthian capitals; small engraved stupas and balustrades carved with acanthus and laurel leaves have been discovered in

the very centre of Lop-nor, six days' march north of Abdal.[1] There is further evidence in the ruins of a third or fourth century Buddhist temple at Miran, and there are also third century silken banners painted with prayers. Finally, the great fresco in the temple at Miran, which is probably the work of a third-century painter, shows the Buddha clad in a dark, reddish-brown robe—the traditional Indian colour for saints and ascetics—with the classical knot of hair upon the top of the head and with the hand raised protectively. In this way the advance of the new religion can be traced without a break along the caravan routes from Bactria to the confines of China.

What can we say of this religion which was so different from all other religions—and so attractive that it had already swept through one of the four great empires of antiquity?

It had begun far to the south, in the land of tigers and elephants, at Kapilavastu in Nepal, at the court of a king named Suddhodana and his queen Maya. This was sometime between 563 and 483 B.C.—the period in which legend places the mythical meeting of Confucius and Lao-Tseu. For the essence of this religion we cannot do better than quote the words of René Grousset:

The Buddha, 'who had renounced the world to live the life of a hermit . . . came to Illumination. He understood the law of universal suffering; the world was but a stream of impermanence resolving itself into suffering. This pessimism . . . stemmed from the belief, universally accepted in India, in metempsychosis or the transmigration of souls. Western spiritualism proposes eternal life as a reward; the eternal life proposed by Indian doctrines took on a nightmarish quality from its association with the chances of reincarnation: birth, suffering, death and rebirth—it was an eternity of forced labour.

'To this nightmare the Buddha brought a solution: to escape from the eternal cycle of rebirth and transmigration it was necessary above all to extinguish the ego; it was this extinction that was truly "Nirvana". With this end in view, Buddha preached the fight against the passions, the sacrifice of each individual to his fellow men, and universal charity expressed by the constant sacrifice of ourselves to all creatures both human and animal. His doctrine metaphysically negative, led in practice to a morality composed of renunciation, chastity, charity and meekness.'[2]

Within the societies into which it had been introduced, Buddhism took on three characteristic features. Firstly, there was the pro-

[1] Sir M. A. Stein. [2] Grousset.

hibition of killing. This hatred of bloodshed was something new in the ancient world, and there were cases of converted sovereigns forbidding or restricting the sacrifice of animals at official ceremonies. Secondly, there was the idea of atoning here for faults committed in some previous life; this enabled men to hope that the sufferings they were enduring now would be registered by some divine bookkeeper and held to their credit in a future incarnation. This was accompanied by the further hope that the performance of virtuous actions would lead to one's being reborn in more favourable circumstances: a rat might be reborn as a man, a poor man might be reborn as a prince. Lastly, there was absolute celibacy for the monks and a general incitement to chastity which clashed directly with the social duty of procreation. This duty was particularly strong among the Chinese, and it always provided a weighty argument for the Confucians to use against the Buddhists.

The Greek companions of Alexander the Great came across Buddhism in northern India, where it had been forced to confine itself by the Brahmanic reaction. The Indo-Greek princes, the descendants of Alexander's companions, were Buddhists, and it was under their rule that began the amazing art-style which combined Hellenic forms and characteristics with Buddhist attitudes and motifs and which has become known as the art of Gandhara. Gandhara is another name for the province of Peshawar, where modern investigators have found so many examples of this style. One can imagine the astonishment which nineteenth-century Westerners must have experienced in northern India (from which by then Buddhism had completely disappeared), when they suddenly came across classically Greek faces, rounded forms with full curves and straight noses continuing the line of the forehead, instead of the squat, contorted and grimacing forms which India had accustomed them to. The art of Gandhara properly speaking is that of the period of Kanishka. The style which came from Greece and influenced Latin artists had hitherto stopped short at the Pamirs. The advance of Buddhism towards the east carried it first to China and later to Japan, and it may be said to have reigned, in one century or another, from the Atlantic to the Pacific. It circled the Mediterranean under the protection of the Greek gods, went to India with Alexander and settled down in the shadow of the Buddha. And it was this same mixture of Buddhist religious elements (symbols and conventional attitudes), and Greek forms and treatment that followed the early missionaries to Central Asia and China.

According to the Chinese annals, the first Indian missionaries in China were not from the land of Kanishka, but from 'T'ien chu', which was the name they used for the region of the Ganges, a tropical area not forming part of the Kushan Empire. The *Hou-Han-shu* says that T'ien chu sent embassies during the reign of Ho-ti, between A.D. 89 and 105, and again between A.D. 159 and 161. These visitors came by way of Annam and had probably travelled by sea. In the year A.D. 64, the *Hou-Han-shu* tells us, the Chinese Emperor Ming-ti 'saw in a dream a man the colour of gold; he was very tall and had rays of light emanating from his head. The emperor asked his dignitaries to explain this vision, and they told him that in the lands to the west there dwelt a spirit named Fo.' (This was the Chinese name for the Buddha.) 'This spirit was 16 feet tall and the colour of gold. Therefore Ming-ti sent an ambassador to T'ien-chu charged with gathering information about the religion of Fo.' One of his descendants, Yin Ti, was the first to be converted. 'The Chinese court, following his example, gave itself up too fully to this religion,' goes on the historian, who was clearly a Confucian, 'and when Huan-ti (A.D. 147–67), who was inclined to be superstitious, began to worship in temples dedicated to Sa Kyamuni and Lao Tzu, the people gradually came to venerate Fo as a god and thereafter Buddhism became extraordinarily extensive.'

But this early development in the south was not the most important one from the point of view of actual numbers. Present-day historians generally consider that it was by the northern route, through Central Asia and over the silk road, that the first really important Buddhist missionaries reached China; and that they were from Sogdiana, Bactriana and Khotan.

The silk route must have been used by two main classes of travellers: soldiers and merchants. At first there would have been a handful of practising Buddhists, whose rites and sacred objects must have been viewed by their Chinese colleagues with some amazement. Then, later, there came monks, fired with missionary zeal, whose 'healing powers' first attracted the attention of the common people and led to them being compared with the Taoist doctors to whom the poor so frequently had recourse. (It may be remarked that Christ first became famous in Palestine thanks to His miraculous cures and healing powers.) These monks were not merely sorcerers; they used their influence with the people to disseminate their message. At first the infiltration was but slight, and conversions were few and far between; the missionaries were simply being tolerated by the

Chinese authorities. The newcomers took advantage of this toleration and won for themselves the right to found religious communities, not so much in order to make converts as to bolster up the morale of foreigners already installed in China. Around A.D. 60–70 a first community was already in existence under the protection of a prince of the blood (who happened to be a Taoist), in what is now the province of Chiang-Su.[1] Little more is known of this colony than that it existed. But we are rather better informed about another which was founded in the Han capital, Lo-Yang, towards A.D. 150 and which was more important in every way. In about A.D. 147–8 a Buddhist monk came to China from Central Asia, bringing with him the sacred books known as the Amitabha-Sutra. It was now that missionary activity really began. For this same monk, who was a Parthian and related to the Arsacids, at that time the ruling house in Persia, founded a school in Lo-Yang, where he himself died in A.D. 170, and undertook the translation of the sacred texts. That was the impulse needed for the dissemination of Buddhism in China. Moreover, the translation came just at the right moment, with Chinese society, at the end of the Han dynasty, more than ready to give ear to a new doctrine.

The first Han—up to the year A.D. 9—had been a strong and youthful dynasty, immune so far from the spiritual petrifaction so often resulting from an over-literal adherence to Confucianism. During its most dynamic period, however, the warlike Han Empire had been obliged to break away to some extent from the narrow and rigid framework of Confucianism. Under this highly formalistic system, the principle of filial piety gave rise to a complex hierarchical society in which a fixed place was assigned to each generation, each sex, each class, each race; even the sovereign was seen as subject to universal laws. The individual was immutably fixed in the position assigned to him, and every action was attended by unvarying ritual; no margin was left for independent judgement. A complex and evolving empire, such as that of the Han, subject moreover to outside influences, could not repose entirely upon the archaic Confucianism which had been conceived as the doctrine of a tiny state; the example of those two model sovereigns Yao and Shun was no longer capable of solving all problems. Yet Confucianism was a powerful influence for social stability and continuity, and it was clearly a convenient doctrine from the point of view of the ruling classes. Consequently it remained as the state religion, albeit

[1] Wright.

rendered somewhat more flexible than of old, throughout the great period of the two Han dynasties. All state officials, for example, were recruited from the entirely Confucian imperial academy, which at times contained as many as 30,000 students. But at the same time it evolved as a religion, and Confucius took on the proportions of a semi-prophet. Texts were strained and forced into the mould of a coherent system, the whole of which was attributed to Confucius. And finally the whole thing was given canonical status when, about A.D. 175, the essential books of doctrine were engraved upon steles of stone—doubtless to prevent any future Ch'in-shih-huang-ti in a fit of reforming zeal from burning tablets of bamboo, bands of silk or sheets of paper. These steles henceforth became as it were the gospel of Confucianism. In order to copy them without error, a sort of print was made by the application of a product which certain craftsmen had invented some seventy years previously. This product was made from a paste composed of silk waste and water, hemp rags and the pulp found beneath the bark of the mulberry-tree. . . . It was, in short, paper. Which means that between A.D. 105, when the invention of paper was first officially mentioned, and A.D. 175, when the first Confucian stele was engraved, and bearing in mind the age-old discovery of ink, the Chinese invented printing. For the period in question they kept these new techniques to themselves.

But, as Arthur F. Wright says: 'Han Confucianism, in its concern with stability and hierarchy, tended to ossify in a scholasticism devoted to quarrels and quibbles over the interpretation of authoritative texts; this weakened its capacity for self-renewal and its ability to deal with new problems—intellectual or practical—which arose from changing social and political conditions. Again, this system of thought had become so completely interwoven with the Han institutional order that when that order began to break up, Confucianism was weakened; when the Han fell, Confucianism was utterly discredited.'[1]

The imperial order crumbled. The emperors, 'pivots of the cosmos', were all too often lamentable puppets. On the one hand there were intrigues hatched by eunuchs and court favourites, scandals, and the moral degeneration of officials; on the other, there was the incredible poverty of the peasantry being aggravated by the gradual creation of huge agricultural estates which completely dispossessed the people and reduced them to penury. It has been said that between A.D. 107 and 126 in the region of Lo-yang there were a hundred times

[1] Wright.

more vagabonds than there were native-born peasants. What was to become of this seething, unstable horde? It was taken in hand by a power neither Confucian nor governmental, a power which was at first secret and invisible: the Taoists. As well as holding out the hope of greater social justice, they offered a system of belief more acceptable to ordinary folk than the Confucianism whose social shortcomings were only too apparent. Then the fundamentally Taoist secret society of the Yellow Turbans stirred up a peasant revolt which lasted many years and cost millions of lives. Economic disaster followed, and in this sphere too the Han order of things began to crumble and disintegrate.

What religious beliefs were there to replace the Confucianism of the fallen dynasty? Taoism and Buddhism were the only contenders. Taoism was essentially Chinese. It was as old as Confucianism, to which it had always constituted something of a challenge—sometimes secret, sometimes open—especially when Confucianism became particularly bureaucratic and doctrinaire. At times it exploded into a sort of revolutionary freemasonry, as was the case with the revolt of the Yellow Turbans, and its virulence increased as the Han dynasty decayed. In the form which it usually assumed (though nothing is known of its hidden traditions and ultimate objectives), it broke down the rigid Confucian structure of family and society and integrated the individual directly into the nature of the universe, freed from the bonds of formalism and convention, regardless of his social class and in accordance with his own value as a person. As well as all this, Taoism also presented the fearful and the superstitious with a whole battery of charms and magical potions for use against the evil influences which were always lying in wait for the unwary.

Buddhism, too, first became known among the common people thanks to the popular appeal of charms and magic. It also had other points in common with Taoism: it reduced the importance of the family and allowed the individual to be the arbiter of his own destiny. It was thus, in a sense, asocial, and the Confucians have been stressing this fact for 1,500 years or more. Consequently it was in Taoist circles that Buddhism first began to make headway. For a long time it was looked upon as little more than a somewhat unorthodox sect, and 'Fo' was ranked with the Taoist saints whose benevolence it was as well to cultivate. The Buddhist conquest of Chinese society has often been compared with the way in which Christianity infiltrated among the Jews, who also at first sight took

the new religion for a sect similar to their own. Generally speaking, those of the Taoist persuasion were not nearly so likely as the Confucians to be prejudiced against Buddhism.

Buddhism made its advance, then, socially in Taoist circles, geographically in those trading centres containing a particularly high proportion of foreigners (such as Tun-Huang, Ch'ang-an, Lo-Yang), the south of Shan-tung, An-hui, and the lower valley of the Yang-tzu, where Chinese culture had been implanted by recent colonization. In the south, the first Buddhist centres were founded by travellers coming from India, not Central Asia.

During the economic confusion, foreign communities began to take on relief work. It is reported that in A.D. 191, in the north of Chiang-su, which had recently been ravaged by a rising of the Yellow Turbans, a Han official gave patronage to a Buddhist community in their efforts to ensure the safety of the peasants and bring about an improvement in their living conditions.

Before long the missionary activity entered a new phase. If the doctrine was to emerge from its initial vagueness and advance beyond popular conversions, the sacred books would have to be made available to the literate Chinese; the intellectuals would have to be given the opportunity of reading, copying, studying and debating the basic texts. Very few Buddhist texts were translated. The Chinese were not really accomplished linguists, and not even the devoted study of Chuang-tzu or Meng-tzu put them in a position to absorb Indian literature. Moreover, the passage from one language to another was beset by problems, and a satisfactory translation of the sutras was not reached for centuries. A. F. Wright has shown, for example, how the Wu-wei (or inaction) of the Taoists was used for the concept of Nirvana. The incorrect use of theological terminology has greatly increased the task of Western scholars engaged in research.

The business of terminology also gave rise to the uncertainty with which, for centuries, Chinese thinkers were assailed, and it led to the departure of pilgrims—Fa Hsien in A.D. 400, Hsüan Tsang in A.D. 629 and I Ching in A.D. 673, amongst others—in search of the 'true' texts and the 'true' doctrine.

We have seen that the first centre for translating Buddhist texts was founded in Lo-Yang in about the year A.D. 150. But it was not until A.D. 286, according to some authorities, that a proper Chinese rendering of Buddhist expressions was achieved. It was a certain bilingual scholar named Dharmarakas, working in collaboration

with two Chinese Buddhists, who accomplished this great work.

The canons of the Buddhist faith added up to a number of words compared with which the Christian Bible seemed a very slim volume indeed. Small wonder then that it took so many years and entire teams of specialists to complete the work of translation. No fewer than 1,153 Buddhist works were translated in the two-and-a-half centuries following the foundation of the first-known community in China in A.D. 60–70. The translation greatly hastened the spread of the religion, and A. F. Wright informs us that around the year A.D. 300 Ch'ang-an and Lo-Yang contained between them no fewer than 180 religious Buddhist communities and 3,700 monks.

Meanwhile the Buddhist art of Gandhara, which had come from Central Asia, was being transformed on Chinese soil. The most ancient Buddhist statue so far found in China proper is a bronze Buddha dating from about A.D. 338. It was made in northern China, and already its attitude is stiffer and less realistic than the innumerable Buddhas of Gandhara. This was the beginning of what Grousset has called 'the romanesque art of the Wei'.

The seed sown along the trails used by the silk merchants of Central Asia flourished in China and bore abundant fruit. But no other religion—notwithstanding the efforts of Christian missionaries and the blood of martyrs—ever followed its example. Two religious worlds may be said to have formed at this time, one to the east of India and Persia, one to the west. Buddhism was gently spreading through the East (to Japan, Korea and South-East Asia following China), Christianity through the West; and there was little difference in the manner and progress of these two advances. Buddhism infiltrated into Taoist circles, Christianity among the Jews. Both these new religions caused a breakdown of the social order and of the accepted conventions; they replaced the destiny of the family with the destiny of the individual; their doctrines were universal rather than national, and they recognized no distinctions of race or sex. Instead of inexorable justice and inflexible gods, they raised up the revolutionary ideal of infinite mercy and universal charity. Both, in times of war, poverty and misfortune, offered a safe refuge from the world and the promise of a future life in which there would be no suffering and to which all men, even sinners, might be admitted. Yet another point of similarity was that both the new religions found converts among the very fiercest of the barbarians.

In China, the Hunnic dynasty of the Wei, having wrought in-

describable havoc during the conquest of northern China—how much remained of Lo-Yang, with its 600,000 inhabitants, its palaces and treasures and libraries?—soon became the most energetic of the protectors of Buddhism.

In A.D. 311, shortly after the Huns, the future Wei, had reduced Lo-Yang to ashes, one of the most famous of all Buddhist missionaries, Fo-t'u-teng, arrived in China from Kushan. What influence was the charitable teaching of Buddhism likely to have on such blood-thirsty barbarians? Aware that the chief of the Huns 'could not understand profound doctrines, but would see feats of magic as proof of the power of Buddhism, Fo-t'u-teng took his begging-bowl, filled it with water, burnt incense and pronounced a magic formula. At once blue lotus flowers sprang up, so brilliant in their colour as to dazzle the eyes.' The chief of the Huns, greatly impressed by a religion which had such potent magicians, offered his support and protection, and the missionary took advantage of his unexpected favour to found a school. Thirty years later one of his Chinese disciples, Tao-an, continued the work of translation and adaptation which had been so brilliantly begun by Fo-t'u-teng himself. The following generation at last began to differentiate between Buddhist doctrines and the confusingly similar doctrines of Taoism, and a huge team of scholars under the direction of a missionary with the Indian name of Kumarajiva, 'the greatest of the missionary-translators and possibly the greatest translator of all time', was at work on an even greater task. And so, with the virtual disappearance of the Kushan Empire, northern China had become a centre for the diffusion of Buddhism. And although war interrupted diplomatic relations with Hsi-yü, Indian monks had been able to preach their doctrine even in the tents of the Huns. The war even helped the Buddhist cause—by allowing Kumarajiva to master the language during his twenty years' captivity in the north of China. In spite of the 'iron curtain', texts and monks made their way from Hun-held northern China to the free Empire of Nanking. These monks and the translated texts they brought with them hastened the rate of conversion. In the south, some celebrated men of letters were already converted, while in the year A.D. 504 an emperor of the southern Liang dynasty officially adopted Buddhism as his religion and obliged family, courtiers and officials to follow his example. He even went so far as to forbid the practice of Taoism. In A.D. 471 a northern Chinese king, T'o-Pa-Hong, abdicated and became a monk. And so, in north and south, among the barbaric Huns and in the 'free' China of

the Yang-tzu, where the remnants of the Chinese tradition were being so carefully preserved, the new religion achieved respectability and came to enjoy the protection of the great.

In the space of about 300 years, Buddhism won favour in many lands east of the Pamirs; it took Christianity just a little longer to become the official religion in Constantinople.

One question arises: why didn't Buddhism spread to the West? The silk merchants, it might be said, had carried it to the East; did they not carry any trace of it in the other direction, by land or sea, to Alexandria or Constantinople? Did the Indian ships which had brought the Buddhist faithful to the shores of Tonking or Cochin China, take none of them westwards to the Red Sea? This remains a mystery, and the historical explanations which have been given are by no means satisfactory. The most we can do is to state the facts and then give a number of logical, but not in the last analysis convincing, reasons for them.

The absence of Buddhist communities in the West is easy to establish. It would be astonishing indeed if all the historians and all the research scholars had overlooked the existence of an important Buddhist centre or the work of a missionary comparable with those whose names have been preserved in Chinese history. Moreover, Christian theologians have always been at pains to expose and attack all 'heretical beliefs'; for example—and we shall return to this later—they were able to describe very accurately the religion of the Brahmans. Would they have neglected the Buddhists? Certain 'features characteristic of Graeco-Roman and Graeco-Buddhist art' have been discovered at Palmyra, and the Gnostics held certain ideas reminiscent of the doctrine of metempsychosis, which may have had a Buddhist origin; but these can hardly be considered evidence for the existence of a significant flow of thought.

Such are the facts. Where the land route is concerned, the explanation is relatively straightforward; the absence of Buddhist influence in the West may be taken as one more proof of the extent to which Persia constituted a barrier between the two ancient civilizations. The people of Bactriana and Sogdiana, Buddhists often enough, might travel to China, but they never penetrated into Persia; while the Persians who went to Bactriana and Sogdiana were convinced and unconvertible Zoroastrians—and in any case their interests were entirely commercial (which was why they refused to allow strangers to cross their territory). So much is known. But we have also seen that a Persian, of royal blood, was one of the first Buddhist

missionaries to reach China. Doubtless he was an exception; but why were there no exceptions going in the other direction?

The explanation is even less satisfactory when we consider the sea route. In the third century, perhaps even in the second century, Indian ships began to frequent the coasts of Indo-China, while at the same time trade became regular between Ceylon and the Red Sea. Southern India was admittedly Brahmanic, but it was nevertheless by way of this southerly maritime route that Buddhists reached China; at the very least they had to pass through the ports of the Indian peninsula. Did no Buddhist missionaries embark from Indian ports serving the Red Sea and the Mediterranean?

Finally, the traders of Sogdiana and Bactriana are known to have used a route which ran from India to European Russia by way of the Amu-Darya, the Caspian, the Volga and the Kama, and another which crossed the Caucasus from the Caspian to the shores of the Black Sea by way of the Kura and the Aras. These regions were not entirely unknown to the Graeco-Scythian traders of the shores of the Black Sea; they could surely have introduced Buddhism to the Black Sea area? It is true that where this possibility is concerned our information is not complete; future research may yet shed new light on it.

If we could explain the absence of Buddhist missions in the Mediterranean, we might perhaps also understand why Christianity made only a brief missionary appearance in India during this period (where there were few conversions), and an even briefer appearance in China. Let us for a moment consider an ancient Christian legend.[1] It originated in Edessa, one of the principal bases from which the early Christian missionaries set out, and was probably written by a curious personage named Bardesanes, who died in A.D. 223 and had doubtless been in contact with Indian envoys passing through Edessa *en route* for Rome. According to this legend, Saint Thomas was Christ's twin brother; being a carpenter, he had been purchased for three pounds of silver in ingots by a merchant named Abbanes acting on behalf of an Indian king, Gondophares. Arriving in India with his new master, Thomas miraculously built a fabulous palace for Gondophares. He then converted the king himself and travelled everywhere preaching Christian celibacy (even in the nuptial chamber of the princess), until at last he was put to death by another Indian king, who was furious at having his subjects deflected from their duty of procreation. At the end of the nineteenth

[1] Milne Rae.

century in Travancore and Cochin on the Malabar Coast, there still existed a large 'Syrian' Christian colony which traced its origin back to the apostle Thomas. A local tradition maintained that Saint Thomas had disembarked at Malankara, near Cranganore, had preached to the natives of the region, baptized many of them, founded seven churches and ordained two priests, and had then moved on to Mylapur, on the Coromandel Coast, where he converted both king and people. According to the tradition, he then went to China for a period, and on his return to Mylapur the Brahmans, who were envious of him, caused him to be stoned and pierced with a lance. In the Madras area three holy places were still being venerated—a tomb, a cross and a cave—scenes of episodes in the life of Saint Thomas. Though the Saint's journey to China is no less credible than his travels in India, not a trace remains of it beyond that legend surviving in a few isolated villages on the Malabar Coast in the very heart of the Brahmanic world.

One more thing remains to be said about the earliest Christian missionaries in India. Towards the end of the second century in Alexandria, to which Christianity had been brought by Saint Mark, Bishop Demetrius founded an important centre for theological studies. It was from here, in A.D. 189 or 190, that the first recorded mission set out for the land of the Brahmans. Pantaenus, a Christian of Jewish origin, discovered on his arrival somewhere in India that he had been preceded by Saint Bartholomew, who had preached there the Gospel according to Saint Matthew. Pantaenus stayed only a short time in this land, and his visit was not particularly fruitful—except where geographical knowledge was concerned.

So Christianity never 'took' in India, in spite of the Apostles; but at least it put in an appearance. In return, purely Indian ideas were to interest inquiring and cultivated minds in Rome and, later, Constantinople.

Strabo, Dion Cassius and Florus were the first to make mention of such ideas. The French Orientalist Reinaud has noted in these authors the account of an embassy sent from India to the Emperor Augustus.[1] Only three of the envoys actually arrived, all the others having died en route. To Augustus they presented a letter, written in Greek, in which their king (of the Pandya dynasty of southern India?), stated that he attached great value to the friendship of the emperor. It was further declared that Roman ships would be received at any port they visited in the king's dominions and could be

[1] Reinaud.

sure of being offered facilities in keeping with the institutions of the country. The ambassadors brought gifts, which were carried by slaves bare to the waist and perfumed with aromatic substances. As well as pearls, precious stones and elephants, the gifts included some which could not fail to excite astonishment. There was an armless man who, by using his feet, could shoot an arrow from a bow and play a trumpet; there were tigers, which had never before been seen in Rome; there were vipers of extraordinary length, a serpent ten cubits long, a river turtle three cubits across, and a partridge bigger than a vulture. The envoys were accompanied by a strange philosopher, who, crossing to Athens with Augustus and his suite, had himself initiated into the mysteries of Ceres, then had a fire lit, cast off his clothes, rubbed oil on his body and leaped laughing into the flames, declaring that, having always enjoyed good luck, he had no wish to expose himself to a possible change of fortune.

Nothing certain is known of this strange philosopher. Florus tells us that there was a 'Sere' among the envoys, but there is no telling if this was a real Chinese or another of Pliny's blue-eyed Seres. Perhaps it was a Bactrian. 'Their complexion,' says the author, speaking of the envoys in general, 'showed clearly that they had been born under another climate.' There is little likelihood of this Sere having been a native of China; often enough it has been stated, justly, that the Chinese resembled the Romans far more than did the Semites, the negroes or the Tamils. This envoy may have been a Eurasian from Central Asia.

But to return to the Indian philosophers. . . . Another famous embassy arrived in Rome sometime between A.D. 161 and 180, during the reign of Marcus Aurelius. This embassy also included a philosopher, whom the Romans called Dandamis. It had passed through Edessa and there been received by Bardesanes, the biographer of Saint Thomas whom we have already mentioned; it is possible that he accompanied the envoys to the emperor.

From this period onwards, the intellectuals and thinkers of the Mediterranean interested themselves in the doctrines which came from India—to such an extent that half a century later Saint Hippolytus of Rome considered it necessary to attack the beliefs of the Brahmans in his *Refutation of all Heresies*. A detailed study made by Jean Filliozat[1] has shown that this champion of Christian orthodoxy was attacking the Upanishads. But in all the literature of the period we will find no similar polemic against Buddhism; indeed, the very

[1] Filliozat.

name of Buddha seems to have been unknown in the West. In conclusion, after the numerous parallels that have been drawn between Christian and Indian thought, we cannot do better than again quote Professor Filliozat: '. . . It must be pointed out that the ideas of the Brahmans were able to play a more important role than Buddhism in the world of the Mediterranean. Brahmanism, unlike Buddhism, has no human founder to be compared with Christ; but at the same time Buddhism has no theology or doctrine comparable with those of Christianity. Buddhist ideas seem to have penetrated more than once to the West in the early years of our era. When, for example, the gnostic Basilides explains the sufferings of the martyrs by saying they are the expiation for faults committed in "another life", we cannot fail to see in this the reflection of that part of Buddhist teaching which says that the Buddha himself had to complete such an expiation before achieving his Nirvana. However, it is the coming of ideas upon the doctrines of the Upanishads which is attested, and this is in no way surprising.'

Thus it was that Buddhism, in spite of all it had in common with contemporary Western thought, scarcely impinged upon Western consciousness; it was Hindu ideas that made their mark. A doctrine undergoes ideological attack when it becomes important enough to be a menace; and doubtless Brahmanism aroused too much interest for the liking of convinced Christians. No such attack was necessary in the case of Buddhism, for this religion made almost no impression on Western thought. Interestingly enough, when in the twentieth century the West had one of its periodic crazes for eastern philosophy, it was once again the Hindu system, not Buddhism, which found adherents in Paris, London and New York.

As for the two great systems of Chinese thought, Confucianism and Taoism, no trace of them seems to have reached the West, either by way of the straits of Bab el Mandeb or over the caravan routes. Nor, apparently, was there any Western translation of those famous books which thousands of students on the far side of the world were indefatigably copying and studying and learning by heart. And in all the accounts of Western travellers there is no mention of the religion of the Seres; no mention of Chinese ideas, such as that of the complementary elements of Yin and Yang, or the 'inaction' of the Taoists; not a word about China's great system of symbols, in which colours, the seasons, animals and many other things play a part. China, in short, seems to have made no contribution whatever to Graeco-Roman thought. And this state of affairs, which lasted for many

centuries, can only be explained by the fact that no personal contact whatsoever existed between Chinese and Westerners. We know that, among Latin authors, the Seres had the reputation of keeping themselves to themselves and saying little; we know also that there were a great many 'linguistic stages' between far East and far West, and that the way had to be dotted with interpreters. With so many language difficulties, the Chinese might well have been thrown back upon themselves. But that cannot have been the only reason. Similar difficulties had existed between Rome and India, and India and China; and they had been overcome. One or two Chinese may have reached Rome—if that Sere of the embassy to Augustus was really a Chinese, for example—but apparently they said nothing of their religious beliefs. As well as the lack of direct contact, though, one might suggest that there was some fundamental spiritual incompatibility between the two extremities of the ancient world. Indeed, even in our own time, how many people, cultured ones even, could state one basic idea of Chinese thought? And that at a time when all Confucian and Taoist works have long been available in translation, and when even remoter aspects of Oriental life—such as judo, for example—are enjoying such a vogue that even a child has heard of them.

Perhaps, too, the Chinese of antiquity, like those of today, were opposed to any idea of proselytising. Tolerant by nature, they had no wish, felt no inner need, to convert others to their own way of thinking: to each man his own masters, his own way of life, his own gods.

IX

Roman Influences in Central Asia

As well as textual evidence for the passage of religious and philosophical ideas from one civilization to another, we also have traces, preserved by some miracle, of artistic and intellectual contacts between East and West. The most remarkable of these are the paintings discovered, thanks to the dogged persistence of archaeologists, in what are now completely desert regions. Preserved by the dryness of the desert air, overlooked by travellers and Western historians for fourteen or fifteen centuries, spared by invasions, the Miran frescoes were discovered in 1906–7 by Sir Marc Aurel Stein at Lop-nor in the eastern part of the Tarim basin; while those at Toprak-Kala, in Chorasmia, were explored by the Russian Tolstov mission in 1946–7. As well as Buddhist paintings in the classic Gandharan style, both sites showed clear evidence of a Western influence (Roman or Syrian), dating, in all probability, from the second and third centuries of our era.

Aurel Stein had already accomplished a difficult journey of exploration in the heart of the desert when he pitched his camp at Miran, on the 89th longitude east.[1] He then undertook a systematic examination of the ruins, which turned out to be rich in Indian and Chinese remains of the Han period. Turning to the Buddhist temple, he found that the walls were painted. There, for the first time, were discovered frescoes of the Gandharan period. What must the British archaeologist's feelings have been when, in his own words, he came upon 'classical representations of cherubim?' 'The approach to purely classical design and colouring,' he wrote later—and by 'classical' he meant the classical antiquity of the West—'was closer in these frescoes than in any work of ancient pictorial art I had seen so far, whether north or south of the Kun-lun.' The wide eyes, the small fleshy lips and slightly aquiline noses of the figures reminded him of 'those beautiful portrait heads of Egyptian Greek girls and

[1] Sir M. A. Stein.

youths . . . from the Fayum of the Ptolemaic and Roman periods'. There was also 'a faint trace of Semitic influence recognizable in the features'. 'The head of Buddha is of a type unmistakably Hellenistic, in spite of a slight Semitic touch in the nose'; 'the large straight eyes . . . have nothing of that elongated, slanting look which all painted figures, as yet known in Central Asia and the Far East, invariably display. . . .' The pose of the left hand of the last arhat below on the right is typical of Roman statues—the hand itself appearing at the neck from beneath the robe. Anxious to render light and shade, the painter had applied touches of grey to the faces, and beneath the eyes the flesh was pale, almost white. This technique, according to Stein, was quite Western and showed the direct influence of Mediterranean artists of the first centuries A.D.

This influence was apparent in yet other details. Stein goes on to tell us that there were, '. . . young figures wearing the Phrygian cap and of a type which, in spite of a certain girlish cast of face, unmistakably recalled the Mithras worshipped throughout the Roman Empire. . . . The types of men's heads differed. Some were quite Roman in look, others with their peculiar cut of hair and beard suggested barbarian races.' He also discovered a picture of a girl whose face was Greek, Circassian or Levantine, and a man with a distinctly Roman face whose right hand was raised 'in the peculiar pose which suggested a player at "mora", with the second and fifth fingers outstretched and the two between turned downwards'.

Another fresco depicted one of the innumerable episodes from the life of Buddha. It showed 'a procession which at first sight suggested a Roman triumph more than anything else . . .' The horses and harness had something undeniably Roman about them, and the strangest thing of all was that the second fresco seemed to have been painted by the same artist as the first. The artist had signed his name. In a corner of the religious painting, on the white skin of an elephant, two lines of Indian 'Kharoshthi' writing contained the word 'Tita'—the Indian form of the common Roman name 'Titus'. Stein concludes that the artist responsible for the two frescoes, 'obliged by the sacred subject to cling closely to the conventional representation which Graeco-Buddhist art had centuries before adopted for that particular legend . . . was left free by the decorative and quasi-secular character of the dado to yield to art influences from the West more direct and more recent'. The artist could have been a Eurasian, born in northern India or Central Asia, raised as a Buddhist but formed, too, by Western masters. Where, though? In

some artistic centre of Asia Minor, Egypt, Italy or Greece? Or could he have been a Roman, or a Greek, or a Syrian—aware of the artistic conventions of Buddhism as well as of Western techniques? We must remember that Miran is the most easterly site to have revealed such a 'Romanization' of art.

These frescoes were such a revelation that the British archaeologist felt it was his duty to carry them to a safe place—England. He first attempted to photograph them, but that (in 1906–7) meant depriving himself of colour in the reproduction; also, there was not enough room for this, the paintings being upon the walls of a narrow passage. So they had literally to be carried away. But it was by no means easy to remove thin layers of stucco which cracked at the slightest touch, and the expedition, not having expected such a find, had no suitable instruments for the work.

Astonishing to relate, the frescoes reached the British Museum in good condition three years later. A wooden framework, padded with cotton wool and covered with large sheets of strong paper from Khotan, was applied to the fresco. A thin cutting tool was contrived out of strips of tin taken from empty packing-cases (in fact they were tea-chests, such as all good British travellers carry with them!) and this was carefully slid between the layer of painted stucco and the crumbling body of the wall. It was a long and delicate operation. The fresco was already much cracked, and the layer of stucco was kept glued to the underlying brickwork by concretions of salt. Then the whole thing was tilted, and the pieces of stucco were laid out flat on the padded framework, painted side downwards. All that remained now was to pack them up. Large flat cases were used, padded with fascines of reeds—the only material readily available in those parts—and wadded with the soft, fleecy tips of reeds. The painted side was protected with a layer of cotton wool. The frescoes were packed in twos, face to face like paintings, with the coloured surfaces separated by the cotton wool. Having been tightly roped up, they were then loaded onto mules and camels, carried across Central Asia, over the Himalayas, and put on board a train at the terminus in Kashmir. They were finally shipped from Bombay and reached London safely after a journey that had taken no less than three years. Aurel Stein himself did not reach the British Museum in such good condition; following frostbite in Tibet, he had had to have two toes amputated in a small British hospital in northern India and had narrowly escaped the spread of gangrene. However, he felt himself amply rewarded by the contemplation of his frescoes.

Some forty years later, after the war, in Soviet Central Asia, the Tolstov expedition systematically explored the enormous castle of Toprak-Kala, near the right bank of the Amu Darya 150 or 160 kilometres from the Aral Sea.[1] The three towers of this castle still dominate a large fortified town which was once the capital of a kingdom whose independence was broken by periods of subjection to both Persia and the Kushans. The expedition found many rooms containing frescoes executed on clay stucco in mineral colours; the backgrounds are generally white and sometimes powdered with alabaster dust. These frescoes gave evidence both of classical Gandharan style—the harpist, for example, and the numerous acanthus leaves—and of 'the figurative art of the Roman period'. Here, too, the thick eyebrows and wide-open eyes were reminiscent of 'Syria, Egypt and the northern shores of the Black Sea'. 'So two schools of art, two traditions meet in the friezes of a single room,' wrote Tolstov himself, and here, as at Miran, the juxtaposition of Gandharan style and the 'Western style of the Roman period' leads one to believe that the frescoes were the work of one artist or one team of artists led by a master who spoke two languages and was at home with two styles and two techniques.

These finds, all dating from the first three centuries of our era, mark the farthest limits so far discovered (we must remember that Chinese archaeology is only now beginning to use modern methods) of Western penetration to the east: Pondicherry and Oc-Eo by sea, Lop-nor and Chorasmia by way of the caravan routes.

Over towards the other end of the trade routes, in Palmyra, Chinese woollens and silks which have been found in tombs (they probably served as winding-sheets) are of a style and technique similar to fragments of cloth dating from the same period found at Lou-Lan in the eastern part of Lop-nor by Sir Marc Aurel Stein.[2] An exchange of technical knowledge may well have taken place between these two widely separated groups of weavers. The damask weave silks found at Palmyra have been given the name 'Han weave' by Monsieur Pfister. This cloth was thick and, as it were, double-faced; on one side there was the damask design, while the other was like taffeta and served as a backing. (Taffeta is the name given to the simplest, most rudimentary, weave, the warp and woof crossing each other over and under, as in darning.) The combining of these two weaves in a single cloth represents a fairly advanced piece of technique, and the invention has been attributed to the Chinese.

[1] Tolstov. [2] Pfister.

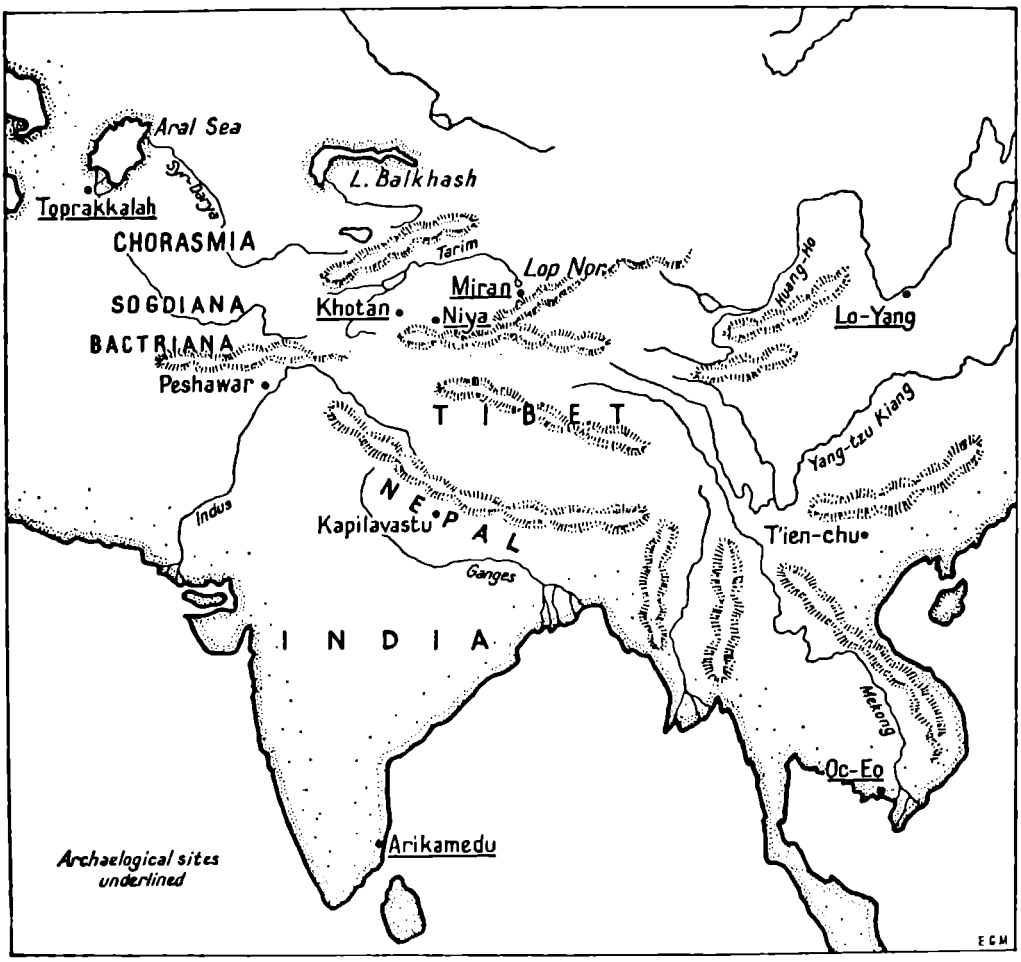
These Han weave damask cloths were shiny to look at, and they may possibly have been used for the Parthian banners at the battle of Carrhae.

As lighter materials became more popular, the taste for heavy silks declined, even though Chinese silk became more readily available in the second and third centuries. A second-century material was found at Palmyra which had its woof of wool dyed with cochineal (an expensive dye though not so expensive as purple), and its warp of almost invisible Chinese silk cheaply dyed with madder. It was the wool which was being shown off; the silk was merely a background, playing the role that the rough canvas plays in a fine tapestry.

As we have seen, thanks to the world situation at the time of the four great ancient empires, silk, perfumes, jewels, furs and slaves were able to flow along the land and sea routes to and from the land of the Seres. From the main routes, subsidiary ones branched out into a network covering western Europe, North Africa, Egypt, Ethiopia, Arabia, Persia, the shores of the Black Sea and the Caspian, Afghanistan, India, Central Asia, Indo-China and, finally, China itself. All the indications we have found along these routes suggest that a strong flow of commerce had been established. And even though grave political events were later to hamper trade, they could not put a stop to it altogether. At the most, the traffic was conducted by different hands over slightly different routes. The West had got into the habit of using Oriental products, just as the Orient had developed a taste for Western perfumes, cosmetics and jewellery. And whereas special political circumstances had been required for the initial setting-up of commercial links, commerce itself was now henceforth to be capable of breaking down political barriers and even influencing the foreign policy of great powers.

During the third century, Eurasia as a whole underwent a great upheaval. In the west, the Roman Empire went through a grave economic crisis, and its centre of gravity shifted to the eastern Mediterranean, where Antioch, Alexandria and Byzantium came to take the place of Rome. In the east, Han China disintegrated and was plunged into a period marked by territorial division and a rapid succession of dynastic changes. In Central Asia, the Kushan Empire began to shrink as its Persian neighbours encroached in the north and west. (Under the flourishing Sassanid dynasty, Persia itself became exceptionally aggressive.) In the north, successive waves of barbarians were beginning to sweep to both east and west, pressing ever more dangerously against the fortifications of the frontier zones.

The immediate consequence of the political upsets in the Far East was the breakdown of relations between China and the Western Territories. The Han dynasty, beset by the revolt of the Yellow Turbans (from A.D. 184), and then by a series of usurpers, sank from view into an ignominy as great as ever its glory had been. Then



5. *Map of excavation sites*

came the period of the Three Kingdoms. The north of China, where the routes to the West began, was ruled by the 'usurping' Wei dynasty. Then came the short-lived Tsin dynasty, reigning for a few years over a united China, and finally the barbarian Huns, who came with fire and sword and massacre to such effect that for two centuries the north of China became a mere appendage of the

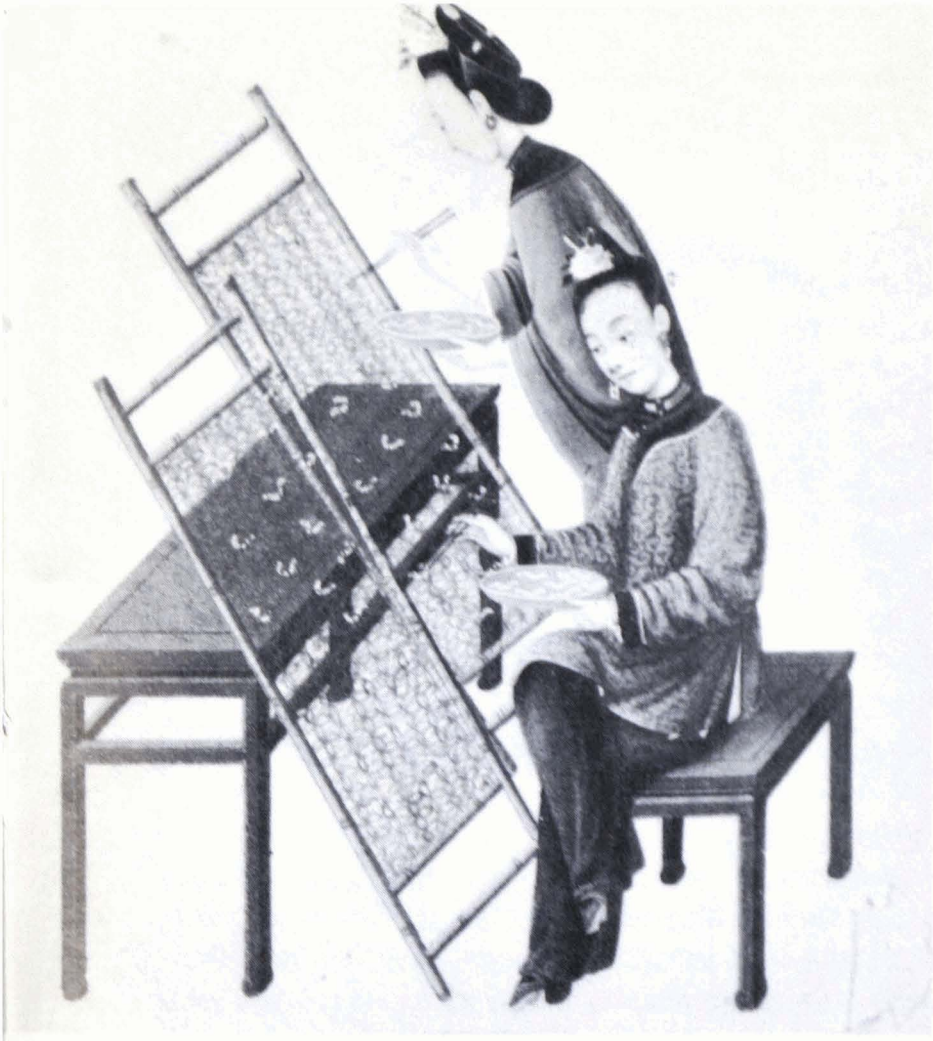
Eighteenth-century Chinese watercolors on rice paper, showing scenes relating to the production of silk. Museum of Art and Industry, Lyons.

Photos: René Basset, Lyons

Silkmoths laying egg

Eggs deposited on sheets of paper; these are suspended until the hatching

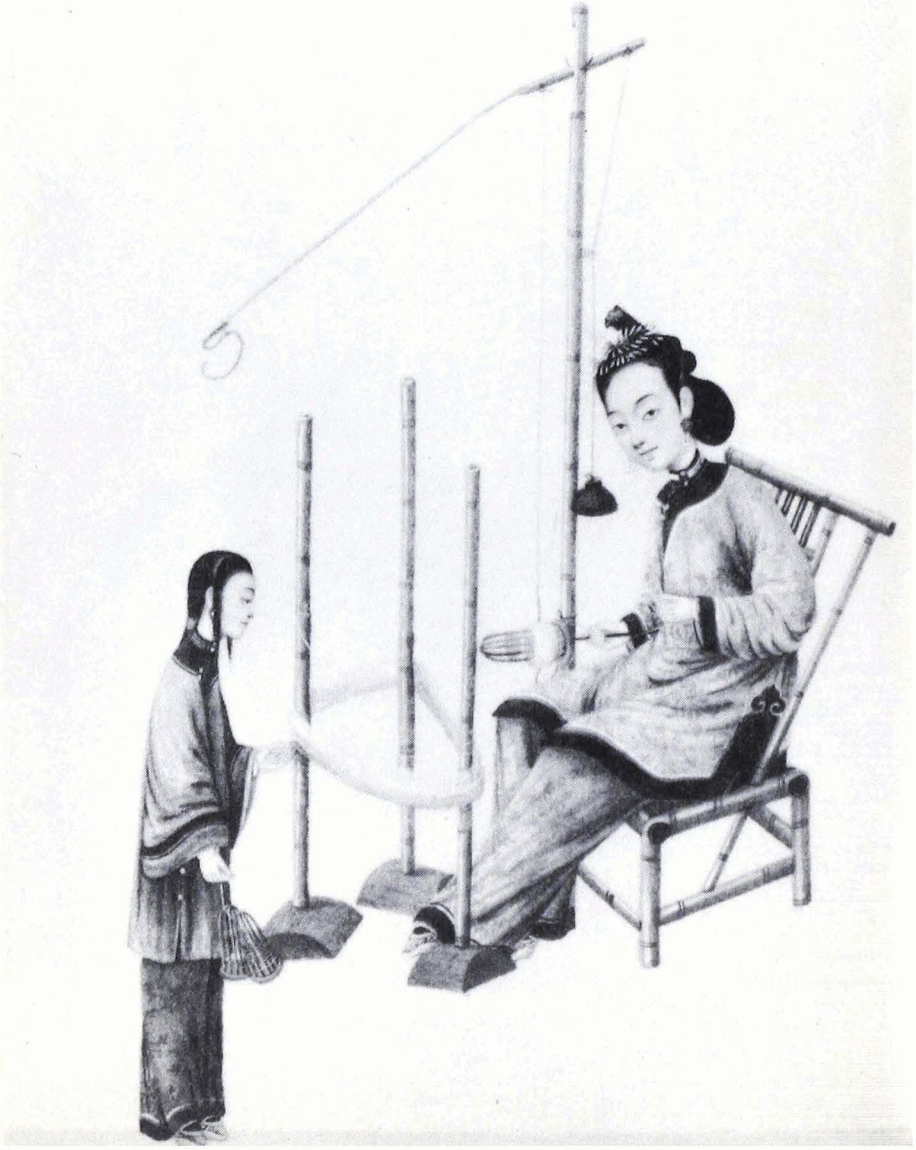
Mulberry leaves finely chopped for feeding the worms



Silkworms placed on screens prior to spinning cocoons

'Stifling' the pupae

Starting to reel the silk



Silk being wound on bobbins

Mongol steppe.[1] The barbarians broke down the social order, blotted out civilization, turned the cultivated fields back to pasture. In such conditions, what would become of craftsmanship and commerce? Chinese society itself was no more; what chance did the silk industry have? The Western Territories, cut off from the markets of China by war and famine, as well as by their own internal disorders, no longer witnessed the arrival of caravans laden with rolls and skeins of the precious material. And so things remained for two hundred and fifty years or so—roughly from A.D. 190 to 440. How did silk reach the West during this long period? We know that silk did get through; not in vast quantities—we shall see what struggles were caused by the lack of raw materials—but nevertheless in reasonable amounts.

From the end of the second century, Roman life was overshadowed by economic crisis. Too much gold had been spent on 'feminine luxuries', and on wars against the Persians and barbarians which necessitated keeping 400,000 men on a war footing. As in China, economic activity was hampered by political disorders and social upheavals; there were slave revolts, emperors assassinated, reigns lasting no more than a few months. The whole of life was disorganized. To the permanent threat of the Persians, who had been growing in strength since the advent of the Sassanids in A.D. 227, there was soon added the menace of barbarian invasion. From A.D. 235 onwards, the Empire was under constant pressure—from the Franks in Gaul, Spain and Mauritania, the Alemanni in Italy, the Goths on the Danube. . . . And, as if this were not enough, there were also natural calamities such as earthquakes and plagues. More than one emperor lost his life on the battlefield, and the installation of a successor was preceded by a round of plots and bloody assassinations. Industry and agriculture were faced with ruin; brigandage and piracy throve once more; communications broke down completely. The shortage of gold was followed by a scarcity of silver, and even of copper. Inflation brought about a collapse of overseas trade. A black market flourished; barter was reintroduced. All this lasted for a century, more or less. It might well be supposed that such disorders, coinciding as they did with similar conditions in China, brought the silk trade to a complete standstill. The isolation of the Roman Empire on one side and the Chinese Empire on the other might very possibly account for the scant knowledge which they had of each other at this period—for the fact that, in the fourth century, Marcellinus Ammianus knew less about silk than Pausanias had

[1] Grousset.

done. The situation would also explain the gap in the Chinese annals of the third and fourth centuries.

In the West, things began to improve about the year A.D. 270. Under vigorous emperors, the Roman legions challenged the barbarians along the frontiers of the Empire and held back the Persians. In A.D. 297, Diocletian took Mesopotamia and Armenia, always a bone of contention between the two empires, and stabilized the frontier. Following this there were forty years of uninterrupted peace between Rome and the Sassanids. In A.D. 330, the capital of the Empire was transferred to Constantinople, which henceforth became for the Chinese the capital of Ta-Ch'in. But had the Chinese annals ever actually described Rome when mentioning 'the great kingdom west of the sea'? It is most unlikely; the Han chronicles are extremely brief and might equally well be giving an account of Alexandria or Syria. As for the *Hou-Han-shu*, written about A.D. 430, it gives no hint that Ta-Ch'in may ever have had a different capital from the one it had at present.

But what about silk? The *Hou-Han-shu* does indeed make mention of it; in one place it states that 'the inhabitants of Ta-Ch'in cultivate the mulberry-tree', and in another it says that they have 'silk cloths of various colours'. Now, if the Mediterranean peoples had silk about the year A.D. 430, it cannot have come overland from China, for communications had not yet been reopened between China and Central Asia. The cultivation of mulberry-trees is, of course, no proof that sericulture existed; the author of the *Hou-Han-shu* mentions the fact simply because no Chinese could help commenting on the presence of this particular tree. Geographers habitually stated whether or not the mulberry-tree grew in the country they were writing about. Nevertheless, the attentive readers might well have paused over this passage in the *Hou-Han-shu* and greater efforts might have been made to elucidate it, had not later Greek and Latin authors frequently affirmed that the West, at this period, did not know how to raise silkworms.

The silk must have come from somewhere, and it is logical to assume that it originated in southern China, in that 'lower empire' of Nanking which Grousset has more than once compared with the Byzantine Empire and which managed to keep open relations with India and Persia.

We know that there was no significant falling off in the consumption of silk in the West. In A.D. 360, being for a time master of Byzantine Syria, King Sapor II of Persia seized a number of Syrian dyers and

weavers and carried them off to Susa, where they gave a powerful stimulus to the Persian silk industry. It was above all to India that the merchants of Persia travelled in search of the raw material for this industry.

The period now beginning was the age of Persia, just as the preceding one had been the age of Rome. With a rigid feudal structure and a royal power firmly based upon a national religion, Persia was as aggressively Zoroastrian in outlook as she was nationalistic, even imperialistic. She was determined at all costs to defend her territorial conquests and her economic monopolies—the most profitable of which was the transit of far-eastern silks. Henceforth, and for three centuries, there was to be a bitter struggle between these two great powers, each set on obtaining these materials at the most favourable possible price.

In Byzantium things soon began to go awry. Constantinople, the new metropolis, swiftly became the focus for trade and industry, but, following an economic policy roundly condemned by historians, the emperors made all the most essential branches of industry an imperial monopoly: coinage, mines, metals and textiles, including silk. The private workshops of Syria and Egypt immediately felt the effects of this—while those of Syria had already been hit by the departure of the specialists carried off by Sapor of Persia.

Nevertheless, the consumption of silk in Byzantium continued to grow, and demand was increased by the fact that the Christian clergy, now officially recognized, were beginning to dress themselves in silk vestments and use silk hangings in their churches; notwithstanding the resistance put up by certain bishops who wished to preserve the austerity of the early Christians, the Church was beginning to go in for pomp and ceremony. It also became customary for important people to be buried in silk winding-sheets. These new fields of consumption demanded constant supply. In the year A.D. 301, the Emperor Diocletian decreed that there should be a fixed price for raw Seric silk, and the subsequent fluctuations of this price reflected closely the political fortunes of Byzantium.

The Byzantine Empire was totally cut off from the land of the Seres. In the north, in the Danube and Black Sea areas, there were the barbarians; farther south, constituting an insurmountable barrier, the Persians, with whom the only hope was to come to terms. There remained the Red Sea; but from the end of the second century Roman ships no longer sailed for India with the monsoon. Mastery of the sea had passed more and more completely to the Ethiopians

and the Persians, especially the Persians. So the people of the West had to give up the idea of trading direct with the Orient and resign themselves to paying through the nose for their silk. Persia, indeed, was soon dominating the whole of the trade with the Far East. Owing to the temporary isolation of northern China, merchants from the East were no longer frequenting the land routes through Afghanistan and Central Asia. From the fourth century onwards, Persian ships followed the coast or cut straight across the ocean to India and Ceylon in search of merchandise which had been brought from southern China, while during the period of the Three Kingdoms, between 223 A.D. and 280, Chinese high-seas junks had begun to round Chryse (Malaysia), and venture as far as Ceylon. Thus it was that trade began to flow along this important sea route, and it is probable that for two centuries (roughly from A.D. 240 to 440) this was the way silk came to the West.

It is from this period, doubtless a short time before the interruption of communications over Central Asia, that must be dated certain remains which modern archaeologists have found at Lop-nor. One of these is a roll of yellow silk, tied with string, about 40 centimetres wide and six centimetres in diameter.[1] Doubtless the dimensions were suited to some garment of the time, and there must have been entire convoys laden with such bales strung out along the trade routes. The yellow colour proves that trade was not conducted solely in white silk—at least, not in this region. At Miran a strip of white silk dating from the same period was found bearing painted inscriptions in an Indian language. As well as numerous fragments of silks in various colours, pieces of woollen carpet were also found, the most ancient specimen of carpet hitherto discovered in Chinese Turkestan. Harmoniously coloured in brown, claret, buff and blue, this is the earliest evidence we have of a craft for which Central Asia was long to remain famous. 'Dance-mats' were taken by artists from Sogdiana to the court of the Son of Heaven, and, in a later period, 'prayer-mats' made in this region were used by the Arabs in all their caliphates. The Bokhara carpet, so widely imitated, is doubtless the descendant of that ancient one whose remnants were discovered fifty-five years ago by Sir Marc Aurel Stein in a heap of miscellaneous rubbish long overlooked by invaders and scavengers.

Lop-nor was a veritable meeting-place for the arts and industries of the ancient world. It marked, with the frescoes of Miran, the

[1] Sir M. A. Stein.

farthest point of Roman influence existing side by side with Gandharan elements. The discovery of numerous Han coins in copper evoke Chinese purchasers; the silk suggests that this place was a stage upon the great trans-continental route; the bronze mirrors of the Han period, the glass and ceramic beads, remind us of the presence of women, the existence of a permanent colony; bronze arrow-heads recall the proximity of Huns and brigands. There were also found fragments of tough paper covered with inscriptions in mysterious characters written from right to left and somewhat resembling Aramaic. This writing, completely unknown in 1907, was later identified as Sogdian. However, these inscriptions were relatively few compared with others, on wood or bamboo, in Chinese characters or Indian Kharoshthi; it was at a later period that the Sogdians increased their activity.

Still at Lop-nor, Sir Marc Aurel Stein unearthed Gandharan-style chair-arms and assorted fragments of silk together with a small woman's slipper with a thin sole of leather. The style was traditionally Chinese, but the upper, of a fine cream-coloured wool material, was decorated with an exquisitely coloured, woven geometrical design which recalled Coptic or early Byzantine models. The site on which these things were found could be dated by the presence of Han coins. And so, once again, a prosaic article of daily use gave evidence of the influence of Ta-Ch'in, 'the kingdom to the west of the sea', upon the craftsmanship of Central Asia.

We have seen how, in theory at least and according to texts, communications between China and Central Asia broke down about the year A.D. 200. Nevertheless, we must not be too surprised to find relics of the third century along the route. An article might well last for a generation or more, and there must have been many garrisons which stayed put and endeavoured to preserve their way of life in spite of the wars. There remained for posterity only that which was spared by the Huns. That little slipper decorated with Byzantine motifs may be the only trace left of a Chinese family taken into captivity. Having pillaged the house, the invaders would have set fire to it and marched on, leaving only a pile of debris of no interest to anyone. And later, as the region grew drier, there came the sand, the most implacable enemy of all.

X

A Duel: Persia versus Byzantium

What with the disorders in northern China (which interrupted communications with Central Asia), the economic instability at home, and the resurgence of piracy on the high seas, the Graeco-Roman merchants found it more and more difficult to reach India, and the West began to suffer from a shortage of silk. Persia could now dictate what prices she liked, and a state of cold war began. This was sometimes to flare into open hostilities.

Rome had taken Petra in A.D. 106, Edessa in A.D. 216 and Palmyra in A.D. 273, and with these towns she believed herself to hold the key arrival-points for merchandise coming from China. But always, beyond these towns, Persia barred the way. In the third century she extended her frontiers to east and south, overthrew the Kushan Empire, took control of Afghanistan and northern India, and became a sea-faring nation more powerful than either Rome or Ethiopia. She held the mastery of the seas from the straits of Bab el Mandeb to Ceylon, where she established flourishing agencies. By the time the eastern Roman Empire attempted, in vitality and power, to become what the first Rome had been, it was too late. The flow of silk from China was regulated by the Persians and their price had to be paid.

Silk now came to play an important part in Byzantine life and politics. We find mentions of it everywhere: in customs laws, peace treaties, corporative statutes, sumptuary laws, and even in sermons, in which the abuse of it was denounced by the clergy.

The first evil effect of this situation came about as a result of the imperial policy of economic control. A vicious circle existed, from which there appeared to be no way out: the national treasury was too poor to pay for the 400,000 men engaged in fighting against the

Persians and the barbarians; in order to enrich it quickly, recourse was had to taxation, imperial monopolies and strict economic control. The first thing to be done, thanks to a financial reform due to Diocletian, was to make taxation uniform throughout the Empire and extend it to Roman citizens, who had hitherto been exempted from payment. But even the large sums accruing from this measure were not sufficient for the nation's needs. The next step was to decree that certain key industries should be 'imperial monopolies'. This enabled them to be strictly controlled, and their products to be taxed to the maximum. But private workshops, having no protection, were badly hit by this measure, and the result was unemployment, bankruptcy, misery—and an inability to pay taxes! The monopoly laws hit the treasury itself as hard as anybody else—and added the threat of internal disorders to the ever-present danger of the wars. The mining and metal industries and textiles, including weaving and dyeing in purple, were the most strictly controlled branches of the economy. Metals, being strategic raw materials, and gold must not be allowed to serve the enemy; it was strictly forbidden for them to pass beyond the frontiers of the Empire, and all workers in these fields were closely supervised. No gold, iron or copper could escape the eagle eye of the state. In textiles, it was above all silk that attracted the attention of the treasury. It was scrupulously controlled from the moment of its entry into the Empire to the time it was sold as a finished garment. The importation of silk from the beginning of the fourth century onwards was almost entirely dependent upon Persian intermediaries, and it both influenced and was influenced by the relations which existed between Byzantium and her powerful neighbour. When Byzantium was of a power sufficient to balance that of Persia, agreement was reached between the two countries. Thus, in A.D. 297, the Emperor Diocletian and Narses of Persia agreed that the town of Nisibis should be the only centre for the exchange of silk; no international deal in silk was to take place anywhere else. This measure affected not only Byzantium and Persia, but also the Nabataeans and the 'barbarians of the north'. Later on, different centres were fixed. After a treaty between Honorius and Theodosius on the one part and Yezdejird I on the other (A.D. 408–9), Nisibis, Callinicum (Raqqa on the left bank of the Euphrates?), and Artaxata (Artashat, on the river Araxes), were nominated; while the choice fell on Nisibis and Darou following an agreement made in A.D. 562 between Chosroes I and Justinian.[1]

[1] Pigoulevskaya; Christensen.

The operations were always the same. The raw silk was brought from the Persians, usually by Syrian merchants, in the customs towns, and the purchaser at once paid an *ad valorem* import duty, the *vestigalia*, of about 12½ per cent. He then undertook to transport the merchandise by sea to Byzantium, Alexandria or Antioch, where another duty was charged.[1] Yet other taxes were loaded on to the merchandise as it circulated within the Empire; there were tolls for the use of roads and bridges, and dues payable by those who would sell in the markets. With every tax, the price of the goods rose, and the treasury was enriched thanks to the efforts of the local tax-controllers—and so were the tax-controllers themselves, on the quiet. The numerous private workshops in Syria were in a constant state of insecurity. If relations with Persia deteriorated and prices rose, they were forced to raise their prices; if raw materials grew scarce, there was black market and unemployment. But demand continued to outrun supply, thanks to the use made of silk by the Church and the court, which was large and luxurious, and to the new, Christian, mode of burial. For a century at least private producers seem to have struggled on somehow. The only ones who really went to the wall were the dyers, who were forbidden to manufacture certain varieties of purple (*blatta*, *oxyblatta* and *hyacintina*, colours which it would now be very difficult to define), which were reserved for the use of the imperial court and manufactured in the imperial workshops. Infringements of this prerogative could be punished by death.

From the fifth century onwards, probably, the court at Constantinople had its own silk weaving establishments, which, enjoying all kinds of official protection (raw materials of the best quality were requisitioned for them), offered serious competition to private enterprises. This was in addition to the growing competition being offered by the Persians. These workshops are known to historians as 'gynaeceums'; as we know from contemporary accounts, they employed large numbers of women. They were virtually closed institutions—even more difficult to get out of than they were to get into. There were laws to punish those who gave refuge to runaway workers or attempted to entice away the specialized staff. And of course no scrap of silk could be smuggled out unseen by the eagle eyes of the supervisors.

The first gynaeceums were at Constantinople, but others were afterwards set up in Alexandria and Cartagena. They worked exclusively for the court, and their scale of prices was laid down from

[1] Latouche.

above. They produced those long straight robes, similar to the 'Median robes' of former times and worn by both men and women, which were soon afterwards to figure in Byzantine mosaics. It was probably one of these establishments which produced the oldest piece of silk known to have been manufactured in the Empire. This dates from the fourth century and was found in Egypt in a tomb at Antinoopolis. It bears an encrusted ornamentation of bands and semi-circles, in keeping with Roman fashion, and the motifs are identical with those of local woollen cloths of the same date; indeed, the two cloths were very probably produced by the same craftsmen. The motifs include a classical one, of the nereids, and a biblical one, of Joseph sold by his brothers.[1]

Byzantium, Egypt and Syria were now the three main centres of the textile industry. The silk yarn (*nema*) was thrown in Beirut, Tyre or Sidon; Byblos, Tyre, Beirut and Laodicea exported their linen to all parts of the world; Sarephta, Caesarea and Neapolis manufactured the true purple. Persian woollens, Cappadocian furs and Palestinian byssus—all these were much sought after; but the greatest source of wealth was always silk. By now they were capable of producing the most sumptuous brocades (gold thread on silk), as well as a wonderful cloth interwoven with minute birds' feathers, a technique which had probably come from China, either directly or by way of Iran. This extremely costly material, known as *opus plumarium*,[2] was still being made in the monasteries of the Middle Ages, but later the real feathers were replaced by embroidery. The pale young ladies who spent so many hours bending over their needlework in the nineteenth century probably never dreamed of the ancient origins of their pastime.

At the beginning of the fifth century, the *Hou-Han-shu* mentioned that the people of Ta-Ch'in manufactured 'a fine cloth said to be made from the down of the sea-sheep and the cocoons of the silkworm'. This may well give us pause: cocoons in Byzantium! But this is not the place to reopen the long argument as to whether or not true silk existed in the Mediterranean; that is a question which will probably never be answered. By way of compensation, we may one day get to the bottom of the 'sea-sheep' mystery, for Pliny the Elder had already, 400 years previously, described a cloth made from the 'hair of the sea-sheep'—though he made no mention of cocoons or other materials. The information gathered in the *Hou-Han-shu* probably came from Cingalese who were in contact with

[1] Pigoulevskaya. [2] Pariset.

Persians, who, in turn, were in contact with Syrians. It was thus by no means first-hand—and in any case this particular detail may, like many others, have been invented in order to protect technical secrets. In view of the secrecy in which the Chinese wrapped their manufacture of silk, it would hardly be surprising if the people of the West adopted similar tactics. Nevertheless, the 'hair of the sea-sheep' may have been the same thing as the 'marine silk' which was still in existence as late as the nineteenth century. This was simply the reddish-brown feelers, 10 to 15 centimetres long, of a kind of large mussel found in great quantities on certain coasts of the Mediterranean and also known as the pinna. Arab authors made mention of this mollusc during the Middle Ages.

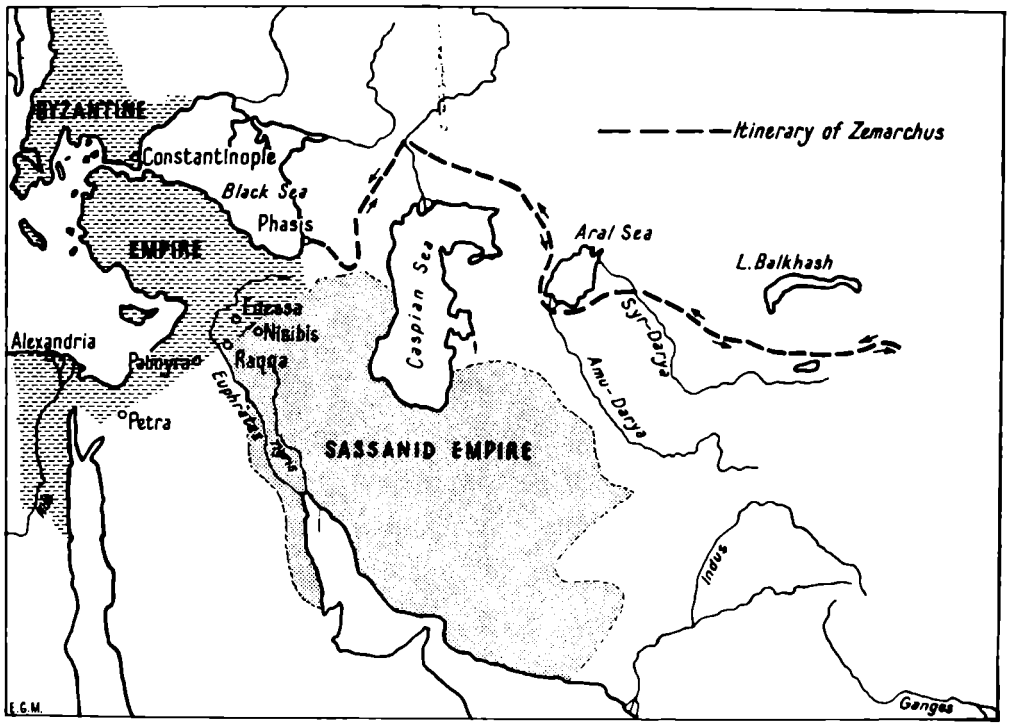
During the fourth and fifth centuries, the Greeks, Syrians and Jews no longer attempted to reach China. The imperial policy of economic control put a brake on such enterprises—and in any case men's minds were fixed on other things. For instance, men were now trying to find the earthly Paradise and its four rivers, and it was to India rather than China that their researches led them—researches based not so much upon memories of Alexander's expeditions as on biblical texts. The world had shrunk; interest was concentrated above all on the Middle East and India—and India had come to be looked on as the farthest limit of the inhabited world.

In about A.D. 350 a sort of commercial geography book was composed called the *Expositio totius mundi et gentium*.[1] Written in faulty Latin by, probably, a Syrian, this work has been preserved for us by manuscript copies written long after the original composition. It shows that there was lively trading between Byzantium, Spain, North Africa, Italy, the Balkans and Egypt. Alexandria remained a city of prime importance, thanks to her traffic in Oriental products and papyrus (of which she was the world's only supplier), as well as her Christian and pagan philosophers and scholars, and her outstanding physicians. Syria, with her numerous industrial and commercial centres (the chief of which were Antioch and its port Seleucia), also played a part in the network of trade. The *Expositio* makes it clear that the intense economic life of the Mediterranean was heavily concentrated in the east.

During the same period, we find in Marcellinus Ammianus a description of the great international fair held each September at Batne.[2] Batne lay on the caravan route which ran from Antioch and Seleucia to Edessa and on through Mesopotamia to the Persian Gulf.

[1] Pigoulevskaya. [2] Pigoulevskaya; Coedès.

All the merchandise coming, whether by land or sea, from India and China was to be found there, and Syrians, Persians and Jews flocked there to swell the hurly-burly of the market. Also about A.D. 350 can be found a rather odd mention of China. Alexander the Great went there, we are told, and his visit is commemorated by a stone column bearing his name! This legend, which had a long lease of life, originated in the work of the 'pseudo-Callisthenes'. This was a work of fiction which purported to be a biography of Alexander written by



6. *Connections between the Byzantine and Sassanid Empires*

the Callisthenes who had accompanied the conqueror on his travels, but in fact it was composed by a Greek-speaking author of the fourth century. It enjoyed immense popularity, and innumerable copies of it were made. As with the journey of Saint Thomas, so with that of Alexander: for China, we should read simply 'the end of the world'. China had become a sort of blanket word used to designate the most inaccessible place imaginable.

We have rather more reliable information on Ethiopia, Arabia and India—though, as modern historians have clearly shown, confusion was beginning to arise between India and Ethiopia. This seems

almost incredible at first, but it was merely a question of nomenclature. 'India' was the name given to a number of lands around the Erythraean Sea, including those which we ourselves called the East Indies. In the eighteenth century, European authors were still including the Portuguese agencies of the Red Sea among the East Indies, while in the Middle Ages, India itself was known as 'Upper India'.

In his *History of the Church*, written between A.D. 425 and 433, Philostorgius gives an account of Constantius's efforts to convert the Sabaeans to Christianity. (Perhaps these Sabaeans were the suppliers of incense mentioned by Pliny?) Christian missionaries were indeed beginning to travel the world, but the emperor's intentions in sending them out may not have been entirely divorced from economics. The Sabaeans, or the Homerites, or the Himyarites might have been able to provide useful bases for the Empire in the trade war against Persia. Moreover, by its very nature Christianity created powerful bonds between converted peoples and the nation that did the converting. The emperor consequently sent the Himyarites an embassy led by one Theophilus the Indian,[1] an interesting personage who had been born in Ceylon or the island of Socotra and spent many years as a hostage at the court of Byzantium. A Christian church was built at Tafara, the capital of the Himyarites, another at Aden and another in some town on the Persian Gulf. A certain number of conversions were achieved. This mission was probably able to give the court information about countries even more remote. At all events, Philostorgius writes of Syrian colonies and the Syrian language on the west coast of 'India'—'the land of elephants and cinnamon'. He sought above all to locate the four rivers of the earthly paradise: the Nile, the Tigris, the Euphrates and the Phison, which was in India. . . . But there is no telling which 'India' this may have been.

Did they know nothing of China at this period? There was, as we have seen, no longer a 'Chinese Empire'; so far as the rest of the world was concerned, the Chinese were merely a people like any other. To have some idea of the importance generally accorded to China by the people of Byzantium, we cannot do better than consult a document dating from about A.D. 365 and known as the 'Map of Castorius' or the 'Peutinger Table' (after its first modern editor).[1] All we know of Castorius is that he came from Rome, that he compiled his map during the period in which the Empire had three

[1] Pigoulevskaya.

capitals, Rome, Constantinople and Antioch, and that he was not a Christian. Intended as it was for travellers, this map naturally gave all the main itineraries—and it is somewhat surprising to note that there is no itinerary leading to 'Sera major', China. No route, apparently, led to Cattigara (Canton, probably, in southern China, which Ptolemy called Sinae); it appears on the map above an inscription reading 'Pirates'. This inscription covers the whole of South-East Asia, indicating that China had once more become inaccessible. On the other hand, Castorius does mention certain places in India as being accessible, such as the port of Muziris on the west coast and the town of Nelkindon (Malkinda), up-river. The map clearly shows the control which the Persians had over these routes; all roads began from Ecbatana and finished in the east in Bactriana or at the mouths of the Indus.

The most complete inventory of the state of Western knowledge with regard to China is contained in a long passage from Marcellinus Ammianus:[1]

'. . . Beyond and to the east of the two Scythias' (this would include eastern and western Siberia and the greater part of Russia in Europe—'a ring of high walls encloses Serica' (a reference to the Great Wall?), 'an immense country of admirable fertility, bounded to to the west by Scythia, to the north-east by frozen deserts and extending to the south as far as India and the Ganges.' (The author evidently knew nothing of Tibet.) 'The soil is very varied . . . corn, fruit and cattle all flourish there. Different peoples inhabit this fertile land. The Alitrophages, the Annibes, the Sizyges and the Chardes face up to the frosts and biting winds of the north. The Rabannes, the Asmires and the Essedons, the most illustrious of these peoples, face the rising sun. To the west lie the Athagores and the Aspacares. The high mountains to the south are inhabited by the Betes.' (It is impossible to identify these peoples. Some of the names resemble those used by Pliny or Ptolemy, but that does not help us very much.) 'The towns are not numerous, but they are large, rich and densely populated. The Seres are absolute strangers to war and the use of weapons.' (This was the reputation they enjoyed in the West in ancient times. It has often been observed that the Chinese, though highly inventive, never created much in the way of weapons, and that all their engines of war were borrowed from neighbouring tribes. They invented gunpowder, but never put it to military use.)

[1] Coedès; Reinaud.

'Repose is what they love more than anything else; consequently they are very easy-going neighbours. In their country the skies are clear, the climate is mild and healthy, and the force of the winds is always tempered.' (This may be true of southern China, but hardly of the north, where the icy winter winds of Siberia are replaced in summer by the famous 'dust-wind' and a suffocating heat.) 'The land is wooded, but lacks thick forests. A soft, fine down is gathered from the trees, whose leaves are repeatedly moistened, and this is spun and made into silk—that material once the prerogative of the upper classes but now worn by all and sundry.'

And here, two centuries after Pausanias, we have repeated the belief in the vegetable origin of silk. The error of Strabo and Pliny all over again. For four centuries merchants had been doing all in their power to obtain silk, and they still had no idea where it came from!

'The Seres have so few needs,' Marcellinus Ammianus goes on, 'and they are so fond of peace and quiet that they avoid all contact with other peoples. When foreign traders cross the river to ask for silk yarn or some other product, not one word is exchanged, and the price is agreed with no argument. The inhabitants are so simple in their tastes that when they hand over their products they ask no foreign article in return.'

And there once more is that reputation for placidity, taciturnity and sobriety already met with in Pliny and the *Periplus of the Erythraean Sea*. However, this description of China, which Marcellinus Ammianus must have pieced together from travellers' tales in the ports of India, can scarcely have been applicable to the north of the country, where colonies of foreigners had settled; apart from anything else, the route to Hsi-yü was closed in Ammianus's time. He was writing in fact of southern China, with which alone the ports of India were in communication at this period; and it was from the ports of India that the people of the West got their information.

It was probably an exaggeration to say that China imported nothing in exchange for her exports. The 'rare and precious products of the West' were not entirely without their attractions, as we know from the *Dynastic Histories*. The products circulating in this period seem to have been the same as in preceding centuries: to the West, silk above all else; to the East, glass, precious metals, perfumes and incense. Trade between the Mediterranean and India was apparently easier and therefore more active: 'Indian iron which does not rust' (though this may have come from China, which was

famous for metallurgy), spices, possibly opium, *indici capilli* (hair for wigs?), eunuchs, and the precious stones for which India has always been renowned—diamonds, rubies, sapphires. All of these, with the exception of iron, were luxury goods. In return, Byzantium exported glass, Italian wines, perfumes and gold.

And so, in the estimation of the cultured élite of the Byzantine Empire, the Seres were a peaceful, gentle, sober and fortunate people—ironical indeed when we remember how China had been, and was still being, ravaged by war. The people of Byzantium were convinced (as we know from numerous passages found by Coedès in fourth-century Latin authors) that the Chinese believed in no gods and somehow escaped the influence of those stars which governed the lives of Western men; Mars never plunged them into war, and Venus never drove them to the follies of love. 'In all this vast country there are no temples, no prostitutes, no adulterous women, no robbers brought to justice, no murderers, no victims of murder.'[1] And again: 'Among the Seres, the laws of their ancestors are more powerful than destinies determined by the stars.'[2]

But what about the Chinese view of Rome? Did they still look on it as the land of mountebanks and conjurors, or the home of skilful engineers?

In the *History of the later Han*, or *Hou-Han-shu*, which was written about A.D. 430 and which, together with accounts included in the Han archives, is our source of information for this period, there are no mentions of conjurors. Ta-Ch'in is of great interest to the writer and has taken its place alongside Persia, India and the States of Central Asia. Information regarding the great kingdom of the West doubtless reached the annalist by way of Ceylon, where Chinese junks encountered the vessels of Persia and Ethiopia, or Canton, which was visited by both Indian sailors and Buddhist missionaries.

'The State of Ta-Ch'in,' we read in the *Hou-Han-shu*, 'is also called Li Chiang' (or Li Kan, or Li chien, according to pronunciation. It was this word that Professor Dubs saw as a Chinese phonetic transcription of Alexandria.)[3] 'And as it lies on the western shores of the sea, it is known, too, as the kingdom to the west of the sea. The country extends for several thousand li and it comprises nearly 400 towns and several dozen smaller subject states.'

As for its geographical situation, 'they say that, on leaving

[1] Text of Bardesanes quoted by Coedès and Needham.

[2] Text of the *Recognitiones pseudo-Clementinae* quoted by Coedès and Needham.

[3] Dubs.

An-hsi' (Persia), 'one can take the land route round the north of the sea and enter Ta-Ch'in to the west of the sea.' (This was probably the Caucasus route, circling the Black Sea and coming down through northern Greece.) 'The country is densely populated. There is a guard post every 10 li' (about 6 kilometres), 'and a relay station every 30 li.' (According to Procopius, writing a century later, the distance between relay stations was from 5 to 8 kilometres.) 'Along the road there are neither robbers nor brigands, but large numbers of fierce lions and tigers, which are prepared to attack travellers, so that unless one has an escort of 100 armed men there is a danger of falling victim to these beasts. They say also that there is a bridge 100 li in length by which, towards the north, one can cross the sea.'

The author then goes on to correct the errors of his predecessors: 'In the history of the first Han, it was said that 200 days' journey to the west of T'iao-chih one came near to the place where the sun sets; the present writer cannot agree with this. . . . None of the ancient Chinese ambassadors travelled as far as T'iao-chih.'

Would he then deny that Kan Ying travelled to Mesopotamia—and refute the legend that the sun set 200 days' journey to the west? The Romans themselves had believed that the sun sank into the sea somewhere beyond the Pillars of Hercules. We are led to the conclusion that the people of the fifth century did not place great reliance on the teaching of the ancients and were not prepared to accept unquestioningly the information contained in their works. Elsewhere the *Hou-Han-shu* declares: 'As to the rare products and wondrous things of other lands, a great many highly unlikely tales have been told, and we shall not mention them in these historical notes.' Now for a description of the capital—whether Rome, Byzantium or Alexandria: 'The walls of the capital are made of stone. Everywhere there are guard-houses decorated with white clay pargeting. . . . The inhabitants shave their heads and wear garments embroidered with flowers.' (In Chinese, 'flower tissue' is the name given to all printed, embroidered or multicoloured materials.) 'They go around in small carriages draped in white. When they go out or return, they shake little bells and carry banners or flags. The capital is about 100 li in circumference. In the town there are five palaces, 10 li one from another. The columns of the palaces are made of rock-crystal. Their dishes are made of the same material. The sovereign attends to his affairs each day in a different palace, so that he is in each palace every fifth day.'

The wise government of the Romans is admired: 'An official always follows the sovereign's chariot with a sack. Anyone having anything to communicate to the sovereign places a paper in this sack. When he reaches his palace, the sovereign himself examines the papers.' (They were in fact of papyrus.) 'Thirty-six military chiefs are appointed to meet and discuss the affairs of the state. The sovereign has no heir; wise men are placed on the throne, and they are elected. When disasters befall the state or there are hurricanes out of season, the sovereign is deposed and another is chosen in his place; the deposed ruler gives up the throne with good grace and makes no complaint.

'In general, the inhabitants are tall and well-built. Some of them resemble the people of the Middle Empire' (China), 'and for that reason Ta-Ch'in is called Great China.' It would be somewhat surprising nowadays to be told that the Chinese resembled the people of the Mediterranean. Nevertheless, the Chinese of the period must have been similar to the present-day northern Chinese, whose features, with the exception of the nose, are not unlike those of European races. We may recall that Father Huc, a Frenchman, and more precisely a Gascon, when obliged during the nineteenth century for reasons of security to pass himself off as a Chinese, had no difficulty whatsoever; he was accepted as a native throughout his long journey through the Chinese provinces—and that at a time when feelings of xenophobia were at their height.

In the field of economics, we read as follows: 'In the bowels of the earth there are quantities of gold, silver and other minerals. They have a stone which shines at night, a pearl as bright as the moon, the rhinoceros, which frightens hens, red coral, yellow amber, coloured glasses, marble, cinnabar, green jade, gold embroideries, woollen cloths worked with gold, silks of various colours, powdered gold and a cloth which does not burn.'

Several of these products are known to us. In 1919, the American Professor Berthold Laufer produced an interesting study on some of those which are less easily identifiable.[1] The 'stone which shines at night' might well be Pliny's carbunculus, which glowed red like a coal—our carbuncle; almost certainly it was a kind of ruby. It may here be mentioned that, according to Marcelin Berthelot, the Romans made gems phosphorescent by rubbing them with the bile of the tortoise. This little trick of the trade had probably made a great impression on Orientals.

[1] Laufer.

The 'pearl as bright as the moon' could be, so far as etymology is concerned, the astrion mentioned by Pliny. Laufer equates this with our asteriated opal.

The 'rhinoceros which frightens hens' calls to mind the rhinoceros horns which were, at this period, beginning to enjoy a very wide circulation. Again according to Laufer, this reference would have been inspired by a legend contained in the works of a Taoist writer and scholar who died about the year A.D. 536: 'When a horn of this animal was placed in the rice served to the hens, the birds would flee and refuse to eat.' Throughout the Middle Ages rhinoceros' horns keep cropping up, generally connected with magic or medicine and reminding one irresistibly of the legend of the unicorn. It would be interesting indeed for a student of folk-beliefs and their passage from one nation to another to find out what use exactly was served by this particular rhinoceros, imported over such a vast distance.

Finally, the 'cloth which does not burn'. This was asbestos, which seems to have been a Roman invention. It intrigued the fifth-century Chinese as much as it did the medieval Europeans, who thought it must have been made from the hair of the salamander.

Berthold Laufer quotes an anecdote from fifth-century Chinese history: the king of Kashgar sent the emperor of China—for communications with Hsi-yü had by now been reopened—a tunic, 6 metres long, which had been worn by Buddha. The emperor cast it into a fierce fire and left it there an entire day; but the tunic did not burn. The spectators were speechless with surprise; how could they help but believe in the miraculous power of Buddha? This story was a powerful weapon for use against rationalists and sceptics.

But to return to the *Hou-Han-shu*'s economic observations: 'By combining various aromatic substances the inhabitants of Ta-Ch'in are able to distil a juice called Su-ho.' This is the word generally used for storax and, according to Laufer, its pronunciation would be close to that of the Greek sturax. The *Hou-Han-shu* itself states that it was used over the centuries for various perfumes, especially blended ones. The Chinese found such products very attractive: 'In a word, they export a variety of rare articles which are not found in other states.' Did the Chinese then suppose that everything which came from the West was produced inside the Roman Empire? We know that perfumes originated outside the Empire—and that there were no rhinoceroses around the Mediterranean. However, we have seen how the Romans made a similar mistake with regard to cinnamon; they believed it to have originated in Arabia simply

because they purchased it in Arabia. Centuries later, in his *Life of Saint Louis*, Joinville stated that its origin was unknown, possibly even divine, and that it was deposited in the mud along the banks of the Nile when the river was in flood to be fished out afterwards by Saracens with nets!

Finally, the historian remarks once more on the honesty of the Romans. They never charge exorbitant prices, foodstuffs everywhere are cheap (an allusion to the Annona?), and the State Treasury is rich and powerful. The people of Byzantium would certainly not have agreed with this verdict, but doubtless Western merchants were not given to advertising the shortcomings of their homeland. We learn also that there had been no Western embassy to China since that sent by Antoninus in A.D. 166. The *Hou-Han-shu* confirms, too, that the inhabitants of Ta-Ch'in 'trade with Persia and India and gain great profit from their dealings'. On the whole, it is a pretty rosy picture of the Byzantine Empire—as rosy as that which Western writers were giving of China. In each case the enchantment of distance was at work—as well, perhaps, as a sort of determined optimism, such as that which might be fostered by merchants anxious to inspire confidence.

Though, as the *Hou-Han-shu* says, there may have been no official mission from Ta-Ch'in since A.D. 166, Roman or Syrian traders had nevertheless been in personal touch with the people of southern China. This is suggested, at least, by passages found in later writers. In the *Annals of Liang*, for example, which were written about A.D. 630, it is stated that a merchant of Ta-Ch'in, Ch'in Lun (?) by name (Ch'in being the same word as in Ta-Ch'in), arrived in A.D. 226 by way of Tongking at the court of Wu, one of the Three Kingdoms.[1] He gave the king information about Ta-Ch'in and then set out to return to his home. No mention of this event has been found in Western texts. Another Chinese text, also of the seventh century, speaks of a 'paper which smells like honey'; it was thick but supple and would not be damaged even by immersion in water. Ta-Ch'in sent to the court of China 30,000 rolls of this paper,[1] which was made from the bark of a tree grown in Annam. Such texts show, incidentally, how important the ports of call in Indo-China had become. These two missions, which are dated A.D. 226 and 284, would have been the last personal contacts between the far East and the far West until the Byzantine embassies of the seventh century—a break of 400 years.

About the same time as the arrival of this honey-scented paper,

[1] Needham.

there lived in China a celebrated Taoist alchemist by the name of Pao P'u-tzu. He is as familiar to the Chinese as Doctor Faustus is to us. Among his works on alchemy is one which is in the form of a collection of notes on the lands around the Southern Ocean and their wonderful products—particularly those used in the composition of the elixir of life (the 'potable gold' of our Western alchemists?). This curious text has been translated by Henri Maspero. Many passages give similar information to that contained in the *Hou-Han-shu*, and it has been said that Pao P'u-tzu's work may have been one of the annalist's sources, while others deal with events of which no trace has been found anywhere else. For instance, it is related how a certain Chinese, having visited Fu-nan (Cambodia), was carried off course by unfavourable winds and, after sixty days of navigation, reached the shores of Ta-Ch'in. He presented himself as an ambassador sent by the king of Fu-nan in search of 'rare merchandise and precious stones'. But the king of Ta-Ch'in, suspicious, took him for a spy and packed him off back to his own country with a moral lecture on the vanity of earthly riches—and a present of 'red gold, pearls which shine at night, pearls of five colours, black pearls, coral, exquisite rings of jade, white pearls . . . red jade, amber, diamonds, all kinds of beautiful gems. . . .'

This wily Chinese may have been a silk merchant, for the same text tells us that he offered the king of Ta-Ch'in 1,000 rolls of brocaded silk. This merchandise seemed so inferior to the king that he would not even accept it! 'The king laughed and said: "This silk was made by barbarians! What poor quality! When things are of poor quality, it means that the people who made them are corrupt." And he gave it back and would not take it. Then he showed the ambassador gauze made of threads shining like jade, silks brocaded with flowers of eight colours, turquoise blue satins, plain silks woven with jade threads, embroideries of blue stones set in gold. The white was as pure as the snow, the red was like the flames of the setting sun, the blue surpassed the plumage of the kingfisher, the black was as the wing of the soaring raven. These materials were of truly remarkable lustre, and the fine colours were used with great lavishness. The pieces were 4 feet wide; they were perfect, and when they were put side by side with the faulty materials brought by the ambassador, the latter looked quite absurd. . . .' The text praises the excellence of all things in Ta-Ch'in and sets forth the principles of Taoism. Pao P'u-tzu goes on to tell us that the merchant in question took four years to return to his native land. He related all that he had

seen, and 'from that time onwards no one dared to return to Ta-Ch'in. The merchants passed on what he had said and they never went to that country again.'

All this must be taken with some reservations. It is by no means certain that the chapter in question was not added to Pao P'u-tzu's text even as much as three centuries after the original composition. Moreover, no precise indication is given of when the Chinese merchant made his journey; it is not stated where exactly he arrived. He may have been sent packing by some prince or prefect in Syria, Persia or Ethiopia who had no wish to see him make contact with the Romans; in this, their attitude would have been not unlike that of the people of T'iao-chih, who had earlier succeeded in discouraging Kan Ying.

If the story is true, it is the first case of a Chinese visiting the Roman Empire and afterwards returning to his own country. At all events, it added weight to the reputation for power, wealth and skill already enjoyed by the people of Ta-Ch'in.

XI

From Trade to Espionage

We have seen that, towards A.D. 440, the road to Hsi-yü was re-opened. Sogdian merchants flocked to Lo-Yang.

'At the time of T'ai Yen,[1] when the wealth and glory of the Wei dynasty' (in the north of China) 'had spread far into the Western Territories, the court of the Wei received for the first time ambassadors bearing gifts from the kings of Kusha, Kashgar, the Wu-Sun, Yüeh Pan (?), Shan Shan (Lop-nor), Kara Shahr, Che-chih and Su Te (?) . . .' The historian suggests that, having consulted the annals of the Han, the Son of Heaven came to the conclusion that the kings of Hsi-yü were courteous and submissive only when they wanted help or were seeking Chinese products. When they had got what they wanted, they turned their backs and refused to make submission; in the past, the Chinese had allowed themselves to be drawn into a series of extremely costly military expeditions. The emperor was reluctant, therefore, to return the compliment by sending out ambassadors of his own, but his advisors protested that as 'the nine sovereigns had allowed neither the difficulties nor the distance to prevent them sending gifts of local products, steps should be taken to keep on good terms with them—otherwise it would be impossible to persuade them to return'. The emperor bowed to their advice, but the story well illustrates the recurring dilemma of Chinese governments: was it worth while trying to keep up relationships with foreign lands? The emperor sent two embassies to the west, the first since the end of the Han dynasty, and followed them up with two other officials, Tung Yüan and Kao Min, laden with silks and thus assured of a friendly reception wherever they went. The two ambassadors, says the *Pei shih*, held an elaborate reception in the capital of Lop-nor; the sovereigns of

[1] A.D. 435–40. Quotation from the *Pei shih*, or *History of the Northern Dynasties*, written two centuries later.

the nine countries were invited, and gifts were lavished upon them. Then the ambassadors went on to visit six other principalities even farther to the west and returned to the Chinese capital accompanied by envoys from all sixteen of the countries they had visited; the whole of Hsi-yü was apparently entering the Chinese sphere of trade. 'From then on,' say the annals, 'ambassadors were sent out with great frequency, and not a year passed without some dozens of them taking their leave.'

The *Pei shih* represents Central Asia at this time as a collection of 100 or more principalities divided up into four main groups. One of these would have been the kingdom of the Hephthalite Huns, or white Huns, an originally nomadic people (possibly related to the ancient Yüeh chih), who had recently conquered that part of the old Kushan kingdom which had been spared by the Persians. There is little chance of finding any information in the Chinese annals about the peoples of Hsi-yü at this period. The author of the chronicles of the north writes as follows: 'From the Wei to the Sui' (that is to say from the fifth century to the end of the sixth, close on 200 years), 'no one wrote reports; they contented themselves with merely inscribing the names of those who visited the court of the north, and they were unable to describe the customs of these peoples. . . .' Moreover, in the history of the northern dynasties ruling in the second half of the sixth century there is likewise 'no information on foreign affairs'. There were some accounts of the Sui, the dynasty which annexed southern China towards the end of the sixth century and reigned once more over a united empire, but unfortunately 'the information concerning this period has been lost. History records no more than twenty of these states, which sent ambassadors to the court of the Wei; and under the Sui, not all of these sent envoys . . .' In the absence of Chinese chronicles, which are always so precise, it is difficult to form any clear idea of Central Asia during these centuries. Only from Byzantium can we learn a little of the Hephthalite Huns.

The *Pei shih* mentions four routes (or sections of routes), which were frequented during the fifth century. The first of these started at the fortress of Yu-men-Kuang, the Jade Gate, and crossed the desert to the west for 2,000 li (about 1,200 kilometres) to Shan Shan (Lop-nor). The second also began at the Jade Gate but crossed the desert to the north, again for about 2,000 li, to Chü shih. These were the two roads to either side of Lop-nor, but we might note that Sir Marc Aurel Stein, after investigations made on the

spot, decided that the northern route must have become impracticable at the end of the fourth century as a result of the desiccation then beginning its implacable advance along the Tarim.

The third and fourth routes seem to have been later stages of the first two. They begin at Yarkand, at the foot of the Pamirs—the region where Ptolemy's Stone Tower must have been, and which was still an important staging-point for caravans. From Yarkand, 'one travelled 100 li to the west, as far as the Onion Mountains' (the Pamirs), 'then, from the farther side of the Pamirs, another 1,300 li' (750 or 800 kilometres) 'to Chia Pei' (probably in Bactriana). 'The other route ran to the south-west from Yarkand for about 300 kilometres and continued beyond the Pamirs, still to the south-west, as far as Po Lu'—which would have been towards the mouth of the Indus or the Gulf of Cambay.

About this period, with the resurgence of trans-continental trade and with Sogdiana playing an important part in it, China began to receive new products from the West. One of these was the pomegranate, which, apart from its medical and gastronomical importance, came to symbolize fertility, thanks to the seeds closely packed within the round, ball-like fruit. In Central Asia it was the symbol of the water goddess Anahita, the divinity of the Amu Darya. From Persia there came myrrh, the Chinese name for which, *mu-yao*, recalls the names given to it in the West:[1] *murr* in Arabic (which means 'bitter'), *mor* in Hebrew, *mor* in Persian. No less ancient than incense, myrrh (also a gum) had failed to find a favourable climate in other lands and had consequently remained extremely costly. It was also in this period that China, that land of weavers and embroiderers, began to appreciate Western cloths, particularly Syrian and Persian brocades, in which gold or silver thread was used upon silk. It was by no means unusual for fine pearls to be sewn onto garments in those days, and the ostentation of dress in general reminds one somewhat of the situation among the great fashion-houses of present-day Paris. In those days, too, the profits of textile manufacturers went to enrich the state in the form of taxes. In later annals we shall find further mentions of the precious cloths coming from the West. The name Ta-Ch'in was to be replaced by Fu-Lin, which was used sometimes for Syria, sometimes for the whole Byzantine Empire; while the name for Persia, An-hsi, was replaced by P'o-ssu.

About A.D. 420, according to most estimations, East and West

[1] Laufer.

exchanged for the first time not only goods but also secrets. By a strange coincidence it happened that just about the same time that the age-old secret of silk was taken from China and became known to a kingdom of Central Asia, China herself learnt the art of making that translucent coloured glass which she had always loved so much and paid for so dearly. As chance would have it, these two events took place within a very brief period of time.

The *Pei shih* tells us that in A.D. 424, in the reign of T'ai-Wu-ti of the Wei, 'the inhabitants of Yüeh chih' (an ancient Kushan country which included Sogdiana and for which the Chinese continued to use the old name), 'while trading in the Chinese capital declared that they knew how to make coloured glasses from stone. They went and fetched the necessary minerals in the mountains and gave a demonstration in the Chinese capital. Their efforts were successful, and the glass they made surpassed that imported from the West. The sovereign ordered their products to be used in the throne-room. A hundred people were taught how to manufacture this glass, which was transparent and brilliantly coloured. All who saw it were amazed and thought it must be the work of a divine power. From that time onwards coloured glass no longer commanded such high prices in the Middle Empire and was no longer thought of as something precious.'

So the Syrian-Jewish-Greek monopoly of coloured glass was at an end. We do not know how the inhabitants of Central Asia had learnt to manufacture glass of such quality; in the same way, perhaps, that they had learnt to paint the Roman-style frescoes of Miran and Toprak-Kala. Reading between the lines of the ancient text, we divine the presence of a group of people who, having mastered a new technique, were now anxious to make their fortunes with it. That the manufacture of coloured glass really was a mystery is proved by the amazement shown by the onlookers and the fact that they were almost prepared to believe they were witnessing a miracle. Doubtless, by threats or promises, it was not too difficult for T'ai-Wu-ti to persuade these men of Yüeh chih to impart their knowledge to others. And if indeed 100 specialists were trained at one time, quite a centre of production must have been set up. It may well be supposed that the venture was very much under the imperial wing, and that its production swiftly brought about a reduction in the prices of imported glass.

But in writing of coloured glassware we must be careful not to start a controversy such as that which has raged over the existence or

otherwise of silk-production in the West. It is known that even in the time of the Han glass was being made in China; but there is glass and glass, and a variation in technique combined with the rise of a particular fashion can cause one article to be scorned and another prized. Between coarse glass and the translucent, coloured glass-ware which won fame for Ta-Ch'in there was probably as great a difference as that between the glazed pottery of the Han and the delicate porcelain of the Sung. One can manufacture an article and at the same time envy one's neighbour's product—if it is just that little bit prettier or cheaper.

But let us turn now to the other 'mystery'.

It is not only in the Bible that woman has the reputation of stealing secrets. According to the Chinese historians, it was thanks to a woman that China lost her monopoly of sericulture.

About A.D. 420 or 440,[1] the sovereign of Khotan, an important country of Central Asia famous for its horses, jade, artists, dancers and musicians, asked the hand in marriage of a Chinese princess. This was granted to him, and during the preparations for the wedding he, 'having neither mulberry trees nor silkworms, for neighbouring states refused to supply him with them', told his fiancée that if she wanted to continue wearing garments of silk, she would have to bring the means for producing them to her new kingdom. The young woman, horrified at the thought of a silkless future, wrapped some eggs of the silk-moth in paper and hid them in her hair—doubtless she wore one of those huge, complicated chignons so often seen in ancient Chinese pictures. Overawed, perhaps, by her exalted rank, the commander of the frontier-post did not dare to search her person, and from that time onwards, says the *T'ang shu*, sericulture began in Khotan. 'The princess had carved on stone the order not to kill the silkworms; the moths flew off, and from the raw material obtained cloths were woven.' These instructions clearly forbade the stifling of the pupae—which is essential if one wants top-quality, continuous reeled silk. If the moths emerge, the cocoon is pierced, and second-grade silk is the result. The text is therefore somewhat puzzling. Was the princess ignorant of this refinement of technique? Did the Chinese use spun silk as well as reeled or unravelled silk? There is no reason why they should not have done so. Or

[1] These dates are given by certain authorities, but in fact the account is taken from the history of the T'ang, which was written some 500 years after the event. Given the political events we have already mentioned, the correct date would probably be after A.D. 440.

perhaps the order not to kill the pupae applied merely to certain cocoons and was meant to ensure reproduction and the continuance of the species. . . . Then there is the statement that neighbouring countries would not supply Khotan with eggs or mulberry trees. Evidently, then, certain countries in Central Asia, Lop-nor perhaps, had these things. In the *Pei shih*, which was written in the seventh century, only four out of the seventy-five countries described are mentioned for silk. These were: Ta-Ch'in, where (in the seventh century, we must remember) 'the people go in for sericulture'; Persia, 'where silks are manufactured'; Turfan, on the northern Tarim route, where 'the climate is suitable for sericulture'; and Kara Shahr, where 'silk worms are raised, not for silk, but for wadding and for thread'. No silk in Khotan according to the *Pei shih*!

This is all rather confusing, but we can draw the general conclusion that around the fifth century the techniques of sericulture were beginning to be known outside China, and that Central Asia, traditionally concerned with weaving and the home of the woollen carpet, came into possession of the new textile material. But this does not mean that Chinese silk was about to be supplanted by that manufactured abroad; many years went by before foreign silks were able to rival the Chinese, either in quantity or in quality. Should we doubt this, the following words might convince us; Camille Beauvais wrote them in 1837 in his introduction to Stanislas Julien's famous translation of the *Chinese Treatises relative to Sericulture*: 'Whatever may be the opinion of breeders and scholars on reading this work, I believe that it will stand for all time as a monument to the superiority of the Chinese in all practical matters concerning the life of silkworms, and to the surprising results they have achieved. . . . I will add just one last detail which will give an idea of the undeniable superiority of Chinese methods over European ones: they lose scarcely one silkworm in 100, whereas with us the mortality rate is well over 50 per cent.'

This was written in 1837. Two years later the 'Opium War' broke out. Within a few months, thanks to their superior military technique, the Europeans had had the best of it, and China was 'opened up' to the world outside. For her, this was the beginning of a long period of concessions and humiliations. But the Europeans, masters of modern technology though they were, still had not equalled the Chinese in the raising of silkworms. How much more difficult must it have been, then, for foreigners in antiquity and in the Middle Ages to challenge in the space of a few generations craftsmen to

whom the techniques involved had literally become second nature. The only advantage the newcomers had was that their products could be sold at lower prices in Byzantium, the Chinese prices being inflated by the enormous distance the goods had to cover. Fashion, however, was always a powerful influence in favour of the Chinese products.

An example of this interplay between price and fashion was discovered in 1907 by Sir Marc Aurel Stein in the *Caves of the thousand Buddhas*. It was in the form of 'Coptic', Byzantine or 'Sassanian' silks of the fifth and sixth centuries, or possibly a littler earlier.

Not far from Tun-huang, in that north-western corner of Kansu which sheltered the first colonies of Western merchants and the earliest Buddhist missionaries, there stands a cliff into which long lines of grottoes have been cut. From within these grottoes, innumerable Buddhas have for centuries stared out at the wild landscape. Under their protection, in the great epochs of the faith, scholars and translators laboured to make available to all the means by which salvation could be achieved. Learned works flowed to this place from all over China, and when Aurel Stein discovered it, it was the largest deposit of Chinese manuscripts in existence. There were writings also in Tibetan, Sanscrit, Sogdian, eastern Iranian, Uigur and even Hebrew. They include the five most ancient printed texts in the world. There were whole rooms full of such documents, piled sometimes from floor to ceiling, and there, doubtless for reasons of security, they had been walled up about the year A.D. 1035, an intolerant age when books were in particular danger. The Chinese thereafter forgot the very existence of this deposit, and it was not until 1900 that chance caused them to be rediscovered by a Taoist monk. A monk was then put in charge of the 'Thousand Buddhas', and it was forbidden for anyone to touch the manuscripts; visitors were allowed simply to look at the statues, the frescoes and the votive offerings. Sir Marc Aurel Stein noted that the sculptures and frescoes resembled those of Central Asia, being of Graeco-Buddhist style and showing Chinese influence in the features—evidence of Buddhism having become established in lands of Chinese civilization.

In his study of the votive banners found in the grottoes, Aurel Stein noted a stylistic influence which was neither Graeco-Buddhist nor Chinese. A number of the triangular head-pieces which accompanied the votive banners (which are familiar features of Buddhism), 'are composed either in their body or in their broad borders

of pieces of fine silk damask. The multicoloured patterns woven into them present a striking resemblance to the type which finds of patterned silk fabrics from Eygptian tombs of the early Christian and Byzantine period have made familiar to Western archaeologists, and which is usually known by the conventional designation of "Sassanian". . . '[1] The rosettes, palmettes, quatrefoils, pairs of deer standing face to face, duck-ponds surrounded by a multicoloured vegetation—all these remind the scholar of fabrics taken from Egyptian tombs commonly classed as Coptic. The similarity is even more marked in another piece of silk, some 60 centimetres long, intended as a cover for a roll of manuscript. It is made up of narrow bands extremely finely woven and bearing typically Chinese ornamentation, and of broader bands of heavy silk damask decorated in pronounced Sassanian style with pairs of winged lions facing each other with curled tails. 'The difference of styles thus brought into closest juxtaposition by the hand which fashioned the cover, is a most suggestive illustration of the widely distant civilizations that once met at Tun-huang.'

This piece of silk thus poses the same problems as the dual-style frescoes of Miran and Chorasmia, and the Chinese slipper with Coptic designs found at Lop-nor. The employment of two contrasting styles in the manufacture of a single object leads one to suppose that the maker either came from the West or was formed there. Stein suggests that the Chinese could have made for export fabrics bearing patterns and designs scrupulously copied from Western objects—just as, in the eighteenth century, they made Western-style crockery for the European market. It might seem therefore to be a question of 'fashion'; in Byzantium fashion was favouring this Coptic or Sassanian style, which was to flourish so gloriously in the centuries to come, and Chinese patterns might not have met with approval. Another possibility is that the Coptic elements of the banners were imported from the West. But it would have taken years for silk thread, made in China, to cross the continent, be worked in Egypt or Syria, and sent back to China in the form of damask! Though not altogether impossible, it is scarcely conceivable that such a thing should have happened. It is true that the British have been known to import African cotton to Manchester and there produce print dresses designed to appeal to a purely African market; and ever since about 1850, European countries have been importing raw materials from their colonies and re-exporting finished articles.

[1] Sir M. A. Stein.

But in these cases there have been differences in manufacturing costs and technical development which could hardly have existed in antiquity. But wherever the banner originated, it does at least prove that, for a time, one style was in fashion over a vast area. As to the origin of this fashion, Stein suggests that the craftsmen of Khotan (an early centre of sericulture and a meeting place for merchants coming from both ends of the world) had been able to evolve a sort of composite style capable of pleasing all and sundry.

Meanwhile, in Byzantium economic control was getting stricter. Harassed by lack of money, Justinian sought to restrict expenditure on luxury goods, which was causing a constant drain of gold from the Empire. He brought in laws against the abuse of jewels and pearls in the decoration of garments and armour. Precious stones were to be reserved for imperial use; they might be tolerated in men's rings and in the embellishments worn by women—but military attire was to be decorated 'only' with gold. Later, he attempted to enrich the treasury by tightening up on monopolies, ordering that embellishments worn at court should be only those manufactured in the imperial workshops. Already, since A.D. 369, the manufacture of gold and silk brocades had been permitted only in the imperial gynaeceum, and of course certain varieties of purple had long been reserved for the court. The numerous contraventions were punished by tremendous fines, or even death. Nevertheless, the situation of the treasury under Justinian was precarious in the extreme, and the silk industry, deprived of raw materials by the imperial monopoly, struggled merely to survive. This was the moment the Persians, sure of their position, chose to increase the price of raw silk.

The Byzantine historian Procopius of Caesarea has left us an account of this affair:[1]

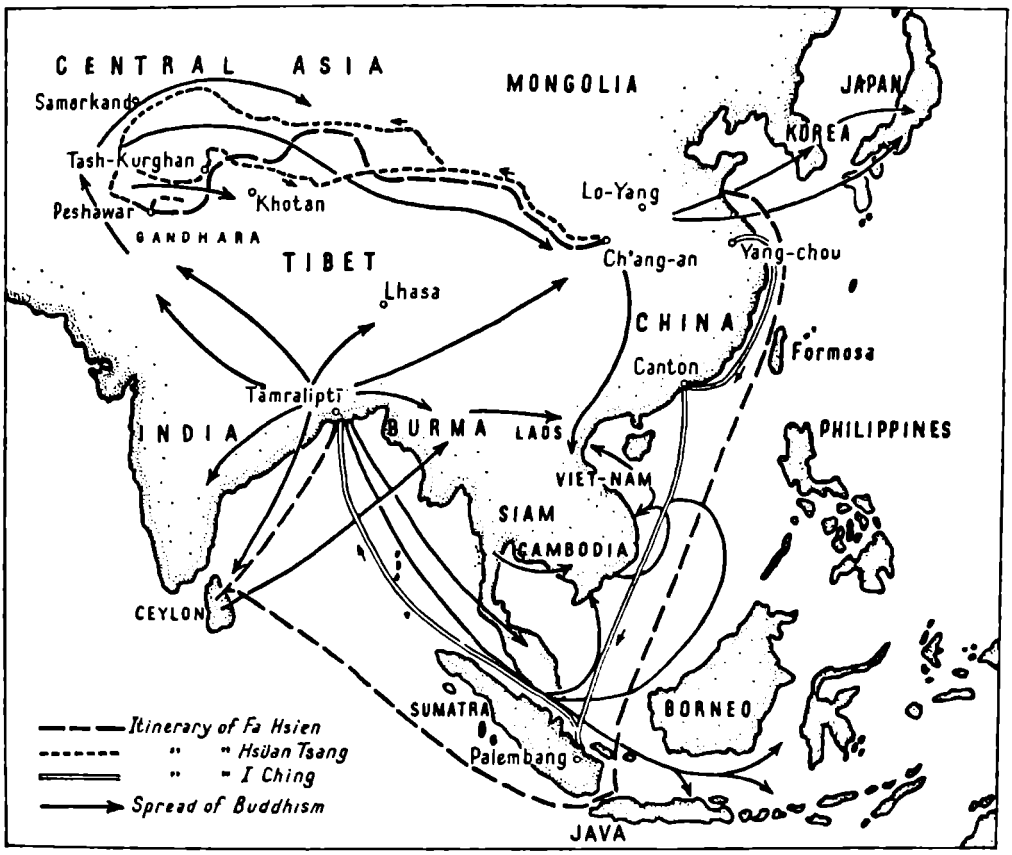
'Under the reign of Justinian, the merchants' (of the Syrian towns) 'demanded a higher price for their silk from Byzantium and in the other towns, saying that the Persians were now charging more for it and that there were now more revenue offices in the Empire. . . . The autocrat, pretending to be indignant at this increase, passed a law forbidding the sale of silk at more than 8 *chrysos* a pound, with all contraventions to be punished by confiscation of property.' (The *chrysos* was 4·13 grammes of gold.)

This price represented a reduction of about 8 per cent compared with the previous price as it was fixed after taxation and obviously bore no relation to the black market price.

[1] Procopius of Caesarea.

This, again in the words of Procopius, is what happened:

'Justinian forbade the sale of silk at more than 8 *chrysos* a pound—an absurd and impracticable measure, this price being below that which the merchants had to pay. Consequently, they were no longer willing to undertake this form of trade. They hastened to sell



7. *The Spread of Buddhism*

off their remaining stock, secretly, to those who were known to be fond of dressing themselves in this material and were prepared to satisfy their desires in spite of all obstacles. The Empress Theodora' (Procopius's *bête noire*!) 'learnt of this from people who gave her the information in confidence, and, without even checking the validity of their statements, she at once confiscated the goods of these men and imposed heavy fines on them. . . .'

The Empress Theodora then entrusted one of her favourites, Petros Barsyame, with control of the silk trade. 'He compelled all silk workers to work for him alone. And, without even trying to conceal the fact, he sold common silk at no less than 6 *chrysos* an ounce' (which works out at 72 *chrysos* a pound, instead of the stipulated 8!) 'and silk of royal colouring at 24 *chrysos* or more an ounce. In this way he secured great riches for the emperor—but secretly diverted even greater sums to his own use.

'All who had been engaged in this trade, whether in Byzantium or elsewhere, both mariners and those who worked on land, were hard hit by these developments. In the towns, all those who had devoted themselves to the silk trade were reduced to beggary; craftsmen and labourers finished up in poverty. Many of them emigrated and went to take refuge among the Persians.'

And the Persians were only too glad to receive them and give them work—just as they had welcomed the Jews, whose activities were being threatened by the religious intolerance of the new Christian Empire. So Justinian's measures were of benefit only to his enemies. His tactics, by ruining that sector of the industry in private hands, favoured above all a handful of highly placed speculators—such as that Barsyame to whom Theodora had virtually given *carte blanche*, and a certain Syrian named Addaï. This latter obliged mariners, his own countrymen, to pay a customs tax of 100 per cent —or go and unload their cargoes in some distant port in Italy or elsewhere. Some mariners, ruined by these measures, set fire to their ships and retired from business. And so, at the beginning of the sixth century, an entire industry died. Silk henceforth was the affair of tax-controllers and the imperial gynaeceums—and these alone had to face up to the Persian competition.

There remained the problem of supply. Monopoly or not, the imperial silk industry was still dependent on the goodwill of the Persians, and the increase in the price of raw silk drove the Byzantine Government once more to attempt to force a way through to the Chinese.

Even before Justinian, in fact, in the early years of the sixth century, the emperors had mounted a small-scale offensive to the east.

The spreading of Christianity was one of the ways in which Byzantium extended her influence, and the emperors did all they could to hasten the evangelization of the Hunnish tribes of Albania in the Caucasus; this kingdom, which lay on the Caucasus route used by Sogdian merchants, would be a useful pawn for Byzantium

in her struggle with Persia. Justinian, for his part, strove to turn the Christian sentiments of the Ethiopians to the advantage of Byzantium.

King Hellesthaeus of Ethiopia, an ardent Christian, discovered that among the Himyarites (who had had contact with Christianity a century before, in the time of Theophilus the Indian), the faithful were being persecuted by the pagans and the Jews.[1] The two peoples, Himyarites and Ethiopians, were in regular touch with each other all this time. Hellesthaeus now declared war, defeated the Himyarites and placed over them a Christian king of his own choosing, Esimiphaeus. It was at this moment that Justinian sent Julianus as an ambassador to the two Christian kings to ask them if, in view of their common religion, they would be prepared to join him in the struggle against Persia. He suggested that it would be highly profitable for the Ethiopians to buy silk from India and sell exclusively to the Romans; while, for their part, the Romans would no longer be dependent on Persia and would not have to pay out in hard cash for what Procopius calls 'that silk used for the garments which the Greeks used to call "Median", but which are now called "Seric".' But the Ethiopians could not possibly buy Indian silk, for Persian merchants were masters of all those places where Indian mariners were likely to make their first calls, and they invariably purchased a ship's entire cargo. As for the Himyarites, they were by no means eager to enter into conflict with the military might of Persia. Later, another of their Christian kings, Abramus (who had once been the slave of a Roman citizen ship-owner in Ethiopia) made frequent promises to Justinian that he would invade Persia. But only once did he actually take the field—and then he turned back almost before he had started.

Clearly, it was a waste of time trying to challenge Persia for command of the Indian Ocean.

But something new was happening in Central Asia. The Hephthalite Huns, hounded by the Turks and defeated by the Persians, were making an attempt to settle down in northern India on territory which had once been part of the Kushan Empire. Some of these Huns appear to have been Christians, though it is not known how or when the new religion came to them. There were also a few Christians among the newly arrived Turks, so it would appear that missionaries had managed to make some conversions. A tenuous link may thus be said to have existed between the nomadic hordes and the

[1] Procopius of Caesarea.

Christian cities of the West. In A.D. 550 or 551, Justinian received in audience a group of monks who had come from 'Serinda'. This at least was Procopius's version of the event; another historian, Theophanes of Byzantium, says that the visit was made by 'a man of Persia who had come from the country of the Seres'.[1] These monks (it was generally reckoned later that they were two in number), having lived many years in the East, claimed to know the secrets of sericulture and said they would be able to bring silkworm eggs to Byzantium. Were they Persians, Turks, Huns, Byzantines? By logical deduction, scholars have concluded that they were probably Nestorians. Justinian promised to reward them well if they could indeed do as they said, so they returned to the East, taking the Caucasus route in order to avoid crossing Persian territory. Two years later they returned, bringing the eggs concealed in hollow staffs. (Some say the eggs were carried in a small wooden box.) Under their direction the eggs were given proper treatment, and cocoons were formed. For the first time in Byzantium a fabric was woven from silk spun by a worm born in the West.

The Mediterranean climate is highly suitable for sericulture; the mulberry-tree flourishes in it. Having now both silkworms and capable workmen, Byzantium was in a position to flood the Western world with her own silks, crush the competition from Persia and fill her treasury with riches to finance the war against the barbarians. But what happened? Led astray by his policy of economic control (and perhaps by thoughts of his own personal interest), the emperor decreed that the production of cocoons should be an imperial monopoly. He limited this operation to his own workshops, and so stifled at birth what could have become an immense and powerful industry. Whether it was for lack of really experienced operatives, or because the seeds brought by the monks produced the less valued yellow cocoons, the fact remains that the Byzantine silk industry still urgently needed foreign raw materials. Supplies of raw silk were guaranteed, however, by a fifty-year truce concluded between Byzantium and Persia in A.D. 562.

The next attempt to by-pass the Persians was made not by the Byzantines or the Chinese, but by the Sogdians.

Though vassals of the Turks, who became masters of Central Asia around A.D. 550, the Sogdians still had liberty enough to pursue their vocation for trade. From the point of view of trade, indeed, this was their century. Their language, with its Aramaic alphabet,

[1] Texts of Procopius and Theophanes of Byzantium quoted by Coedès.

related to the Syrian, became the commercial language of Central Asia, and documents have been found in it even in Chinese territory. Converted to Manichaeanism, they carried this religion with them on their travels. Their Turkish masters encouraged their trading enterprises, and the Khan Dizibul permitted them to send an embassy to the Persian Shah Chosroes ('of the immortal soul'), to defend their commercial interests.[1]

The Sogdians were well placed for trading with northern China and would obviously have liked to become sole suppliers of Chinese silk to the Persians. But the Persians had no wish to receive foreign merchants (Procopius reminds us of their formidable system of counter-espionage, adding that they had never allowed a Roman explorer to pass through their territory), and intended to hang on to their monopoly of the China trade, which they exercised through the ports of India and Ceylon.

The Sogdian ambassadors were led by a certain Maniah—whose name, 'brother of Mani', shows clearly tht he was a Manichaean. He asked Chosroes's permission for the Sogdians to trade freely in Iran. The Shah temporized, then summoned his counsellors, who purchased the whole of the silk brought by the Sogdians—and burnt it, to show that the Persians had no need of their good offices, nor of anything that might come from the Turks!

Discomfited, the ambassadors returned to make their report to Khan Dizibul. It was decided to send a second embassy to Chosroes, this time composed entirely of Turks. Chosroes had the lot of them poisoned.

The Sogdians determined to make the most of this deterioration in the relationship between the Turks and the Persians, and they asked their overlord's permission to treat with the fiercest of all the enemies of Chosroes—the Byzantines.

This was granted, and Maniah set off again, this time for Byzantium, with a number of Turkish companions and bearing credentials from the Turkish khan. They travelled overland, by the Caucasus route, so as to avoid Persia—and even then they had to beware of Persian spies. Maniah was received by Justin II, who was greatly impressed by the power of the Turks, about whom he had hitherto known very little. He concluded a peace treaty with the Turks, and a military alliance—directed, needless to say, against the Persians. Turks and Byzantines had joined hands.

The Turkish embassy was still in Byzantium in the year A.D. 568.

[1] Menander, quoted by Pigoulevskaya.

In the month of August, the Byzantine emperor named a group of envoys, led by a certain Zemarchus, to accompany Maniah back to the khan. In the new alliance, Byzantium was interested above all in the possibilities it offered for trade in silk; while the Turks and Sogdians saw their position *vis-à-vis* Persia strengthened by the acquisition of a powerful friend. The Turks were prepared also to supply Byzantium with good quality iron, for they were renowned metallurgists, but silk was the real lure for the Westerners. The ambassadors were dazzled by the reception Khan Dizibul gave them in a tent sumptuously hung with multicoloured silks, and the banquets served on golden dishes—a luxury they had never expected to find among 'barbarians'.

Dizibul confirmed the alliance with Byzantium and undertook to supply her directly with Chinese silk. Zemarchus travelled homewards by way of Chorasmia, following the fortress-studded route, the shore of the Aral Sea and the northern shore of the Caspian to the mouth of the Volga. Various small principalities which he passed on the way wished to send their own ambassadors with him to Byzantium, but Dizibul was by no means anxious to have competition and he admitted only the Chorasmians to the party. Having crossed the Volga and traversed the north of the Caucasus, Zemarchus employed a ruse in the hope of deceiving the Persian spies dogging his route. He sent off ten of his companions, together with pack animals laden with silk, as a sort of advance-guard. Then, while the Persians lost time pursuing and stopping this group, the main body set off at top speed in another direction. At last, after innumerable dangers, they reached Trezibond, from which one was able to travel post to the capital. And so was sealed an alliance which was destined to last for ten years, until the death of Khan Dizibul. During this time further embassies were exchanged, and the dangerous Caucasus route, so long abandoned, returned to use.

The Byzantine embassies which took place between A.D. 568 and 576 gathered new information about China, which was recorded by Theophylact Simocattes. The Turkish origin of this information is shown by the new names being used for China; Tangast, which was supposed to be a town in northern China, in fact corresponded with the Turkish name for China itself—Tabgatch, Tamgatch or Taugatch.[1] Somewhat earlier, about A.D. 530, the Graeco-Syrian name for the China which was reached by sea was still Tsinista or Sinista, in which it is easy to recognize the Thina or Sinae of earlier writers.

[1] Theophylact Simocattes, in Coedès; Pigoulevskaya.

XII

Sogdiana: Her Merchants and Artists

That embassy which had brought to Byzantium proposals for an alliance against the Persians and had shed some light on the hitherto little-known power of the Turks, must also have made some mention of the Sogdians and other Turkish vassal-states of Central Asia. In the ten years which saw the exchange of so many official missions, Turks and Byzantines must surely have learnt a great deal about each other, and yet Greek authors of the period say very little about the smaller Central Asian states, which evidently interested them much less than the Turks, in whose name negotiations were conducted. These states soon vanished completely from Western histories, and it was not until the nineteenth century, with the development of Oriental studies in France, England, Germany and Russia and the dramatic revelations of Chinese and Arabic historical writings, that Sogdiana began to be better known. Even today, the fifth and sixth centuries remain the least known in all the history of Central and Eastern Asia. Fortunately, some dozens of Sogdian manuscripts, mostly religious texts, were found at Touen-Houang and scholars in all parts of the world are still at work deciphering these.[1] But the faces and costumes of the Sogdians only became familiar with the discoveries of modern archaeology, and particularly when a collection of remarkably evocative frescoes and sculptures were brought to light by Russian scholars at Penjakent and other places near Samarkand—in the region of ancient Sogdiana. And gradually, as the years pass, students and scholars at work in

[1] According to one Russian scholar, the inhabitants of the valley of the Yaqnob, a tributary of the upper Zeravshan in Soviet central Asia, still speak a dialect close to ancient Sogdian. Cf. *Sculpture and Frescoes of ancient Penjakent.*

libraries and museums are shedding more and more light on this ancient people.

Western Europe, at this time, was entering the so-called Dark Ages, a savage epoch of barbarian invasion and feudal strife, during which the spark of civilization continued to glow only within some monasteries and hermitages. The eastern Roman Empire, too, was going through difficult times, harassed by barbarian invasions and torn by internal troubles aggravated by religious heresies and social discontent. Sassanid Persia was nearing the end of her glory; before long, the leader of a nomadic sect from the land of incense, the land of the dromedary, would be proclaiming himself the Prophet of God.

China, by contrast, was reuniting, taking up once more the threads of her history, absorbing in amoeba-like fashion both Turco-Mongol conquerors and her own internal ethnic minorities. Between Persia and China, the Turks, a new 'great power', were bringing order and stability to the petty states and oasis kingdoms of Central Asia—order, stability and peace, which was all to the advantage of the new vassals. With a natural bent for trade and little talent for war, these Central Asians were now able to resume their commercial activities and expand their economies.

The Turks seem to have limited themselves to collecting taxes, so it was clearly in their interest that the subject peoples should be prosperous. With their military power they protected the expansion of trade, but they concerned themselves very little with the internal administration of the occupied territories beyond making sure that there were no loop-holes in the taxation system. China, reunited and still faithful to her old policy of seeking allies among those far-off against those near at hand, asked the support of the western Turks, the masters of Central Asia, against the eastern Turks, her immediate neighbours. There began a period of commercial prosperity which lasted more than a century—until, on the one hand, the arrival of the Arabs, and, on the other, the Tibetan war which cut the route to China. It was scarcely surprising that a rich culture and civilization should develop in such conditions.

The sources available to present-day historians, who are still only at the beginning of their researches, are somewhat contradictory; they all indicate the existence of a highly developed civilization, but they leave us in some doubt as to its nature. For example, the historians present the Sogdians and Bactrians as trading peoples with a distaste for war, and the observations of modern travellers confirm

this, as do the comments of the famous pilgrim Hsüan Tsang, which were written in about A.D. 630; according to him, half the population of Sogdiana lived by agriculture and the other half by trade. That does not leave very many to be warriors. And yet the frescoes on the walls of the aristocratic or princely residence of Penjakent depict battle-scenes or tournaments just as often as they do banqueting scenes. Perhaps the mass of the people went in for farming and trading and only the aristocracy, or the Turkish conquerors, became fighting men. The merchants were, apparently, not honoured by being depicted on the walls and ceilings of the palaces.

There seems also to be another contradiction. The religious texts found at Tun-huang suggest that the Sogdians were above all Buddhists, Manichaeans or, at a pinch, Nestorians, while the frescoes are strongly suggestive of a Zoroastrian society. It was a somewhat unorthodox Zoroastrianism, mixed up with purely local Central Asian cults such as that of the divinity of the Amu-Darya, the goddess of the waters and of fertility, Anahita, holding in her hand a pomegranate. But the painting of the dead young prince being solemnly mourned in a palace recalls the cult of the divinity constantly dying and being reborn and the annual rites still practised almost unchanged in Zoroastrian countries. Zoroastrianism is indicated also by the great ossuaries where were collected the rectangular ceramic urns, mounted on four feet, in which the bones of the dead were placed after the bodies had been torn to shreds by birds and beasts of prey. Hundreds of these urns were found in the ruins of Sogdiana. All this goes to show that Central Asia had become, at this time, a place where ideas could meet and mingle in an atmosphere of mutual toleration. It was not only merchandise that the traders had to offer as they made their way from country to country upon their slow-moving, long-haired Bactrian camels.

The great frescoes of Penjakent[1] show the Sogdians to have been distinctly Indo-European types, with long, thin faces, prominent noses, deep-set eyes and dark, bushy beards. At this period they would travel from the rich valley of the Zeravshan to the Jade Gate and even Lan-chou, leaving behind them, in the 'land of canals', the towers and ramparts of their native cities: Penjakent, near Samarkand; Varahch, near Bokhara; Maymourg (their capital?); Balalyk-Tepe, in the valley of the Surkhan-Darya; Afrasyab, the ancient Samarkand; Tali-Barzou, which was not far from Afrasyab; Kafyr-Kala; Ak-Tepe. . . .

[1] Pigoulevskaya.

Leaving their orchards and their vines,[1] they swarmed to the East, which was once more open to their commercial activities, and to China, where they both bought and sold. Their organization was probably based upon two complementary systems: they had agencies or even colonies at all the staging-posts along the route from Sogdiana to northern China, and at the same time made use of professional caravaneers, a silent race of men whose descendants are still with us today. The itineraries of the period suggest that from Merv or the Amu-Darya, the caravans passed by way of Bokhara, Kushaniya, the valley of the Zeravshan, Ishtykhan, Samarkand, the Osrushana, and Fergana. Later, the route shifted to the north and ran from the Syr-Darya by way of the Semirechye to Issyk Kul; the reason for this was the advancing desiccation of the Tarim basin. In A.D. 607, the governor of the Chinese town of Chang-i (now Lan-chou), near the Jade Gate, was doing everything in his power to stimulate the commercial activity of his town. He gathered together the reports and tales of merchants, set others to do the same, perhaps made a few exploratory journeys of his own, and finally included all the information he had collected into a descriptive geography of Central Asia. This work has been lost, but it is almost certain that a great part of it was incorporated into the dynastic history of the Sui, which was written in the seventh century. No less than three main itineraries are given for the journey between China and Sogdiana. One of these ran north of the Tien Shan by Lake Barkul, Urumchi, the Talki pass, the valley of the Ili, Talass, and then on to the west by way of the Aral Sea, the Caspian, the Caucasus and Asia Minor; the other two were the routes, known since Han times, running north and south of the Tarim and joining up at the foot of the Pamirs.

In Samarkand, the champion 'knight' of the Sogdians feasted alone, waiting for another warrior to come and challenge him by seating himself at the same table. On the caravan routes, the merchants were faced with dangers no less real; at any moment they, too, might be challenged—by nomadic marauders whose very livelihood depended upon the robbing of travellers. They set up their staging-posts and agencies on the routes to Aghanistan and northern India, and above all on the road from the Amu-Darya to Lan-chou in China; but, so far as we know, they never went to the West, which was of course barred by the Persians. But it was not

[1] Academy of Sciences of the USSR. *Short History of the USSR*, see the volume on Sogdiana.

only merchants who left the fertile fields of Sogdiana for the melancholy trails of exile. Large-scale emigration was taking place towards the east, and for this in all probability there were social reasons. As in China at the close of the Han period and in Rome towards the end of the Empire, land became concentrated in fewer and fewer hands. The great landowners prospered, thanks to large networks of irrigation canals, the key points of which were watched over by their castles, but the peasants and the working-classes found themselves deprived of their holdings—and social tension was the result. All this, together with a certain reduction in the areas under irrigation and, possibly, an increase in population, led to the establishment of entire colonies of Sogdian emigrants all over the Semirechye in the fifth and sixth centuries. Sogdian colonists developed agriculture in the valley of the Talass and on the left bank of the Chu; they also built fortified towns surrounded with ramparts, and we can still see their ruins, in which have been found their ceramic Zoroastrian funerary urns, their characteristic clay lamps in the form of animals, and their copper coins pierced with square holes in a fashion imitated from the Chinese. Between A.D. 600 and 650, they also founded four colonies in the southern region of Lop-nor, the most notable of which was Pu-t'ao-chen, 'the town of the vine', so called because they had planted a vineyard in the very heart of the town. The Sogdians were no less ancient wine-makers than the peoples of the Mediterranean, and even in exile they wished to continue drinking the wine which had won them fame throughout the Far East. (Procopius described the people of Central Asia as the most fanatical wine-drinkers in the world.) And lastly, important colonies of Sogdian merchants were to be found in Lan-chou and even in Loyang, the new capital of reunited China—which was very handy for that splendid customer, the imperial court.

The people of the 'land of K'an' (as the Chinese continued to call them, though the name had come to apply to the whole of the feudal confederation centred around Samarkand and Bokhara) were at the height of their activity between A.D. 550 and 670. Agriculture, industry, commerce, arts and letters—architecture, sculpture, painting, music, dancing, religious writings—in all these fields they displayed mastery and originality. As agriculturalists, they planted in the emperor's garden two varieties of cherry tree brought from Samarkand, they taught their neighbours of the Tarim how to irrigate by means of subterranean canals (the famous 'kyariz'), and they are believed, in about A.D. 640, to have introduced the making of

wine into China. This would have been the first time the Chinese has tasted wine made from grapes, though they had long known of its existence. The Han annals had mentioned that the rich landowners of Central Asia possessed great reserves of wine which they allowed to mature for several years before use. Though they appreciated the novelty of the new drink, the Chinese remained faithful to rice-wine—on which Li T'ai-po, one of China's most famous poets, had got so drunk that he had been drowned when trying to pluck a reflected moonbeam from the water. And if they learnt to cultivate the vine, it was because they wished to eat the fruit. Was this wisdom or folly on their part? Perhaps it saved them the lives of a few poets.

It was also from Sogdiana that there came a mysterious fruit called the 'golden peach', 'the size of a goose's egg'.[1] And of course the Chinese emperor continued to import the famous horses of Fergana—though these were later challenged in popularity by those Kirghiz horses whose strange profile has been preserved by T'ang statuettes.

The Sogdians were fine craftsmen, and throughout Central Asia they left examples of their wood-carving, traditionally decorated with vine-leaves and bunches of grapes, their gold and silver plate (the technique of which they had learnt from the Chinese—or so the latter claim), their woollens, woollen carpets, fine white cottons. It is possible that they introduced a more advanced technique of weaving into China, but this is very difficult to establish with any certainty. And finally they became famous for their metal armour. When and from whom did they learn to make those supple coats of mail which the Sogdian knights seem to be wearing in the frozen duels of the frescoes? The Sassanid Persians had such armour and may have invented it, though the Chinese (according to their annals) were the first to make armour of metal. Under the T'ang, armour of iron, whether of plate or mail, made its appearance in China, replacing the scale armour in use under the Han. However that may be, Samarkand armour remained famous to the end of the Middle Ages; Tamerlane would wear no other. The developments in metallurgy achieved by the Sogdians may be partly accounted for by the fact that they had been conquered by the Turks, who had been skilful iron-founders even in ancient times, when they roamed as nomads in the Altai mountains.

The Sogdians knew how to make glass of fine quality—the ruins

[1] Laufer.

of glass-works have been discovered in the dead town of Penjakent[1] —and they instructed the Chinese in this art in the fifth century. They sold their glass untroubled by competition from the products of the Mediterranean, which no longer came beyond the Pamirs, though they had in no way declined in quality and were still much sought after in the West. The Chinese soon lost interest in the manufacture of glass and developed new techniques of firing pottery; it was in the early seventh century that they first began to make true porcelain.

At this time, under the T'ang, powerful and united China was going through another imperialistic phase. This fluctuated in its intensity, however, for commercial and strategic considerations were invariably opposed at court by the scholars, traditional advocates of caution and prudence. The West was too far away; the expedition would be too costly; the whole thing would come to a bad end! Oftentimes one of the petty sovereigns of Central Asia would appeal for help against some overbearing neighbour, and usually the Chinese emperor would reply that his troops could not intervene in a dispute so far from home. For if the T'ang emperors liked to think of the Central Asian states as subject peoples and boast that China extended for 10,000 li, they were not prepared to hazard their armies in defence of exigent vassals. Let these petty powers rather exhaust themselves fighting one another—then at least they would not be in a position to unite and turn on China herself! Nevertheless, on two or three occasions, enterprising generals did give the T'ang a brief period of suzerainty over Central Asia—in that part of the world, no suzerainty could be anything but brief.

But China did have continuous diplomatic relations with foreign lands, both with those she thought of as her vassal states and with the great powers of the West: Persia above all, but also India and, as we shall see, Byzantium. She remained in touch with Persia even when commercial relations with Central Asia were interrupted. Shah Chosroes Anushirvan, who died in A.D. 579, had received from a king of China 'a silk robe on which was represented a king in the same costume as the king of Persia, wearing his royal garments, with a crown on his head and surrounded by his serving-men, each of whom held a robe of material brocaded in gold to represent a similar personage. The ground of this robe was of sky-blue silk; it was enclosed in a golden box. . . .'[2] In both East and West the gift of a silk robe was a mark of high esteem, a most particular honour. Persian

[1] Pigoulevskaya. [2] Pariset.

embassies to China are mentioned in the Chinese annals for the years A.D. 461, 518 and 528; there was one between A.D. 521 and 578, and between A.D. 605 and 616. The strength of the relationship between China and Persia was shown some time later following the death of the last Shah, Yazdegerd III, defeated by the Arabs, abandoned by the Turks and assassinated near Merv in A.D. 651; his son Firuz took refuge in China and even obtained the emperor's permission to build a temple for his own personal use.

There continued to be religious links with India. In A.D. 521, Sung Yün, who was sent on a pilgrimage to the holy places by the Buddhist Empress Hu, brought back with him no fewer than 170 religious works hitherto unknown in China. Hsüan Tsang set out for India in A.D. 629 and returned only in A.D. 644. Confucian historians criticize this empress for wasting the wealth of her people on a Buddhist enterprise—and for her coquetry, since she had developed a passion for the fine gauze materials imported from India (the *nebula* of the Romans?). She herself wore no other material, and she also prescribed its use for her 100 ladies in waiting.[1] Such are the whims of fashion! Persia and Byzantium were at each other's throats on account of Chinese silk—and the court of China was importing cottons from far-off India!

Once again, by way of India and Ceylon or Central Asia, the court of China was importing 'rare and precious' articles from the West. Many, at this period, came from Persia—such as the costly 'blue rouge', the ancestor of our eyebrow pencils, which the empresses demanded for their own personal use.[2] This was made from indigo, which came originally from India, and was a famous Persian speciality. (Persia had always been a noted producer of cosmetics; malicious Greeks and Romans said she needed to be—to hide her own dirt.) Then there were henna, coriander (which must have had very special properties, for it was one of the five 'vegetables' forbidden to geomancers and Taoist monks), rich textiles and brocades. Controlling the sea routes between Arabia and Ceylon, Persia held a monopoly in the pearl and coral trade. Coral, whose place in ancient medicine has already been mentioned, now entered the Chinese pharmacopoeia, and henceforth it was to be regularly imported.

From Badakhshan or India, the Sogdians and Persians also brought a variety of precious stones which were more or less new to the Chinese: lapis-lazuli, used in the manufacture of 'eye-shadow'; the 'sö-sö'—a poetical-sounding name, though the Chinese character

[1] *History of the T'ang* (in Wieger). [2] Christensen; Laufer.

was probably no more than a phonetic transcription of a Sogdian word—which may have been the turquoise and been brought to China by the Nestorians;[1] and finally the diamond, which was beginning to become known in China, though not nearly so highly valued there as in Europe. The Chinese, lovers of jade as they were, did not attach so much importance as Western lapidaries to the translucence of gems. More important were their properties in medicine, alchemy and magic. The most costly and sought after substances were not the rarest or most beautiful, but those which came into the composition of drugs—and particularly into the composition of the elixir of life. The T'ang emperors were still searching after this—in spite of Confucian rationalism, Buddhist indifference to the life and death of the body, and the implacable realities of the political situation. The Emperor T'ai-tsung, an effective and realistic ruler, sent to India a magician named Suo p'uo mei,[2] himself of Indian origin, who claimed that he would be able to make the elixir provided only someone would give him the facilities for collecting the necessary ingredients. These were granted to him, and he set off for India with the financial and moral support of the emperor himself. When he returned to the Chinese capital, T'ai-tsung was dead. Suo p'uo mei reported that he had been unable to find everything he needed and asked to be sent on a second mission. The financing of a second expedition was seriously discussed, but in the end the Confucian opposition had its way and the new emperor gave up the idea. Nevertheless, the myth did not die so easily, and several of the later T'ang emperors were tempted to renew the search; there was always a magician, generally an Indian or some other foreigner, ready to offer assistance. The lure of the elixir must account in part for the interest taken in trade with the West; if the ingredients were not to be found in China, they had to be sought elsewhere.

This brings us to a theory which, though attractive, must be treated with some reservation on account of the complete absence of concrete evidence. The passage by the Taoist Ko Hung (Pao-P'u-tzu), to which we referred when considering the Chinese view of the Roman Empire, was taken from a work on alchemy and more exactly from a chapter devoted to 'the wondrous products of the lands of the Southern Ocean' and to the ingredients of the elixir of life. Pao-P'u-tzu presents Ta-Ch'in as 'the land from which comes the Great Tao' (that is Truth, the supreme Essence, the Way), a land 'where there are no slaves . . . and no wicked people, for they

[1] Laufer. [2] Weiger.

are all fashioned by the Tao'; a nation where 'men honoured the Tao in the beginning in order to spread knowledge of it to the eight distant regions, just as Lao Chün La tzu went into the desert of moving sands to convert the barbarians'.[1] This sounds like nothing more than an idealized picture of early Christian society—living in accordance with the principles of charity and love, abolishing slavery and being fervently missionary in outlook. The Taoists of the sixth and seventh centuries may well have heard garbled stories of the 'elixir' available to the adepts of that distant 'Tao'—bread and wine consecrated and mysteriously transformed into some divine substance must surely be alchemy of the first order![2] It is quite possible that distorted accounts of the Christian Communion came to the ears of Taoist magicians who were incapable of differentiating between the immortality of the body and the eternal life of the soul. And perhaps it was in search of this new magic formula as well as of other 'wondrous products' that men set out from Lo Yang and Ch'ang-an and travelled to the ends of the earth.

When not concerned with the search for some way of prolonging the natural span of life, the T'ang emperors devoted themselves to the task of rendering more agreeable the years they did have. No less welcome than precious stones and cosmetics were the dancing-girls and musicians imported from Samarkand or Khotan for the delight of court and emperor. Though it is impossible to imagine the music and the dances they performed, we can at least get some idea of their appearance thanks to the sculptures and frescoes discovered in the silent palaces of ancient cities.[3] The dancers are slim-waisted, and their loose hips are concealed beneath a sort of loin-cloth whose rounded folds suggest a fine material with no stiffness whatever; their chests are flat (so that one wonders if they were very young girls or effeminate youths), and are decked with sumptuous jewels, their legs are long and slender, their faces long and oval beneath high head-dresses. There is a musician, a harpist, of very different type, stiffer, more thick-set. Her pale hands and tapering fingers move in a delicious harmony of tones, violet, purple and rose, over the invisible strings of a sinuous harp whose curve balances the folds of a long embroidered scarf. The arrangement of the hair is typical of certain Sogdian frescoes; the forehead is left clear, but on

[1] See text translated by Maspero;

[2] Pao P'u-tzu's account of Ta-Ch'in was in fact written in the seventh century.

[3] Sculpture and Frescoes of Penjakent.

each side of the face a long lock of hair hangs down to the chest, and the rest of the hair is concealed beneath an ornate head-dress. Russian writers inform us that the sculpture characteristic of Penjakent has remained something of a local tradition; the most famous wood-engravings of Soviet Central Asia are those of Ura Tyube, in a district of north Tadjikistan near Penjakent. The art of the fresco has, unfortunately, disappeared.

Sellers of perfumes, cloth, horses, precious stones and glass, the Sogdians were great purchasers, from the Chinese, of raw silk, both in the form of yarn and woven pieces. This they resold to the Persians, the Byzantines (up to the end of the sixth century), the Indians and the steppe nomads, with whom they traded in the distant oases to the north, near the Aral Sea, and from whom they bought hides, furs and musk. At the same time, East-West trade was thriving over the southern route by way of Ceylon, where the mariners of China met up with those of Persia. The Persians had a firm political and commercial hold on Ceylon, which, having suffered much less than the Indian mainland from invasions, had been able to develop its economy in reasonable tranquility. The island was also a refuge for many Buddhists persecuted on the mainland, and these monks contributed to the extension of Ceylon's trading activity throughout South-East Asia. There was a great deal of coming and going, in short, and this was only to the advantage of trade in general. Beyond the straits of Malacca, commerce went by way of the maritime kingdoms of Indo-China—which were usually on terms of cautious friendship with the far-reaching China of the T'ang.

It was in A.D. 643, according to the dynastic history, that, by way of Ceylon and Indo-China, or perhaps with some Sogdian caravan, an ambassador came to the court of the T'ang from a certain Po-t'o-li (which seems to have been pronounced Batdalik[1]), king of Fu-lin or Ta-Ch'in. At this period the word 'Ta-Ch'in' was in fact disappearing and being replaced by 'Fu-Lin',[2] which seems to have been applied to Byzantium and Syria. The T'ang history adds that this ambassador brought with him gifts of 'red glass' and some less easily identifiable substance which may have been powdered gold.[3] The name Po-t'o-li has nothing in common with that of the Byzantine emperor of the period, and it has been suggested that the sender of

[1] Wieger.

[2] Fu-Lin may be a corrupted pronunciation of Rom, Hrom—Rome. The Arabs used the word 'Rum' to designate the Byzantines.

[3] Wieger; Bitchourine. (Literally: 'green gold'?)

the ambassador was not a king, but a prefect or even a Nestorian patriarch by the name of Bathrik. This was apparently the first envoy to have come to the court of China from the Roman Empire since the time of Antoninus Pius, at least so far as we can tell from Chinese historical texts. And this is the sum total of what we know of this mission. The *T'ang-shu*, or history of the T'ang dynasty (A.D. 626–907), which was written about the year A.D. 1000, merely mentions it along with two other embassies from Fu-Lin between A.D. 666 and 701. Nor do Western texts shed any light on the matter. Besides the embassies, the *T'ang-shu* also states that about A.D. 622 a prince of Central Asia offered the Chinese court 'a small dog, about a foot long and 6 inches high, which could stop a horse and hold a lamp in its jaws. . . . It came, it was said, from Fu-Lin, and from that time forth there were dogs of this breed in the Middle Empire. . . .'[1] Western texts make no comment upon any such traffic.

The Chronicles of the North (the *Pei Shih*), which were written under the T'ang, have nothing new to say about Ta-Ch'in (as they continue to call it). They confirm that the inhabitants went in for sericulture, but apart from this detail the bulk of the text is a repetition of the *Hou-Han-shu*. In the *T'ang-shu* we find the longest account yet given of the Western Empire (Fu-Lin), but we cannot rely on it completely where the first half of the seventh century is concerned. It was written about the year A.D. 1000, 200 or 300 years later, and it constantly mixes up the two periods, so that we never know if it is describing the Byzantine Empire of the seventh century or the eleventh—or some time in between.

Moreover, in the West at the end of the seventh century, Theophylact Simocattes was unable to tell his compatriots very much about the land of the Seres. Western geography was becoming lost, and would long remain lost, in a welter of legend and romance.

China, at this period, was wide open to the West. The prosperity of the Empire, the passionate curiosity of T'ai-tsung and his successors, the expansion of economic activity—all these combined to exercize a powerful attraction. The Christian West, on the contrary, was closing itself up behind a wall of religious intolerance. This meant that ideas flowed in one direction only—from West to East. An example of this would be the curious affair mentioned by Laufer in about 1919:[2]

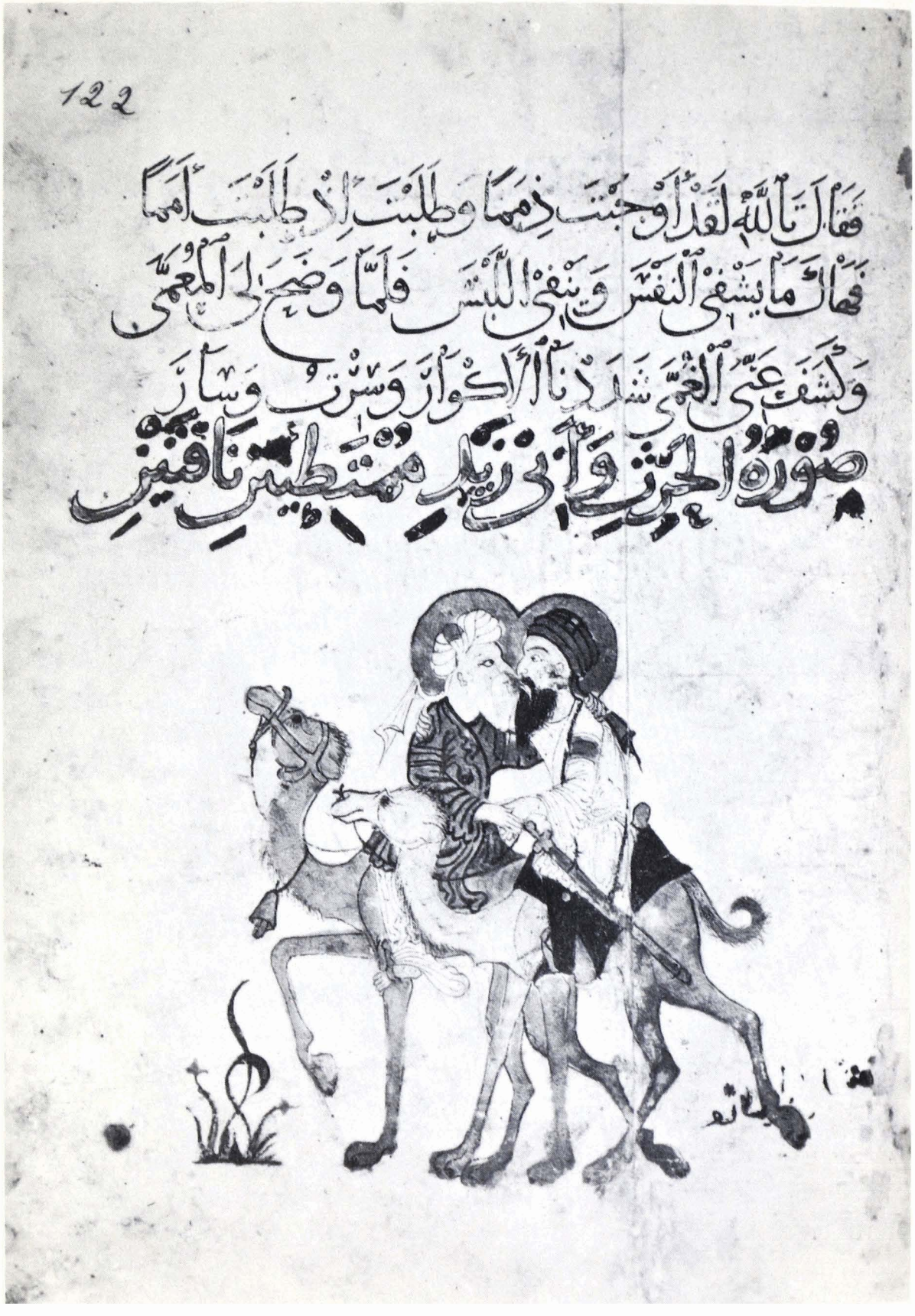
[1] Could this be the origin of the minute dogs which, according to Western travellers, the eunuchs of nineteenth-century Peking kept in their wide sleeves?

[2] Laufer.

Arab manuscripts of the eighteenth century
Photos: Bibliothèque Nationale, Paris

Abu Zaid on his travels

Meeting of Abu Zaid and Al Arith



'In A.D. 502–20, according to an author writing in the early years of the eighth century, a prince of Ssu-ch'uan paid a visit to the Emperor Wu, and in the course of a conversation which he had with the emperor's learned men he related this history:

' "In the West, when one reaches the western sea, there is an island of 200 square li. On this island there is a forest of trees which bear precious stones, and a population of some 10,000 families. These people are extremely skilful at carving the gems, which bear the name of the country, Fu-Lin." (The characters are those used for the Byzantine Empire, the ancient Ta-Ch'in.) "To the north-west from this island, there is a ravine more than 1,000 feet deep in the form of a bowl. Meat is thrown to the bottom of this. Birds seize the meat and carry it off, and when they do so gems fall out of the meat. The biggest of these weigh as much as 5 pounds. They say this is the treasure of the king of the demons of Rupadhatu." '

In this tale we have a strange mixture indeed: the king of the demons, who was a member of the Buddhist pantheon, the exaggeration of the weight of the gems, and the fantastic 'trees which bear precious stones', which may have been a deliberately invented tall story similar to those that were spread about the origins of silk. But the most interesting thing about this story, as Laufar pointed out, is the fact that it is situated in Fu-Lin, the Eastern Roman Empire, for it is in the eastern Mediterranean, in the works of a late fourth-century author named Epiphanius, that we find the first mention of this original way of obtaining jewels. Somewhat later, the legend narrowed down and was applied only to the diamond, but in the hands of different writers the geography became highly imaginative. An Arab text of the ninth century placed this valley of diamonds on the eastern frontier of Khorasan and stated that it had been discovered by Alexander the Great. (It was guarded by serpents whose very gaze was lethal. Alexander overcame them by confronting them with mirrors; they looked at themselves and fell dead!) The same story is told by Sindbad in the *Thousand and one Nights*. Other Arab accounts situate the valley in the region of Kashmir, Ceylon, in the land of the Kirghiz, Tibet, and somewhere west of the Gobi. And finally, the same legend is to be found in Marco Polo's history of his travels. This odd detail of 'mining technique' had evidently made a great impression on men's minds. It may be wondered how it was that the Chinese had such ideas about gems, and diamonds in particular—ideas which were not Indian, but purely Mediterranean in origin. This curiosity, which had so intrigued Laufer in 1919,

was mentioned again some forty years later in the fourteen-volume *History of the USSR* published in 1958. Soviet historians who had made a special study of Sogdian texts concluded that 'a certain amount of indirect evidence leads one to suppose that there existed a Sogdian translation of the *Romance of Alexander the Great* by the pseudo-Callisthenes'. We know that there had been contact between the Sogdians and the Greeks at the time of the embassies, and it is quite likely that the *Romance of Alexander*, which was so widely known in the West, was taken up and translated by the Sogdians. For they were a cultivated and literary people; even their merchants could boast a reasonable level of education. Thus, along with so many other things, it could have made its way to China; dancers, story-tellers and musicians could perhaps have presented it to the Chinese public, as the troubadours were to do later in Europe. The *Romance of Alexander* was also well known among the Persians—and many of them visited T'ang China or came into contact with Chinese mariners in the ports of Ceylon. The legends, stories and beliefs of the Mediterranean could, in short, have spread with both the Persians and the Sogdians. On the decks of junks and around the camp-fires in caravanserais, merchants, mariners, missionaries and ambassadors exchanged ideas during their hours of enforced idleness. Of other ideas common to both East and West, two have been mentioned by a French author, F. de Mély. One of these was the belief that in certain parts of the world lodestones on the sea bed could bring ships to a standstill by exerting an attraction upon the metal used in their construction. This was a common belief among the Chinese at this period and it is also found in the *Romance of Alexander*; it was to haunt Western mariners up to the end of the Middle Ages. Another legend with a bearing on mineralogy (and probably also on alchemy) was to be found in both China and Syria. The Syrian version of this[1] said that 'in a distant land in the west, where tin is found' (the Cassiterides of the Romans?) 'there is a spring bursting from the ground and gushing mercury instead of water. When the inhabitants of this place see that it is on the point of surging beyond the limits of the spring, they choose a young woman of outstanding beauty and place her naked in front of it, so that it might become enamoured of her. It leaps forward, seeking to lay hold of her, but she flees rapidly away, while the young men remain close to her with axes in their hands. When they see it approaching the young woman, they strike it and cut it, and it flows into the

[1] De Mély.

hollow place prepared for it and there settles and hardens of its own accord.'

And here is the Chinese version as unearthed by F. de Mély in the *Encyclopaedia*: 'Mercury of the kingdom of Fu-Lin: In the place where the sun sets, there is an underground sea of mercury 45 to 50 li across. The people of the country obtain mercury in this fashion: at a distance of 10 li from this sea they dig holes like wells, about a dozen in number. Then a group of men mount good horses, and both men and horses are covered with plates of gold. They advance towards the shore of the sea of mercury. The sun gleams on the plates of gold, and the mercury rushes forward like the flow of the tide. Its speed is that of a liquid glue. The horsemen turn about, and the mercury follows them. If they were to go too slowly, both men and animals would be swallowed up; but if they increase speed, the mercury exhausts itself and remains in the holes. . . .'

To these mineralogical parallels may be added a story in the *T'ang-shu*, which proves that about A.D. 630 to 635 the people of China believed in the existence of a gem (the diamond almost certainly), which was 'harder than any other' but which 'the horn of the antelope could reduce to powder'. This at once recalls the belief, held in Europe up to the eve of the Renaissance, that the diamond could be destroyed by the horn of the rhinoceros or unicorn, or by the blood of the goat or the blood of Christ.

It is at least significant that, at the beginning of the T'ang period, China should have retained of Western culture no more than a few notions connected with alchemy. The Christian West, believing itself to be the only custodian of the truth, was prepared no doubt to spread its own ideas throughout the world—but not to tolerate the slightest unorthodoxy within its own camp. Oddly enough, as we shall see, the only form of Christianity to be introduced into China under the T'ang was that of the Nestorians, which had been rejected and expelled by Byzantium.

XIII

A Far-reaching Heresy

'At the time when T'ai tsung, the brilliant emperor, was gloriously and splendidly beginning his prosperous reign, governing the people with far-sighted wisdom, there was in the land of Ta-Ch'in a man of high virtue named A-lo-pen, who, upon the augury of blue clouds, brought hither the true writings. After studying the harmony of the winds, he hastened to confront the dangers and difficulties and arrived in Ch'ang-an in the ninth year of the Chen-kuan period.' (This was in A.D. 635.) 'The emperor sent his minister, the duke Fang Hsüan-ling, with an escort, to receive the visitor in the western suburb of the city and conduct him to the palace. When the books had been transferred to his library and the doctrine examined in his private apartments, the emperor perceived its quality and truth and ordered that it should be preached and spread among the people.'

This text, carved upon the famous stele of Hsi-an-fu—which was erected in A.D. 781, then lost and forgotten, and finally unearthed by chance by labourers in March 1625 on the site of the ancient Ch'ang-an, some 60 kilometres west-south-west of the modern Hsi-an-fu—is the first and most important, and fortunately indestructible, piece of evidence for the introduction of Christianity into China. When Jesuit missionaries came to know of it, the discovery was treated as a matter of great importance, from the scientific as well as from the religious point of view, for hitherto there had been no precise evidence for the existence of Christianity in China prior to the Mongol conquest. But their joy was short-lived, for careful study of the text swiftly showed that the Christianity in question was not 'true' Christianity but the Nestorian 'heresy'. Nevertheless, the affair aroused a great deal of interest, and for a long time there was some doubt as to the authenticity of the stele; some sceptics even claimed that the Jesuits had invented the whole thing as a piece of

religious propaganda. But nowadays the stele is as honoured among Orientalists as is the Venus de Milo among sculptors. Other sources prove beyond doubt that it was indeed Nestorian Christianity, and that the year A.D. 638 in fact saw the arrival from some part of the eastern Mediterranean of A-lo-pen (whose name, or title, may have been a transcription of the Syriac 'rabban'), a missionary priest come from afar to convert the 'idolaters'.

The excellent reception accorded to the visitor by the Emperor T'ai tsung is highly significant. T'ai tsung was an enlightened ruler and a man of great curiosity. He allowed all religions to flourish in his realm and respected the sectarianism of the Confucians while at the same time sponsoring the efforts of an Indian monk to find the elixir of life. Neither Buddhists nor Taoists had any reason to complain of him. Nevertheless, his reception of A-lo-pen must surely have been inspired by something more than mere toleration, and this was borne out by what was to follow. Three years later, in A.D. 638, an imperial decree stated: 'The way has more than one name, and wise men have more than one method. Knowledge is such that it may suit all countries, so that all creatures may be saved. The virtuous A-lo-pen came from afar, bringing books and pictures to our capital . . .' 'It is the salvation of living creatures, the riches of mankind, and it is right that this teaching should spread freely through the world. . . . Let the local officials, therefore, build a monastery of Ta-Ch'in in the I-ning quarter of the capital for twenty-one regular monks.'

Following this proclamation—the expression of a tolerance beyond anything to be found in the West; at this period Franks and Saracens were slaughtering each other in the name of religion—the emperor continued to favour the religion of Ta-Ch'in and accord it his material protection. He cut short any possible objections on the part of the Confucians by invoking Chinese tradition itself, shrewdly affirming, according to the stele, that 'when the virtue of our ancestors, the Chou, began to fail, the black rider departed to the West. But now that the T'ang are ruling in splendour, a powerful wind is blowing to the East.' Which means in plain language that when the ancient dynasty of the Chou began to degenerate, the wise Lao tzu, Father of Taoism (from whom the T'ang claimed descent), fled to the West. (According to tradition, he was so sickened with China that, having deposited his message, the Tao-te-ching, with the commander of a frontier post, he rode away on a black ox and was never seen again.) But now there reigns once more a strong and virtuous dynasty, and wisdom has returned to us in the person of A-lo-pen of

Ta-Ch'in. We find a similar idea, widely held in China at this period, in the passage which we have already quoted from Pao-P'u-tzu, the Taoist; according to this, doctrines which seemed to come from the West had in fact originated long ago in China, the wise men going into exile when their homeland was no longer worthy of them. Which would suggest that the 'Wisdom' which completed its round trip with the arrival of A-lo-pen could be none other than Taoism. This seems to assign only a minor role to Confucianism, and indeed the Taoist bias apparent in the stele suggests that once again a foreign doctrine had managed to take root in China thanks to Taoist support, which had been sufficient to overcome the opposition of the Confucians. This was what Buddhism had done some five or six centuries previously.

The name 'Ta-Ch'in' also needs some clarification in this context. When the stele was carved in A.D. 781, the Byzantine Empire was already being called Fu-lin. But we know that in A.D. 745 an imperial decree had ordained that all Western temples which had hitherto been known as 'temples of Persia' ('Po-Ssu') should henceforth be called 'temples of Ta-Ch'in—because Ta-ch'in was their true place of origin'. The Chinese were returning to the ancient name, having realized that the 'brilliant doctrine', or 'doctrine of Light', had originated not in Persia, but in what they had once called Ta-Ch'in.[1] When foreign religions were forbidden in China, by a general edict in A.D. 845, the authorities were able to give clear definitions of three 'barbarous' doctrines: Buddhism, the 'doctrine

[1] Unfortunately, things are complicated somewhat by the fact that the term 'temple of Ta-Ch'in' was applied to all the temples of the 'Genius of Fire'—those of Zoroastrianism. In fact, the *T'ang-shu* tells us that: 'as to Hsien, the Genius of Fire, there was once in Persia (Po-Ssu), a certain Su Lo-chih (the Chinese transcription of Zarathustra), who brought his cult into fashion. His disciples brought it to China. In A.D. 631, a disciple of Zoroaster, the magus Houlu, presented himself at the court and spoke for the cult of the genius Hsien. An imperial edict ordered that a temple of Ta-Ch'in should be built in the capital'. In view of this, how could we help but be confused? And it appears that for a long period the Chinese mixed up the 'religion of Light' and the 'doctrine of Fire'. Being so far distant, it was not surprising that they should find Western geography rather confusing; Syria, through the centuries, was now under Roman domination, now under Persian, while Palestine had periods of independence alternating with spells beneath the sway of foreign powers. The Chinese never in fact had a clear idea of the political frontiers of Ta-Ch'in. As for Zoroastrianism, which certainly began somewhere on the other side of Persia, perhaps even as far east as Chorasmia, the error cannot be explained, unless by the fact that the 'cult of Fire' was introduced into China in A.D. 631, just four years before the 'cult of Light' in A.D. 635.

of Ta-Ch'in' (Nestorianism), and the 'doctrine of the Mo-fo-p'o' (a transcription of the Persian word *moghbed*, Zoroastrian magus, hence Zoroastrianism). Between these two dates, A.D. 631 and 845, a period corresponding to the struggles in the West between the Christians and the Moslems, these three doctrines enjoyed a brief prosperity in China. It is noticeable that their entry into China coincided with a period of intense commercial activity, and their decline with the breakdown of this activity over a large part of the trading world. The favourable welcome given in A.D. 631 and 635 by the T'ang emperor to the Nestorians and Zoroastrians suggests that T'ai-tsung may have had some previous contact with them, or at least heard of them. This would not be surprising in view of the fact that China was constantly in touch with Persia and the Sogdians. Western texts, however, though closely studied by Jesuit Orientalists, have produced no evidence of this. At all events, the 'doctrine of Light' enjoyed the favour of the emperors for several reigns. Kao Tsung, from A.D. 650 to 683, 'glorified the true principle and constructed a Temple of Light in every prefecture'. (This strongly suggests that there had been numerous conversions among the Chinese themselves; there could hardly have been colonies of foreign Nestorians in every province.) He also honoured A-lo-pen with the titles of 'Grand Master of the Law' and 'Protector of the Empire'. 'And so law was established in the ten administrative circles of the Empire, the State was prosperous and at peace, and our temples were in the hundred cities.' (If the writer of the stele is not exaggerating, adherence to Christianity must have been very widespread.) There was a brief period of persecution in A.D. 712, the leading Nestorians at the time being two foreigners: Lo Han (Abraham?) and Chi lieh (Gabriel?). But in A.D. 713 they were once more in favour; 100 pieces of silk were presented to the Temple of Light in the capital. Then, in A.D. 744, a monk of Ta-Ch'in (the text does indeed use the name Ta-Ch'in) arrived in Ch'ang-an, having 'guided himself by the stars and followed the sun'. He was installed in the palace, and a monastery was founded. Are we to conclude that a number of emperors were Christians, perhaps in secret? But these same emperors all had Taoist alchemists searching on their behalf for the elixir of life, and no definite hypothesis has as yet been formed as to their possible adherence to Christianity. The Nestorians were still at court during the reign of Su-tsung (A.D. 756–62), who built no fewer than fiveTemples of Light; and during the reign of T'ai-tsung (A.D. 763–79), who had 'celestial perfumes' burnt in the Temple of Light on his anniversary

and provided a banquet for the entire Nestorian community—which was a favour generally accorded to Buddhist religious houses. Better even than that: a monk by the name of I-Ssu, who came from Balkh and was 'distinguished in all the sciences and all branches of knowledge', became attached first to the palace and later to the army. The emperor even allowed him free access to his own tent, which was a quite exceptional privilege. This personage, who prompted the carving of the Hsi-an-fu stele and is extolled in the text, may have been one Izd-buzid, Archbishop of China, of whom mention has been found in Western writings. The stele praises his efforts 'to repair and enlarge the temples, preach in the communities . . . feed the hungry, clothe those who are cold, nurse the sick, bury the dead'.

Nestorian conversions continued in China until the edict of proscription of A.D. 845. Thereupon some 2,000 Nestorians and Zoroastrians were secularized, though we do not know the numbers for each religion separately. In any case, it was a relatively small number, in view of the fact that China then had about 32,000,000 inhabitants and that no fewer than 260,500 Buddhist monks and nuns were affected by the edict. The two Western religions now vanished from China almost completely. Around A.D. 980, an envoy sent by the Catholicos responsible for putting the affairs of China in order hastened back to Baghdad with the news that there was scarcely one Christian left in China and no churches at all. In fact there were to be no more Christians in China until after the Mongol conquest. It was a sad end for a doctrine which had made so triumphal an entry and enjoyed such august patronage.

The fact that Christianity had had such patronage and such success, albeit temporary, and had been able to take root in all the provinces, can only be accounted for by the climate of tolerance and religious curiosity which characterized all the reigns of the T'ang dynasty. This does not mean that China was wide-open to foreign visitors, like a modern nation ever ready to receive tourists! On the contrary, travellers had to produce a great many passports and documents before they could enter the country. Once within the frontiers, they were closely watched, their lodgings were supervised, and they were obliged to congregate in certain towns or quarters of towns. If parties of visitors were too large, they were carefully split up into smaller groups. And finally they were absolutely forbidden to travel about and engage in trade; this we know from the account of his travels written by the Japanese pilgrim Ennin. Overseas trade had to pass through the narrow channel of

government agencies, and was conducted in the frontier-towns and ports, or in a certain quarter of the capital.

In the cultural and intellectual fields, however, suspicion was giving way to a lively curiosity, and anyone with a reputation for knowledge, wisdom or virtue was welcomed with open arms. The Ta-Ch'in missionaries must have had an unrivalled reputation for wisdom and integrity to have been accorded such a generous reception; they were surely considered the bringers of great benefits. It was not, however, that people were tired of Confucianism or disillusioned with Taoism and Buddhism; the rites of Confucianism were still obligatory, there were more than 260,000 Buddhist monks and nuns as well as lay adherents, and Taoists are mentioned time and again in the annals of the T'ang—this was the heyday of cinnabar grinders, herbalists and alchemists in search of the elixir of life (some of whose products actually hastened the demise of one or two of the emperors). What, then, was there in this new doctrine to attract Chinese converts?

By Western Christians, Nestorianism had long been considered a heresy. It had been condemned by the Council of Ephesus in A.D. 431. The doctrinal differences between Nestorians and Catholics are extremely important to the Christian. Nestorianism denies the divinity of Christ and the holiness of the Virgin, believing that Jesus was a man 'of whom the Divinity took possession when it wished, in whom it dwelt for as long as it wished, and whom it abandoned when it thought fit'. But to the Chinese, who knew nothing of the early multiplication and confusion of Christian sects, Nestorianism brought something which no other doctrine brought during the first twelve centuries of Christianity: the basic elements of that religious system which had become inseparable from the notion of Europe—the outlines of the Gospels, the concept of the Trinity, the rite of baptism and the symbol of the Cross. As for the habit of prayer, the renunciation of riches and the rejection of slavery, these notions were already familiar to the Buddhists. All unconsciously, too, Nestorianism brought with it that basis of Hebrew tradition inseparable from the teaching of the Gospels. A whole new world of ideas was thus introduced into the land of Confucius—ideas whose impact upon the Chinese scheme of things varied with the degree of eminence of the men who brought them. The erudite Izd-buzizd reminds us of the French Jesuit mathematicians who had such success in China in the seventeenth century, when their services in helping to fix the calendar were so greatly appreciated. These

tonsured, white-clad men brought not only books and sacred images —they also brought knowledge; and this may account for the odd similarity of alchemists' notions in China, Syria and the eastern Mediterranean. Many Nestorians came from Ta-Ch'in; the stele of Hsi-an-fu is written in Chinese and Syriac and contains Syriac names, and we have already seen that the text reveals an undeniable link between Nestorians and Taoists. Syria, Nestorian missionaries, Taoist alchemists—an intriguing trio. It may seem curious also that the Nestorians should have joined up with the Taoists, when, as has often been observed, considerable similarities exist between Christianity and Buddhism. But there is no real evidence to go on in this field, and we are reduced to hypotheses which arise spontaneously out of any consideration of the known facts.

The Nestorians appear to have brought very little in the way of material things, apart from a precious stone identified as 'turquoise', which seems to have been used in the decoration of their temples and religious objects. Though travelling with the caravans—for it very rarely happened that a man journeyed alone—they brought neither perfumes, nor jewels, nor precious cloths, nor strange animals. They sowed a seed of which nothing was to remain but a stele of carved stone, a few rolls of manuscript, some crosses—and perhaps also a few good wrinkles for use in the transmutation of metals. . . .

The passage in the T'ang chronicle which deals with the introduction into China of the doctrine of the 'Genius of Fire' (Zoroastrianism) fails to tell us where the missionary Hou-lu came from. In general, we know much less about this matter than we do about the Chinese Nestorians. Hou-lu may have come from either Persia or Sogdiana. The greater part of the Sogdian confederation seems to have been Zoroastrian, to judge from the numerous remains that have come down to us—ossuaries, frescoes depicting Zoroastrian myths, etc. But Zoroastrianism was also the official religion of Sassanid Persia. The alliance between religion and the throne was a characteristic of this dynasty. For the Sassanid shahs, Zoroastrianism was one of the forms which could be taken by the national reaction against Hellenism, an aspect of imperialism. (At the same time, however, the Sassanids were usually tolerant of foreigners. They received Jews and Nestorians defecting from the Eastern Roman Empire—all the more willingly because, by so doing, they could show their hostility to the Byzantines.) Relations between Persia and China were excellent, as can be seen from the

fact that when Firuz lost his kingdom following the Arab invasion, he took refuge in China and was given permission to build a Zoroastrian temple for his own use in the Chinese capital.

Nevertheless, Zoroastrianism had little in common with Chinese patterns of thought. Nor did it have the personal support of the emperors to the extent that the 'doctrine of Light' did, possibly because its representatives were not of comparable eminence. It could be that the emperors merely tolerated Zoroastrianism for political reasons; Persia after all was an ally and a powerful commercial contact. Zoroastrianism contained features which were quite incompatible with Chinese thinking, particularly its insistence on the opposition of good and evil (*Ormuzd* and *Ahriman*), and its prohibitions concerning fire. (Fire and water must not be allowed to touch; fire must not be soiled by having things thrown on it or by being breathed on; the sunlight must not be allowed to fall upon the sacred fire.) Another thing was that the Zoroastrians exposed the bodies of their dead upon towers or on mountains, where the bones were picked clean by birds and beasts of prey. Such practices must have been particularly repugnant to the Chinese, who had a profound sense of the corporal integrity of the dead. It would seem that Zoroastrianism always remained a 'foreign body', a 'barbarous' cult practised only by foreign residents, and that it had scarcely any influence on the Chinese mind. It was crushed in A.D. 845 by the edict against foreign cults (which was aimed particularly at Buddhism), and disappeared from Chinese territory. All that remained of it in all probability were a few decorative mythological designs upon imported Persian brocades; but none of these have as yet come to the attention of scholars. It is reasonable to suppose that such things existed in China, for even in France Sassanid Persian materials have been found bearing Zoroastrian motifs (pairs of animals, for example, facing each other across the Fire-altar), and Persia is known to have exported large quantities of her famous brocades to China. But archaeology is not yet in a very advanced stage in China, and its findings are not fully known to us. On this subject, as on many others, a great deal remains to be learned.

It is strange that Manichaeism or the 'doctrine of the Two Principles', which would seem to be at least as unacceptable to the Chinese as the Cult of Fire, should have had greater success among them. This much at least is suggested by such evidence as the numerous Sogdian texts found at Tun-huang (the translation of which is far from complete), and the many religious frescoes dis-

covered in Central Asia at the beginning of this century. It is true that Zoroastrianism was transmitted largely by word of mouth and oral tradition, and could scarcely therefore have left a religious literature. But it is also true that the Sogdians were enjoying a period of considerable literary activity. Manichaeism took firm root in Sogdiana, where its adherents had taken refuge after their expulsion from Persia and the murder of the founder, Mani, in the third century. In the centuries which followed, it made some headway among the Turks. It was in this part of Central Asia that the Vigur Turks came into contact with the religion of Mani and officially adopted it—which was to determine the attitude of the Chinese Government with regard to the Manichaeans. When the Vigurs were friendly, the sect was tolerated; when they were enemies, it was persecuted—which happened in A.D. 843. (The edict of general proscription of A.D. 845 had no need to worry about the Manichaeans, for they had already disappeared completely in A.D. 843.)

A strange destiny was in store for this mongrel doctrine which had sprung from the contact of two implacably opposed religions: Zoroastrianism and Christianity. (In years to come it did not fail to have some influence upon the latter of these two.) How accurate are our ideas of this doctrine? Until the decipherment of the manuscripts of Tun-huang, all that was known about it came from judgments and opinions which had been passed by the adherents of other, possibly antagonistic, religions. The Christians reproached it for its essential dualism: two opposing principles, both pre-existent, in place of one God in three persons. From this dualism, carried to its limits, there followed the essential separation of matter and spirit —spirit being good, and matter evil. Carrying this even further, we arrive at a refusal to create matter (by begetting children), a refusal to treat illness, and even a refusal to nourish the body with food—which could lead to suicide by inanition. There could hardly be a religion more intransigent, more austere, more pessimistic, less within the scope of ordinary human beings. This at least is what we would conclude from the grim picture painted of it by Christian authors. How then are we to account for its rapid and dramatic success, its reappearances from century to century and in one country after another? For the history of this religion is a long succession of appearances and disappearances. Its founder, Mani, seems to have been a Zoroastrian deeply influenced by Christian reading. As soon as he appeared, he was menaced and persecuted. Driven out of Persia (where, however, he was later destined to be

burnt alive), he preached his doctrine in the Byzantine Empire. Within the space of one generation, persecution had begun; in Armenia, Syria, Egypt, the Balkans, Bulgaria, Italy, France, Germany and England, it went on from the fourth to the twelfth century. But all the power of the Church was not enough to put an end to Manichaeism. Each wave of persecution was followed by a fresh period of expansion, as refugees fled to neighbouring countries and took their terrible doctrine with them. Wiped out in the campaign against the Albigenses, they were later to reappear from time to time under different names. It may even have been a sect descended from Manichaeism that the Soviet Government 'unmasked' some years ago in Moldavia; strange practices were condemned, including cases of suicide by inanition and refusal to accept medical treatment. In spite of the major likelihood that it was the Sogdians who brought the 'doctrine of the Two Principles' to China, history records that it was a Persian who actually did so. This was F'u To Tan, and the event is supposed to have taken place in A.D. 694. The annals of the period describe the Manichaeans as behaving in a fashion quite the opposite of that likely to be adopted by normal people: 'They say that the men and women are not allowed to marry, that they must not speak when they hold each other, that the sick must take no medicine, and that the dead must be buried quite naked. . . . They sleep by day, wake by night, and mate in the darkness. . . .' It was also said that they wore white robes and caps and that they recognized one another by the use of certain perfumes—perhaps some of those mysterious perfumes from Sogdiana whose very names now have no meaning for us.

From the beginning, this doctrine came into conflict with Chinese ideas. The duality of Yin and Yang, though having an apparent similarity with that of good and evil, is not an essential dualism; the aim is not to destroy one of the elements but to maintain equilibrium between the two of them. They are not opposites, but complementary. The practices of Manichaeanism horrified the Chinese in every way. Nevertheless, the doctrine (Mo-ni as it was called) made another attempt to establish itself in China when, in A.D. 719, an eminent Manichaean astrologer named Ta Mo che was sent to the emperor by a sovereign of Central Asia or northern India. A great many Manichaeans had taken refuge in Central Asia following their persecutions in Persia, and they must have formed a dynamic group, for this 'embassy' had all the characteristics of a well-planned missionary operation. It carried a letter from the sovereign re-

questing the emperor to put Ta Mo che's knowledge to the test and permit him to expound his religion, build a temple at Ch'ang-an and live by the offerings of the converted. The astrologer had little success with the emperor, but appears to have made some headway with the population at large. According to a contemporary text, the Manichaeans used tactics similar to those once employed by the Buddhists: just as the latter had managed to pass for a Taoist sect, so the Manichaeans contrived to get themselves taken for Buddhists. The genuine Buddhists reacted sharply and asked the government to make an official distinction between the two religions. The emperor replied as follows: 'The Mo-Ni are a depraved sect, and it is wrong of them to try and pass themselves off as a Buddhist sect. However, since their doctrine is that of the Masters of the Western Hu'—which was the general name for the inhabitants of the Western Territories and Central Asia—'let their disciples be free! Let them not be molested!' The Buddhist-Manichaean and Nestorian-Taoist confusions make it difficult to interpret those passages of contemporary Chinese texts which deal with religion. The misuse of Buddhist or Taoist terminology considerably aggravates the problem.

Eight years after this not very complimentary edict, however, there were a couple of Manichaean temples in the capital—compared with ninety-one Buddhist temples and monasteries, sixteen Taoist, two Nestorian and two Zoroastrian. But the Manichaeans were gaining ground as the result of a purely political development. This followed the conversion to their doctrine, about A.D. 760, of the Vigur Turks, which doubtless came about through contact with their cousins the Western Turks. For the Chinese, who had been faced with severe military and economic difficulties since A.D. 750, the Vigurs were powerful allies who had to be kept friendly at any price —so much so that a number of Chinese princesses had been given to them in marriage. The Vigur khanate was probably the only Manichaean kingdom, and its government attached considerable importance to religious questions in foreign affairs. In A.D. 768, at the request of the Vigur Khan, the emperor of China allowed his allies to erect Manichaean temples in his dominions. These were to be known as 'brilliant Light in the Great Cloud' or 'brilliant Light of the Great Cloud', obscure titles which merely add to the general confusion of our ideas on religious aspects of the time, the notions of 'light' and 'brilliance' having already been closely linked in China with Nestorianism. (It may be mentioned that it is still uncertain whether one particular temple in Central Asia was Manichaean or Nestorian.)

Three years later, four more temples of Mo-ni were erected: in Hu-pei, Chiang-su, Chiang-hsi and Che-chiang. But it has not been possible to determine what proportion of Manichaeans were Chinese converts and what proportion were foreign residents.

Like the Nestorians, the Manichaeans seem to have enjoyed some reputation for wisdom. In A.D. 799 during a severe drought, their 'masters' were called upon to make use of their powers to produce rain. 'History does not record that they were successful.'[1] In A.D. 807, in response to an official application from the Vigur Government, permission was given for two further Manichaean temples to be constructed, in Ho-nan and Shan-hsi. All these high-level negotiations suggest that such permission was not easy to come by. Indeed, the 'establishment' must surely have been opposed to any extension of Manichaeanism, and it was only political expedience, the urgent need to remain on good terms with the Vigurs, which led the emperor to grant such favours. As soon as the Vigurs had been crushed by the Kirghiz, China abandoned them and formed an alliance with the new conquerors, and there began a period of cruel and ruthless persecution. In A.D. 843 an imperial edict outlawed the religion, ordering the demolition of all the temples, the execution of seventy Manichaean 'priestesses' in the capital, the secularization of such priests as were not foreign, the expulsion of others, and the seizure and destruction of books and icons. (It was possibly as a result of the edicts of A.D. 843 and 845 that so many religious works came to be hidden at Tun-huang.) And finally all religious property was confiscated. The Manichaeans must indeed have assumed considerable importance to justify such drastic measures being taken against them.

It was in the nature of this doctrine to spread with the speed and vigour of an epidemic—and to become swiftly the object of persecution. At such times it would go underground, emerging here and there for no easily discernible reason. In China there were mentions of it in the south even as late as the end of the twelfth century, and traces of it may be seen in various secret societies at different periods. Its destiny was much the same in both East and West, which may be explained by its total opposition to current ideas and morality, and the mystical fascination it could exercise over certain individuals regardless of time and place.

Manichaeans, Zoroastrians, Nestorians—all 'barbarians of the West'—made their way with merchants and embassies along the great trading and military routes to the court of Ch'ang-an. They

[1] So comments Wieger, translating this passage from the *Dynastic Histories*.

sowed their seed, but reaped a puny and unsatisfying harvest. For a foreign doctrine, it was easy to enter China, but difficult to endure. All 'imported' notions were rejected sooner or later, sometimes with violence, sometimes without. Thanks to the intellectual climate which flourished under the T'ang, the great doctrines of the West were able to make themselves known in the greatest empire of the age; but they never became assimilated. Not since the introduction of Buddhism (a process which extended over several centuries) has any fresh religion established itself and borne fruit in China—except possibly (and only time will tell) that conception of the world which, born in Germany and growing to maturity in Russia, we call by the name of Marxism. Even Buddhism was modified and domesticated by the Chinese; so if Marxism is adopted wholly and absolutely, if it is not flung out or subtly transformed to accord with Chinese mentality, we shall witness the first ever true 'conversion' of China.

XIV

The Time of Sindbad The Sailor

The history of China has a rhythm not unlike that of the beating of some enormous heart, the blood being alternately forced to the farthest extremities of the body and drawn in tightly to the centre. Under the T'ang of the seventh and eighth centuries, as under the Han, China was in phase of expansion. Her subjects dwelt in Indo-China, Korea and Central Asia; they had traversed India and crossed the sea to Ceylon. The products of her agriculture and industry had gone yet farther afield and were in common use in Persia, the Byzantine Empire, and even among the nomads of Eurasia.

Silk was still a kind of currency in China. It was used for paying salaries, giving rewards and making offerings in the temples. And its importance in the markets of both East and West (Persia was still the greatest importer of silk) was due not only to its fame as a textile, but also to the fact that it was used as a means of exchange. It was readily negotiable, enduring, scarcely more perishable than precious metals; it could be bought, sold—and stolen. Such texts as there are show that lengths of silk were widely used as a kind of money; and this continued until the end of the Middle Ages. In the West, an official would not, as in China, have been paid in sacks of rice or lengths of silk; but rich people certainly accumulated vast quantities of silk in their coffers—especially brocades, lamés and embroidered and painted silks. A capitalist of our own times would hardly invest a substantial part of his fortune in lengths of material, even the finest Lyons silk, and then stow them away in the vaults of a bank. Even apart from the question of the sheer bulk involved, fashion changes so rapidly nowadays that such an investment might result in a loss. Fixed assets are no longer wanted; nowadays money has to 'work'. In antiquity, when values were more stable, people hoarded. That is why lists of property confiscated, testaments, and

accounts of pillage, so often mention the coffers full of precious materials in the houses of the rich.

Silk was not, of course, the only article used as a currency. When the Byzantine emperors purchased the neutrality of some barbarian chieftain in order to immobilize an area beyond their frontiers, they would pay him in rolls of silk, true, but also in sacks of pepper or corn. The widespread use of commodities instead of money may perhaps be attributed to the fact that this whole period was characterized by a growing shortage of gold, which was draining away towards the East and there remaining hidden—as so often happens in troubled times. This was particularly true of the non-Greek West, of the land of the Franks, where silver long took the place of gold. Such gold as the Greeks managed to get hold of continued to flow to the East, where Byzantine coins were much sought after.

It might be noted that just when the West was running short of coinage China was beginning to use precious metals for currency—not in the form of coins, but in weighed ingots. The Chinese paid for their imports in silk; the Westerners paid in gold, so long as it was available. And, though the full interplay of cause and effect is not altogether clear to us, it must be mentioned that at this time there was a marked reduction in the volume of trade flowing between China and the West. For large-scale commercial activity to take place, it was necessary for peace and order to reign along the trade routes, and Persia, at the heart of the communications network, the great clearing-house for Chinese raw silk, the holder of a shrewdly organized and fiercely protected monopoly, was being swept up in the terrible advance of Islam.

With roots in Christianity, Judaism and the ancient local cult of Mecca—this part of the ancient world was extremely rich in hybrid doctrines—Islam was an explosive mixture indeed. For centuries the old civilization of the Mediterranean had been fighting off the barbarian nomads of the north; now it was attacked from the south, and when it least expected such a thing to happen. The explosion came almost from within. The adherents of the new sect were tented nomads; they journeyed by camel, and their dearest possession were their swords. They waged war in the name of God, execrated their settled neighbours and, at first at least, destroyed everything they found in their way. In a series of lightning raids they swiftly gained dominions over an empire as large as that of Trajan. In A.D. 636, four years after the death of Mohammed, they conquered Syria, which put an end to Syrian trading in western Europe and brought great num-

bers of experienced textile workers under the control of the Arabs. In A.D. 641, they took Alexandria. In the period A.D. 647–98, and in spite of Byzantium and the Berbers, they occupied the whole of North Africa. All the commerce of the Red Sea and the Nile, as well as the caravans to central Africa, fell into their hands. In A.D. 712–13, they occupied Spain; and though Charles Martel checked them at Poitiers in A.D. 732, they continued their constant harrying of the southern coasts of France. They were masters of the entire Mediterranean. From A.D. 660 onwards, east of Sicily, 'the Christians could not launch a plank of wood upon the sea'. Persia, they swallowed whole; in A.D. 674, Firuz, the last king of Persia, lost his crown and took refuge in China. With Persia, the Arabs gained control of the world's second largest silk industry and the monopoly of the trade in Chinese raw silk. The geographical advantages that had been enjoyed by Sassanid Persia were now favouring the caliphs. And as soon as the fanatical austerity of the early years gave way to a more normal climate of opinion, Moslem Persia became the greatest producer, seller and consumer of silk west of the Pamirs, rivalling China in this field as in many others.

This rivalry came to a head in A.D. 751 on the banks of the River Talass, close to Dzhambul in Kazakhstan. The Arab troops of Ziyad ibn-Salih and those of the Chinese general Kao Hsiang-che faced one another for five days in July in a bitter, bloody and inconclusive battle. Betrayed by their foreign mercenaries, the Chinese finally broke and fled. The Arabs prudently refrained from pursuit; and that was the limit of their territorial expansion. Following the battle, they took a great many prisoners, both soldiers and from among the civilian Chinese population of the small local colonies. Ziyad ibn-Salih took silk-weavers back to Kufa in Iraq (then the capital of the caliphate), and set up paper manufacturies in Samarkand.

So this war, which had been purely political at the start, had consequences both cultural and economic. The Chinese paper-workers, whether free or under constraint, founded their workshops in Samarkand and passed on their techniques to others. Chinese paper, which hitherto had been rare in Persia and almost unknown in Europe, now spread through the Moslem world, and thence to Europe, with great rapidity. Though Samarkand paper remained the most famous, other manufacturies were set up in Moslem countries: at Baghdad, by Chinese craftsmen fetched, in unknown circumstances, by Harun al-Rashid; on the south-east coast of Arabia; and

finally one at Damascus, which was to supply Europe with paper as Persia supplied it with silk.[1]

The silk weavers captured at the battle of Talass in A.D. 751 were able to introduce Chinese methods of sericulture into Persia. But were they not known there already? In fact we have no precise date, no reliable evidence on the subject, but it seems certain that Persia, in absolute control of the silk-trade and as powerful on land as at sea, could not have been in ignorance of secrets which had long since been revealed to Byzantium and the states of Central Asia. We may say that silkworm eggs had been brought into the country under the Sassanids (would Persia have been in such a favourable position otherwise?), some time before Justinian sent his monks to Central Asia (according to Theophanes, it was a Persian who introduced sericulture into Greece), and perhaps even at the time when the secret was revealed to Khotan by that disloyal little Chinese princess. However, the setting up of Syrian and Chinese craftsmen under the caliphate and the interest which the Moslem state quickly began to take in the silk trade (from which it was to draw a great part of its resources) gave a tremendous impetus to Persian sericulture.

From the Merovingian period onwards, western Europe purchased most of its silks from Moslem Persia. Some came from what was left of the Byzantine Empire (whose silk industry had been beset by economic difficulties for at least two centuries), and only a little from the more distant lands of Central Asia and China. The silk route had been cut through the middle, and there were now two main sources of silk: Persia, whose production was largely for the home market, though any surplus did find its way to the countries round the Mediterranean, and China, whose output had been reduced somewhat at the end of the T'ang as a result of serious social disorders, but who was exporting to Central Asia, Europe (*via* Persia), and more and more to South-East Asia, which was entering on a period of prosperity and becoming ever more important from a commercial point of view.

During the eighth century the Byzantine Empire suffered a severe depression. The silk industry failed to make the advance which the climate, the available craftsmen and the temporary disruption of Persian sericulture due to the Islamic conquest might have permitted. By the time things improved, it was too late for there to be any hope of supplanting Persia. With the establishment of peace, Persia took advantage of the absence of competition and the

[1] Carter and Goodrich.

Syrian and Chinese craftsmen captured during the wars to encourage the breeding of silkworms wherever the climate was favourable. According to Ernest Pariset, the suitable areas lie between 35° and 42° N, and the silk-producing provinces were Khorasan, Djordjan, Tabaristan, Azerbaijan, Dilem and Ran. The town of Merv (close to Central Asia, it may be noted) specialized in the production of silkworm eggs and exported them to the Moslem provinces. As well as the areas which actually produced cocoons, the provinces of Fars, Khuzistan and Djebal contained many towns which were engaged in spinning, weaving, dyeing and embroidery, including Ispahan, Damascus, Nishabur and Astarabad. Towards the end of the ninth century sericulture was established in Moslem Spain, and Seville, Granada and Almeria became famous for their work in this field.[1]

The extensive development of sericulture in Moslem countries was hardly in keeping with the early principles of the religion. Faced with the example of the Romans, who had been ruined by their excessive love of luxury, the Prophet forbade his followers to wear garments of silk. Exception was made in the case of women (whose duty it was to attract men by all means in their power in order to fulfil their prime function of procreation), and of furnishing fabrics, which are much used by all peoples who dwell in tents. 'Do not clothe yourselves in garments of silk or brocade,' said the Prophet, 'nor use vessels of gold or silver upon your table. The infidels have these things in this life; we shall have them in the next.' To the pure and the just, the Koran promises 'green garments of brocade and satin' and adds: 'only those who have no part in the future life clothe themselves with silk'. Silk tapes and borders were all that were permitted on men's clothing, which had to be of cotton, linen or wool.

The temptation to infringe this rule was strong however, for apart from anything else the pillaging of Persian and Syrian towns had given them possession of vast quantities of silks. It is recorded that the Caliph Omar, following the capture of Jerusalem, saw Moslems dressed in silks which they had looted; he ordered the garments to be torn up and the wearers to be dragged in the mud. Another story relates how Mohammed himself, having permitted himself to don a garment of silk, had a revulsion of feeling while at prayer and tore it off.

This period of austerity and the period of luxury which followed

[1] Pariset.

form an odd parallel with the early years of Christianity. The bishops had inveighed against the use of silk—and 100 years later it was being used for winding-sheets and for the decoration of churches. History could provide other examples, too, of doctrines which began in sackcloth and finished in brocade silk; Lenin may well have disapproved of the sort of dresses now being featured in Soviet fashion magazines.

Silk soon began to exercise its fascination over rich Moslems—as it was doing already in the case of the Christians across the Mediterranean and the barbarians, who were always particularly avid for booty in the form of precious cloths. With this in mind, it is interesting to examine the popular literature of both Christians and Arabs—the *Thousand and one Nights*, for example, some of whose stories go back to the tenth century or beyond, the romances and the *chansons de geste*. The Arab story tellers and the minstrels were composing for a naïve public and they described the costumes of their heroes and heroines in the greatest detail, conjuring up a glittering image of brocades, cloth of gold, cloth of silver, jewels. . . . Among both Christians and Moslems, popular stories dwelt upon the four delights of this world which seem to have filled the dreams of ordinary men: noble battles, beautiful women, sumptuous clothes and luscious food. Gone, apparently, were the days of Caliph Omar, who had punished his men for daring to put on garments of silk. The handsome Hassan Badreddine al-Bassri, the son of a vizier in the *Thousand and one Nights*, noble, pious and virtuous as he was, wore a shirt of muslin silk embroidered with gold, trousers of blue silk held at the waist by a sash with gold tassels, a mantle of silk interwoven with gold thread, and a turban of silk embroidered with gold and silver.

In the shops of the silk merchants (of which there were a great many, if the *Thousand and one Nights* is anything to go by), the ladies of Cairo, Damascus, Ispahan or Basra, chaperoned by eunuch or duenna, would linger long over their choice of material. In the street, going to and from the shop, they would hide themselves beneath huge veils of blue silk, 'as soft as the wing of a dove' said an Arab poet. Bachelors were assiduous frequenters of such places. If fortune were kind, a casual—or calculated—gesture would allow them a glimpse of chin or cheek beneath the fine veil of white silk which was worn over the face.

Silk, indeed, was inseparable from the idea of woman. In one of Scheherazade's first stories, a genie who has carried off a young

woman on her wedding-day, intending to make her his own wife, addresses her as 'queen of silks'. And those thousand and one sleepless nights themselves needed a setting of blue satin coverlets embroidered with gold and pearls, hangings of velvet silk and silken carpets. Such ornamental luxuries were as indispensable as musk-scented rose-water, ambergris, aloes-wood, sandalwood and incense. . . .

Far away from Baghdad and Ispahan, a lady waited in a castle for her lord to return from Roncevaux. She occupied her time embroidering strands of her fair hair into a silken girdle. . . . The references to silk in medieval European literature would fill an entire volume; in the middle of the last century, the historian Francisque-Michel devoted some 700 to 800 pages to the subject.[1] In this vast work he gives precise descriptions of those cloths whose strange, oddly evocative names are constantly to be found in medieval chronicles and romances: samite (*examitum*, *sciamitum*, *smitum*, etc.), a stiff and heavy brocade silk used for ecclesiastical vestments, domestic hangings and cushions, book covers, long robes for both men and women, and winding-sheets for the rich; sendal (*cendax*, *cendé*, *cendel*), a similar material, though somewhat lighter, and used for clothes, furnishing fabrics and the oriflammes and pennants which floated from the heads of lances; and siglatons, which were diapered silks much sought after by elegant ladies. All these materials so scrupulously differentiated in medieval texts, were imported, mostly from Mohammedan countries. Samite, green samite especially, came from Syria; sendal, generally vermilion, came from Tyre and Russia—or more exactly, by way of Russia from Central Asia or China; siglaton was from Andalusia, Alexandria, Baghdad and Tauris. The names of materials are numerous indeed, and not all of them have been identified. There were the diapered silks of Antioch, white silks used in religious ceremonies; baldachins (from the word Baghdad), embossed with gold; mantles of silk from Damascus and Alexandria. Among those we are unable to identify are the cloths of Arest (a town near Antioch), escarimant, boffu, the mantles of Bisterne (a mysterious land—'the end of the world'?), the Antigonian cloth mentioned in the *Romance of Alexander*, and many others: *diventum*, *exarentasma*, *brandeum*. . . . Very little remains to us of the materials of this period. We do have a cope which is alleged to have belonged to Charlemagne—this is made of heavy red silk embroidered with gold thread, decorated with eagles and

[1] Francisque-Michel.

griffins, and was probably a gift from Harun al-Rashid—and some leaves of silk from the 'manuscript of Theodulf', a pious work whose gold-embossed parchment pages are interleaved for protection. Its author, the monk Theodulf, seems to have presented it to the cathedral of Puy en Velay towards the end of Charlemagne's reign.[1] According to Ernest Pariset, who has made a close examination of the silk interleaving, four pieces are pure Chinese, six Arabian, three or four Graeco-Syrian. The 'manuscript of Theodulf' thus represents by itself the silk industry of the entire world at the beginning of the ninth century.

Well-known materials such as samite, sendal, siglaton and the diapered silks formed the basis of an extensive trade (the routes of which we shall examine in due course), but there were others, rare and precious, products of a skill greater than that of any modern machine, which each centre kept exclusively for the use of its own princes. These appeared in other countries only as contraband or in the form of gifts. (It was still the custom, among Christians and Moslems, Chinese and barbarians, to offer gifts of sumptuous garments or lengths of cloth.) It was thus forbidden to export from Byzantium the silks of finest quality; the 'tiraz' (or gynaeceum) of the Moslem rulers made robes for their exclusive use; Tennis in Syria wove the 'badnah' exclusively for the caliph—it was almost entirely of gold, and he customarily paid 1,000 gold *dinars* for each one; and we read in the account of the Arab merchant Soleyman, who visited China in the first half of the ninth century, that 'the best quality silk is there reserved for the king. The garments of the eunuchs and the Chinese generals are of a fine quality silk such as is never exported to Arab countries. The Chinese themselves have great esteem for this silk, and it reaches an extremely high price. One of the leading merchants, whose word cannot be doubted, relates that he once presented himself before the eunuch sent by the king to have first choice of the merchandise which had been brought to Canton from Arabia. Upon the breast of the eunuch, the merchant could see a mole, which was visible even through the man's clothing. The merchant estimated that the eunuch was wearing two layers of clothing. As he continued to stare, the eunuch said: "I see that you are looking at my chest. Why?" The merchant replied: "I was surprised that a mole could be seen through two layers of cloth." The eunuch laughed then offered the merchant his sleeve and said: "Just count how many garments I am wearing!" The merchant counted them and found

[1] Pariset.

that there were five, one on top of the other; and through them all the mole could be seen. This transparent material is of raw silk, which has not been fulled. That used for the garments of the king is even finer and more admirable.' Soleyman adds that 'of all the creatures of Allah, the Chinese are the most skilful at designing and fashioning; for the execution of all kinds of work, there is no people in the world to excel them'.

Another Arab author, Al-Muqaddasi, who died in A.D. 989, tells us of one more cloth which it was forbidden to export. His account is reminiscent of certain passages in Pliny and the *Hou-Han-shu*: in North Africa on the coast of Tunis 'there is found the abû galamûn, a beast which, by the side of the sea, rubs itself against the rocks and thus pulls out its hair; this is as soft as silk and has the colour of gold. It is not allowed to go to waste, for it is rare and precious. People gather it and weave it into a material which, in the space of a few hours, takes on a variety of colours. The sovereign has forbidden this to be exported, but it passes nonetheless in secret. A garment of this material sometimes sells for as much as 10,000 *dinars*.'

In Europe, these materials were much spoken of, but seldom seen. Were they perhaps the work of fairies, dwelling in some mysterious island such as those sung by the minstrels? ('In upper India—they make the enchanted cloth—by sorcery and magic. . . .')[1] It must have been one of these materials which was used (by a fairy of course) for the 'ill-cut mantle which revealed false women'. This had the quality of never sitting properly upon a faithless woman. Such legends, which may even contain a grain of geographical truth, form the delight of any scholar who has a touch of the poet about him.

In the West, silk was credited with having certain valuable properties. The Arabs said that silk garments were a protection against skin diseases, and that vermin could not lodge in them; the Europeans believed that it should be worn in summer to ensure good health. One odd belief mentioned in the nineteenth century (but probably much older) still has not altogether disappeared: in the works of the Comtesse de Ségur, a young woman caught in a storm while in a forest is persuaded that she need have no fear of the lightning because she is wearing a silk chemise. Properties of a quite different order were also attributed to silk – as witness the affair of the mandrakes, amulets of popular sorcery which were wrapped in silk, just like 'true' relics; a number of these were publicly burnt in Paris in the fifteenth century.

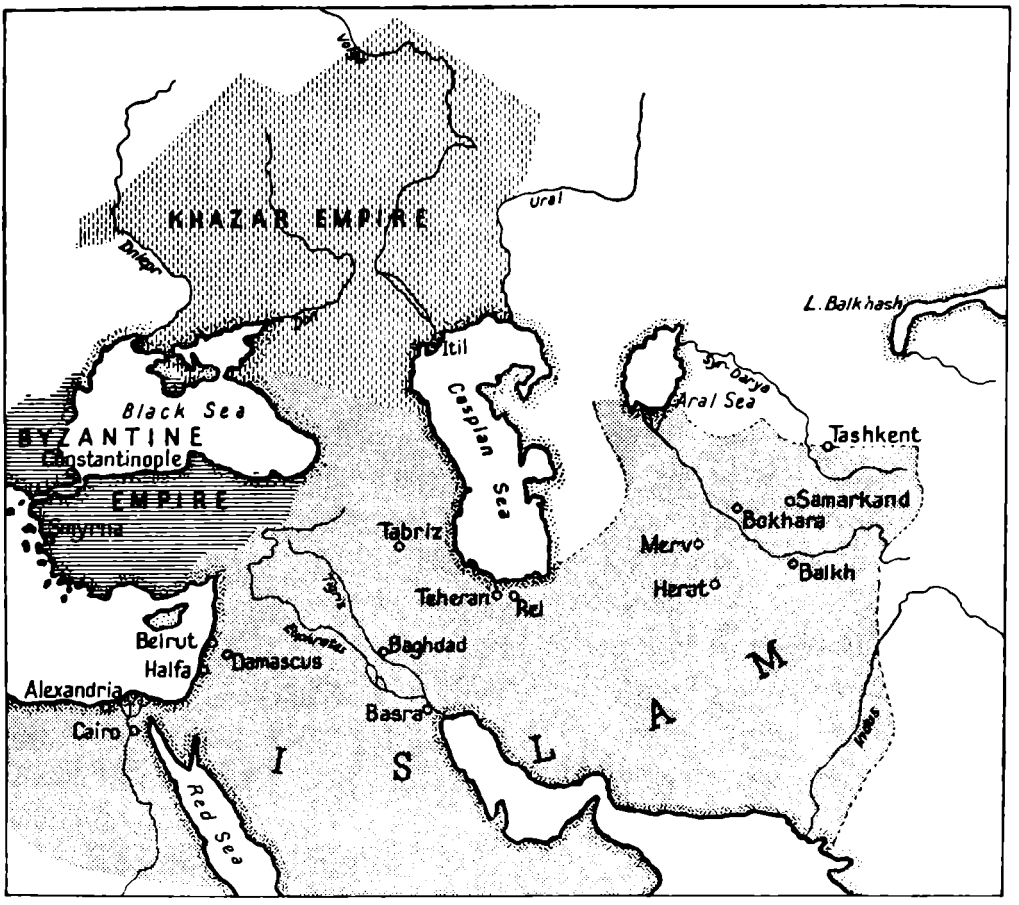
[1] Francisque-Michel.

With the development of the silk industry in Persia and the growing influence of Islam in the West, two styles of decoration became established in the silks manufactured in Moslem countries: the first made use of living creatures, the second was iconoclastic. The first took up once more the ancient Sassanid animal motifs (which had in fact never completely disappeared); the second, faithful to the Koran, which forbade the depiction of living creatures, made ever greater use of geometrical designs, arabesques and ornamental calligraphic motifs. This latter tendency was particularly apparent in what we know as the 'hispano-mauresque' style. Sassanid motifs came into Europe with the first Persian silks. We have fragments dating from as early as the fourth century: the cope of Saint-Mesme, which was once at Saint-Etienne de Chinon, is decorated with cheetahs chained to a fire-altar—a Zoroastrian motif; while the cope of Charlemagne (presented by Harun al-Rashid in the ninth century), though dating from the Arab period, still has the ancient Persian motifs of eagles and griffins. The majority of silks distributed through the West during the Middle Ages were decorated with animals, often in pairs facing each other and sometimes enclosed within endlessly repeated medallions: unicorns, peacocks, eagles, ducks, elephants, tigers and leopards—exotic animals for the most part, which had never been seen by Europeans. There were many motifs from the plant world, too, including roses. Some fragments of deformed Arab calligraphy, which was used as decoration regardless of its meaning (unknown in any case), remind us of the way modern Western designers employ Chinese characters.

But the total and continuous absence of purely Chinese motifs during the Middle Ages emphasises once more that it was above all raw silk that China was exporting at this time. Western materials were also decorated with stripes, check patterns and biblical subjects; these latter were embroidered or woven especially on church fabrics and served to instruct the illiterate worshippers. Unfortunately, the mild, damp climate of western Europe has not favoured the preservation of cloth, and very few examples remain to use of those materials so often and so carefully described by the minstrels. Tapestries have lasted rather better, and these, together with some illuminated manuscripts, reveal something of the background against which the history of the Middle Ages was played out.

The silks which came to western Europe from, or by way of, the Moslem countries, western Europe having now become a more important market than the eastern Mediterranean, were put on sale in

Narbonne, Rome and Alexandria, where came the merchants, mostly Jews, of Lyons, Avignon and Marseilles. It was not so much raw silk that was being exported now; each country concentrated on selling what it manufactured, thus getting paid for its labour as well as for the material. Embroidery thread was still being sold, how-



8. *Muslim Persia at the time of the Abbassids* (c. *eighth and nineth centuries*)

ever, for women spent a great part of their time at this occupation. Rome, Antioch and Byzantium were the great silk repositories of the Mediterranean world, but a certain amount of raw silk came from very far away indeed, from China or Central Asia, and this passed by way of Trebizond or Alexandria. It journeyed across the Indian Ocean from the south of China, or *via* a new state by the name of Khazaria, which rose to prominence in the eighth and ninth centuries.

Being a neutral and situated between the worlds of Christianity and Islam, this country was exceptionally well-placed for trade and assumed the sort of intermediary role once held by Palmyra.

As always, trade was conducted over the safest available routes. Wherever there was fighting, the flow of merchandise slackened, or dried up altogether; the caravan masters made for those areas where a powerful sovereign had succeeded in neutralizing the bandits and imposing law and order. Following the Turks, with whom they had some racial connection, the Khazars became the guarantors of stability.

No state ever comprised a population more mixed and ill-assorted than that of Khazaria. Nevertheless, it expanded rapidly across the steppes between the Sea of Azov and the Caspian to the north of the Caucasus,[1] from which it was excluded only after a lengthy struggle with the Arabs. It spread along the northern shores of the Black Sea, leaving only the Crimean coast (the ancient Chersonese), to the Greeks, and held the northern barbarians at a distance until the invasion of the Pechenegs at the end of the ninth century. Over this immense territory, the Khazar aristocracy, in the persons of two sovereigns who reigned simultaneously, ruled the lives of a number of different peoples; pagan Slavs, Christians, Jews and Moslems. The commercial success of this nation was due in part to this very mixture of peoples—as well as to the favourable geographical situation of its capital, Itil, a cluster of towns on the lower Volga, at the junction of both land and river routes.

In the commercial quarter, in the east of the city, there could be found merchants of a great variety of nationalities. There were Moslems, Jews and Christians, both Persian and Greek, who had come via the Caspian or the Black Sea bearing spices, perfumes, Oriental silks and great quantities of silver coin; down the Volga and the network of rivers—Dnieper and Don-Kama—came Slavonic trappers, red-headed giants of men, whose rude boats brought wax, honey and sable furs from their forests and amber from the Baltic. These last, the earliest Russians, had manners and customs so gross that the Persian Moslems called them 'the most disgusting savages the world has ever seen'. For all her commercial activity, Khazaria herself produced very little: fish, fish-glue, leather and raw hides. Her mixed population, half settled and half nomadic (Itil itself was only occupied during the winter, and most of the buildings were no more than log cabins or felt huts), and living in a state of primitive feudalism, seems to have produced nothing that could properly

[1] See the relevant volume of *Short History of the USSR*.

be called a civilization. The state of Khazaria depended almost entirely upon customs duties and other tolls, and these enabled the government to maintain a powerful 'police force' of from 10,000 to 19,000 mercenaries, including a number of Russians and a great many Moslem Chorasmians. As a result of the stability thus assured, merchants appear to have been able to circulate freely within the limits imposed by geography: the storms of the Black Sea and the Caspian, the desolate heat of the steppes in summer, and the rigours of the winter.

Amidst the struggles which engaged the armies of the Christians and the Moslems, the Khazar Government preserved its neutrality with a skill and opportunism which, though at first sight little short of amazing, nevertheless bear witness to the state's fundamental indifference to religious questions. Byzantines and Arabs, still inspired by missionary zeal, made valiant attempts to convert the Khazars; but the Khazar sovereigns encouraged now one side, now the other—one king gave his sister in marriage to the emperor of the Greeks, another gave his daughter to the Arab king of Armenia—and managed to preserve the role of buffer state and their Turkish Shamanism until the day one of them allowed himself to be converted—to Judaism.

This came about towards the end of the eighth century, and may perhaps have been a gesture of independence for the benefit of both Byzantines and Arabs. It followed the arrival in Khazaria of Jewish refugees from Chorasmia. These had been expelled by Qutaiba ibn Muslim after the campaign of A.D. 712, and included among them were numerous rabbis and scholars. Qutaiba had persecuted them as a result of the part they had played in the great anti-Arab rebellion of Khurzad, which seems to have been the manifestation of an 'original syncretic Judaism'. The Arab general in charge of operations had scrupulously destroyed all the historical and scientific works he could lay his hands on; this constituted a loss that was never made good. Whatever may have been the date and circumstances of the establishment of a large colony of Jews between the Amu-Darya and the Syr-Darya, the event does show how numerous and how important the Jews were. And if we remember that Chorasmia and Khazaria were neighbours and allies, and had even formed a single state for a short period prior to A.D. 750, the conversion of the Khazar sovereign to Judaism becomes even more understandable. There were already a great many Greek or ex-Syrian Jews in Khazaria, just as there were all round the Black Sea, but it seems to have been the 'syncretic

Judaism' of the Chorasmian Jews rather than the traditional Judaism of the Mediterranean which became the official doctrine of the Khazar state. In due course, and to effect a major religious reform, Talmudic clergy were fetched from Baghdad, Khorasan and the Byzantine Empire.

Khazaria was a meeting place for different nationalities and for different religions. Though Judaism was the official religion, there was still plenty of room for Christians both Greek and Syrian, including Jacobites, and for Moslems; Itil probably contained about thirty mosques. The vassal tribes remained pagan. The protection of the aristocracy, converted to Judaism, gave the Jews advantages and a security which enabled them to consolidate the eastern extremity of their international commercial network. The western extremity of this was to be found in Moslem Spain. It was the Jews who conducted the greater part of the trade in silk between Christian countries and others. From Narbonne to Verdun, from Seville to Itil, from Alexandria to Fez, they operated, bearing a variety of nationalities, but unimpeded by the political obstacles which blocked those of other faiths. Moreover, they enjoyed the protection of the Moslems. In Christian lands life could be very difficult for them, though certain sovereigns—Charlemagne particularly—managed to save them from persecution; special districts were assigned to them, more for their own safety than out of any desire for 'discrimination', for it is true that their practice of usury made them unpopular with the mass of the people. On the whole, however, the laws were not designed to prevent them from carrying on trade, and indeed these activities of theirs were of great utility. They undertook long journeys, accepting all the hazards which beset the commerce of the period, and serving as a liaison above all between Christians and Moslems, whose mutual antipathy remained as strong as ever. Charlemagne sent a Jew named Isaac to lead his embassy to Harun al-Rashid. Being traders above all else, they did not become involved in national hatreds—though they were not always fortunate enough to escape religious hatred. Spain, France, Italy, Greece, the Black Sea coast, Khazaria, Asia Minor, Moslem Palestine, Egypt, North Africa—their network entirely surrounded the Mediterranean. When the great wave of conquest slackened and the Moslem Empire was firmly established, they branched out into the Indian Ocean, and Arab travellers of the ninth century found them as far afield as Ceylon and Canton. The Diaspora was assuming world-wide proportions.

From Spain or the land of the Franks, they made their way to Syraf, the great port in the Persian Gulf, crossing the Mediterranean or going overland through North Africa as far as Alexandria, then descending the Red Sea and breaking their journey at Jedda, not far from Mecca. At Syraf (or at Muscat, the call following their emergence from the Persian Gulf), they would join up with Moslem traders and embark on Arab sailing ships or Chinese junks to face the perils of the Indian Ocean. The monsoon carried them, in some five months, to Kollam on the Malabar coast (Quilon).[1] Sailing north of Ceylon into the Bay of Bengal, they made for the island of Langabalus (one of the Nicobar group), where they took on water despite the antagonism of the cannibal inhabitants. They sailed then to the Isthmus of Kra, a little above 10° N, where the cargo was sometimes unloaded to continue its journey by land. On then to the island of Tioman, north-east of Singapore, and round Indo-China to Kundrang, not far from Saigon. After another call, somewhere on the coast of the kingdom of Chamba, they finally arrived in Khanfu —beyond Hainan and generally identified as Canton. For affairs of exceptional importance, traders both Jewish and Moslem would continue as far as the Chinese capital, but for the most part they would install themselves in Canton, where trade was regulated by particular customs described in great detail by the merchant Soleyman: 'When the mariners reach China, the officials impound their merchandise and stow it in warehouses. They guarantee its safety against all accidents for six months, until the arrival of the last ship (travelling by that monsoon). Then they exact a duty of 30 per cent (in kind) on all the merchandise and return the remainder to the owners. The king of China purchases whatever he has need of; he pays the highest price and settles up immediately. He never treats merchants unfairly. Among the imported goods purchased by the sovereign is camphor, which is paid for at the rate of 50 *fakkuj* the *mann* (about 800 grammes). The *fakkuj* is equivalent to 1,000 Chinese pieces of copper. The camphor not bought by the king is sold to others who desire it, at half the above price.'

Soleyman adds that the Moslems of Canton had the right to be judged by one of their own number, who had been invested with this power by the governor of the province. The Westerners in Canton sold particularly ivory, incense, ingots of copper, turtle shells and rhinoceros horns (as in the time of the Han), the insides of which bore all kinds of natural patterns and were used by the

[1] Ferrand; Pariset.

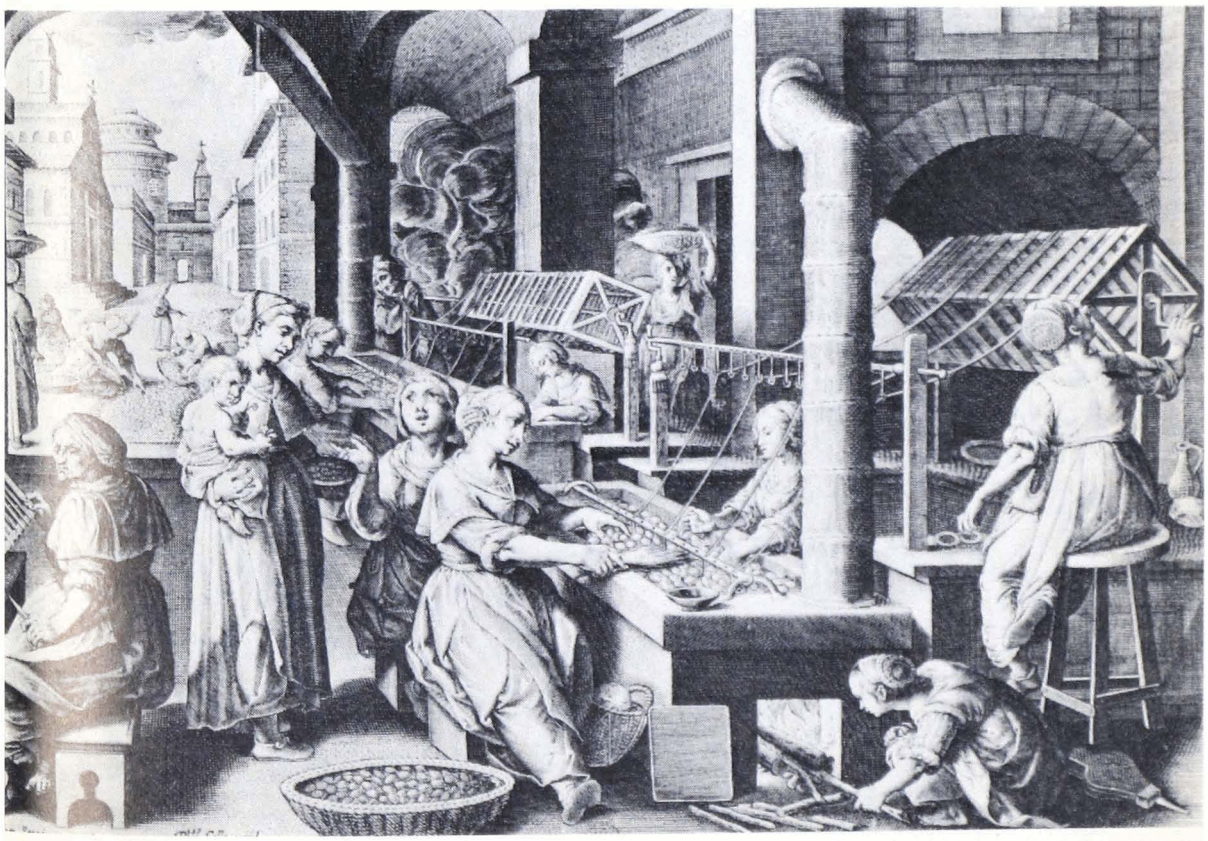
Chinese for making belts; some of these were sold for as much as 2,000 or 3,000 *dinars*. The merchants bought these rhinoceros horns in India *en route*. The camphor of South-West Asia was used, amongst other things, together with sandalwood, for the coffins of the rich; Socotra aloe was burnt as a perfume—and both these products had their uses in medicine. Indian aloe, reputedly the best, sometimes sold for as much as 200 *dinars* the *mann*. From Canton, the Chinese exported raw silk, silks worked with floral designs, gold and silver (in ingots and considered as merchandise rather than money), and fine quality pearls. Soleyman is the first Western traveller to mention a 'superior kind of clay with which they make bowls as delicate as bottles of glass; they are transparent and, through them can be seen the liquid they contain. . . .' In short, porcelain—but Soleyman does not say that the Arabs purchased any of it. Nevertheless, there are numerous mentions of it in the *Thousand ond one Nights*, some of which stories go back to the tenth century; so if they did not buy it in Soleyman's time, they must have begun to do so very shortly afterwards. Soleyman also mentions—though again he says nothing of exportation—'a sort of dried herb which the Chinese drink in hot water. This is sold for vast sums in all their towns. They call it Sah (in modern Pekingese: Ch'a). It is a little more perfumed than clover, but has a bitter taste. Water is boiled and poured onto this herb, and this infusion is used as an antidote for all indispositions.' This of course was tea. Though well known in southern China in Soleyman's time, it seems to have played no part as yet in trade with the West. Within two centuries, however, by way of northern China, it had taken the place of silk as the most important of all exports.

Among the products purchased in China, we must not forget musk (originating partly in Tibet), which played such an important part in medieval Arab perfumery. Musk rose-water seems to have been the favourite toilet water of the characters in the *Thousand and one Nights*. The best musk came from Tibet, where the musk-deer seem to have grazed upon grasslands rich in spikenard. Chinese musk was less good, but less expensive, and great quantities of it were sold.

The merchants who crossed the Indian Ocean returned to the markets of Baghdad or Cairo with vast quantities of ambergris, which they purchased along the coasts of Zanzibar or in the 'isles'. It was obtained by whalers, or found floating upon the surface of the water. Ambergris, which the Arabs introduced both to the West and

European engravings of the seventeenth century

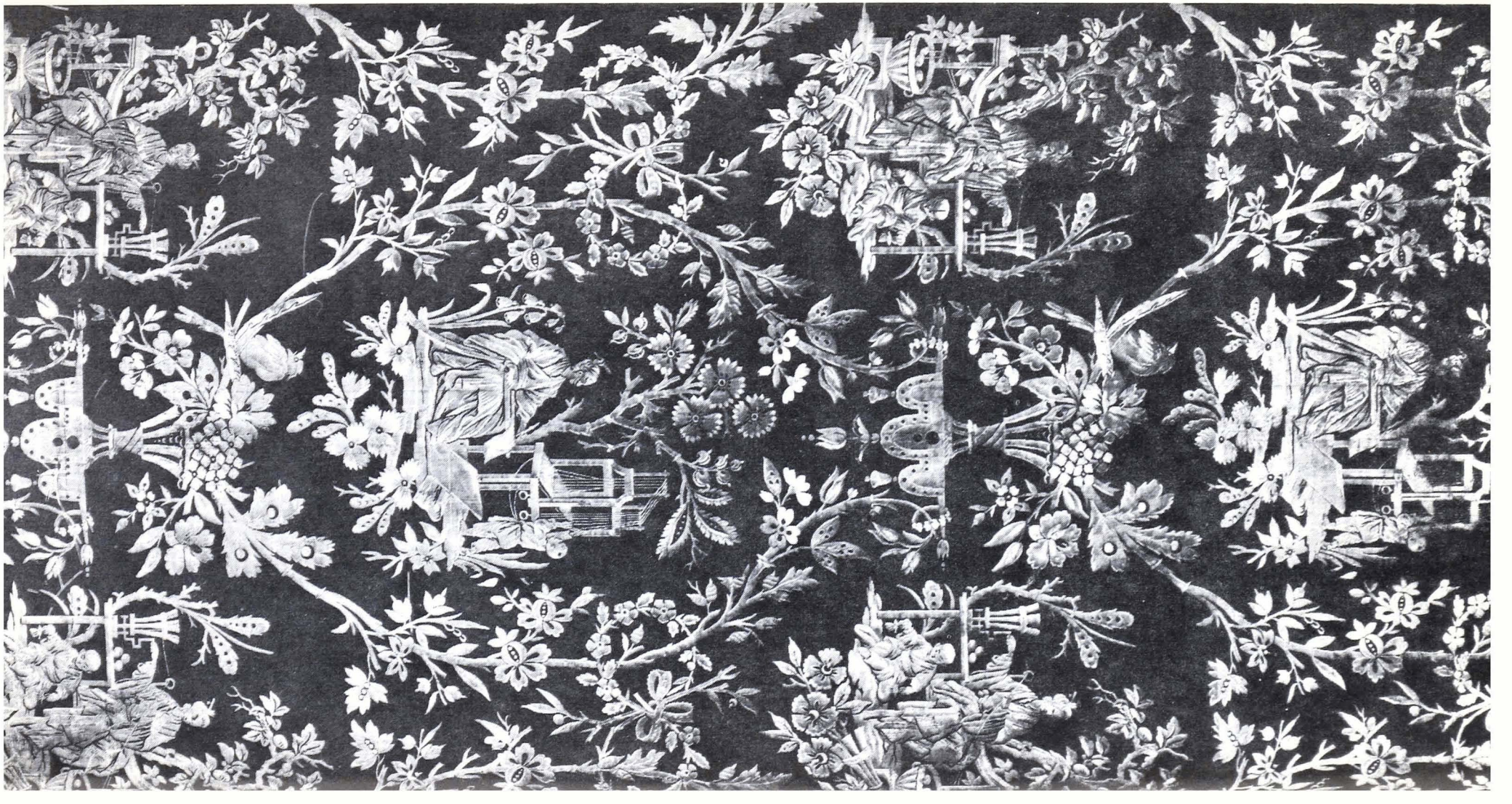
Preparing eggs for hatching



Photos: H. Adant, Editions Arthaud

Starting to reel the silk

Eighteenth-century Lyons silk with a Chinese motif
Musée historique des Tissus, Lyons



to China (where it was called 'perfume of dragon's saliva'),[1] in about the ninth century, played an important part in the perfume industry. It was used for fixing the perfume of flowers (which was very unstable), and itself had a smell which the Arabs found quite delightful. To conceal the source of ambergris, merchants spread all sorts of fantastic rumours; for two or three centuries during the Middle Ages, it was said to come from a submarine fountain, that it was the dung of the sea-cow, a plant growing at the bottom of the sea, a kind of bees' wax, the excrement of a bird. . . . Even while such rumours were circulating, the Arabs doted on the stuff, even putting it in their sorbets.

But the sea route remained extremely hazardous. Navigation had made little advance since ancient times, apart from the fact that the triangular sail had become somewhat easier to handle, and the blessing of Allah was still the best defence against the perils of the Indian Ocean. Arab stories were full of maritime horrors: the magnetic mountain with its man of copper, wrecking ships by drawing the nails out of their hulls; ships being overturned by huge fish—the amount of ambergris circulating at this period suggests that there may have been large numbers of whales in the Indian Ocean; waterspouts capable of destroying a ship in a matter of seconds; islands inhabited by cannibals; pirates; genies who used their magic powers to prevent mariners from reaching certain countries.

'Only small quantities of Chinese merchandise reach Basra and Baghdad,' Soleyman tells us. 'Arab countries import but little of such merchandise as a result of the fires which so frequently break out in Khanfu (Canton) and destroy the stocks of goods prepared for export. Khanfu is a port of call for ships (both Chinese and foreign) and Chinese and Arab merchandise is accumulated there. This gets consumed by fire because the houses there are made of wood and split reeds. Among other reasons for the scarcity of Chinese goods in Arab countries, we should also mention shipwrecks, piracy and the long stays ships have to make in intermediate ports, which often oblige merchants to sell off their goods before reaching their destination. Sometimes the winds drive the ships to the Yemen or other lands, where again the merchandise has to be sold. At times a long stay in port is necessary to repair damage, or as a result of some other misadventure.'

Some twenty-five years after the writing of this account, political circumstances inside China banished Western merchants, Moslems

[1] Yemada Kentaro.

and Jews, Christians and Nestorians, from the land of silk. This was deplored around A.D. 915 by another Arab writer, Abu Zaid Al-Hasan. He himself was not a great traveller, but he got his information at Syraf, from which ships now set out not for China but for South-East Asia. 'Things have changed. . . . New events have taken place which have put an end to maritime relations with China; they have brought ruin on the country, banished law and order and broken up the central power. . . . That which has overthrown law and justice in China and broken the link with the port of Syraf, from which ships used to begin their journey to China, is the appearance of a rebel named Huang Ch'ao, a man in no way related to the royal family. At first he worked with ruse and generosity, but later resorted to armed force and caused great harm to persons and property. He gathered brigands about him, so that his power grew and his resources were increased. Having put into operation the plan which he had prepared, he marched on Khanfu, which was the town principally visited by Arab merchants. It is situated a few days' march from the sea, on the bank of a broad fresh-water river. When the inhabitants refused him entry, Huang Ch'ao began a long siege of the town. This was in the year 264 of the Hegira (A.D. 878). When the town fell, the inhabitants were put to the sword. Those who have knowledge of these events report that the victors massacred 120,000 Moslems, Jews, Christians and Mazdeans, who were settled in the town as traders, in addition to the Chinese inhabitants. The exact number of the victims belonging to these four religions is known because the Chinese raised a tax on foreigners according to their numbers. Huang Ch'ao had all the trees cut down, including the mulberries. We make special mention of the mulberry trees because the Chinese use the leaves for feeding silkworms up to the time of the spinning of the cocoons. The destruction of the mulberry trees was the chief cause for the end of silk exporting, particularly to Arab countries.'

The Arab mariners now gave up visiting Canton and stopped short in Malaysia, in the Sumatran empire of Crivijaya, which was then enjoying a period of great prosperity. Why should the Moslem merchants bother to go farther and become embroiled in difficult negotiations, when at their favourite Malaysian port of Zabag they could purchase 'camphor, aloe, cloves, sandalwood, nutmeg, cardamom, cubeb. . . .'? The maritime kingdom of Crivijaya played between China and the Arabs the role which the Arabs played between the Far East and the lands of Christendom. 'Their king possesses more

varieties of perfumes and aromatics than any other,' wrote the geographer Masudi around the year A.D. 995. From Indonesia, the Syraf merchants also procured Chinese porcelain; pepper and other spices (of which there was such high consumption during the Middle Ages), they picked up in India *en route*. Silk no longer came into the picture, even though production in China soon began to recover. Southern China was trading actively with South-East Asia, and so was in contact with the Arabs, but it appears that from A.D. 878 onwards Chinese silk travelled overland by the Central Asia—Khazaria—Black Sea route, or direct from Central Asia to Iran *via* the Moslem province of Khorasan.

The route by way of Khazaria was that principally used by the Jews, who, as we have seen, were numerous not only at Itil, but all round the Mediterranean. The land route was not used only for the transport of silk, perfumes and spices. These indeed were the main goods flowing in one direction; but what travelled in the other? Arab geographers and travellers speak chiefly of what was purchased, and the greater part of what was sold to the Chinese was in fact acquired *en route* in India and Indonesia. What always seems so surprising is the small quantity of merchandise with which the merchants actually set out from Itil and Syraf. They would take incense of course, and the various perfumes for which the Arabs had such a high reputation. Then, too, there were certain cloths peculiar to the West—linen, woollens, carpets of Asia Minor or Babylonia—products used in medicine, metals (China was always in the market for copper), pearls from the Persian Gulf, emeralds from Africa, and coral from Marsâ l' kharaz (La Calle, in Algeria). 'Coral is found in the vicinity of this town, which is the only source of this material,' wrote Al-Muqaddasi. The way in which this source was exploited—destroyed, rather—suggested that production could not have lasted very long. But it is probable that the bulk of exports to the Far Fast was still in the form of coins—gold *dinars* and silver *direhms* (2·97 grammes of silver). To get their gold, the subjects of the caliph could not apply to Chryse (Malaysia), for they lacked merchandise which could be offered in exchange, so they sought it in Africa (both as the object of commerce and the booty of raids), or at Tafilalet in southern Morocco, where was situated, according to Al-Muqaddasi, the 'purest and largest gold mine in the world'. There were also a number of silver mines in Morocco.

Then, of course, there was the slave-trade. From the eighth to the

tenth centuries (to mention only the period being dealt with in this chapter), the caliphate was a bottomless pit swallowing up slaves of all ages, irrespective of race or sex. These were bought and sold by the Moslems, and even more commonly by the Jews, and were obtained by means of kidnapping whenever the numbers of prisoners of war were insufficient to meet the demand.

The Moslems got through enormous numbers of women—virgins in the harem and others for domestic service—and the rate of consumption was kept high both by the legal recognition of polygamy and by the luxurious style of living adopted by the sultans, who did not, however, in the number of their concubines, challenge the records set up long since by the emperors of China. The story of Scheherazade, the ostensible justification for the *Thousand and one Nights*, evokes a period in which a sovereign's appetite for change had quite stripped his empire of nubile young women, leaving no eligible wives for his loyal subjects. White women were particularly in demand, especially Circassians, Greeks (Soleyman declares that the 'Roum' are the most beautiful race in the world), and Slavs. At Basra, the price of a young, white virgin ranged from 1,000 to 10,000 *dinars*. The women of Takan in north-west India were also highly prized. Black women were purchased mostly for use as domestic servants. We will say nothing here of the traffic in small boys—which Soleyman, incidentally, mentions as existing in China.

The trade in eunuchs accounted for quite a large share of the slave traffic. In Islamic countries they sometimes played an important part in politics—though not to the same extent as in China. The black eunuchs who served and protected the harems came from among the army of slaves purchased or captured by the Arabs themselves along the coasts of Somaliland and Zanzibar, while the whites (Slavs, Greeks, Khazars) were probably in the hands of Jewish traders[1]—all historians agree on this hypothesis—who operated on them in their establishments at Verdun or in Spain before shipping them to Damascus, Jedda or Basra. We have little information about a trade in slaves between Europe and the Far East. The activity seems to have been mainly within the Moslem Empire, where imports were numerous and exports few. However, the guard of black soldiers shown by recent archaeology to have existed in Chorasmia would be readily accounted for (assuming the negroid faces in question were not merely those of Dravidians from southern

[1] We must remember that the Christian religion frowned on slavery.

India) by the fact that Chorasmia formed the eastern extremity of the Jewish network and that the slave-trade was being shared by Jews and Moslems. Al-Muqaddasi declares moreover that Slavs 'dwelling beyond Chorasmia' were purchased by Jews and taken thence to the Jewish establishment in Spain. It is possible, too, that Arab or Chinese ships bound for India and Malaysia and beyond carried slaves whose skill or physical beauty made them a good commercial proposition. Soleyman states in his account that some of the Chinese eunuchs were 'foreigners', but he does not specify where in fact they came from.

And so trade with the Far East remained intense, both by land and sea, until the end of the ninth century. Then northern China was once again cut off from Central Asia by the turbulence of the barbarians; Khazaria, ruined by the Pechenegs, was finally conquered by the Russians (or rather the Viking aristocracy of the Russians), and trade with Canton was interrupted by the events outlined above. During the tenth century, the sea trade stopped short at India and Indonesia. In this great maritime period, the Arabs had travelled widely and written profusely; it might be thought that the Far East no longer held any secrets for them. But in fact this period resembled earlier ones in that the merchants were not scholars; they credulously swallowed the most fantastic tales—and even made up a few of their own to help shroud their affairs in mystery. And though Soleyman's account contains a great deal of truth (confirmed by Chinese texts of the same period), it also includes a few remarkable oddities: that the Chinese are cannibals, that their religion is close to Zoroastrianism, that their dead actually consume the offerings of food placed near them. Soleyman must have spent some months in Canton, for every ship that arrived there was obliged to wait for a new monsoon before setting out on the return journey, but no Chinese text mentions any of these features.

So far as western Europe was concerned, geography came to a stop at the Holy Sepulchre in Jerusalem. Abu Zaid Al-Hasan mentions Christian merchants at Canton in A.D. 878, but we do not know if these were Westerners, or from India or Persia, or of some local cult.

But even while Europe was plunged in the 'dark ages', the Moslems themselves seem quickly to have forgotten or distorted the geographical information brought back by their navigators. The map of Edrisi (who died in 1154) repeats the errors of Ptolemy: the

African coast is extended to the east beyond Cape Guardafui and joins up with China, which makes the Indian Ocean virtually a land-locked sea, with an opening only in the Far East, through which one came into the great Ocean encircling the world—this, too, was a belief held by the Greeks; the Indian peninsula does not exist; Sumatra is split into fragments; Madagascar is included in an impossibly small continent; part of Burma lies to the south of India. . . . There was in truth no comparison between the enormous importance of trade and the meagre advance of scientific knowledge. In Moslem countries, scholars and navigators never came into contact with one another, and the credulity and dissimulation of men exclusively concerned with the problem of returning home safely in possession of a fortune could find no common ground with the dogmatism and abstract theorizing of the learned treatise-writers. If, between A.D. 900 and 1100, there existed navigational guides, maps or trading itineraries more accurate than the map of Edrisi, they were well hidden. But that, after all, would have been perfectly in keeping with the secretive policies of merchants at that time.

However, the Chinese historians were not hampered by such needs for discretion, and they report that in the middle of this period an ambassador came to China from the king of Fu-lin: 'There was no communication between China and Fu-lin,' we read in the history of the Sung, 'until the tenth month of the fourth year of the Yüan-feng period (1081), when the king of Fu-lin, Mo-lo-i-lin-Rai-sa (Atilissenus Nicephorus Caesar?), sent the great chief Mi-ssu-to-lin-ssu-meng-pan (Simon de Montfort, an ancestor of the crusader?) bearing gifts of harness, swords and pearls. . . .'[1]

There follows a description of Fu-lin in which the political and economic life of the Byzantine Empire can be vaguely recognized. The same chronicles of the Sung dynasty mention two more Byzantine embassies in 1091—these contacts were preceded and followed by a hiatus of three centuries in Chinese-Mediterranean relations—which probably aimed at an alliance against the Turks, who were at the time proving a formidable enemy for the Byzantine Empire. But the emperor of China did not wish to hazard his armies for a new and distant ally, however rich, and he limited himself to supplying the ambassadors with gifts of '200 pieces of silk, vases of gold and silver, garments and belts of gold'.

We do not know if the Byzantine ambassadors travelled by land or by sea. By land, there were the Turks; by sea, the Moslems. And,

[1] Yang Hsien-Yi.

once again, there are no Western documents to support the Chinese texts. Perhaps, like so many others, Simon de Montfort failed to complete the return journey and so deprived the Byzantine rulers of any information about these distant peoples.

XV

Far Cathay

FROM THE CRUSADES TO MARCO POLO

At the time when Edrisi was producing his highly inaccurate map, the Moslems, intermediaries between Asia and Europe, and the Christians (Greeks, Franks, Slavs, Saxons) were in the throes of a holy war. The Crusades were beginning in reply to the Mohammedan Jihad. The First Crusade began in 1095, and within a few years the political situation in the eastern Mediterranean underwent a number of changes. The eastern shore, with such great trading cities as Antioch, Beirut, Tyre, Acre—and for a time Jerusalem—became a veritable Christian colony; these were the 'Frankish kingdoms' of the Levant. A great deal of the trade with India and South-East Asia was now reaching Christian territory before crossing the Mediterranean. The remainder passed by way of the Red Sea, Cairo and Alexandria. The existence of these Christian kingdoms on the fringe of the Moslem world and the give and take which came about between the Christian conquerors and the populations formerly subject to the caliphs, once the initial acrimony of the conquest had passed off, led to prolonged contact between the representatives of Christianity and Islam. This lasted for some 200 years, and one of its consequences was that the crusaders developed a taste for such luxuries as perfumes, silks and *objets d'art*; 100 years or so after the First Crusade, a sovereign (Philippe Auguste) was once again forbidding his aristocracy to court ruin by wearing 'squirrel fur, sable and scarlet'. 'Scarlet' meant cloths dyed that colour by means of cochineal, which had taken the place of purple, though it was expensive nonetheless. Finally, the Church also having overdone the use of silk, the first two abbots of Cîteaux banned it from their order. Both as cause and effect of this new taste for perfumes and

fine cloths, a great commercial activity now grew up from one end of the Mediterranean to the other. As a result of the political circumstances, this trade was no longer carried by Syrians, Greeks or Jews; it was in the hands now of the Italians, and more particularly the Venetians, Genoans and Pisans. They were constantly to figure, and always as rivals, in the cloth and spice trades. For a long time they had been making efforts to handle the trade with the Moslems, and the Crusades gave them the opportunity they had been waiting for. Their crews, their ships and their mercenaries had helped in the capture of Acre, Tripoli, Beirut, Tyre and Sidon, and when Moslem Syria was divided up among the Christian barons they were not forgotten. They were granted trading privileges in the ports, where they established commercial quarters as little concessions inside the Frankish colonies. These concessions were administered by a representative of the mother country; they enjoyed a high degree of autonomy and were granted various kinds of tax immunity. In spite of their occasionally bloody rivalry, therefore, the Venetians, Genoans and Pisans, from their bases in the Frankish kingdoms of the Levant, in the ports of Moslem Spain, Provence, Greece, Italy and, later, Cyprus and the Crimea, were able to dominate the whole of the spice trade with India and South-East Asia, and challenge the Jews for control of the traffic in silk. However, it must be noted that the Venetian, Genoan and Pisan merchants themselves included a number of Jews; it was getting more difficult to distinguish them as they became more fully integrated into the lives of their adoptive countries.

Towards the middle of the twelfth century, in 1146 to be precise, St Bernard preached the Second Crusade, which would have as its object to help the hard-pressed Christian barons of the Levant to hold off the Infidels. The crusaders (Catholics from France, England and Germany) and the Byzantines (who were non-Catholic Christians) were on very bad terms with one another. Part of the territory occupied by the Frankish colonies had once belonged to Byzantium, and this was a bone of contention no less serious than the religious schism. The crusaders had rapidly come to view the Byzantines as half-enemies, half-heretics. Such were the circumstances when Roger II of Sicily (nephew of the Norman chief Robert Guiscard, son of Roger I, who had retaken Sicily from the Arabs at the end of the eleventh century) varied his warring against the Moslems in Syria and Tunisia with incidental pillaging of Byzantine territory. Euboea, Thebes, Corinth and Athens were among the

towns he assaulted in this way. Being of a practical disposition, he followed the example of Persians and Moslems and took prisoner all the silk-workers he came across, packing them off whether they liked it or not to Sicily (Palermo principally), and setting them to work for his own benefit. This they did, relieved no doubt to have got off so lightly. 'It was from there that this art, hitherto practised among the Christians only by the Greeks, began to spread among the Latins,' stated a historian of the time.[1] As Sicily had long been under Moslem rule, it is probable that the workshops of Palermo had already been engaged in silk weaving—and this certainly would have favoured the introduction of sericulture properly speaking. But why had the Arabs not introduced silkworms into Sicily and North Africa, when they were being reared successfully in the comparable climates of Spain and Persia? There must have been some technical or geographical reason for this, but it has not so far come to light. Whatever it may have been, the silk of Constantinople now had competition at the very heart of Christendom—which was very much to the purpose of the crusaders. Once again, sericulture had been introduced by force into a new section of the world.

How long were the ex-Vikings of Sicily to enjoy their secret? 100 years, perhaps? 150? But in the meantime the products of Palermo achieved a certain degree of fame. About 1189 a traveller wrote as follows:[2] 'I must not pass in silence over those workshops in which silk is spun in strands of different colours, which are blended by various methods of weaving (one, two, three and six threads at a time. . . .) The diarhodon glows like fire, the greenish tones of the diapistus caress the eye; the exarentasmata, decorated with circles, require more expert workmanship and a greater quantity of material and consequently fetch a higher price. There, too, are many other ornaments of different kinds and colours, in which gold is woven into the silk and the variety of the designs is set off by the sparkle of precious stones. . . . Sometimes pearls are set in gold, or they are pierced and artfully attached by threads in such a way as to form a picture.'

Some of these products are still in existence, including a red silk mantle with motifs of a lion dragging down a camel, executed in gold and pearls. (Lions were one of the favourite motifs of the twelfth and thirteenth centuries, together with elephants, eagles, turtle-doves and parrots.) During this same period, Spanish cloths

[1] Otto de Friesingen: see Francisque-Michel.

[2] Hughes Falcando: see Francisque-Michel.

were also famous; 6,000 looms were in action in Seville alone. Towards 1149—at the height of the Crusades!—the Genoese merchants signed a treaty of peace and trade with the Moslem king of Valencia as a result of which they were able to operate largely independent concessions similar to those in Frankish Syria. One of these was at Valencia. Such a contract between Christians and Moslems could hardly have been pleasing to the Pope, but it was not the only one of its kind during the Middle Ages.

Nevertheless, so long as they were capable of doing so, the Moslem states prevented the Christians from sailing into the Indian Ocean. This remained their fief, though they were now trading with Java and Sumatra rather than China. Up to the end of the thirteenth century, no Venetian or Genoese reached the lands of ambergris, camphor and pepper; the end of the world was still Jerusalem, so far as they were concerned. It did not occur to them to go through the Straits of Gibraltar and circle Africa; in Edrisi's map the coast of Africa is drawn in such a way and distances are so great that any such idea would have been out of the question. In the east, the Christians were hard enough put to it to maintain themselves in the Levant; there could be no question of forcing a way through to the Far East by way of Iran, Arabia or Egypt. Their only hope was to make their way round the Moslem Empire to the north via Armenia, the Crimea and the Caucasus. It was in this direction that two Venetian merchants, the brothers Nicolo and Maffeo Polo, set out around 1254 bearing a trading stock of precious stones. They went by way of Constantinople and Armenia and then made their way overland 'without obstacle' to sell their gems to Barka Khan. How did it come about that Christians from the West were once more venturing towards the Orient?

For the people of the West, the world had suddenly grown larger. They had learnt of the existence, beyond the Moslem Empire, of a powerful Christian people which, overrunning Central Asia, Russia, northern China and India, was advancing towards Persia and Europe. Already, anxious for an alliance against the Moslems, the Pope had sent the Franciscan Johannes de Plano Carpini as an envoy. Later, Saint Louis had sent another monk, by the name of Rubruquis. He set out in 1252 and left Karakorum only in 1254, so he had not yet returned when the Polo brothers began their journey. But it was already known, or hoped, in trading circles that opportunities for profit were to be found in the East and that a route was available to bypass the territories of the rival, enemy Moslems. Some Europeans

had evidently tried their luck among the Mongols already; Rubruquis mentions a Parisian goldsmith and his wife settled in Karakorum. Tales of unknown or forgotten lands began to circulate in the West. Rubruquis was the first in Europe to give an account of the country which the Arabs called Cathay—a name which, in Europe, was used for a certain kind of silk. (Most cloths were at that time known by the name of their country of origin.) Rubruquis advanced the hypothesis that the inhabitants of 'Great Cathay' were 'the same people as those who were called Seres. It is from them that come the finest silks.' In fact, the word Cathay came from the name of the Ch'i tan, a Turco-Mongol people who had earlier conquered the north of China—which was why it so long evoked that area once associated with the Seres. The people of the West had no very clear idea of the connection, or the distances involved, between northern China, which could be reached by land, and the southern China visited by mariners.

For all their beauty, the 'fine silks' were not the principal object in view for the merchants heading east. The Polos went to Mongolia in search of spices and gems from India, porcelain, the furs and skins of Siberia, and the perfumes and medical products imported from Malaysia. Broadly speaking, northern China at this time was selling tea and importing horses; southern China was exporting porcelain, lacquer-ware and silks, principally to the countries of South-East Asia. Perhaps, too, the *pailes de Rosie* (Russia) mentioned by the minstrels originated in China. From contemporary accounts, it would seem that silk had ceased to travel over the 'Silk Route'. (It should be noted, however, that this name is a modern invention; no reference to a 'Silk Route' or 'Silk Road' has been found in ancient or medieval texts.) The overland route, which was once more in use at the time of the Polos—and relatively safe under Mongol domination from the Black Sea to the Pacific—was now being travelled by spices, tea, porcelain and diplomats, and could hardly be called a silk route, apart from a short stretch between China and the Mongols of Siberia and Central Asia. There was still a small flow of exceptionally rare and precious stuffs, minute quantities of which were reaching Europe even in the thirteenth and fourteenth centuries either by the traditional Tarim-Asia Minor route or by another much farther to the north. This latter began in the ports of Armenia, the Crimea and the Caucasus and followed the Kirqhiz steppe and southern Siberia to either Peking (which had now become the capital of China) or Karakorum. The great drawback of the

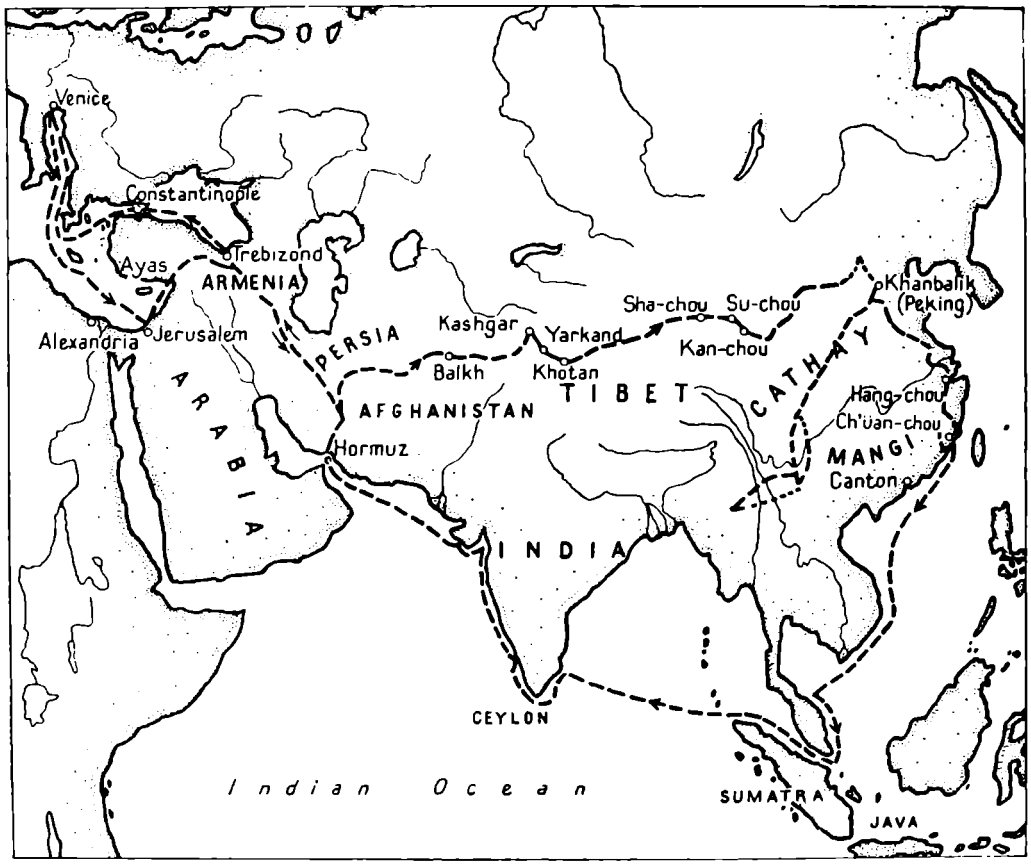
northern route was the severe climate; it was not unusual for travellers to have to interrupt their journey and spend months waiting for an improvement which would enable them to continue.

The Mongols soon became masters of Siberia, Russia (as far as Kiev), Persia (though they never managed to hold Syria), India, China and Central Asia. And throughout their Empire, the greatest known to history, they imposed a peace and a respect for law and order so absolute that a contemporary saying claimed that a girl could walk across it from one end to the other bearing a golden dish upon her head and not be molested. This was doubtless an exaggeration, but it seems clear that conditions were exceptionally favourable for trade. However, the vast distances involved meant that prices were high. The people of the West were prepared to pay up for those things which they could not obtain from any other source, such as spices and precious stones, but there was no reason for them to look so far afield for their silk now that they could make it for themselves. The dominant factor in the silk-trade was no longer the secrecy and exclusiveness of production, but the difference between cost price and selling price due to the expense of transport. Moreover, according to Marco Polo, delays in the thirteenth century were if anything longer than they had been before, travellers frequently being held up by wars and climatic conditions. Things were to remain much the same until the modern revolution in transport (the introduction of steamships and the cutting of the Suez Canal), together with the difference in labour costs in East and West, caused prices to level out and eventually made it cheaper to buy goods coming from afar. But this time was still a long way off.

Rubruquis was able to inform the Mongols that the Pope of the Christians was not 500 years old, as they had believed; the Polo brothers, accompanied by their son and nephew Marco, took Kubilai holy oil from the Holy Sepulchre. In due course, Marco (*il Milione*) returned rich and wise to settle in Venice, his head still full of the wonders he had seen on his travels. Then men began to dream of one day seizing the monopoly of the spice trade from the Moslems and reaching India and Cathay (and probably distant gold mines) by sea, by a completely new route. . . .

About the time when Marco Polo returned to Venice, 1295, sericulture passed in some obscure way from Sicily, where it had greatly prospered, first to Lucca and then to Venice, Florence, Milan, Bologna and eventually to all parts of the peninsula. This came about when, towards 1314, the craftsmen of Lucca fled from their homes

during the civil war and set up their workshops elsewhere.[1] Thereafter the Italians more or less monopolized the silk trade with France, Germany and England. They not only produced silk themselves, they also controlled the silks coming from the Middle East. Silk came to be a matter of such importance that the Venetian Government made representations to the Pope: ' . . . In 1368, the trade in



9. *Marco Polo's itinerary*

silk, cloth of gold and other articles of value which was conducted between Alexandria and Europe through Italian intermediaries was still so considerable that the Italian communes, threatened with complete ruin by the war overseas, did all they could to persuade the Pope to put an end to that between the king of Cyprus and the sultan of Egypt, in the course of which so much of value had been

[1] Santangelo.

destroyed.'[1] Commercial considerations, apparently, could sometimes outweigh the issues of politics and religion. For several centuries the Italians were here, there and everywhere in Europe. As far afield as Montpellier and Lyons they were selling materials from Lucca and damask from Cyprus. Since the loss of Acre in 1291, Cyprus had become the great Christian emporium of the eastern Mediterranean and enjoyed a period of great industrial and commercial development. From Cyprus, too, came those gold-lace embroideries which the Italians were soon to imitate with their passementerie. From Tanais on the river Don and from Sudak in the Crimea came silks purchased from the Tartars which had been manufactured in China, Central Asia or Mongol Persia. These silk materials with golden stripes were probably brought into fashion by Marco Polo; they were called 'tartaires', and the same name was kept when they were imitated by Italian weavers. (The history of cloth is full of geographical names which have passed into use as common nouns. We still employ the word 'muslin'—from Mosul in Mesopotamia—for those flimsy fabrics now manufactured throughout the world.)

Though Marco Polo became famous, and with him all that he had brought back from China, those golden stripes, which were in no way typically Chinese, seem to have been the only Eastern motif introduced into Western textiles. Traditional Chinese motifs were completely missing. However, thanks to the policy being followed by the Mongols, personal contacts were becoming more frequent than ever before. Quite a number of missions were sent in either direction—though it must be said that they were made up of priests and monks rather than industrialists, and priests clad in rough homespun could hardly have been expected to take a great interest in cloth of gold or silk. In 1287 a Nestorian monk, a Mongol from the region of Peking, had an audience of Philippe le Bel in Paris; while the Popes sent Franciscans to China—John of Montcorvin in 1289, Andrew of Perugia around 1310, Odoric of Pordenone in 1314, John of Marignolli in 1340. They preached, made conversions, wrote, returned and related their experiences. It cannot be doubted that communications during the 'Mongol century' were safer and more regular than during the preceding 400 years. But were the religious missions followed up by caravans of traders? Contemporary texts mention especially trading on the frontiers of the Mongol Empire and do not give the impression that merchants habitually crossed the Empire to

[1] Francisque-Michel.

reach China. We know that Italians were trading in the Black Sea ports, and the Arabs in the ports of southern China—in Fu-chien and Kuang-tung. Zayton (Ch'üan-chou in Fu-chien?) is mentioned by Marco Polo as 'the greatest port in the world'. And towards 1330 the Arab traveller Ibn-Batutah still included Zayton among the five greatest ports in the world, together with Alexandria, Sudak in the Crimea and two ports in India. It is by no means certain, however, that Chinese goods were shipped all the way through to Alexandria, Sudak, Cyprus and Venice. The Chinese purchased products which originated in India and Indonesia—rhinoceros' horn, camphor, cinnamon, aloes, pearls, etc.—and paid for them, partly at least, in silk. This may well have remained in India and Indonesia, for European traders were making large purchases of spices and may not have been able to acquire in addition any significant quantities of silk. How did the Europeans pay the Moslems and the Tartars? How did the Moslems pay for the products of India and South-East Asia which they later sold to the Chinese? We can only suppose that they were still using linen, cottons, woollens, carpets, metals, drugs, perfumes—and, inevitably, exorbitant amounts of gold and silver. We still have no definite information on the merchandise that Western merchants set out with in the fourteenth and fifteenth centuries.

There is still no evidence of Chinese cultural influence beyond the frontiers. There are no Chinese decorative motifs in Christian art—and as for Chinese ideas, they were less known, if anything, than in previous periods, in spite of the improvement in communications. China had been colonized by the Mongols, who were interested in Nestorianism, while the spirit of Europe remained that of the crusaders and the missionaries. The sending out of preachers and missionaries was in the European tradition—showing sympathy with 'idolaters' most emphatically was not! Apart from Marco Polo—who in any case came to China charged with a religious mission—all the European envoys to Mongol China were monks; their aim was to form an alliance with the Christian Mongols and to convert the Nestorians to Catholicism. If Kubilai had not had a Nestorian mother, if he had shown any hostility to Christianity, the Westerners would never have made contact with China in the thirteenth century. It was in fact the Mongol sovereigns that they were in touch with, not the Chinese themselves. The Chinese were good craftsmen, true, but they were also idolaters, a conquered people, 'natives'. All this one senses when reading Marco Polo. The

Gozzoli—Detail from The Procession of the Three Kings. *Chapel of the Medici-Riccardi Palace, Florence*

Photo: Alinari-Bulloz, Paris

Map by Jodocus Hondius; Amsterdam, 1602

Photo: P. Dubuve, Editions Arthaud

Botticelli—Detail from Spring. *Uffizi Gallery, Florence*

Photo: Bulloz, Paris

Mongol sovereigns were the only ones to accord a welcome to strangers.

After their fall, and with the founding of the purely Chinese dynasty of the Ming in 1368, China once more closed herself in by both land and sea, and trade was obliged to stop short at Java and Sumatra. To add to her isolation, an increase in the number of Japanese pirates put a stop to navigation all along the coast. Apart

10. *Central Asia*

from brief appearances of Chinese ships and short-lived attempts to establish trading settlements in the Red Sea and on the coast of Zanzibar,[1] the country was once again completely cut off from the West. The Catholic missions set up in the Mongol period disappeared; Kubilai's tolerance was a thing of the past. China, alas for her own future, was now, as it were, fossilized, paralysed by a traditionalistic conception of herself, concerned only with an attempt to resuscitate that which had been created by the Sung. But 'her

[1] See the naval expedition of Cheng Ho in *Svet*.

spring had been broken'[1] by the long years of foreign occupation, and she no longer had the creative vigour which had characterized her under the ancient dynasties. She became, in short, the decadent and disorganized China of which nineteenth-century travellers have left so bleak a picture. . . .

But while China slept, the West was beginning to wake.

[1] Grousset.

XVI

Lyons – The Last Capital of Silk

The fifteenth and sixteenth centuries in Europe—with the Renaissance and the Reformation and such inventions or discoveries as the compass, instruments of navigation, the rudder, printing—mark the beginning of what historians call modern times. (In other parts of the world the Middle Ages still had some centuries to run.) The discovery of the New World and the circumnavigation of Africa marked the start of an age of far-ranging adventure and exploration. From across the Atlantic, wealth flowed to the Iberian peninsula; the Portuguese installed themselves in Indonesia and pushed as far as southern China, before being ousted by the Dutch and the British. The centre of gravity of world trade shifted to the Atlantic countries. At the same time, the Moslems yielded up the mastery of the Indian Ocean; but the West contained no great empire comparable with that of the Romans or the caliphs, and a number of rival powers fiercely competed for supremacy at sea. One by one they prospered and fell into decay. The century of the Portuguese was followed by the century of the Dutch. At this stage it naturally becomes more difficult to follow the development of the silk trade in the various countries; for instead of writing in Greek, Latin or Arabic and being intelligible anywhere between England and Syria, geographers and historians were using their own mother tongues. To follow all the ramifications of the subject at this period, an expert knowledge of five or six languages and endless time for research in five or six different countries would be necessary. And so, for the purposes of this book—though without forgetting the importance of sericulture in Greece, Spain, Sicily and Cyprus, not to mention Turkey and Iran—we will concentrate upon developments in France, and especially Lyons, a name which soon became synonymous with silk.

The beginnings of the silk industry in France were accompanied by features which seem always to have dogged the advance of sericulture from one country to another—military reprisals and protective tariffs! From the fourteenth century, French governments had found that too much gold was leaving the kingdom to pay for the luxury fabrics sold, particularly at the fairs of Lyons and Champagne,[1] by the Italians.

The most numerous groups of merchants were those from Genoa, Florence and Lucca, and their prosperity resulted from their dealing in brocade and velvet—a material which enjoyed great popularity for a period of three centuries. (Apart from brief intervals, the people of the West always favoured stiff, heavy materials which would hang in majestic folds.) The Lyons fair became so important that some Italians thought of settling permanently in the town. Silk thread would have been available to them, since the Avignon Popes had introduced the cultivation of mulberry trees and the rearing of silkworms into Provence. In 1450, moreover, Lyons obtained the monopoly of the silk trade throughout France. But in 1466 Louis XI, tired of seeing Italian merchants grow rich on the banks of the Rhône, ordered the town of Lyons to set up silk manufactories of its own—'in order to prevent 400,000,000 or 500,000,000 gold *écus* leaving the kingdom annually to pay for the importation of silks manufactured abroad'. This was to be a royal enterprise, the profits of which would go to the treasury—a well-tried method of solving a king's financial problems! But the venture did not enjoy the success that had been anticipated, and for one reason or another the royal manufactory was transferred to Tours—not Paris, where there was already a small guild of silk-workers. Both Tours and Paris had to import their raw materials; the nearest source was Provence, so materials were costly and always in short supply. Brocades and velvets continued to be imported from Lucca and Florence.

In 1517 Francis I forbade the importation of cloth of gold and cloth of silver. He did this partly to damage the Italian economy, partly to give a fillip to the industry in France. Faced with poverty, the Italians resident in Lyons attempted themselves to produce the

[1] Emile Lerondier, author of an article on the silk industry in Lyons which appeared in 1934, says that merchants from the Far East were also to be seen at these fairs. He does not, unfortunately, mention his sources or give any details of such merchants. Were these perhaps the first Chinese to be seen in Europe? Or should one consider that the Nestorian monk whom we have already mentioned (and who seems to have been a Mongol) was the first representative of the Far East to visit France?

materials for which there was such a great demand among the French aristocracy and bourgeoisie. To give an idea of the sums which individuals were spending on personal adornment, we need think only of the Field of the Cloth of Gold, which took place in 1520, just three years after the import restrictions mentioned above. Such an exhibition there was, of brocades, pearls, gems and gold thread, that certain noblemen, according to a contemporary account, 'were wearing their mills, their forests and their fields upon their backs'. (These brocades and velvets sold at from 2 to 8 *écus* an ell—and there was no stinting when it was a question of making robes for a nobleman or the trappings for a nobleman's horse. It would be difficult indeed to say whether it cost more to clothe a man or a horse.)

Ironically enough, it was two Italians who finally succeeded in establishing a silk industry in Lyons. Etienne Turquet and Barthélémy Nariz, both from Piedmont, obtained from Francis I the letters patent necessary for their project. As competent workers were not to be found in France, they asked, and were given, permission to bring Genoese silk-workers and their families to Lyons. The immigrants were granted exemption from all taxes, provided they agreed to settle in Lyons for the rest of their lives. In 1537 the municipal council of Lyons was granted a similar privilege, and in 1545 Turquet and Nariz founded the *Fabrique de Lyon*, a private trust (working always in close collaboration with the municipal council) which is still in existence. The first professional rules of the guild date from 1554.

The industry, both spinning and weaving, made great strides. It succeeded in meeting the demands of the national market and was soon competing with other European producers. There was always a shortage of labour. To supplement the immigrants from Italy, local people had to be trained for the specialized tasks involved in the production of velvets and other delicate fabrics; foundling children were invariably apprenticed to the trade. The work was shared among men, women and children according to a formula traditional in the industry as it was organized in the West. Traces of this still exist. The women unwound the cocoons, spun and rolled the thread onto spools; the men took care of the weaving; the children were employed on a variety of subsidiary tasks.[1] Entire families were engaged

[1] Women were also engaged in unskilled tasks. The professional regulations forbade them to operate looms—that is to say, to engage in the more highly paid work of the weaver properly speaking. This was in order that there should always be an adequate reserve of cheap female labour.

in such work, and the craft was handed down from generation to generation, which led to the formation of a labour force unrivalled anywhere. But all these workers needed somewhere to live, and as the housing shortage grew ever more serious extensive building operations were undertaken and Lyons burst its old limits, expanding into new suburbs. In 1600 there may well have been as many as 7,000 looms at work in the town, and the problem of supplying them with raw silk was becoming acute. Mulberry trees were planted throughout Languedoc and Beaujolais, as well as in the region of Lyons itself, but home supplies were never sufficient, and imports continued to flow in, especially from Piedmont, until the nineteenth century.

The history of the silk industry in Europe was marked henceforth by two distinctive features: firstly, there were the ever more rapid alternations of fashion (a peculiarly Western phenomenon), and secondly there was the fact that the production of cocoons constantly fell short of the needs of the weavers. Both these tendencies were much in evidence in Lyons.

Technical advances of all kinds followed one another in Europe, where now the greatest powers in the world were to be found, and silk was among the industries to benefit from these. A loom perfected in 1605, for instance, enabled luxury fabrics with large-scale designs to be produced more rapidly and by fewer workers. In 1801, the Jacquard loom reduced by half the number of workers needed in weaving—which inevitably raised problems of a social nature.[1] In 1860, fuchsine revolutionized the art of dyeing. Year by year, in short, the operations of weaving and after-treatment were improved, and prices became more economical. But the raising of silkworms, from the gathering of mulberry leaves to the stifling of the pupae, remained at a very primitive level; it was virtually a cottage industry, and a peasant-woman would often carry those cocoons destined to produce moths warm and safe in her bodice The death rate among silkworms was high—we have seen how, about 1840, Camille Beauvais stressed the superior skill of the Chinese in the raising of silkworms; there was a great deal of wastage in the pro-

[1] Strikes and revolts have not been uncommon among the silk-workers of Lyons. They have usually come about following disagreements between the local employers and the central government in Paris. Import-export regulations, blockades, periods of official mourning (with falling-off in demand for silk), official demands for austerity in dress in all such examples of 'government interference' have been blamed for crises in the industry.

duction of silk thread; and the quantities of raw silk produced invariably fell short of the needs of the industry. Even today, this problem has not been satisfactorily solved.

The other major factor influencing the industry was always an unknown quantity—fashion. Feminine fashion particularly could change violently, illogically, causing manufacturers to make, and lose, fortunes almost overnight. In the fifteenth and sixteenth centuries plain velvet was in vogue; in the seventeenth century satins and taffetas were all the rage; in the eighteenth century the industry was stimulated by the fashion for materials with huge designs on them, the production of which was shrouded in secrecy; and then came vast dresses draped over hoop petticoats and requiring enormous lengths of cloth. At this time it was the fashion to wear clothes decorated with motifs of fruit and vegetation, shells and bird's plumage. This was the age of Rousseau's hymn to Nature, the age of the aristocratic shepherdess. And for the first time Chinese motifs began appearing in Europe: pagodas, bamboo bridges, magots (grotesque Chinese figures)—far indeed from the bold, clean lines of the great periods of Chinese art. This, in fact, was the ornate and fussy style of the trinkets, porcelain and lacquer-work produced for export in the Chinese workshops of the Ch'ing dynasty. It was unfortunate that henceforth the Europeans, with the exception of a few connoisseurs, would associate the word China with fragile and garish vases, magots and knick-knacks, lacking grandeur and without any real beauty. It was a pity that the designers in Lyons in the eighteenth century, whose works were later to be copied and recopied, knew only the decadent art of Ch'ing China and not the delicate subtleties of the Song period, the vigour of the T'ang, the discipline of the Han.

The fondness for Chinese motifs (ugly though they were) reflects the fact that there was now significant contact between Europe and the Far East. This was the period of the East India Company—the century of the British, following that of the Dutch. Porcelain and tea were brought down-river in junks to Canton and the ports of Fu-chien and there transferred to the holds of the great clipper ships.

The porcelain reached the drawing-rooms of London, Amsterdam and Paris after a journey by sea which had taken it right round the Cape of Good Hope. Voyages were longer than ever; mariners were away from home for years at a time. But navigation was safer than it had been; the ships were big enough to take large quantities of food and water as well as their cargo, sails had been improved, crews

were better equipped, charts were more complete, the seas less full of mystery and terror.

Tea now began to be used more widely—though its method of production still remained a mystery. The Chinese did all they could to keep the secret. A series of watercolours found in the collection of a president of Rennes, who died in 1746, show the principal operations in the production of tea—or rather, show what the Chinese wished the Europeans to believe about its production. It is one of the best leg-pulls of its kind, on a par with the spaghetti fields of Italy. In one picture we see peasants clearing tree stumps from a stretch of virgin ground and using their forks to destroy peculiar animals rather like small dogs. In another, tea is growing on rocks so precipitous that it is having to be gathered by trained monkeys. (It may be noted in passing that trained monkeys dosed with opium are in fact used to collect swallows' nests in the islands off Fu-chien.) And finally, by an extremely cunning stroke, the Chinese are shown trapping wild horses in a defile, then disembowelling them and taking from their entrails a juice which has to be sprinkled at once on the tea in order to give it its characteristic fragrance. All of which is intended to show the Europeans that, even if they managed to cultivate tea, they would not know how to treat it. There are no such pictures to illustrate the processes of sericulture. Possibly the Chinese no longer feared the loss of their secrets in this field, sure of their superior skill in raising silkworms.

Meanwhile, as Chinese motifs were being used to decorate the vast pannier dresses of Madame de Pompadour, a cultural landmark was reached in the history of East-West relations. For probably the first time Western people were studying, discussing and writing about a Chinese doctrine. Confucian ideas made their appearance in Catholic France, and there blew up the famous quarrel of the rites. Jesuit scholars and mathematicians had been invited to China to put the Chinese calendar in order, and while there they had taken advantage of the official favour shown to them to do some missionary work. But their conversions always foundered on the same obstacle: the Chinese would not give up their Confucian rites of filial piety. The Jesuits tried to get round this difficulty by arguing that these rites did not constitute a cult properly speaking, that they did not imply any attribution of divinity and were, therefore, not idolatrous, had no religious significance, and could easily be reconciled with the duties of a Christian. The Pope refused to countenance this, and the discussion grew heated. People began to take an interest in the

nature of Confucianism, and it was noted that certain similarities existed with Graeco-Roman rites. Greater interest than ever before was being taken in China, but always the basic criteria were Catholic. Somewhat later, François Quesnay the physiocrat and Voltaire himself openly praised the Chinese political system. By now China had a sound knowledge of world geography, though she was still apt to get confused about the various nations of Europe, and the Jesuits had given her an insight into Catholicism. But the intellectual relationship between East and West was slight, superficial and brief. With the departure of the Jesuits, China and Europe remained absolutely unknown to each other for at least a century, and when political circumstances sent British gun-boats into Chinese waters in 1840 the representatives of East and West gazed upon each other as if they had been the inhabitants of different planets.

In France, the silk industry underwent a number of crises. The fashion for printed cotton fabrics imported from Persia or India was a rude blow for Lyons; in 1789, 20,000 unemployed workers in Lyons were living on public charity. From 1800 onwards the silk industry began to change character somewhat, the use of silk becoming common in all classes of society. This meant that fewer luxury fabrics were needed, and more at reasonable prices. Thereafter, the industry had to steer a course between fashion, which demanded constant changes of texture, colour and design, and occasionally abandoned silk altogether in favour of cotton, linen or wool, and production costs, which varied with the price of the raw material. From the nineteenth century, anxiety over costs led manufacturers to seek cheaper raw silk; obviously some less distant source was needed. But once again circumstances changed, this time thanks to the introduction of steamships—which the astonished Chinese naïvely called 'fire-wheel ships'. And, as we shall see, the reduction in the risks and delays of sea travel, together with the relative cheapness of raw materials in the Far East, once again sent westerners hastening towards the coasts of China.

XVII

From the Last Sailing-ships to the First Aeroplanes

The southern coasts of China were visited during the eighteenth century by the British far more than by the French. The French imported Chinese products, but through the London market. This was the period (from about 1700 to 1834) that the English called the 'Old Trade', when their merchants, acting first on their own account and then for the East India Company, dropped anchor regularly off Canton, in the labyrinthine mouths of the River of Pearls. Here, from Chinese agents, they purchased tea and, to a lesser extent, silk. At times they found themselves lying at anchor close to ships from France (in 1713, the *Grand Dauphin* took back to Saint-Malo a cargo the sale of which was a commercial landmark), Holland and, from 1783, America; these last having travelled by way of Cape Horn. But China's principal client at this time was England. She paid for her tea and silk in coin and, later, with ever growing amounts of opium from India and Persia. Silk, like tea, was a highly profitable cargo—a high value for a relatively low weight—and England would doubtless have imported a great deal more than she actually did for resale in Europe, if the Chinese Government had not imposed limits on the nation's overseas trade in these products. The captains of foreign ships could embark as much tea as they wished, but they were allowed to take only about eight-and-a-half tons of silk per ship—unless they were prepared to pay for a special pass over and above the usual export tax. The prime cost of silk was thus maintained at a fairly high level. Indeed, the whole organization of the export trade from Canton was such that the price of goods was high.

For the Far East, the eighteenth century was a period of deliberate

and defiant isolationism, an age of stubborn chauvinism. Trade was limited to the ports. Japan had a small amount of trade with the Dutch; this was conducted entirely on the island of De-shima, for the Government would not allow foreigners to set foot on Japanese soil. The only products allowed to enter the country were such necessities as metals and medical supplies. China also closed her frontiers to Europeans, following the troublesome behaviour of the Portuguese and Spaniards in the fifteenth and sixteenth centuries. She too, permitted only a limited flow of trade and herself stipulated the conditions under which it should be conducted. Eventually commerce was entirely restricted to one port: Canton, where dealings with the 'Western barbarians' were conducted exclusively by an officially recognized guild of merchants known as the Co-Hong. This body laid down certain laws to govern the behaviour of visiting foreigners: never to enter the bay with warships; never to go ashore with side-arms, guns or—European women! not to sail up the Pearl River without permission; not to go ashore in numbers; not to approach people other than through the Co-Hong; not to deal in forbidden merchandise. . . . On such conditions, the British were able to exchange their opium and precious metals for tea and silk. Towards the end of the eighteenth century they also purchased a fine cotton fabric known to our great-grandparents as nankeen—yet another material taking its name from its place of origin.

There were no official diplomatic relations to take care of trading; it was simply a matter of direct dealing between merchants. The emperor of China had diplomatic relations only with his own vassals, and this attitude of his contributed in no small measure to the deterioration of the relationship between Britain and China in 1838. Up to that time, it must be said that the merchants of both countries had been reasonably satisfied with the existing arrangements. It was opium that spoilt everything, and arguments over etiquette added to the trouble. War was the result.

Opium had been used in Chinese medicine at least since the time of the T'ang[1]—it is a good remedy for dysenteric ailments, the scourge of the Far East—and its use as a drug began only in the eighteenth century. The first edict prohibiting it dated from 1729. Several times the Chinese Government attempted to restrict, or even forbid, the purchase of opium from the East India Company, inspired by considerations of health and morality as well as by a

[1] And in the West at least as early as Pliny, who mentions it in his *Natural History*.

desire to do away with a drain on the national wealth. But as soon as it was prohibited, the business went underground – and prospered none the less. Provincial governors closed their eyes to the racket and were generously rewarded for their blindness; the Co-Hong after all had every incentive to continue doing business with the opium merchants. The thirteen directors each took a cut of some 20,000 taels, and in 1834 one of them was reckoned to have the largest private fortune of any merchant in the world—about 26,000,000 Chinese dollars. How could they be expected to bow to imperial edict and abandon the source of their wealth?

Eventually, however, the government took action. British merchants were obliged to hand over the cases of opium which they had stored in their warehouses and the holds of their ships, and the Chinese destroyed the lot without compensation. So began the 'Opium War', which marked the start of a sixty-year period during which China struggled to maintain her rigid control of trade and keep foreigners off her territory, and the Western powers did all they could to force the Chinese market and obtain favourable tariffs and trade facilities. China was defeated, and from 1860 the silk trade was once again flowing from its original source.

Trailing behind China in the raising of silkworms and in volume of production, Europe imported about 50 per cent of her raw silk from China during the period 1850–1900. Around the turn of the century, China's total exports of raw silk reached some 4,800 tons whereas before 1838 the East India Company itself had not managed to buy more than 5,400 bales a year. France was the biggest client for raw silk; some 37,000 of the 71,000 bales shipped from Shanghai (now the major trade port) were destined for Lyons. Next came Great Britain, whose total volume of trade with China was the greatest in the world. From China she bought 13,000,000 francs' worth of tea and silk, and in return sold 150,000,000 francs' worth of manufactured products, notably cotton goods from Manchester (the cotton coming originally from India), whose cheapness was due to the technical advances made in the British textile industry. Whereas Great Britain had a favourable trade balance with China, France sold barely 4,000,000 francs' worth of goods to China in 1897 in return for 124,000,000 francs' worth of silk. Other European countries, Germany and Italy in particular, had a rather smaller volume of trade with China, while the United States preferred to deal with Japan.

It is important to note that Western merchants took relatively

little interest in silk woven in China; they were more concerned to obtain yarn or, if need be, fabrics not yet dyed. At the turn of the century the value of China's exports of raw silk was five times greater than that of woven fabrics. It is also noteworthy that the nations of the West imported large quantities of cocoons and silk waste, which the Chinese used for padding garments, blankets and so on and from which European technicians produced a yarn of reasonable quality known as schappe.

There were two Chinese fabrics, however, which continued to attract French and British buyers. These were crepe (in the production of which, as Father Huc wrote in 1845, Europe was still far from rivalling China) and pongee. This latter was made from the wild silk of Tche-fou and was very much in vogue around the time of the First World War.

There were two reasons for the fact that Western merchants preferred to buy yarn rather than woven cloth. Firstly, Lyons needed above all to provide work for her labour force and defeat the menace of unemployment; she had to buy cheap and sell dear. (This need was general throughout Europe, and by enforcing their policy at gunpoint the Western powers reduced China to something like semi-colonial status for a period of fifty years or more.) Secondly, according to the reports of experts, the standard of weaving and even the unwinding of cocoons was low in many parts of late nineteenth-century China. One particularly convincing piece of evidence in this respect is the report on silk prepared by the trade mission sent to China by the Lyons Chamber of Commerce. From 1895 to 1897 this mission carried out a detailed investigation of the silk industry in Ssu-Ch'uan, which was one of the most important silk-producing provinces the provincial capital, Ch'eng-tu, had some 7,000 looms in operation, and the experts considered it a sort of Chinese Lyons. Of the production of cocoons, they had this to say: "There is no family, from the richest to the poorest, even in the yamens of the great mandarins, which is not engaged in the raising of silkworms. Nevertheless, their output is not high; one or two ounces at most." The hatching of the eggs, which were kept on bamboo papers hanging from the ceiling, was facilitated in a way common also in France at this time: for a week or more the pieces of paper containing the eggs would be carried in the bodice of a woman or in the hat of a man. Later operations were also carried out *en famille*: placing the newly hatched larvae in little baskets; feeding with finely chopped mulberry leaves; careful supervision for thirty-five days;

making the little bunches of straw in which the silkworms could spin their cocoons; and finally stifling the pupae in steam over a kitchen saucepan. The experts from Lyons note the conservative attitude of the Chinese, who were chary of any suggested improvement; invariably they would declare: 'This was how my ancestors did things; if I were to change, it would bring me bad luck!' They also had other superstitions: at all costs they tried to prevent the silkworms seeing lightning or hearing thunder; they feared they would suffer from the presence of a corpse or a man who had seen a corpse or a serpent. . . . And yet, at the same time, they completely ignored certain questions of temperature and hygiene to which the manufacturers of Lyons attached great importance. Nevertheless, the cocoons were cheap enough to interest the visitors, for the work was normally done by women and children and old people who were not fit for work on the land. It must be confessed that even in Europe the problems of producing cocoons on a large scale were solved only at a very late stage.

When the peasants had a certain number of cocoons, they either sold them as they were—they got from 80 centimes to 1 franc for a kilo, or about 700 cocoons—or reeled them, or had them reeled by one of the itinerant craftsmen who went from village to village hiring out their services as weavers once did in the West. This operation was carried out in a very primitive fashion and, according to the experts from Lyons, left a great deal to be desired. There was considerable wastage, and the yarn was often so irregular that it had to be broken down and spun before being exported. The visitors believed that the quality could be improved, and they suggested that a European-style mill be set up in Ch'uan. They even sent for the materials to start one, but they did not arrive, so nothing came of the project. Nevertheless, even the idea signified that China was no longer producing the finest silk in the world and jealously guarding her professional secrets. Indeed, following the long torpor into which China seems to have sunk at the close of the Manchu dynasty, her craftsmen, once reckoned the most skilful in the world, were turning out very indifferent products. The Westerners had not, in short, come to steal secrets. On the contrary, they were hoping to introduce European methods into a land where soil, climate, labour conditions and customs regulations seemed favourable. The lack of interest shown by China in the research and determination to improve techniques which characterized the industrial revolution in the West, led eventually to her failure to stand up to Italian and Japanese

competition. About this time the silkworm disease was wreaking havoc, lowering both the quantity and the quality of silk produced. Europe and Japan (the first of the Asiatic countries wishing to raise her technical level to that of the West) overcame the disease before long—by examining the eggs through a microscope, discarding those that showed signs of infection and so rebuilding a healthy stock. China, however, continued in her ancient methods of egg-selection by exposure to frost and snow, efficient enough when dealing with healthy stock, but useless for the detection of disease, and was soon outstripped by her rivals. She needed from 6 lb. to 7 lb. of cocoons to produce 1 lb. of silk yarn, whereas in Italy, thanks to the use of the microscope, only 3 lb. to 4 lb. were required. In the nineteenth century the West had got more than 50 per cent of its silk from China; in the period 1902–4 only 27 per cent came from China—28 per cent from Japan, and 25 per cent from Italy. By 1905 the amount coming from China had fallen to below 25 per cent. Though she had had a similar experience with tea, China seemed unable to grasp the fact that Japan was a serious threat to her trade in silk.

Japanese silks had long been appreciated. From 1860 onwards they could be purchased even in Chinese ports. A particular favourite was the wild silk produced by the Yamamai, an oak-leaf feeding moth which made a magnificent green cocoon, the silk from which was formerly reserved for the use of the emperor and his family. For many years it had been a capital offence to sell it to foreigners. In 1861, a French consul in Japan managed to get hold of a few eggs and send them to Lyons. Apart from this speciality, the majority of Japanese raw silk (which was just as good as the Chinese product) was sold in the United States prior to 1900. But Japan's determination to master modern techniques, together with the traditional skill of her workers, soon won her a significant place in world markets. While China floundered in the grip of the silkworm disease, Japan won the battle of costs.

The same faults, the same indifference to modern advances, were apparent also in Chinese weaving; the Lyons experts made no secret of the inferiority of the textiles they inspected in China. The equipment used was primitive, the work was carried out as a small-scale handicraft—and the Chinese client, as set in his ways as the craftsmen, was not difficult to please. 'The very premises where these operations are carried out are in no way suitable. Usually, indeed, the looms are placed in basements, where the light of day can have the least effect. But, though we may criticize their negligence,

their deliberate disregard of all the improvements and all the scrupulous care given to these branches of the silk industry in the West, it must be admitted that the Chinese have innate qualities of adroitness, dexterity, skill and patient application. . . .'

In spite of the qualities of the workmen, the shortcomings in manufacture meant that Chinese fabrics presented a sorry appearance. There were too many defects; the finishing was poor, warp and woof coarsely marred the texture, and borders were spoilt by irregularity. The material was thick, heavy and rough, but it did not wear well.

'Notwithstanding these faults, the Chinese customer is satisfied. Traditionally minded as he is, he will never suggest any modification of style or manufacture to the merchant or the producer. He will continue to purchase the same, never-changing type of material as his ancestors; and his descendants will do the same. . . .' In short, the Chinese silk industry held little other than 'documentary' interest for the experts from Lyons. 'Our manufacturers would be wrong to seek inspiration or instruction there.' China was no longer the home of fine silks; these came now from France and the other textile centres of Europe and Japan.

China was going through a period of political unrest and economic instability so great that her production in all fields was highly irregular. It took her so long to become industrialized that she could not hope to compete with a dynamic and fast-developing Japan. Her old impetus continued to carry her forward somehow, and her people continued to make silk because the processes involved were as natural to them as breathing.

In Europe, too, the textile industry suffered from the effect of wars. Like all luxury industries, silk weaving was badly hit by the First World War; maritime transport was disturbed and trade interrupted, uniforms were more important than silken gowns, and young ladies stopped embroidering cushion-covers and began knitting socks for the troops. And meanwhile northern China was engulfed in civil war.

Following the Armistice came the mad years of the 'twenties. Scarcely had the widows' weeds been put away when the capitals of Europe were swept by a wave of luxury. Fabulous sums were squandered on fashions that changed from season to season; gone were the days when a girl's trousseau would last her all her life and clothes were handed down from mother to daughter. People no longer mended or tried to make their clothes last; newness was all.

Silk played its part in all this, but the important thing now was quantity rather than quality. Prices were lower, thanks to the fact that Japan, with her low-paid labour force, was able to flood Europe with her fabrics; and the fact that these were not so strong as they might have been mattered little, for the public no longer demanded long-lasting materials. Perhaps, too, silk had a sensual quality, a suggestion of the erotic—such as it appears to have in the *Thousand and one Nights*—and this appealed to people lately subjected to a period of enforced austerity. At this time silk was indeed losing something of its sumptuous, majestic, heavy character; it was the intimate feel of the material that counted now, rather than its impressive appearance. Lingerie, shirts, stockings, crepe de Chine sheets—silks were soft, light, caressing. There was an enormous increase in the production of silk underclothes, but the biggest development of all was in the manufacture of silk stockings. The modern factories of Europe still had need of raw silk from China and Japan. In 1921, China exported a total of 16,000 tons of silk products: white and yellow raw silk, yarn, fabrics in general, schappe, cocoons, silk waste, wild silk, etc. But in actual value this represented less than a fifth of the world's silk exports.

In sericulture, Japan had come out on top. In 1930 her production of cocoons was eight times greater than it had been in 1880, and two-thirds of her raw silk was being exported. The silk trade now had for Japan the importance it had once had for China. The volume of trade trebled between 1913 and 1929, and in 1930 40 per cent of Japanese peasant families were raising silkworms and selling cocoons to filatures in towns nearby. There was a growing need for labour in such establishments, and those same peasant families were sending their daughters to work in the towns. The high quality and reasonable price of her silk won Japan a leading place in the international market, and neither the appearance of the first synthetic fabrics nor the lowering of prices between 1925 and 1929 could prevent silk, in the latter year, from amounting to 36 per cent of all Japanese exports.

China was slow at first to adopt industrial methods, and the process began in the two great 'Europeanized' ports of Canton and Shanghai. From the 'twenties onwards, the filatures and the cocoon-producing families were concentrated around these great export centres. As in Japan, industrialization began at the unwinding stage. However, Chinese silk, raw silk especially, did retain something of its former glory; the finest white silk in the world, it was said, came

from Wu-ssu in Chiang-su. The majority of silk from white cocoons was being produced in the Yang-tzu valley and the province of Kuang-Tung, while that from yellow cocoons came from Ssu-chu'uan, Shantung (the cradle of sericulture?) and Yün-nan. Greatly appreciated also at this period was a wild silk which seems to have been unknown in Europe until the eighteenth century; produced by the worm of the oak moth mentioned by Father Incarville in 1780, it came in the twentieth century mostly from Manchuria, though some was produced in Shantung. It became popular thanks to the recent development of a new method of bleaching—wild silks in nature are either dull or too deeply coloured—which allowed the subsequent material to be dyed as delicately as anyone could wish. Moreover, European industry had recently found a new use for silk; it was the best material for covering the wings of aeroplanes. There was also a good market for the wild silk pongee of Shantung, which was both strong and of a fine natural colour. European buyers complained that they could not get enough of it, and that agreed delivery dates and quantities were not always observed. Already, Japanese pongee was providing stiff competition for the Shantung product.

To add to the troubles of the Chinese, 75 per cent to 80 per cent of their silkworms in 1923 were diseased. Chinese sericulture was no longer a major force in the international market, and at last, under the leadership of Shanghai, a programme of technical research was decided upon. The *International Committee for the Improvement of Sericulture in China* purchased healthy silkworms in France and Italy and began trying to build up a disease-free race. In the laboratory they succeeded in reducing the rate of disease to 8 or 12 per cent, but this meant a rise in production costs. Laboratories were set up in a number of universities, however, and courses in sericulture were organized. Too late! China made up a little lost ground, but Japan's superiority was by now unassailable; in 1923 Yokohama could be considered the world's greatest silk repository.

Between the wars, as we have seen, silk was all the rage in the world of fashion and there was a consequent increase in the demand for raw silk; mechanization in the Far East led to a growth in output. At the same time both China and Japan experienced the social changes which inevitably accompany the development of a modern economy. The traditional method of work, in village communities based on the family unit, gave way to the factory; and with the factory came all the abuses that might be expected in a poor and

over-populated country, part or all of which had been in a state of something like civil war for the best part of fifty years. In 1924 public opinion was finally roused to the conditions of child labour in the textile industry. The report of the *Shanghai Child Labour Commission* (sponsored by the municipal council of Shanghai, whose members included Sung Mei-Ling, later Madame Chiang Kai-Shek) showed that in the filatures of the city a third of the labour force was made up of children, many of them no more than six years old. Their job was to brush off the outer layers of the cocoons, which could not be reeled, and then pass them on to the winders. This operation was carried out, mostly by female labour, in a steam-laden atmosphere above pans of almost boiling water. Young girls worked in these conditions, standing, for twelve hours a day, from six in the morning till six in the evening—and in addition had to arrive at work a quarter-of-an-hour ahead of the adults to prepare their material for them. They were paid little more than half the wage of an adult worker. The pans of water filled the atmosphere with a humid heat which was very bad for the health of the employees; the girls of the steam filatures were accustomed to fainting, and tuberculosis wrought havoc among both adults and children. Twenty-five years previously the experts from Lyons had noted that the workers of Ssu-chu'uan enjoyed the best rates of pay in the industry, but by 1924 the effort to measure up to Japanese competition had led to social abuses which contained within them the seeds of destruction. China was still the land which Lu Hsün evoked in a famous passage in one of his novels: 'Imagine a group of people drowsing in an iron-clad room, hermetically sealed; soon they will run short of air. Is it better to let them die in their sleep, or wake them and let them be conscious of their fate?' This was the China of which Chiang Kai-Shek himself said: 'It is a comatose country; we are a comatose people.'

The events which followed were not such as might lead to a full recovery of Chinese sericulture: slumps and crises the world over, Japanese aggression, then the Second World War and civil war in China itself. In the Japanese invasion more than 133,400 hectares of mulberry plantations were destroyed, and more than half the nation's filatures were wrecked in bombardments. In Shanghai in 1949 there remained only two filatures, totalling between them only some 350 spindles, and they were working at half pressure; in the period of her greatest prosperity Shanghai had contained 106 filatures, with no fewer than 25,000 spindles. The quality of the

product had deteriorated, and there had been no technical improvements for twenty years or more. In Japan, France and Italy, too, the silk industry had been marking time for more than ten years. At the close of the Second World War, the appearance of nylon and other synthetic fabrics caused a marked reduction in the demand for silk. Manufacturers of stockings and lingerie in particular all but abandoned the use of silk. The new textiles, though lacking the feel of silk, were quick-drying, long-lasting and needed no ironing; they invaded all sections of the market, and everywhere the silk industry lay under the threat of redundancy.

The story of the Lyons silk trade since the war has been notable for the efforts of the manufacturers to stimulate once more their old clients' appetite for silk. Dependent as it is upon the world of fashion, and Paris in particular, the industry has annually performed remarkable technical feats. By 1961 a fashion for natural silk seemed to have been launched; light printed fabrics, sumptuous lamés, waterproofed silk for raincoats, pullovers and costumes of knitted silk have all reappeared in the collections of the great fashion houses. Such articles are expensive and are directed at a luxury market only; but at the same time silk has consolidated its importance in certain fields of industry. It is used for bolting-cloth, extra-fine filters, surgical thread and for the covering of electric wires; and there are also many chemically treated by-products. The filatures work upon raw silk or schappe, traditional materials of which great quantities have always been imported; and today, as always, European raw silk production falls far short of what is needful. In 1957 the French silk industry used 1,070 tons of imported raw silk—662 from Japan and 374 from China—and only 8 tons produced at home. Thanks to the technical skill, aesthetic refinement and commercial acumen of the Lyons silk manufacturers, however, the exports of the French fashion industry have been able to compensate for this unfavourable balance. In 1957, in fact, the French silk industry imported more than 8,000,000,000 francs' worth of raw materials and exported nearly 39,000,000,000 francs' worth of luxury goods. But in order to maintain their position and provide employment for some 50,000 workers, the silk manufacturers have had to pursue dynamic policies and engage in constant research not so much to improve quality as to increase productivity. With this in view they sent missions to the United States and Japan to study the automatic reeling machines developed by the Japanese. Four of these machines have already been installed in France and, provided demand is maintained, these alone

will enable prices to be kept at a competitive level. Nevertheless, the equilibrium of the industry is still threatened; in 1961 it became known that a number of silk technicians who had been trained in the special schools around Lyons had been unable to find work in silk and been obliged to get jobs in other branches of the textile industry or even in other fields altogether.

The silk trade of the past fifty years reflects all the complexity of modern economic affairs; there has been a constant struggle for markets, and always there have been the twin menaces of over-production and financial disaster. In ancient times and in the Middle Ages, demand always at least equalled and generally exceeded the supply; buyers were eager for the products of the industry, and the chief problem was that of transport. But the twentieth century is the age of advertising, high-pressure salesmen and violent price-fluctuations, to which the luxury industries have been peculiarly sensitive. Each war has reduced them to a state of suspended animation; each inter-war period has brought a recovery followed by the threat of over-production with all its concomitant social evils.

An interesting case is presented by the luxury industries (particularly silk) in the Communist countries. When the Red Chinese Army crossed the Yang-tzu, the textile merchants of the Far East shipped their last lengths of brocade out of Shanghai, convinced that China would never again be manufacturing fine silks. And in fact, under Mao Tse-tung, the nation dressed in blue cotton. This was understandable enough; the main object of the five-year plan was to establish the heavy industry which would ensure the future prosperity of the country—and the second consideration was to produce enough food for all the population. Raw silk, no longer needed at home, was all that was available for export. But within a few years the Government was again stressing the importance of the silk industry—cultivation of mulberry trees, raising of silkworms and production of both raw silk and woven fabrics. Even luxury materials reappeared. We do not see these in western Europe; but, according to the Chinese Press, great quantities of gold and silver brocade and damasked and embroidered silks are finding eager buyers in the countries of the East. Chinese silks have been greatly admired at exhibitions in Leipzig and Damascus. In 1957–8 China produced 11,000 tons of silk and 200,000,000 metres of woven material, whereas in 1949, again according to the Chinese Press, the figures were only 3,000 tons and 50,000,000 metres. Seventy countries, including Russia, Czechoslovakia, East Germany and France, are at present

purchasing Chinese silk to a value reputedly equivalent to that of 5,000,000 tons of iron and steel. Home consumption doubled between 1952 and 1958—the age of blue cotton having come to an end—and Chinese magazines are now advertising garments of embroidered silk. Great efforts have been made to modernize and mechanize the means of production. A Russian method of reeling has been adopted, and the Sericulture Research Institute of Liaoning has perfected the first machine in the world to combine the functions of stifling and bleaching; this gives an eightfold increase of efficiency in these two operations. At the same time, in keeping with current economic policy, small establishments are being developed making use of simple, inexpensive equipment which can be manufactured locally; this is both economical and a convenient way of employing local workers. Dyeing, which was long a weak point in the Chinese silk industry, has also been improved. In short, they are all lined up to 'beat Japan and surpass the French', as their slogan says. However, they have made greater advances in weaving than in the production of cocoons, so that the latter have to be used with great economy. Orders have been given that schappe and even inferior cocoons must be spun; wastage must be kept to a minimum. In a desperate attempt to eliminate waste of all kinds, the Chinese Government is trying hard to extend the use of silk by-products: from the chrysalis an oil can be extracted, 100 kilos of which will yield 70 kilos of diesel oil; sericin (the gummy element of the cocoon) produces a material used in the treatment of tuberculosis, as well as substances which stimulate internal secretions, and others of nutritional value. Even the water in which the cocoons have been boiled can be used as a liquid manure. So, following their period of austerity, the Chinese are once more developing their production of silk—a source of wealth to be exploited regardless of ideological considerations. The supply of cocoons is still clearly insufficient to allow weaving to advance as quickly as they would like; but weaving methods also have room for improvement, assuming that the demands of the world market continue. China has ten times the volume of trade with 'iron curtain' countries that she has with others, and in her part of the world she is the only major producer of silk. But the future remains uncertain, both for the Chinese industry and for the silk trade as a whole.

The large quantities of raw silk, silk waste and wild pongee which pre-Communist China supplied to the industries of Europe and America travelled exclusively by sea. And this is still the case today;

the main 'silk routes' now run via Singapore, Colombo, Aden and Port Said, or across the Pacific and through the Panama Canal. The Indian Ocean, though stripped of its medieval terrors, has become something of a backwater. It no longer takes the traveller three years to get from Italy to Canton; it does not even take three months —by air, scarcely three days. The revolution in transport has led to an enormous increase in movement about the world. Young people cheerfully go off to study in distant lands; ideas and technical knowledge are communicated freely from country to country. In the West, hundreds of books have been written about China, and Western ideas and 'isms' have penetrated to the very heart of the Orient. At the same time, Oriental ideas seem to travel badly, and for the most part they have stayed at home—to die, or be transformed. Sericulture indeed, which began with the first emperors and remained for 2,000 years the monopoly of China before its diffusion throughout the whole world, has been somewhat out of step with Chinese culture as a whole.

What became of the old land route? Until very recently, it remained more or less in its original state; the same terrain of deserts and mountains that had been travelled by Marco Polo, the agents of Maes Titianus, the Franciscans and the Jesuits. Merchants, missionaries and diplomats followed its trails no longer. Up to the time of the First World War it was frequented only by short-distance caravans; trading between neighbouring peoples was still carried on in this way—though at least once a generation there was war at some point or other along its great length. The small Bactrian camels slowly brought from China the tea which, over the years, had become indispensable to the peoples of Tibet, Central Asia, Siberia and Russia. Cottons and felt from Turkestan, Chinese silk, Khotan jade, ginseng from Korea, Tibetan musk and Siberian furs made their little trips from one oasis to another, and whole herds of horses sold to China by the nomads of the steppes made their way towards the Great Wall. Caravans still moved unhurriedly along the trails, which now lay between two declining empires—the China of the last emperors and the Russia of the last tsars. The powerful lands of Europe, whose gunboats might descend on any coast from Japan to the Bay of Bengal, were represented in Central Asia only by dreamers, poets and men of letters. The Silk Route no longer existed as such. It had become a legend, and in search of legend came writers, archaeologists and tourists.

XVIII

Travellers in Time

In April 1906, the British archaeologist Marc Aurel Stein[1] was in Kashmir, his beloved Kashmir, eagerly awaiting the appearance of the first irises. The iris would herald the coming of spring and the thaw which would open the Himalayan passes—and in particular the Lowarai, which lay beyond the end-point of the railway and gave access to Central Asia.

1906—an age of European supremacy, when it was good above all to be a British subject; an age which saw the formation of a race of men (and later women) both sport-loving and romantic. It was the age of explorers and archaeologists, missionaries and adventurers. Sir Marc Aurel Stein perfectly exemplified the Briton, the explorer, the archaeologist, the man of the 1900s.[2] Not that he was the only one to explore the Tarim; in the same decade, give or take a few years, French,[3] Swedish, German and Italian scholars took to the trail and crossed the deserts from the Pamirs to the Great Wall. But he it was who left the most colourful and evocative travel book, a work which is at once an adventure story, exciting enough for the most exigent schoolboy reader, a scientific treatise and a monument to the qualities of the British character—sense of humour included. He allowed no difficulty to get the better of him. He quite deliberately burdened himself with two mule-loads of glass photographic plates! At one point, in unexplored territory to the north of Abdal far off the beaten track, his party got lost; the waterhole was not to be found, and his guides and porters were more than reluctant to continue. Stein knew there was no point in turning back; the distance they would have to retrace their steps before finding water

[1] Sir M. A. Stein. [2] He was not completely English in origin.

[3] The great collection of documents brought back from China and Central Asia by the Pelliot expedition has even now not been fully exploited—after fifty years of study.

was too great. Their only chance was to continue in the direction they were going, and in order to persuade his men of the truth of this he quite simply threatened to kill anyone who refused to advance. They did advance, and all was well. Stein's iron will-power was accompanied by an iron constitution. Though his companions fell ill and turned back, he himself kept going; while they slept, he sat up writing his notes, ceasing only when his ink froze solid. In Tibet, he suffered from frostbite; gangrene set in, and he had to ride for eight days before reaching a small hospital in British India where the affected toes could be amputated. And yet this intrepid and indefatigable hero found himself unable to face the thought of native cooking. When preparing for his expedition he took great care to obtain a cook who had at least some notion of English cooking. He attached great importance to the quality of the porridge. Then, too, like a perfect Englishman, he took with him a little dog, whose company became almost as precious to him as that of his men.

One of the most interesting features of Aurel Stein's book is the importance he attaches to the figure of Hsüan Tsang, the famous Chinese pilgrim who, at the beginning of the seventh century, set off alone for India and the holy places of Buddhism and returned home with an enormous number of Indian manuscripts. Having concentrated on Indian and Buddhist studies rather than Sinology, Stein frequently refers to Hsüan Tsang as 'my patron saint'. He follows in the Chinese pilgrim's footsteps all along the silk route, and we feel that he knows by heart every detail of that ancient journey. Twelve centuries lay between the two travellers, but the trail had scarcely changed. Hsüan Tsang may well have met the ancestors, identical in every way, of the few people Stein encountered on his journey: the fishermen of Lop-nor in their fur robes, a Mongol horseman with a dagger decorated with coral, the men of the caravans singing alongside their camels laden with felt. For Stein, during his year of archaeological exploration, the centuries seemed to slip away; and the impression of time having stood still is common to all travellers in this part of the world.

Sir Marc Aurel Stein's book should be read for its humour and its poetry. Humour, when he persuades his Chinese coolies to eat porridge (oats not being among the five cereals traditionally eaten in China) by announcing that he has discovered an ancient text which says that oats can in fact be eaten in cases of necessity. Poetry when he evokes the scents and colours of the Tarim and the romantic discovery of those delicate frescoes beneath ruins heaped with sand.

We look with understanding on the scholarly zeal which led him to bribe the guardian of the Tun-huang manuscripts and carry off large numbers of them in defiance of Chinese Government regulations. He was by no means the only scholar or archaeologist to have recourse to such methods.

The archaeologists had a clearly defined scientific purpose for their journeys, though the appeal of vanished civilizations is basically romantic; but in years to come there were other Europeans following the traces of the ancient Silk Route. Some were inspired by missionary zeal—'nowhere is out of reach for the man who is animated by true faith,' wrote the medieval Chinese pilgrim Fa Hsien, and the maxim was dear to the hearts of Christian missionaries in China. In 1925–6, three Protestant missionaries, Evangelina and Francesca French and Mildred Cable, became the first European women to travel overland from China, where they had been engaged on missionary work for twenty-five years, to Kan-Su and then, from one oasis to another, on to the Tarim. Here they would have stayed, if war had not overtaken them and driven them on towards Europe. Their account of their journey is one of the first modern descriptions of Central Asia. At this period European technical developments were just beginning to reach Central Asia. Principal among these were the telegraph and motor vehicles—though it must be admitted that the latter scarcely made an auspicious start. Around 1920 it was said that a good lorry lasted three years in Europe; in China it was worn out in six months—and then used for a further six years.[1] In Central Asia lorries were handicapped by the sand, the incompetence of drivers and the unavailability of spare parts; they were an expensive luxury. Even after the 'twenties, when vehicles were more freely available, and journeys were quick and reasonably safe, most goods were still carried by camel, simply because feeding an old-fashioned caravan was cheaper than providing petrol for lorries. And travellers would still meet the lumbering, two-humped camels laden with bales of felt and see, high upon the dunes, the age-old silhouette of nomad horsemen on their little Mongol steeds. The technical revolution might well have been accomplished, however, had Central Asia and northern China not relapsed into a period of almost continuous war, aggravated by the political upheavals in Siberia following the Russian Revolution.

Between the wars came a new race of wanderers. Like those celebrated long before by Baudelaire, they were 'real travellers', for

[1] A favourite quip of André Siegfried's.

whom travel was an end in itself. No comfortable modern home could contain them; no well-paid office job could hold them; in their eyes, a modern city was no better than a prison. One of these was Ella Maillart, a young Swiss girl who dreamt 'of going to live among the nomads, in the steppes, and becoming a child of nature . . . in some distant corner of the world sharing the life of primitive people still uncontaminated by our insane materialism. . . . Thanks to my reading, Turkestan and Central Asia held an irresistible attraction for me.'[1] And she set off alone on a journey which inspired a series of books, themselves destined to encourage other would-be travellers. At this same period Peter Fleming, a *Times* correspondent, was haunting the trails of the Tarim and the Pamirs. He shared Ella Maillart's taste for the solitary life of the wanderer, and for a short time they were travelling companions. Fortunately for those who sought to travel in the footsteps of Marco Polo, Hsüan Tsang or Alexander the Great, Central Asia had as yet changed very little. In 1925 the telegraph linked it with the outside world, but mail was still carried by horsemen. A disadvantage was that war was always going on somewhere in the area. Revolts and upheavals, as well as the frequent squabbles among the Chinese war-lords, made it a tale of constant disorder broken by rare periods of peace. Political troubles had become the only serious obstacle to travellers in Central Asia, but they were so frequent and the occupying powers so suspicious of strangers, that for fifty years or more the oases of the Silk Route had been virtually unattainable. No sooner had a foreigner arrived than he was asked to make his way to the nearest frontier. But this state of affairs was just one more attraction for lovers of adventure. The poetry of the desert, the most inaccessible mountains in the world, the solitude, the inhabitants not yet corrupted by modernity—all these combined with the romantic appeal of ancient civilizations to exert an attraction which is felt even today. As late as 1947 Anne Philippe travelled through Central Asia from China with the express design of journeying with caravans and following the 'Silk Route'. By now the name had taken on something of a legendary quality. How many, even today, dissatisfied with their lives in modern cities, still take refuge in this dream?

Even literature reflects this urge to 'get away from it all'. Marco Polo has never been so widely read as he is at present; as well as those who read him purely for pleasure, there even exists a learned

[1] From her book *Oasis interdites*.

society established for the sole purpose of studying his book of travels. Modern fiction has also drawn inspiration from the old silk route. An English novel entitled *The Silk Road* appeared between the wars decked in a silken jacket bearing the Chinese characters for 'silk' and 'road'. Together with a highly romantic plot, the book contains references to tea, porcelain and Chinese women with tiny feet—all in the Han period, several centuries ahead of their time! But the book is such agreeable reading that these errors scarcely mar the effect.

Nowadays the writers of historical novels document themselves much more fully. Donn Byrne's *Messer Marco Polo*, published in the United States in 1961, and Jean-Marie Guislain's *La Route de la Soie* (Brussels 1959), are careful fictionalized biographies of Marco Polo, though embellished with a love interest entirely lacking from the traveller's own writings. The romance of the caravans weaves its spell in Communist countries, too; Borodin's *Stars over Samarkand*, published in Russia, is a particularly poetic and evocative historical novel set in the time of Tamerlane.

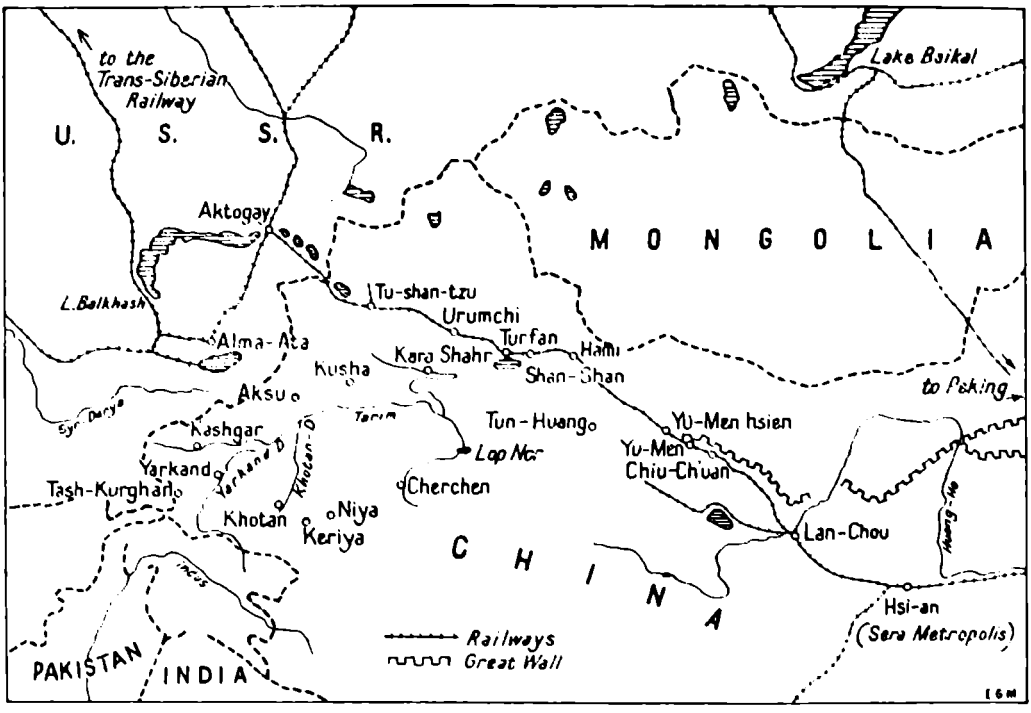
For the Chinese, however, silk has none of the poetry which it holds for us, and Central Asia was throughout their history a nightmarish place of exile. It seems that the Chinese long by nature to put down roots and settle; the family and the home are their two ideals. They seem not to have had these generations of wanderers and seekers after dreams. They seem to have a genuine hatred of the desert and the wide open spaces, which always represented exile, disgrace or military service, and nomadism, the way of life of their traditional enemies, the Huns and the Mongols. The Jade Gate, the little frontier town in Kan-su from which the colonial battalions set out, was no gateway to romance. 'When I have crossed your threshold, my tears will never cease,' runs the poem carved on the wall of the fortress of Chia-i-Kuan, a frontier-post which lies near the present day Yü-men-Kuan and has been identified with the Jade Gate. The French sisters tell of a custom, still being observed in 1925, which well illustrates Chinese feelings with regard to Central Asia: when leaving the Great Wall, the traveller would turn and throw a stone against the outer face of the wall, which in parts was quite worn away by centuries of such pelting. If the stone rebounded, it meant that the thrower would one day return safe and sound; if it fell straight downwards, the traveller went on his way heavy hearted. The desolation of the countryside and the fierce sandstorms merely added to the sadness of departure.

But those who wish to follow the traces of the medieval caravans and taste the empty solitude of Central Asia had better hurry. In a generation from now it will probably be too late, for Hsin-chiang is now changing at an amazing rate. Since the Sino-Soviet agreements which followed the setting up of Communist China, the land route has become of considerable importance. Ever since 1921 in fact, the year in which the Chinese Communist Party was created, the couriers of Communism and the representatives of the International have used this route. The most celebrated of these travellers was Borodin, who in fact had a meeting with Sun Yat Sen. It has become the main line of communication, whether overland or by air, for Communist leaders, as well as technicians, machinery and weapons of war from Russia. Everything which reaches China by sea now seems tainted with Western imperialism; anything coming by land seems more attractive, and China is now looking to the north with less apprehension than in centuries gone by. Before long the whole life of Central Asia will be radically changed by the railways laid across Hsin-chiang to join up with the Russian network at Aktogay. The Russian section of this line reaches the Chinese frontier at a place which has been given the symbolic name of 'Friendship'. For a large part of its course, this new railway line follows the old silk route.

The Russians laboured mightily to lay their track over salt-flats and dunes of sand in a country utterly without water. For weeks on end they battled against the elements around the famous Dzungarian Gates,[1] where the fearsome wind blowing across from China more than once meant that they had to harness up two locomotives before they could move the construction wagon, and the technicians had to stay cooped up for days on end. This railway is one of the great monuments of Socialism, and an appeal was made to all young people to help in its construction; youngsters of thirty-six nationalities took part in the work. Villages have sprung up like mushrooms all along the line, and the line itself has supplied them with building materials, motor-cars, pipes, drilling equipment and agricultural supplies. Soon there will be a pipe-line, too, for it is in Sin-Kiang and north-west China that Chinese (and Soviet) engineers have been prospecting for oil. At Yu-men-Kuan, the old Jade Gate, electric lights gleam by night from the tops of the derricks; and refineries are now at work in Lan-chou, the old bazaar of the caravans. The entire region is destined for industrial

[1] *Pravda*, April 29, 1961.

development. Gone are the days of caravans and pilgrims; gone, too, perhaps, before very long, the days of silk. To the new gods, statues of steel are being erected—statues in the form of derricks and locomotives. Nothing could be more indicative of the future than the phrase used by a *Pravda* reporter in an account of his visit to the new railway: 'Before long, there where once the caravans made their halt, our two countries will meet with a steel handshake.' Once, the



11. *The Sino-Russian Railway*

symbol of union was a small band of red silk; now the symbol of friendship is the 'steel handshake' of two railway lines.

But what of the future of silk? Will it retain its use in industry? Or will it disappear completely, except as a snobbish and faintly anachronistic article of ornamentation? One of the major influences on the future development of silk must be the irresistible growth of world population. The production of cocoons cannot possibly increase at a comparable rate, notwithstanding all the efforts of scientists and agronomists. Which means that as time goes by the amount of silk available will grow relatively less and less. It seems probable therefore that, assuming fashion does not abandon it

altogether, it will become once more a luxury, reserved for the few —that luxury, rooted in centuries filled with the blood of fighting-men and the sweat of slaves, which witnessed the final dissolution of so many of the great civilizations of the past.

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