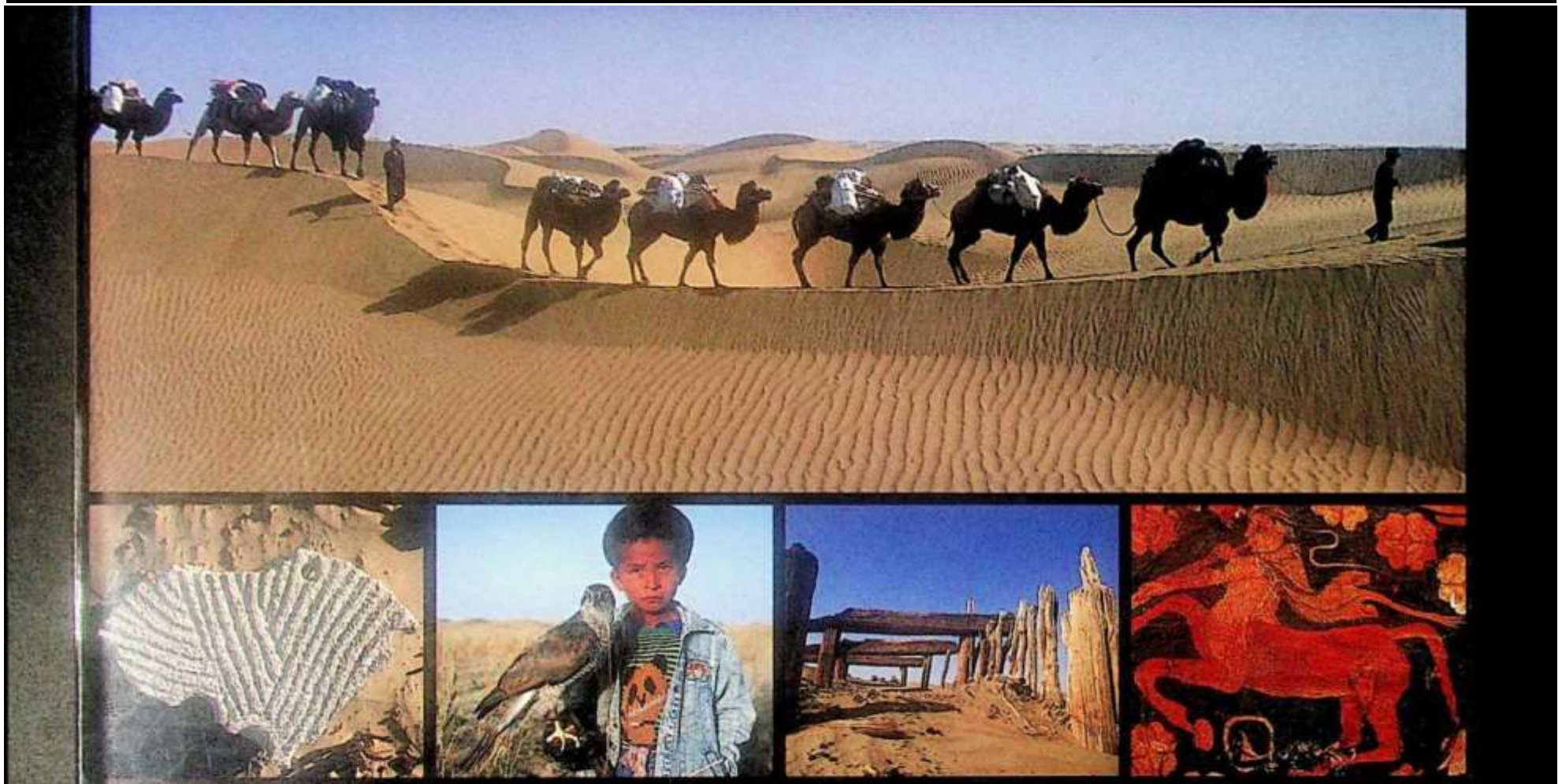
SOUTHERN SILK ROAD

In the Footsteps of Sir Aurel Stein and Sven Hedin



Christoph Baumer

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The Tarim Basin in Central Asia is. historically speaking, one of the most fascinating places in the world. Located in this huge basin is the Taklamakan Desert, crossed for thousands of years, to the rhythms of camel caravans, by traders of the ancient Silk Road. This area became a melting pot of various religious traditions and cultural influences. It became a meeting point of Indian. Chinese, Iranian and Mongolian peoples, to name but a few; it became a bridge between East and West long before modern globalization. In the footsteps of caravans, unfolds the enthralling story of the fabled commercial product, silk.

In this book the author, Dr. Christoph Baumer, presents all the most important ancient cities of the Taklamakan, namely Dandan Oilik, Endere, Karadong, Loulan, Mazar Tagh, Miran, Niya and Rawak. The author, after Sir Aurel Stein and a Chinese archaeologist, is the third person to have visited and explored all these historical places.

The book is generously illustrated with original photos made by the author, images that reveal the magic and mystery of a human heritage almost beyond mere verbal description. Here is a taste of what is most adventurous and surprising in archeology and history of art.

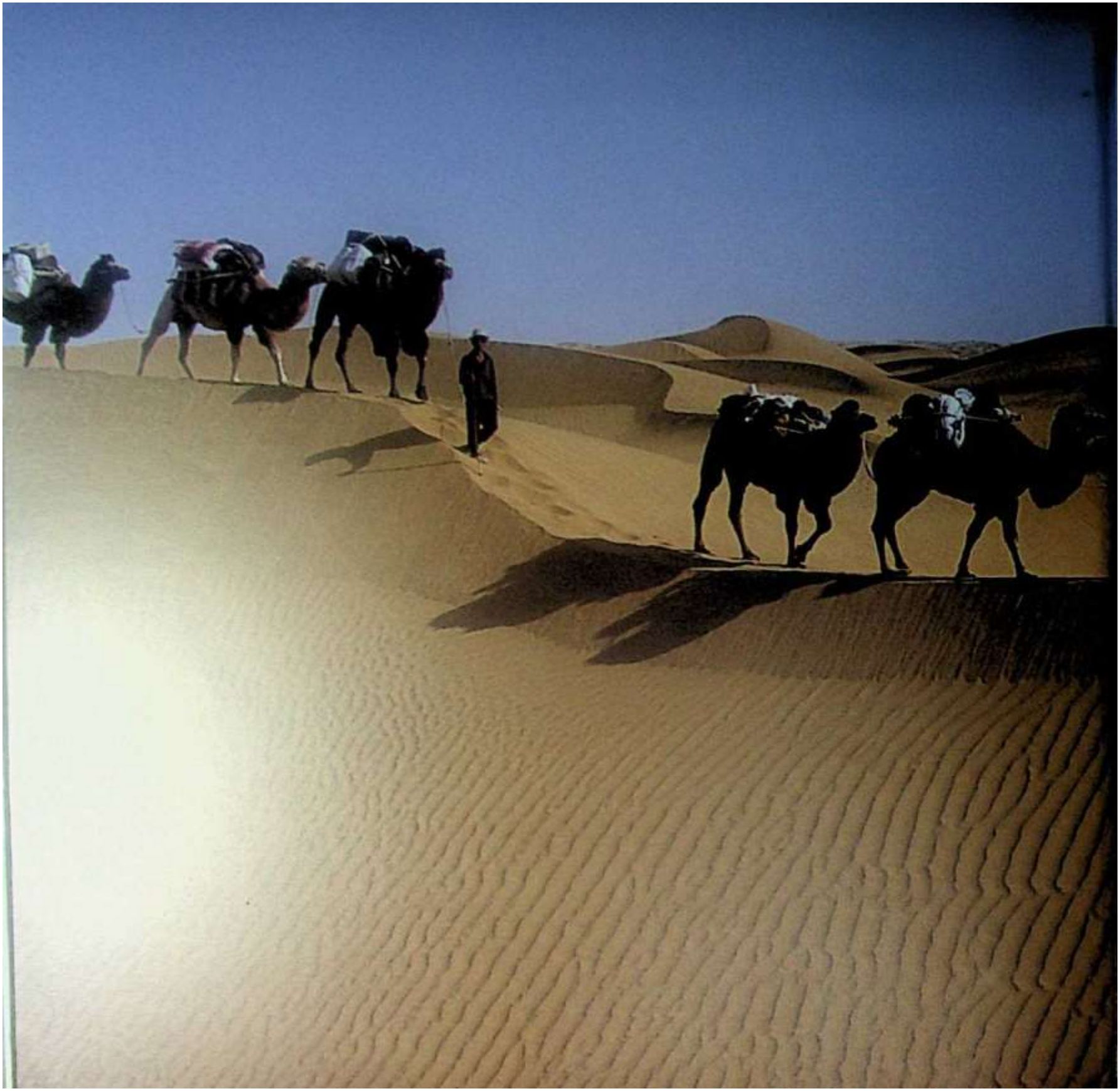
The knowledge gained by Sir Aurel Stein and Sven Hedin, both pioneers in the field, is recorded and examined. The author also writes about the newest most fascinating discoveries made in the Tarim Basin and elaborates on the stunning results of the Sino-French excavations made in Karadong. He tells the tale of knowledge gained through the most recent discoveries of mummies, knowledge that throws much light on the lives, struggles and migrations of the old Indo-European population in the Taklamakan.

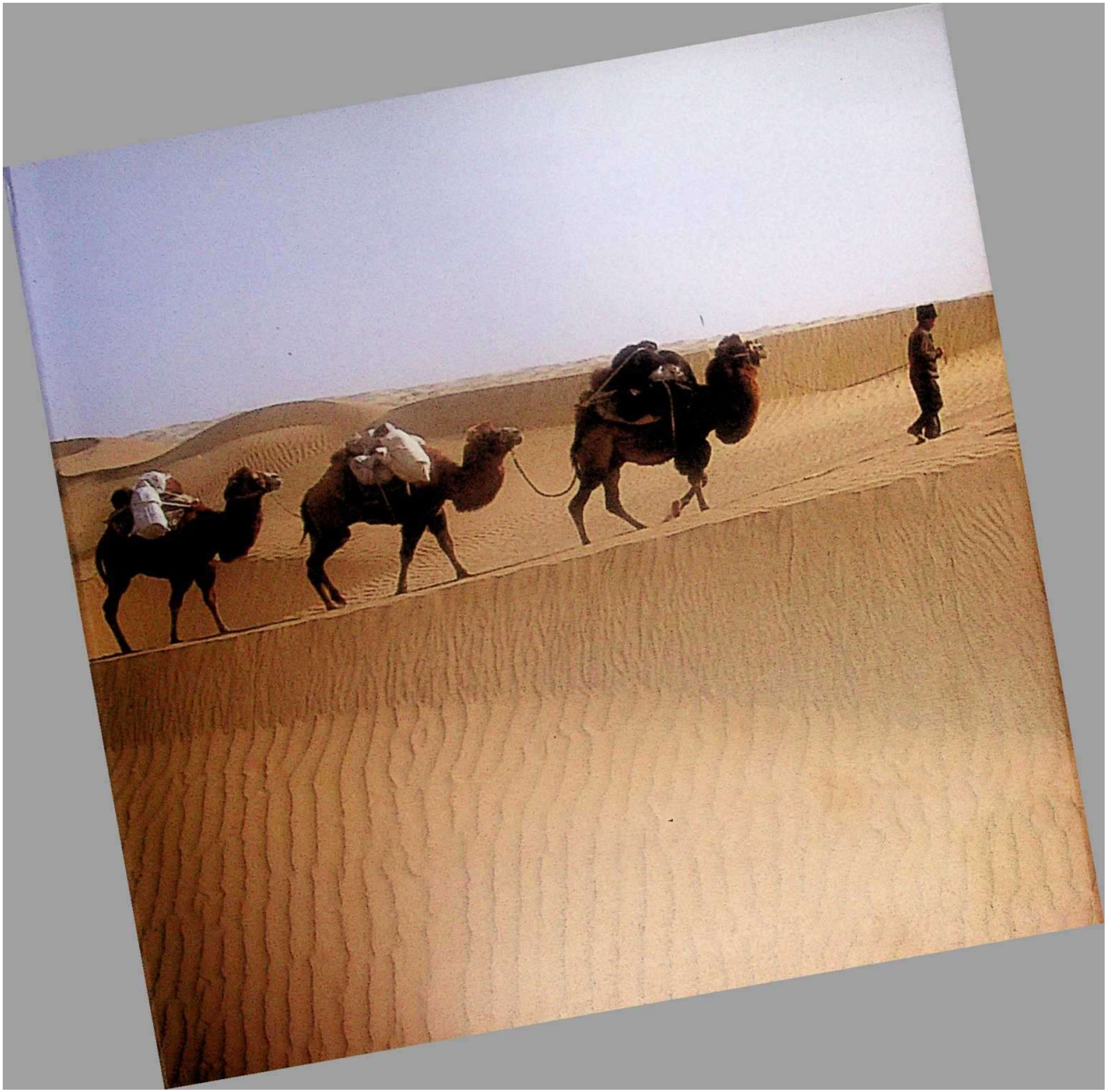
We accompany the author who is the first explorer in many decades to have visited and conducted excavations in Dandan Oilik and, most significant, to have mapped the area.

The tale of the ancient Silk Road that unfolds will engross and bewitch every person who wants to trace the footsteps of humanity across the ages. It is an inspiration to all who marvel at what man has contrived to his profit and advancement on the long trek through the millenia; an absorbing ballad of interaction of the world's great cultures and religions; a revealing tale of political strife and commercial hegemony.

The Author

Christoph Baumer, born in 1952, studied philosophy, psychology and history of art at the University of Zurich and holds a doctorate. He has travelled extensively in Central Asia, China and Tibet and has published books and articles on these areas. He is a Fellow of the Royal Asiatic Society of Great Britain and Ireland.





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Orchid Press
Bangkok 2003

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SOI THER\ SILK ROAD
IN TH€ FOOTS rtfs o:- Sis A; s:. S' ; \ wo So \ HEDIN

Translated from German and first published in English in an expanded and revised \ersion incorporating substantial material from the author's second expedition to the Southern Silk Road archaeological sites.

edition:

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Entdeckungen in der Wuste Takia-Makan C
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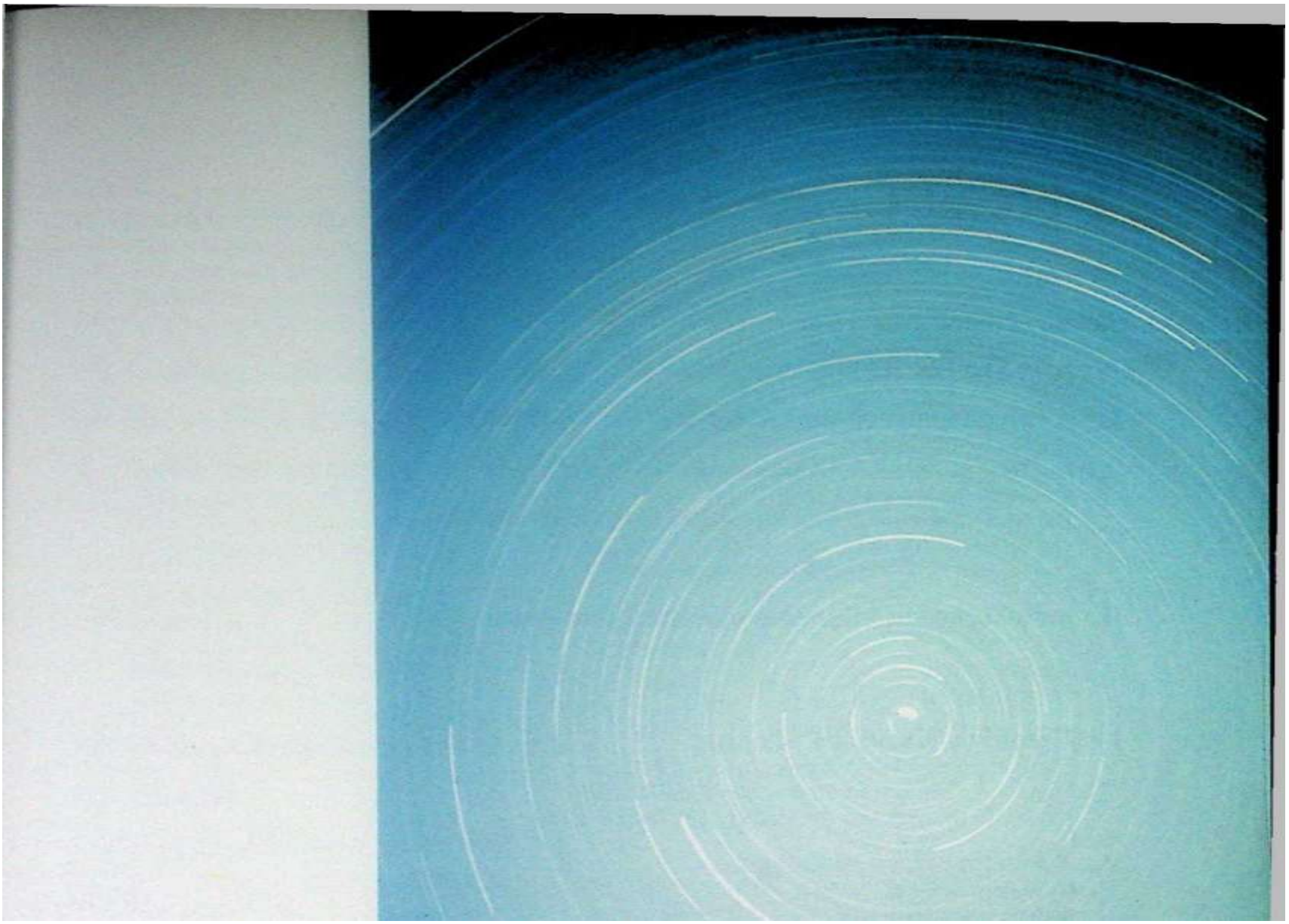

1. Star orbits over Niya III. There is complete silence in the Taklamakan, since no living being is able to survive here. Only the stars glittering at night seem to convey a distant sign of life.

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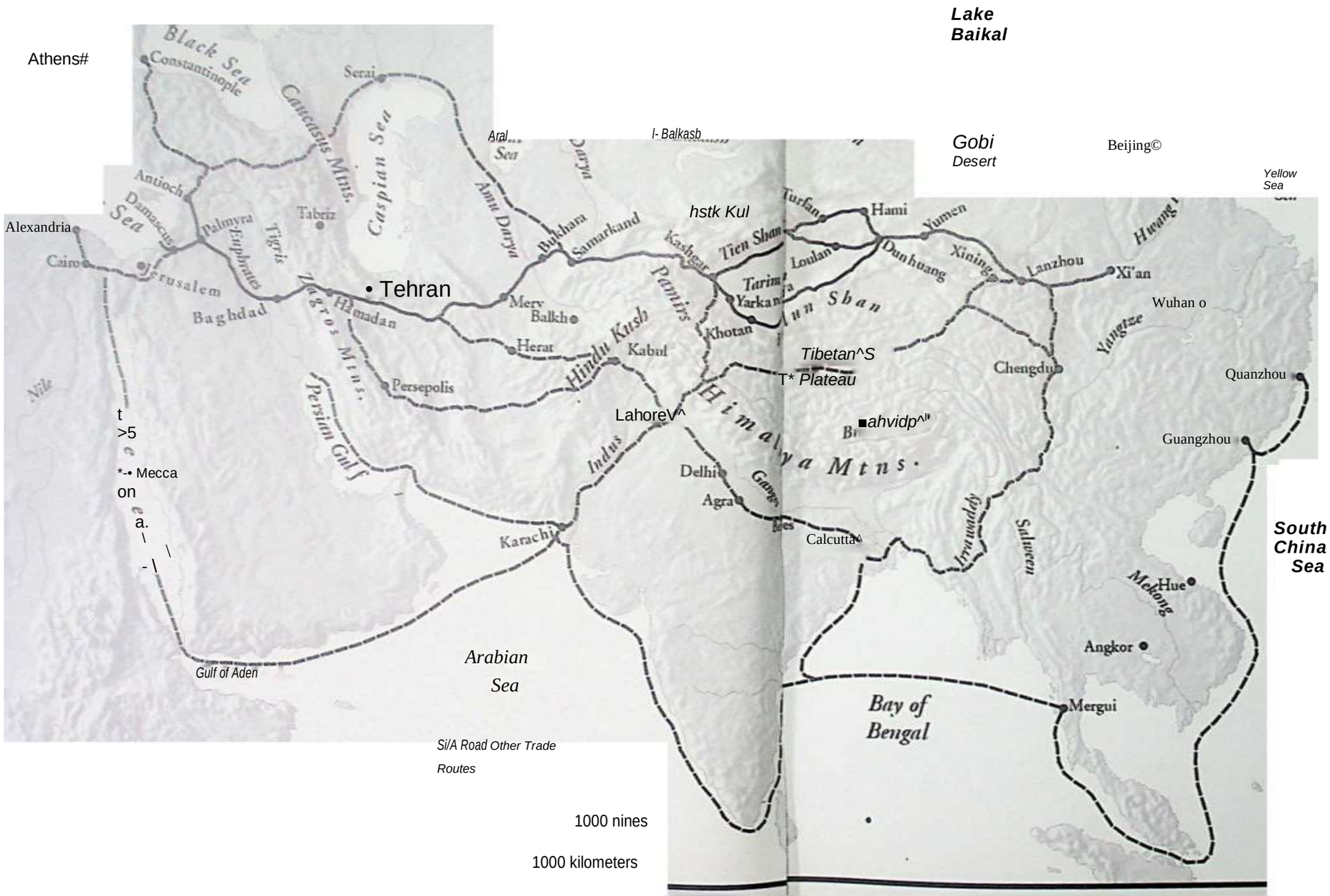
Table of Contents

The Main Trading Routes Between China and the Mediterranean

Rome *o*



Map I. While the bulk of the trade in times of peace was handled over one of the land routes, the sea routes were favoured during periods of political instability.

Foreword

A few \oa;- e.ftoi Ys : < expedition, Christoph •Cunro: undertook another Unimex through the a - Sasin and on dangerous and strenuous tracks in the inhospitable Takiamakan Desert, searched for Buddhist shrines and monasteries. Since sand dunes shift \ear by year, he was able to make new and remarkable discoveries in places where the wind had blown the sand away. He found, for example, foundation walls of shrines, Buddhist murals and a kharoshthi inscription on stone. We, his colleagues are eager to see in print his second book on the Southern Silk Road and we look forward to further results of his tireless research.

Being a foreigner, it is not easy to conduct scientific work in the People's Republic of China, but in the last few years several international institutions have been able, with the support of the UNESCO, to make progress in the archaeological Eldorado of Xinjiang. Due to similar climatic conditions, Xinjiang, Egypt and the coastal area of Peru shelter an incredible wealth of findings. They will continue to make sensational discoveries possible. But the fieldwork remains tough and therefore w'e thank Christoph Baumer for his courage and tenacity.

Gerd Gropp
Iran Museum and University of Hamburg 10
May 1999

Acknowledgements

This book would not have been possible without the help and encouragement of many friends and acquaintances. \ few of them I name below, but some have to remain anonymous, mainly because I do not know the names of many of the kind people I met in the oases and villages of Xinjiang.

I would like to thank the following persons:

\ll the Chinese and Uigluir people who helped me reach my goals and who were my companions during both my expeditions.

My parents, Odette and Werner Baumer, who encouraged me to fulfil my travel-dreams and to publish a book on my findings.

My European companions, whose help was instrumental in the success of both expeditions; namely, in 1994 Jean-Daniel Carrard from Yverdon, and in 1998 Jon Jerstad from Oslo, Urs Mockli from Saland and Ernst Riiegg from Winterthur.

Deniz Cole, University of London, who searched in various libraries for old pictures from Sir Aurel Stein. Maria-Antonia Fonseca-Msscher van Gaasbeek, Piano di Campo, who translated the German manuscript into English.

Dr Gercl Gropp, University of Hamburg and Dr Inge Honsch, Institut fur Landerkunde Leipzig, who both helped me to find the old film of Walter Bosshard. Prof. Oskar von Hinuber, Universitat Freiburg, who translated the inscription of an old bronze statue from Khotan.

David Murray, who so competently edited the entire book.

Prof. Richard Salomon, University of Washington, who translated and dated the Kharoshthi inscription discovered at Endere.

Prof. Oktor Skjaervo, Harvard University, who translated and dated the Khotanese inscription discovered in Dandan Oilik.

Prof. J.C. Wright, University of London, who identified the Kharoshthi inscription discovered at Endere.

Preface

The Fascinating Lop Nor Mystery

However, the enjoyment of finding again the harbour after the norm mode me feel even more the: ! hadn't returned complete. I was just a fragment of something u *hose better part had been left far behind: somebody w as absent from the jo\ of returning.*

F. Grenard, 16 December 1894

Oases that were flourishing barely two thousand \ ears ago. wealthy cities and blue lakes are nowadays ruins that are covered by sand, and river-beds have long since dried out in the midst of the quiet solitude of the desert. Thus can the history of the ancient Silk Road on the southern edge of the Taklamakan Desert be summed up. Where, in olden times, heavily laden camel caravans carrying precious silks had moved along well-worn tracks, and where the Chinese emperors' military posts protected the commercial routes from surprise attacks by wild nomads, for

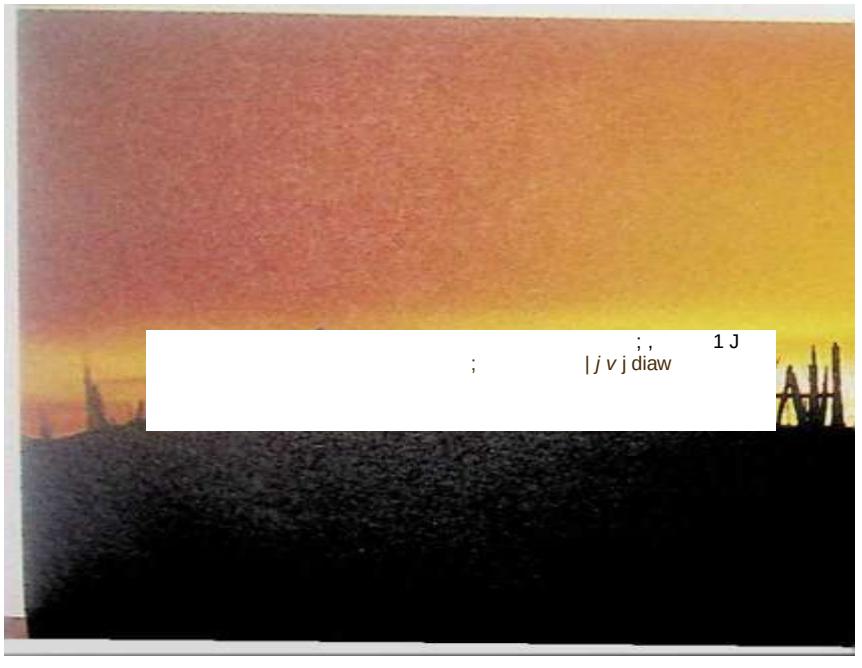
2. The Taklamakan desert is the world's second largest sand desert. Only at its edge do a few shrubs manage to grow.

XU

centuries now all life vis ceased, rhe trade routes have blow ' away a ĸ the only 'inhabitants of the ruined cities are mummies anu >koiotons sometimes released from w .vaclering dimes aae- a sandstorm. Even at the time w hen Wave Polo ravelled east along the Southern Silk Roar to the court of Kublai Khan, important oases h as \ i\a karadongand Loulan had already been deserted for almost a thousand years.

yet the Taklamakan Desert, thanks to its seorehing neat and extreme dryness, has preserv ed many records of the ancient cultures right into the twentieth century. Even today, the pillars of poplar wood that the houses were built of project several metres from the sandy ground; and clay figures, silk vestments, documents on w ood or paper and splendidly colourful frescoes have been protected by the sand for centuries. Only since the close of the 19th centuix have European explorers begun to rescue the old cities from oblivion, and to unveil the unique cultural sphere on the Silk Road in the east of Central Asia. This sphere proves itself to be a synthesis of the cultures that were dominant in those times, namely those of the Graeco-Roman Mediterranean, Persia, India, Tibet and China.

Evening sun over Niya IV, one of Niya's largest ruins. All objects discovered during my expedition were reburied in the sand after having been photographed, and all excavated ruins were totally recovered with sand as well.



I loro, not onlv more bants of various nations mol, but also groat religions look root: Buddhism, I linduism, Zoroastrianism. Maniehaoism and Noslorianism. Re-searchers such as Merlin. Stein, Grunwedol, von Le Ooq ami Pelliol are to he thanked for rediscovering for us these forgotten Central Asian cultures.

M\ expeditions in 199-1 and 1998 aimed at inquiring into the ancient ruined cities along iho Southern Silk Road. They have a special pre-history, going hack more than a quarter of a century to when I, as a fifteen-year-old, w as excited by the Swedish explorer Sven I ledin's descriptions in his book *The Wandering Lake.* The geological phenomenon of Lop Nor Lake, which changed its position twice during the course of about sixteen centuries, in itself seemed to me a fascinating prodigy. Hedin's report was raised to the heights of the fantastic when he was so bold as to predict that this lake, which in the year 1896 he had found near the ancient garrison city of Loulan and about one hundred kilometres south of its original site, would shortly "wander hack" to its ancient bed.

Indeed, twenty-five years later Hedin's prediction came true.

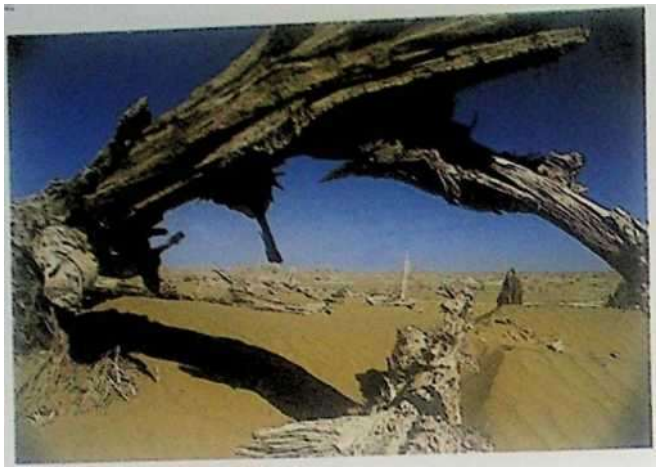
1 A Bridge between the Orient and the Occident

Among the world's remote regions, the Taklamakan Desert is one of the most mysterious and fascinating. This is not only because of its inaccessibility and its extent, but also because two thousand years ago it was home to a unique civilization, which blended cultural elements from the East and the West to form a truly multicultural society. It was on the Silk Road, which linked ancient China to Europe, that goods, ideas, religious beliefs and art travelled and met in the area of the once-hospitable Taklamakan. Then, for more than a millennium, the Taklamakan and its surroundings fell into oblivion and the advancing sand swallowed all visible signs of this Central Asian culture. Only on its edges did a sparse population survive, in a few quiet oases. However, since the end of the 19th century, explorers have started to discover testimonials of this ancient culture, enabling us to reconstruct its history and to sense its importance. Recent finds of rich oil and gas fields in the heart of the desert have catapulted the Taklamakan into a high-tech environment eager to exploit its natural resources.

Geography, Climate and People of the Tarim Basin

The Taklamakan is located in the Xinjiang Uighur Autonomous Region, which occupies more than 1.6 million sq km - one sixth of China's territory - and which is China's most western province. In the north it borders on Mongolia, Kazakhstan, Kirghizia and Tajikistan, in the west on Afghanistan and Pakistan and in the south on India and Tibet. Xinjiang is divided into two distinct regions by the Tian Shan mountain range, the "Celestial Mountain": in the north of the Tian Shan we find the grassland and marshes of the Junggar Basin, in the south the Tarim Basin.

In a west-to-east direction, the Tarim Basin extends from Kashgar to Lop Nor Lake, and on a north-south axis from Kucha to Khotan. With its surface area of more than 400,000 sq km, it is almost double the size of Great Britain. Its climate is decisively defined by the adjoining mountain ranges. In the west the Pamir and the Hindukush mountains rise up, keeping watch over the access to the Indian subcontinent; in the south the Kunlun mountain range with its length of barely 1,000 km forms the demarcation line with the Tibetan tableland and holds back the monsoons. In the east the region borders on the Danghe Nanshan and Bei Shan, and in the north the basin finally is confined by the Tian Shan mountain range. Thus, the Tarim Basin is closed in on practically all sides by chains of mountains from 4,000 to 7,000 m high and is completely screened off from the winds that carry rain from the ocean. The consequence of this is an extreme continental desert-like climate with marked aridity, virtually no precipitation, and great variations in temperatures, which in July may reach 50 degrees Celsius (in the virtually non-existent shade), and drop to minus 25 degrees on a cold winter's night. Since in spring



4. The drv desert climate lias preserv'd to this da\ trees that fell almost 2.000 years ago. as here in \'i\a V.

very strong winds blow, whipping up sandstorms that last tor several days, the onl\ time-frame for desert expeditions is in the period between early Octobei and mid-December.

The River Tarim, with its length of 2,220 km, separates the Taklamakan from the Tian Shan. From its source within the Karakorum it flows first as the Yarkand Darya, taking a wide turn along the northwestern half of the Kunlun ("darya" means river in the Uigluir language). After the Yarkand Oasis this river flows in a north-easterly direction, and receives the waters of the Kashgar Darya and Aksu Darya. From this second river confluence onwards it is called Tarim, and runs eastwards until it trickles away in the Lop Nor Desert. Thousands of years ago when the climate was more humid, the Tarim formed the catchment area of all rivers from northern Kunlun. The altitude of the Tarim Basin gradually drops by 500 m over a distance of 1,400 km; from 1,305 m at its western end in Kashgar, to a level below 800 m at the east of Lake Lop Nor. The dese-t itself is quite flat, a billowing sea of soft yellow sand-dunes 5 to 30 m high. However, in some central areas, for example in the west of the Kerya River, the dunes can rise to more than 200 m high - a lough challenge even for a camel caravan.

Central Asia, and especially the Tarim Basin, enjoyed a less arid and more life-promoting climate in the past. Of the seventeen river courses springing from the Kunlun and flowing northwards to disappear in the Taklamakan Desert thirteen boast an ancient sanctuary at iheir northern $_{on}$d or show traces of a settlement. Also, long-sinco dehydrated tamarisk bushes and dry poplar trunks point to the former presence ol water.

Presenl-dax Tibetan and Central Asian areas wore immersed in the Tethvs Sea right into the (balk age about a hundred million years ago. I he Indian subcontinent was not connected to the Asian mainland and the Indian continental plateau joined up with the Eurasian plateau, so that the pressure of the collision thrust the Himalayas up. This tectonic development goes on even today, for each year the Himalayas " grow" by about five centimetres.

Recent finds of petrified sea animals such as ammonites in Tibet and in the Tarim Basin give proof of the former presence of the sea. During the course of Himalayan development, the gigantic Tethys Sea in the area of today's Taklamakan Desert was first reduced to being land-locked and then gradually shrank to the size of the Lop Nor Lake. Even today, shells cover the ground in parts of the Lop Desert. Thus, the second-largest shifting sand desert in the world was created, covering 338,000 sq km and being only second in size to the Arabian Rub al Khali Desert. The Taklamakan's hostility to life also is expressed in its contemporary name that can be translated as follows: "If you go there, you will not return". In the ancient Uighur language, however, Taklamakan means "vineyard", calling to mind the region's former fertility. Similarly to the point was the name initially coming from the times of the Han Dynasty, "Liu Sha", meaning, "shifting sands". Today, the Taklamakan is a dead sea of sand, surrounded by a green belt of fertile oases on all its sides but in the east.

The more recent history of the Tarim Basin illustrates the connection between the long-range climatic changes and the resultant adaptations of social forms. At the beginning of the second millennium BC, Central Asia and especially the Tarim Basin enjoyed a relatively temperate climate that promoted the growth of settled agriculture. The settlements discovered only recently in Niya North and Yuan Sha, and dating from the Bronze (2000 to 900 BC) and Iron (900 to 130 BC) Ages, show that in those times sedentary agriculture using irrigation techniques dominated in the Tarim Basin.

5. The Kenya Darya, formerly the mainspring of the Karadong oasis, today seeps away 50 km south of the former settlement.

Bul when, about 500 BC, a drier climatic regime in Central Asia and especially in the Tarim Basin began to set in, formerly well-watered fertile zones turned arid, which resulted in a semi-nomadic pastoral economy. While agrarian production dwindled, cattle breeding increased. But the scarcity of available pasture compelled the cattle breeders to lead a mobile, semi-nomadic life, changing pastures in turns but spending the cold winters within the neighbourhood of a settlement. This development was accelerated by the spread of the use of the horse and the domestication of the Bactrian two-humped camel, both introduced from the Central Asiatic steppes.

At the time of the Chinese Han Dynasty (206 BC to AD 220), the climate in the Tarim Basin once again became more temperate, thus encouraging the formation of larger settlements and even cities. Until the end of the 3rd century AD, several oases within the desert area remained quite fertile. But from the 4th century onwards, a number of factors apparently began to influence living conditions in Central Asia in general and along the Southern Silk Road in particular.

First, a general retreat of the glaciers on the northern side of the Kunlun resulted in a reduction in the quantity of early summer snow-melt. This worsening of climatic conditions was not limited to the Tarim Basin alone, but concerned all of China, which was plagued by periods of severe drought between about AD 280 and AD 320. The annals of the Western Jin (AD 265-316) report that, in the year 309, the Yellow River and the Yangtsekiang (Changjiang) practically ran dry and could be crossed on foot.[1]

Secoru crt ased use of watei for agricultural purposes in the ;:ptv \e au\> bom the time of the Eastern Han P\nas:\ . \D led to a decrease in the quantitv of water available to the northern oases and a subsequent ;edi\ t on in the area of arable land. i bird it must he assumed that the transition from a settled agrarian econorm to a pastoral one in the last millennium BC caused exceptional deforestation, clearing the way for the sand dunes. Finally, the political crises arising after the breakdow n of the Han and later the Tang administrations impeded the maintenance and repair of the irrigation canals, w hich accelerated the loss of arable soil.

Another consequence of this desperate economic situation was the fact that damage done b\ the \ early sandstorms was no longer repaired. This aspect is reflected in a legend from the times after the first abandonment of the Southern Silk Road. The famous Buddhist pilgrim Xuan Zang mentioned it in the 7th century AD and it was alive among the local population even in Sven Hedin's time. The story told is somewhat similar to that of Sodom and Gomorrah, whose inhabitants were punished for their vices by the destruction of both cities. According to Sir Aurel Stein, this Chinese legend tells of a Buddhist saint from the wealthy city oasis of Ho-lao-lo-chia, situated about 150 km east of Khotan, who was treated with disdain by its citizens because he had pilloried their sinfulness. As a consequence he was refused drinking water. Thereupon, he cursed the city and its arrogant inhabitants, and while the population mocked him, "sand began to rain from the skies and continued for seven days and nights until the whole of the buildings were buried.' This legend show's that even at the times of Xuan Zang, the knowledge of ancient ghost cities buried under the sand of the Taklamakan Desert was alive. Right into the twentieth century these traditions spurred on indigenous treasure-hunters to try their luck in the Taklamakan Desert.

The Tarim Basin's present population consists mainly of Uighurs and Han Chinese. The Muslim Uighurs are of Turko-Mongoloid stock, having immigrated into Xinjiang in the 9th century AD. With their *h.* ' million people, they are the largest of the thirteen ethnic minorities living in Xinjiang and account for 45 per cent of the total population. Due to a recent rapid immigration of I Ian Chinese into the major urban areas. the Uighurs have maintained their majority only in the rural areas around the Taklamakan. While the econorm of the large northern oases is quite prosperous because their sheer si/e allows for mechanized agriculture, the much smaller oases on the southern edge of the desert have remained rather poor. With the exception of the cotton industry, the economy is mainly based on small-scale agriculture, animal husbandry and a modest handicraft industry. Until 1996, the southern oases were only linked to each other by a rough motor-track, but since then the building of a tarmac road has started on the route of the ancient Southern Silk Road.

Even today, two major green corridors of poplars, tamarisks and shrubs extend northwards into the desert from the south. Over a distance of more than 150 km they follow the courses of the Khotan and the Kerya rivers. Here we find small oases where the tiny villages that consist of huts built out of poplar wood and dried mud must look the same as they did two thousand years ago. People live here in almost complete isolation and self-sufficiency. Some of the older inhabitants have never travelled to a neigbouring town such as Yutian or Khotan. A few of those remote oases, even today - at the turn to the third millennium AD - can only be reached on foot or with camels.

All oases in the area of the Southern Silk Road are threatened constantly by the advance of the desert. Since the winds mostly blow from the north-west, the sand-dunes tend to progress southwards up to dozens of metres per year. Scientists estimate that the Taklamakan Desert has shifted southward by almost one hundred kilometres since 500 BC. For this reason, the eastern part of the modern southern road between Khotan and Miran is some forty to seventy kilometres south of the ancient Silk Road. Therefore, the southern oases try to protect themselves with belts of poplars and tamarisks - green Great Walls - against the threatening Yellow Dragon. Beyond these green walls the realm of death and silence starts abruptly. While a few' lizards, snakes or camel ticks may be encountered three to five kilometres inside the desert proper, soon after no further sign of life is met.

Not even dung beetles or flics. For example, one may leave an open melon on the ground for hours without any ant or fly reac hing it, which would be impossible at any place in the Sahara. As an additional result of the continuous movement of the dunes, most of the ancient river beds are covered by tonnes of sand. It is only occasionally on a march through the desert that an explorer will hit upon the traces of a dried-out river course.

Yet, the possibility of life is not far away. The ground water is usually less than ten metres below the surface, which makes it possible to dig successfully for water - albeit quite brackish - even in the heart of the desert. Occasional tamarisks can therefore survive in depressions between two sand-dunes, thanks to their almost endless long roots. But water is not the only resource under the ground of the Taklamakan, for it is enormously rich in oil and gas. Oil was discovered in the northern edge of the Tarim Basin in 1958 and the "black gold" was found in the centre of the desert in 1987 - an event that will dramatically change the local way of life over the next few decades.

THE THREE SILK ROADS OF THE TARIM BASIN

The term "Silk Road" was coined in 1877 by the German geographer Ferdinand von Richthofen. It designates those regions through which trade caravans moved, from the middle of the 1st millennium BC to the end of the great Chinese Tang Dynasty at the onset of the 10th century AD. From east to west they carried goods such as silk, iron and steel wares, bronze objects, lacquered work and hides; and in the opposite direction, glass, gold and silver objects, incense, amber, minerals, colour pigments, ivory and black slaves. Of course, weapons such as the crossbow with its multiple loading device - a Chinese invention of the 3rd century BC - and various iron tools, were subject to strict Chinese export control, in order to prevent the nomads from gathering sufficient strength to threaten China.

Other goods that were exchanged along this traffic artery were plants such as alfalfa (lucerne), the grape vine and the fig tree from the West to China, with fruits such as apricots, peaches and pears finding their way to the West. The oldest evidence of silk exports from China to the West are the silk finds in an Egyptian tomb in Thebes of the 10th century BC and those in the princely tomb of Heuneburg (south-western Germany) of the 6th century BC. Discoveries made in Pazyryk in the Altai mountains, and in Greece from the 5th or 4th century BC also indicate early silk exports.

At that time, it was not China that controlled the commerce in silk with the West, but the nomadic Scythians who acted as intermediate traders. The Persians and Scythians roamed the steppes between Eastern Europe and Western China, and because of their raids were a permanent danger to the settled population. Moreover, China not only had to try and buy peace by means of silk, but was also dependent on the nomads as horse and camel sellers who usually only accepted silk bales or weapons as payment. It was only the Han Emperor Wu Di (141-87 BC) who managed to push the nomads back to the western frontier. Although China left the middlemen's business to the Persians and Scythians, the Middle Kingdom nevertheless was successful in channelling the flow of goods through the Tarim Basin, which was politically and militarily under its overlordship.

The economic fate of the Silk Road was closely linked to the Chinese dynasties. A strong dynasty favoured an economic impetus; times of weak rule led to disturbances and political fragmentation. Thus, the Silk Road experienced a first golden age under the Han Dynasty (206 BC to AD 220), a second blossoming under the Tang (AD 618-907), and a third under Mongol dominion (1220-1368).

The "Silk Road", however, had been preceded by a "Jade Road" which allowed jade from Khotan to be sent to Mesopotamia as well as to Central China from the middle of the 3rd millennium BC onwards. Since jade could not be damaged by time or by the weather, it was a symbol of immortality in China and accordingly was much sought after. The region between Khotan and Yarkand occupied a monopolistic position in the China jade trade, probably one more incentive for Emperor Wu Di to subjugate this area.

Silk Routes in the Tarim Basin

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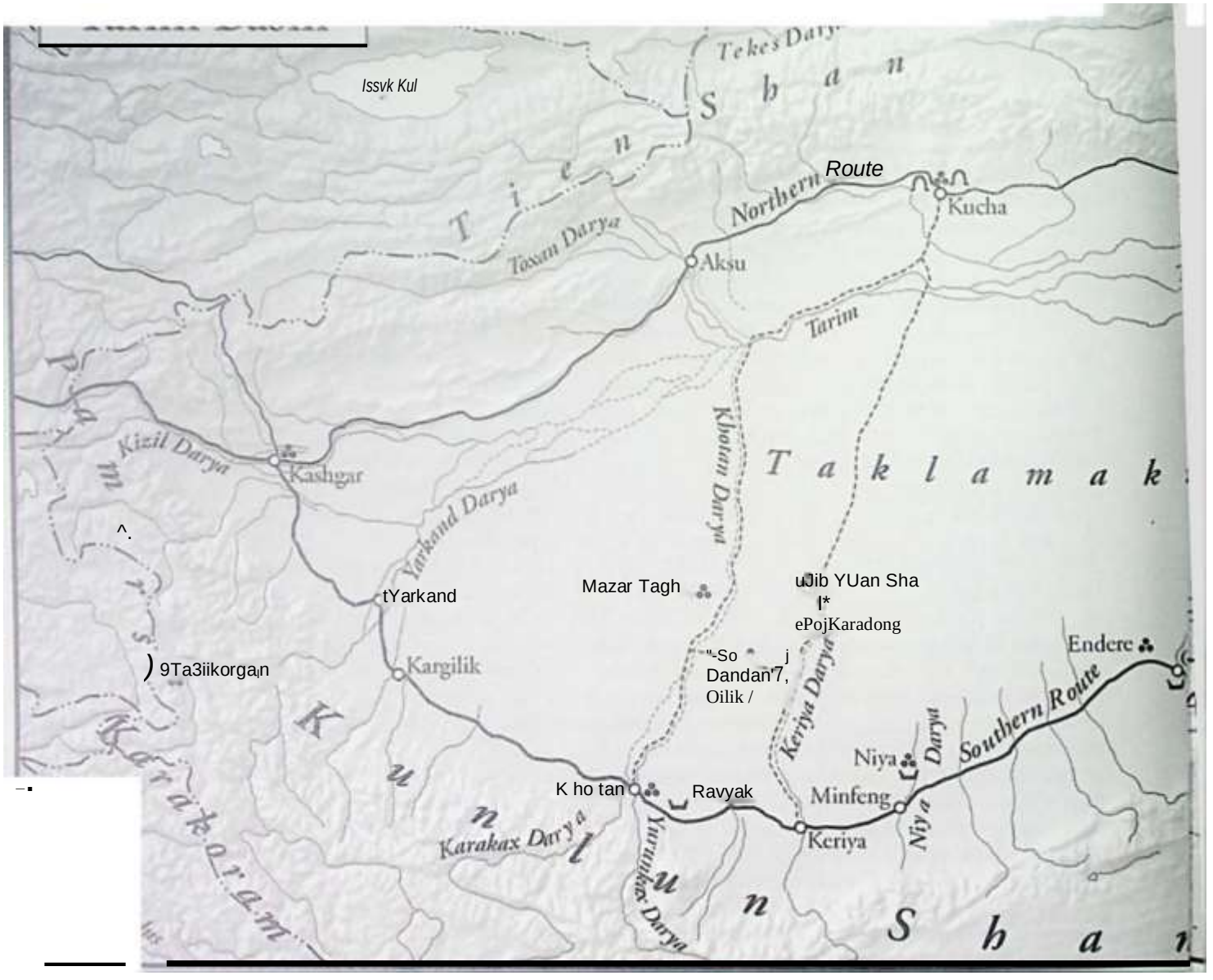
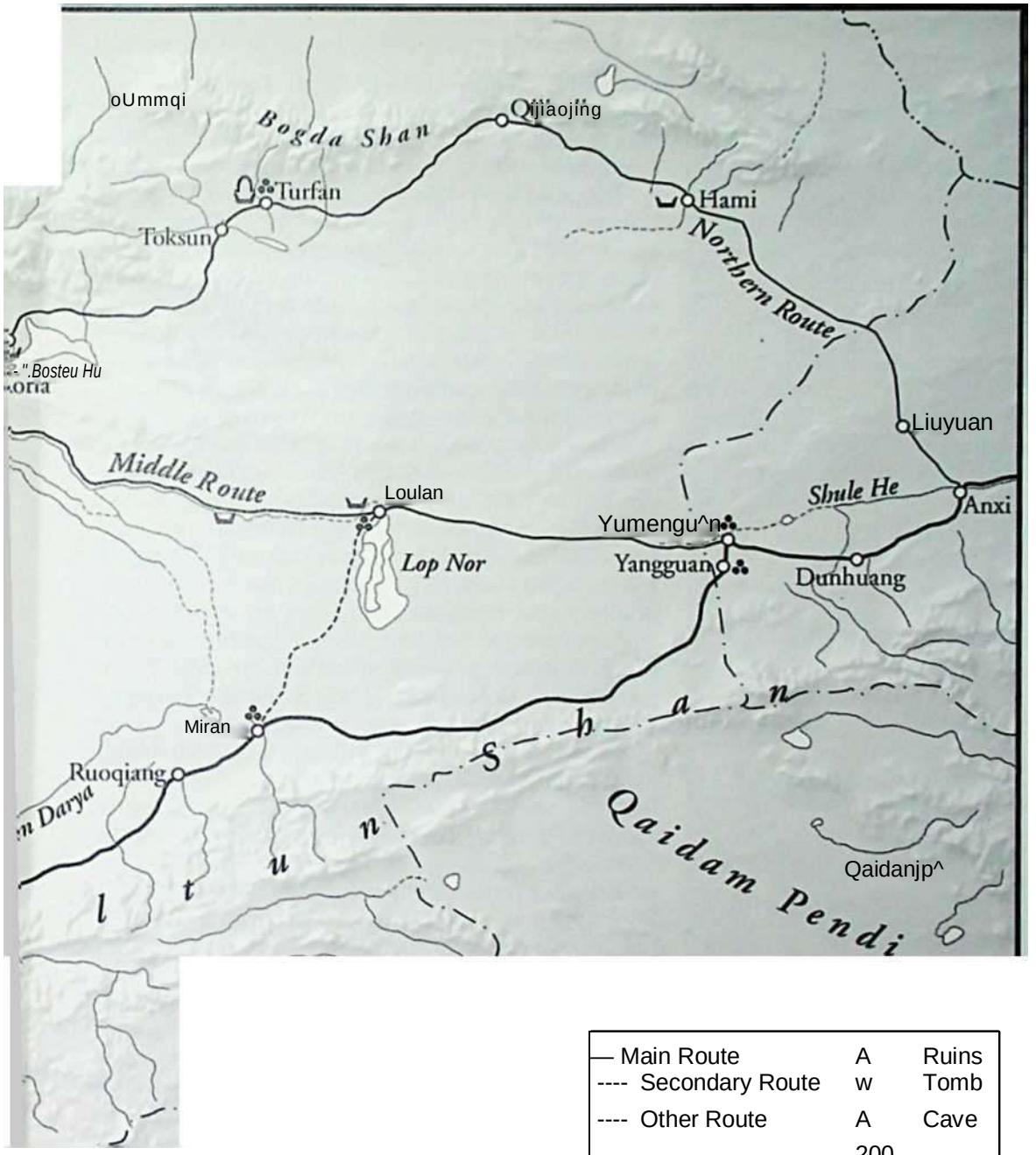


« II. I ii[1] Road branched oft in three directions at Anxi, near Dunhuang: the Northern Route went through Hami and Turfan, and then r ;•, \:. .1, (,r luithcr north, along Lake Issyk-Kul; the Middle Route went to Loulan and Aksu; the Southern Route passed through Miran, . i HHI i-Jxit.in. In tin- west, these separate road stretches met again in Kashgar, from where they ran further south or west.



— Main Route	A	Ruins
---- Secondary Route	w	Tomb
---- Other Route	A	Cave
0	200 kilometers	

Yet not onlv goods wore transport^ on this fode Road- tochnolosioj were toiusod as well. The most S tod from Xinjiang suggests that, he arts oM- loxinc bron.-,o and casiin$_S$ iron, as well a the useot light war chariots and cavalry, had been introduc ed to Ct.... al \>ia and the Tarim Basin respectively, from Mesopotamia and the steppes adjoining it to the north. The\ then nude their way to China, with a dola\ oi 200 to 000 years in each case.

The main route of the Siik Road led trom l.uovang and Chang'an (modern Xian) which numbered almost two million inhabitants according to an AD "42 census, westwards to Lanzhou and then through the Hexi corridor in Gansu province to Dunhuang. This place, world-famous today for the ancient paintings of the Mogao Caves, was the most western city within the Chinese kingdom proper during the first millennium AD. It offered tradesmen travelling west the last chance to provide themselves with water and victuals before crossing the dangerous desert. It is quite understandable that in this frontier town, which, for the itinerant traders was either the point of departure into uncertainty or the point of return to the security of their own country, several Buddhist monasteries and sanctuaries should have emerged. Here, the traders could either ask the Buddhas' and Bodhisattvas' protection for the oncoming journey or render thanks to them for their successful return, whilst their offerings would make possible the construction and maintenance of monasteries and their congregations.

West of Dunhuang, trade would often take place in stages, to allow the exchange of beasts of burden, guides familiar with the region, and interpreters. The Buddhist monasteries along the Silk Road also acted as caravanserais, warehouses and banks, which afforded them a regular income. Thus, a contract written in Chinese and dating from AD 782 informs us that a monk of the Hu Guo monastery in Dandan Oilik had lent a soldier one thousand coins at the extortionate interest of 10 per cent per month. In order to receive the loan, by way of surety, the soldier not only had to deposit all his movables including his cattle, but his mother and his sister had to stand guarantee as well.[3]

The annals of the Wei Dynasty (AD 220-265) re-

UMI that immediately east of Dunhuang and near (ho so-called "lade Gateway" the caravans could choose one of three possible courses: the southern, middle, or northern routes.

The SOUTI U RN Sll K ROAD was used by Marco Polo and led from Dunhuang to Milan, Kbotan and Yarkand, where a bv-road branched off southwards towards Leh and Kashmir. The main route, however, continued from Yarkand to Sluile (modern Kashgar). \t Shule the Silk Road bifurcated, with its southern arm leading to Gilgil where it branched off once more. From there, one road followed the Indus river southwards to the Indian Ocean, and a second ran west-wards through Kabul, Herat, Meshed and Hamadan and finally reached the Mediterranean Sea near Antiochia or Tyrus. It seems that the Chinese tradesmen on the way to Gilgit only travelled as far as the so-called "Tower of Stone" (now Tashkurgan) situated one hundred kilometres north of the present Pakistani border on the Kunjerab Pass. Here, the goods would be transferred to Sogdian, Bactrian or Persian caravans. From Kashgar another road branched off through the Fergana Valley to Samarkand and thence along the Amu Darya (the ancient Oxus) to Astrakhan.

South of the Southern Silk Road proper were more roads. One of them was the so-called Qinghai Road that led from Lanzhou to Xining (the present capital of Qinghai Province), from whence it crossed the desert and reached the classic Southern Silk Road near Miran. Another was an extremely arduous trade route that led from Xining in a south-westerly direction to Tibet, finally to reach Nepal and India. This Tibetan Route was opened in the 5th century AD, even before Songtsen Gampo (609-650) had politically unified the Snowlands.

Despite the tough climatic conditions, the Southern Silk Road was very popular with traders right up to the middle of the first millennium, for the Taklamakan Desert sheltered them from the rapacious nomads who mounted raids into the Tian Shan mountains. Towards the end of the 14th century, after the Ming Dynasty had consciously shut itself off from the outside world, the Southern Silk Road fell into oblivion and was only made use of again from the mid-19th century.

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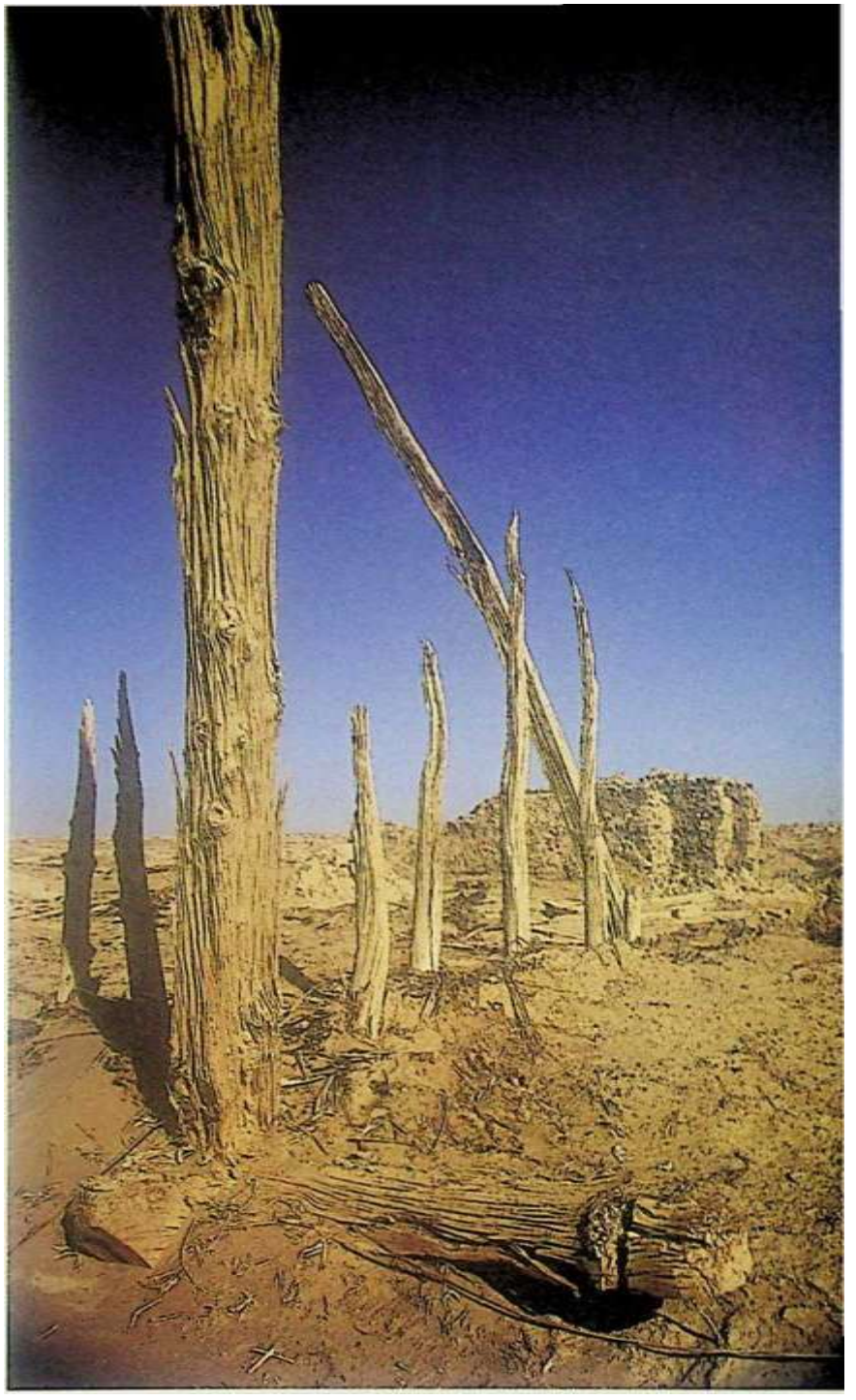
I roni about I Y IV to \P 5 JO the MIDDLE SILK RO -\P was regarckv! as t:v ;'\MO:rad caravan route. It crossed the dreackv l op lYsort iiom Dunhunng to Loulan then ieo to U\ia\ s Korin. and from thence west to Kucha and \x>n ami once again to Kashgar. This oiite had the ad\ antage o: -taking it possible to use a barge om oi an on the Kum Darya (also called Kuruk Parva' and then on the Konchc Darva to Korla. The meaning of these two river names refers to the conditions in the 19th and early 20th centuries, for Kuruk Darya means ' Dry River" and Kum Darya "Sand River". According to Hedin's explorations, during the first centuries of our era the Tarim also flowed into the Kuruk Dary a. so that perhaps in those day s it was possible to transport wares on water from Lo.ulan to Yarkand or Kashgar. It is not know n w hether this waterway was actually used in ancient times or whether the overland route was preferred. Another land route branched off near Loulan to Miran, where it joined the southern route. This section from Dunhuang to Loulan and Miran was rediscovered by Sir Aurel Stein in 1914. It was the shortest connection with Shule. Moreover, since the Han Dynasty it was protected by watch-towers from which could be transmitted smoke signals during the day and fire signals during the night. At the same time, however, it was very trying for men and animals, for a 190 km wide, waterless wasteland across the Lop Desert had to be traversed on a hard sail crust.[5]

It was probably no better then than now, a fact reported by Hedin as well as by Stein; namely, that the sensitive soles of the camels' hoofs would be injured by Ihe razor-sharp edges of the ground surface, until blood appeared. Then would come the painful opera- lion of "re-soling" the camels to make them fit to go on. Pieces of leather literally would be stitched over the camels' wounded heels!

The middle route could be used during winter only, not merely because the heat was less oppressive, but most of all because it was easier to take along water reserves in the form of ice blocks. This stretch offered no springs, and water was so scarce en route that it would never have been enough for an entire caravan. Hedin as well as Stein relied on ice as a water supply, even in the 20th century. Since the temperatures in



6. Loulan, dwelling L III and headquarters of the city's administration. Sven Hedin discovered Loulan in 1900. The following year the Swedish explorer cleared up the mystery of the long-forgotten city when he found hundreds of administrative documents in a garbage heap. With the help of these documents the history of the city could be reconstructed.

wintei always drop below freezing point, it is easy for the local people to sea e a a go >. pplv of ice. In late autumn. the\ til! undoigrou v watoi tanks that are sheltered In a ;ee o n the see ching sun. then. in winte ‘he\ cut and sto;e large blocks of ice in under . . \- storerooms which are covered w ith a thick roof.

S vo the sand acts as an effective insulator, U e stored two metres below the surface can last through the whole summer. As the author has observed in mam small oases, this method is still used today . Obviously camel caravans can rely on a supply of ice in the w inter months only, as in summer the blocks would melt w ithin a couple of days.

At the same time that the Lop Nor Lake w andered off" towards the south because its most important source of water, the Tarim River, had changed direction, climatic changes also came about. Therefore, this stretch of the Middle Silk Road had to be abandoned in the second quarter of the 4th century AD at the latest. At that time the garrison city of Loulan was given up as well. From then onwards, for a time the trade favoured the Southern Silk Road or chose the detour via Anxi in the north. However, the continuing Tibetan raids subsequently led to a renewed transfer to the northern route, which, from the 7th century onwards, would become more pronounced. In addition, the continuous climatic threat hastened the downfall of the southern route, for the sand-dunes at the southern edge of the Taklamakan Desert advanced by as much as thirty metres per year, whereas the average elsewhere was less than one metre.

The NORTHERN SILK ROAD attained importance only after the 2nd century AD. By turning in a northwesterly direction near Anxi it skirted the dreaded Lop Desert and led to Turfan. There, the leaders of the caravans could choose one of two routes. One of them branched off towards the south-west, and, via Korla, reached the wealthy town of Kucha where it joined the Middle Silk Road. The other route went around the Tian Shan mountain range on its northern side and reached the Issyk-Kul Lake not far from present-day Almaty. From there the way continued to Samarkand, an important town in former Sogdiana. The route then either continued to Merv and Meshed or northwards to the Aral Lake and to the northern shore of the Caspian Sea, finally to reach Byzantium by w ay of Armenia.

lhe overland Silk Road had to compete with the maritime Sea Road from towards the end of the 2nd century BC when the Creek seafarers Eudoxos and Hippalos explored the direct sea route from the Red Sea to India. In so doing, they discovered the southern \rabs closely kept secret concerning the behaviour of tho monsoon w inds which allowed a speedy and direct crossing of the Indian Ocean. A document dating from the 1st century AD. the so-called *Periplus of the Er\ thrjean* Sea, described in minute detail the sea route from the Red Sea via East Africa and the Gulf of Aden to India.' Thus, nothing actually stood in the way of a direct exchange of goods between the Mediterranean region and the Indian subcontinent. By using the sea route it was also possible to avoid the Persian agents who very cleverly knew how to prevent any kind of direct contact between China and Rome. Although Roman, Macedonian and Thracian mariners now and then advanced as far as the Indian Malabar region or even the South China coast, it was almost exclusively the Arabian seamen who profited from this circumvention of the Persians, taking advantage of the knowledge concerning the periodicity of the monsoon winds. In this way the Arabs were able to retain a monopoly on the sea route to India until the end of the 15th century. In the process they often hired Chinese ships, as they much appreciated their great loading capacity and reliability. Rome as well as China mostly left the sea trade to the Arabs. However, during the 3rd and 4th centuries, Persian mariners temporarily managed to capture an important part of the sea trade in the Indian Ocean and thus consolidated their position as agents for more than a century. In this manner, the Persians controlled the supply of silk for the ever-growing Roman demand, a fact that provoked a regular commercial conflict - a "Silk War" - between Persia and Rome.

From the western coast of India the sea route led via Sri Lanka across the Malay Archipelago to Guangzhou (Canton). Subsequently it led northwards along the coast of the South China Sea to Quanzhou in today's Fujian province, called Zaitun by the Arabs. From here the goods reached the capital via an overland road. Trade by sea, which was especially suited

lo (ho transport of fragile ceramics, flourished most of all under the fang (618-907). It is said that, towards the end of the 8th century AD, more than four thousand foreign ships would reach China each year, and that the Arab and Persian merchant communities in Quanzhou consisted of more than ten thousand persons.

Finally, if one adds the less commonly used, extremely dangerous overland route through the Chinese province of Sichuan southwards to Burma and East India (an early predecessor of the notorious World War II Burma Road), we have three large arteries for east-west trade, of which the Silk Road is the most famous.

ROME AND THE MYSTERIOUS SERES

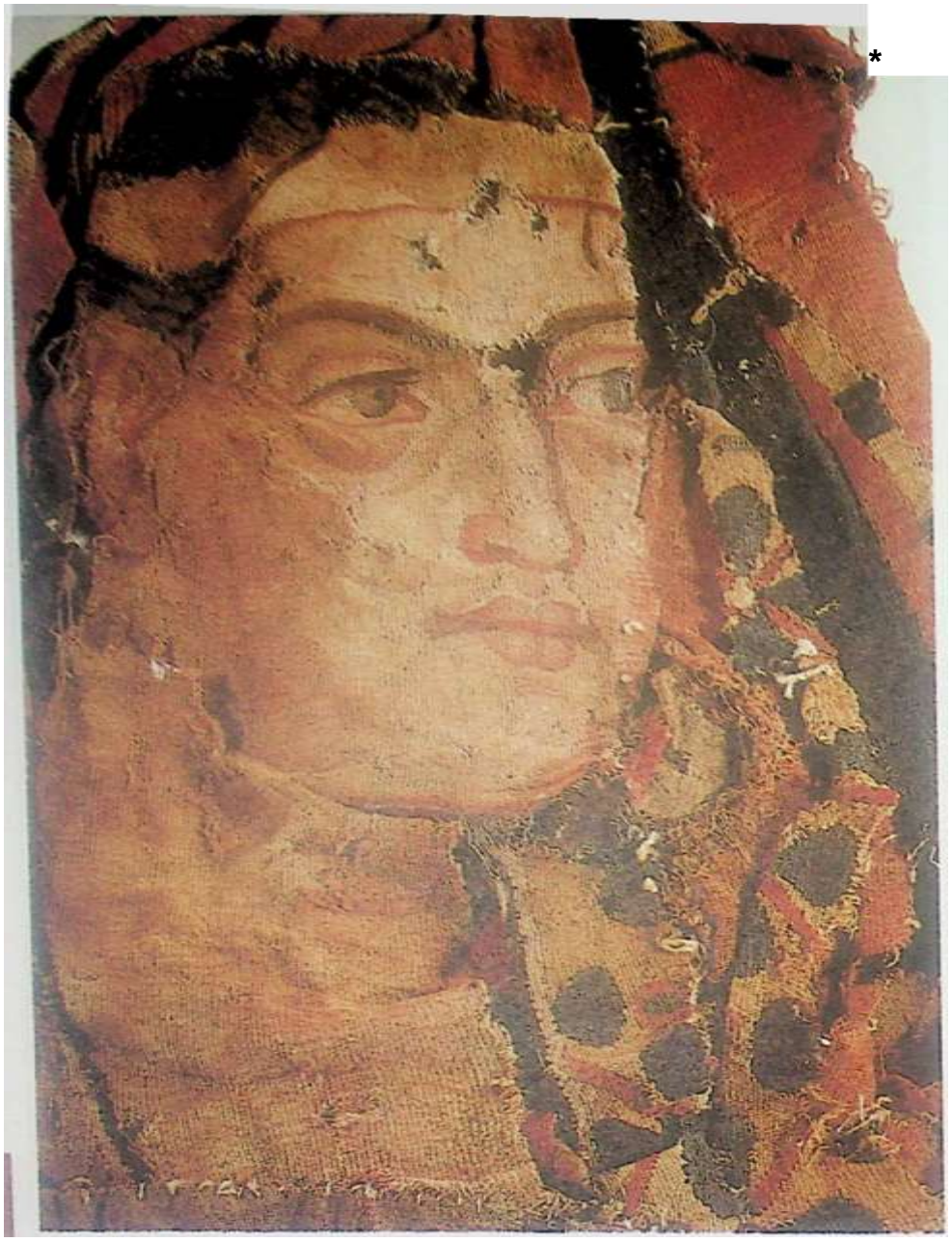
In the 5th century BC, the Greek historian Herodotus was the first to record an overland route to the Issedones, the Yiieh-Chih people living in the Hexi corridor. About one hundred years later, Admiral Niarchos, who in 326 BC explored the coast from the Indus estuary to the Persian Gulf on the order of Alexander the Great, was the first to write of Chinese silk - the "Skin of the Seres". The term "Ser" probably originates from the Chinese designation of silk, *"si".* Strabo, who, in about AD 20 in his *Geographies* represented the earth as a sphere, correctly drew the land of "Seres" on the easternmost border of Asia, north of India and the Himalayas.[7] Yet the Romans' knowledge of the origin of the greatly appreciated silk remained incomplete for a long time. They believed, as for instance the elder Plinius reports in the 1st century AD, that "the Seres sprinkle the whitish fluff on the leaves of wool-producing trees with water and then comb it off."[8] About AD 150 Pausanias was the first to correctly describe silk as the product of an "eight-legged" caterpillar fed with "green leaves".

The Peri pi us was the first work to mention a large "inland city, called Thinai, from where wool, yarn and seric clothing is brought through the domain of the Bactrians."[9] The name "Thinai" was used by the Romans to designate China, and surely can be traced back lo the Qin Dynasty, whose sovereign Qin Shi Huangdi unified China for the first time in the year 221 BC. It is worth mentioning that, in their turn, the Chinese called the Romans "Da Qin", which means "Great Qin".

Marinos of Tyros, the geographer on whose authority Ptolemy was to later rely, reported in circa AD 100 that "a certain Maes, also called Titianos, Macedonian and trade traveller as already his father had been, ... did not, to be sure, reach the Seres, but certainly had sent some of his people there."[10] These trade agents of the businessman Maes are the first western travellers we know about travelling to China. In his turn, Ptolemy recorded in the 2nd century AD that "Serika, west of Scythia, is limited by the Imaon range of mountains." He then described the course of the Southern Silk Road from Kashgar to Soita (Yarkand), Chaurana (Khotan) and the "Serean Isauria", which would correspond to either Miran or Loulan." As the terminus or starting point of the trade route, Ptolemy named "Sera Metropolis", perhaps referring to either Wuwei in the Hexi corridor or to Luoyang. Finally, the annals of the Han Dynasty tell us of a Roman trade mission that was sent in AD 166 to the Imperial Court by sea, allegedly on the orders of the Emperor Marc Aurel, in order to inquire into the possibilities of bypassing the Parthian agents.

In spite of this relatively comprehensive knowledge concerning the origin of silk, Roman geographers were not able to ascertain the political identity of Seres and Thinai, an uncertainty that persisted in Europe right to the early 17th century and which was only corrected by the Portuguese Jesuit Bento de Goes. This confusion probably was based on the fact that a distinction was made between silk originating from Seres (the Tarim Basin) and silk from Thinai (now China). At the same time, silk from Thinai seemed to have been more appreciated than that from Seres. Ptolemy quite clearly correctly located the two regions when he placed Thinai north-east of India and Seres north-west of Thinai.[12] He was mistaken, however, when he supposed an immediate overland connection between Africa and South-East Asia.

Thanks to the rapidly increasing demand for silk, Rome's trade balance with the East produced enor-



7. The influence of Hellenistic culture on this woollen wall-hanging (3rd-2nc! century BC) from the Sampul graveyard is evident. Xinjiang Museum, Urumcji.

mous deficits. Not only Rome's noble ladies wanted to dress in the morally questionable, nearly transparent silk gowns, but men too coveted the luxury of silk clothing. Thus, the Emperor Caligula (AD 37-41), who was thought to be effeminate due to his preference for silken gowns, was derisively called "Sericatus". Since Rome had no highly valuable export articles to offer except glass, the deficit in the balance of trade led to an alarming reduction in the reserves of exchange and

ot gold, hastened by the over increasing import nf V°r a,u t),luM s|)K es- I" vain, the Roman Sc !** tempted to put a slop to this blood-lottim- in a|* \D l(\. when it took drastic measures to'forhkl ^ \\ earing, silken gowns, and later on when it jmnOS? 25 P°r u•nl iniP°rl (lll ty <>" Hoods from Asia and R,i Sea ports. I ven the admonitions of the elder Plinythai silken clothing was decadent and superfluous and also damaging to the economy remained ineffective.

Rome's first encounter with silk is said to have taken place on a Persian battlefield when the Roman Consul, Crassus (one of the Triumvirate next to Caesar and Pompeius), crossed the Euphrates in the year 53 BC and made an incursion into the Parthian Kingdom. According to the reports of the historians Florus and Plutarch, the withdrawing Parthians drew the Romans into the scorching desert, where, near Carrhae, they suddenly unfolded their glistening golden banners of silk which blinded the Romans and made it appear as if there were an overwhelming enemy force. Crassus (Caesar's ambitious rival) and twenty thousand Roman soldiers met their death in the battle that followed. That the Romans soon came to know about the origin of the Parthian flags is shown by their being called *"vexilla serica".* In addition, the Romans did not hesitate to adopt the Chinese dragon design for their own flags, for they called their standard-bearer "dracon-*arius"* - belonging to the dragons. But the Chineses! patterns were not to the Romans' taste so that, as Plmius relates, most Chinese cloth would be undone an woven again.

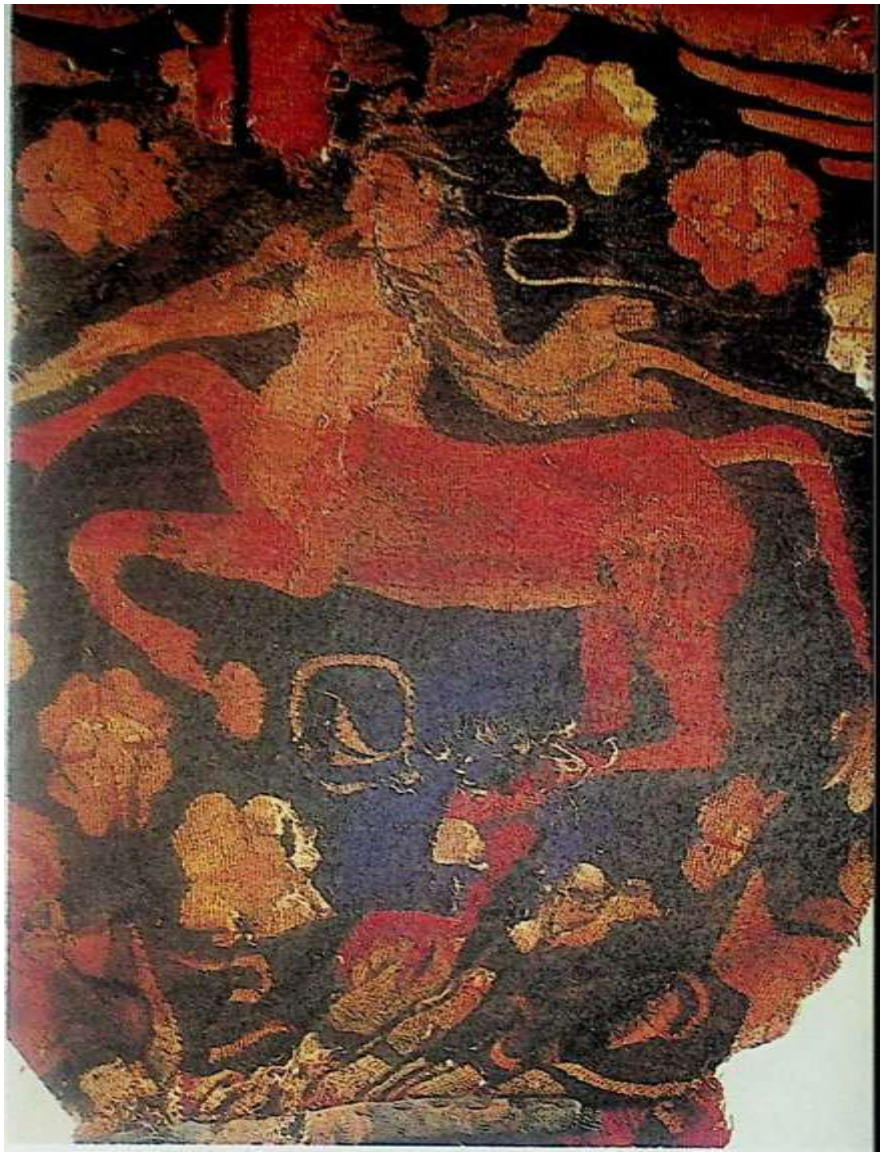
THE "PAX MONGOLICA" AND THE RENAISSANCE OF THE OVERLAND ROUTES

Trade via the overland routes between China and fty zantium was made difficult by the irrepressi vance of the Arabs towards Mesopotamia an . during the 7th century AD, and later towar s ^ Asia. When the downfall of the Tang Dynas ^ over. 907 led to the disintegration of Chinas uni *y,*

lanj. trade W AS reduced to insignificance. Il was only under Mongolian rule that the Silk Road experienced ' b e e v ssa \a • and 14th centuries, when the Fax Mengolxa guaranteed the travellers' seeuntN. \cco.o ng to a contemporary dictum, under 'he :doo: Kuoiai Shan e\en a \ irgin could have trans- ported a golden treasure from China to Europe without am danger. During this period European trade also received fresh impetus, especially in Italy's commercial cities.

At the same time east-west trade experienced a new boom. Not only traders such as the three members of the Venetian Polo family trav elled along the Silk Road, but Catholic monks were also en route as from the mid-13th century. The best known are Carpini and Rubruk who, as emissaries of Pope Innocent IV and of Saint Louis. King of France, respectively, w ere to sound out the possibility of an alliance with the Mongols against the Arabs, who continued to harry the Christian principalities of Palestine with increasing effectiveness. Over and above this, the monks were asked to seek out the mysterious Christian King "John the Priest". For, since the first half of the 1 2th century, the Occident believed in the existence of a Christian kingdom in the Far East. Perhaps, so the belief went, Mohammed Shah's conqueror, the Islamic ruler of Choresmien whose kingdom was destroyed by Genghis Khan about 1220, was identical with "John the Priest".

As a consequence of the Mongolian rulers' haughtiness - they demanded that the Pope and the French king be subject to them - these diplomatic missions came to nothing. In 1247 the Great Khan Guyuk had sent the Pope the following message, in a letter given to Carpini: "Thanks to the power of the Eternal Heaven, all lands have been given us from sunrise to sunset. Now you in person, at the head of all monarchs, all of you without exception, must come to tender us service and pay us homage."[3] Giiyuk's successor, Mongke, was equally uncompromising, and in 1253 handed over the following letter to the Franciscan Rubruk, who was the ambassador of Louis IX: "Therefore we are sending you the orders of the eternal God. As soon as you have heard Him and are willing to obey, send your ambassadors to us. Then we shall be certain of whether you want war with us, or peace."[14]



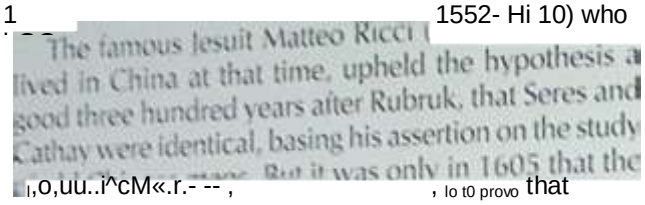
8. Willi-hanging from Sampul. This woven material measuring 59 x 48 cm originally belonged to the male portrait shown above. Such wall-hangings were often cut up by Saka riders and made into leggings. The centaur playing the flute is undoubtedly a Hellenistic subject. Xinjiang Museum, Urumqi.

Even if Rubruk's journey did not have the hoped- for diplomatic success, (he monk nevertheless left a very precise description of his travels. Most of all, he was the first to recognize as identical the mysterious Chinese kingdoms of Seres and Thinai or Cathay, considered two separate regions since the Romans. However, Rubruk's travelogue went mostly unheeded in Europe, so that the question of the relationship between Seres and Cathay remained open even around

lli \t Europe was to introduce only in the I 9th century.

With the renunciation of Hade contacts with other allures that Confucianism inspired, and with the re- ium to tradition, China lost these technological and military advantages over I urope. I he first to profit from China's isolationist strategy were the Japanese pirates who controlled trade along the coast of China, along with the Arab seafarers who held the monopoly over the sea trade between East and West until the circum-navigation of Africa by Vasco do Gama in the year

1 1552- Hi 10) who


The famous Jesuit Matteo Ricci (
lived in China at that time, upheld the hypothesis a
good three hundred years after Rubruk, that Seres and
Cathay were identical, basing his assertion on the study
But it was only in 1605 that the

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posedlv Christian communities in U * * • ;; .

in the vear 1260 a Mongolian arm\ suiteraia ■ significant military defeat at the hand of the Mamduke Sultan Baibar near Ain lalut in today > Northern lor din As a consequence, towards the end ot the - » centurx Hulegii (Kublai Khan's brother), Abaka and Arghun, the Mongolian llkhan rulers ot Persia, attempted to form an alliance with the Christian kings against the common enemy, the Arabs. But Europe showed no interest for, after the two tailed crusades ot Saint Louis, it did not want to get involved in further military adventures in Palestine. Not even the three llkhan princes' promise to leave the Holy Land and Jerusalem to the Christians after the conquest could awaken the interest of the European rulers. Although, in 1287, Arghun sent the Nestorian dignitary Bar Sawma as an official ambassador to Pope Nicholas IV, to the French King Philip the Handsome and to Edward I of England, the Bishop had to be content with vague promises. Thus, the opportunity of a renewed direct contact between Christian Europe and the Mongolian Empire was passed up.

As a result of the unrest in Persia and the isolation pursued by the Ming Dynasty in China, east-west contacts overland and across the seas were virtually terminated. China, in an unequalled act of political isolationism, after 1440 unrigged its entire naval and commercial fleets. It had more than 3,500 ships (including 2,700 large naval vessels), and from 1405 to 1430 had controlled all the important ports between China and the East African coast. Added to this, seafaring was forbidden. Apart from its invention of the magnetic compass, China's shipbuilding superiority was also evident, for its ocean-going ships had a tonnage several times that of European vessels and their hulls consisted of several waterproof compartments - a technology

In the long run the great European naval powers ind Japan derived profit from China's withdrawal from international politics, for now they could extend their sphere of influence in China without restraint. It was only in 1949 that Mao Zedong was able to re-establish China's unity and self-determination.

THE SECRET OF SERICULTURE

Whereas the oldest silk finds in China date from the Shang Dynasty (16th to 11th centuries BC), tradition traces the origin of silk manufacture to Xiling Shi, the spouse of the legendary Yellow Emperor Huangdi, who reigned in about 2700 BC. By accident, Xiling is supposed to have observed a moth coming out of its cocoon and to have derived from this the two most important secrets of silk manufacture. First, the cycle of development from the egg of the silkmoth through the stage of the silkworm spinning its slightly oval cocoon, and then to the emergence of the silkmoth. Second, the most important characteristic of the silk that formed tie cocoon was that it was endless and therefore it was possible to reel the silk off the cocoon. Silk remnants found in Zhejiang Province in 1958 and exam- lr?ec Dy t*'ie C-14 dating method showed an age of about 4,750 years, which would correspond with the epoch of the legendary empress Xiling.[15]

owever, we can only speak of sericulture from . a momen; when it was recognized that the caterpil- r must be killed before breaking out of the cocoon, .y ln l*1at way can the destruction of the silk Ja)y the emerging moth be avoided. Moreover, it

9. Today, Khotan is the last oasis along the former Southern Silk Road where traditional sericulture still exists.

10. While the man bundles up the silk threads into skeins, the woman u-inds the actual silk thread onto a reel.

was necessary to link sericulture with the cultivation of mulberry trees. Probably,- sericulture developed at the same time in several cultural centres: namely on the Yellow River, near the Yangtsekiang, and in Sichuan. Looking at today's traditional silk manufacture in Khotan, one is bound to notice that the basis of sericulture has not changed much for about four thousand years.

Among the many spinning insects, the mulberry silkmoth *(Bombyx mori)* has turned out to be the most suited for sericulture. Its eggs are at first toughened by exposing them to the wintry cold or by immersing them in salt water, in the following spring the surviving eggs are taken care of by women, the so-called "silkworm mothers", who rinse them in running water, lay them on soft paper and place them in a warm room. The caterpillars come out of their eggs and measure about two millimetres in length. At once they develop a voracious appetite for fresh and tender mulberry leaves. During the first of the three following weeks, the caterpillars need to be fed every half-hour (forty-eight times a day), and through four sloughings grow to a length of sixty-six millimetres. This three-week feeding period was so trying on the women who took care of the silkworms that even weddings and funerals had to be put off, for sericulture literally required care around the clock. What made things more difficult is the fact that silkworms are extremely sensitive to cur

rents of air, dirt, glaring light, sharp odours and even noise. This required an iron discipline on the part of the keepers: they had to abstain from spicy foods and garlic, be in a good mood, and even avoid any kind of conflict in the presence of the over-sensitive silkworms. After the fourth and last sloughing, the caterpillars begin to cocoon themselves within an uninterrupted silk thread produced by two glands. The thread, up to four thousand metres in length, is extremely fine and yet very extensile and forms a cocoon of about three grammes in weight. To prevent the emerging moth from breaking the endless silk thread, the cocoon is thrown into boiling water, which not only kills the caterpillar but also dissolves the "silk glue". This makes it possible to reel off the thread. From the thread, about nine hundred metres may be unravelled, with clusters of twenty to twenty-five individual strands being drawn through an eyelet and spun into the actual silk thread.

The leftovers of silk manufacture were also made good use of in ancient China. The remaining silk that could not be reeled off the cocoon formed the raw material for second-class floss silk, for the manufacture of clothing for the local people. The inner sheath of the cocoon was used in the production of the valuable silk paper that served as a writing base before the invention of paper based on bamboo or bark, as Aurel Stein would prove with his excavations in Loulan. Finally, the dead chrysalises served as food for human

beings and caulc and \\o:o a'so t:>od n the production oi soaps, oils ano .vkv.cino. Later. Marco Polo observed that the pane: nvncv :n: oduced by Kublai Khan was :v.ade o: 'berr\ tree haak.

B\ the Han D\ rast\ at the latest, silk had a throetold importance.

First of all. w ithin the strictly hierarchical societv each official rank had its own special silk gow n w ith its rigidh laid down colour patterns and symbols. This implied that at each promotion, a government officer not only had to adapt his ow n wardrobe to his new status but also that of his entire family as well. This led to a constant demand for silk w ithin the country. The fact that these rules and regulations were gradually loosened or ignored raised the demand for silk because even lower officials and traders were allowed to wear splendid clothing.

Second, bales of silk had the value of currency and were used to pay the salaries of certain government officials and officers. Since these persons sold the silk at once to wholesale merchants, it went into the private trade. At the same lime, taxes and fines were levied in the form of silk bales. Thus, together with cotton and hemp fabrics, silk was in direct competition with coined money as legal tender. Even under Tang rule, coins were not able to supplant silk as legal tender in important business exchanges. For instance, in trade and in the market place prices were fixed in monetary units, but in practice, payments were made in silk bales. We have precise information on public revenue in the golden age of the dynasty in the 8th century AD. One-half of the taxes w'ere paid in various kinds of cloth, 35 per cent in the form of wheat, barley, rice and other durable food supplies, and a mere 15 per cent in the form of cash. When people lost faith in the currency towards the end of the dynasty, coins began to vanish from circulation in the Tarim Basin. Following the Tibetan conquest of Turkestan's Silk Road, an actual demonetarization set in and, with it, a return to barter trade.

Third, silk played an exceptionally important role in Chinese foreign policy, as the imperial gifts given generously each year to neighbouring nomad peoples in the form of silk bales were really nothing but a kind of tribute in order to ensure peace on the northern and western frontiers. On the one hand, it was more economical for China to buy peace with silk gilts than to maintain largo armies. On the other hand, by means of cultural and trade contacts with the nomadic peoples the Chinese sovereigns hoped to make them better acquainted with the Chinese way ol lile, to make them used to (hinese luxury goods, and thereby gradually to weaken their fighting strength.

i he result of these factors was an enormous demand for silk that could only be satisfied by forcing the farmers to pay at least one-third of their taxes in silk ^depending on the region in which they were living'. and by establishing government silk factories. The crushing lax load on the rural population in turn led to a rural exodus and to bloody peasants' wars that also caused the downfall of the Early and Late Han Dynasties.

In the 6th century AD, China's closely guarded secrets of sericulture and silk manufacture were revealed and the consequent monopoly was taken over by Byzantium, which quickly established its own Western silk monopoly. The results were swiftly felt: the Chinese silk industry suffered a serious crisis, for Western demand shrank and prices dropped accordingly. This economic calamity in Central Asia was heightened by the rising power of the Arabs, enabling them to block the Silk Road. In 751, Chinese imperial troops fighting for the control of the Central Asian Silk Road suffered a crushing defeat at the hands of the Arabs near Talas in Kirghizia. It was only about one thousand years later that the Chinese Qing Dynasty was able to reoccupy Turkestan and re-establish its control. The region of the former Silk Road was then named "Xinjiang", which means "New Dominion", although China had ruled over this region previously for over eight hundred years a millennium before.

From the 7th century onwards, the Byzanti.ne governmental silk monopoly dominated the eastern Mediterranean region by ruining private silk industries through excessive taxation.

Since in many cities of the eastern Roman Empire private silk factories had to close their doors, many silk craftsmen became unemployed and sought refuge

in neighbouring Persia for economic reasons. Because Persia welcomed (his influx of manpower, (he Byzantine silk monopoly soon had a powerful competitor: its traditional enemy, Persia.

It was not until five hundred years later that Western European states managed to acquire the secret and ihechnology of silk manufacture. This happened in the year 1146, when King Roger II of Sicily plundered Graeco-Byzantine regions such as Athens, Corinth and Thebes and deported silk craftsmen to Sicily where they successfully developed a local sericulture.

Later, the art of sericulture and silk manufacture spread to Italy, contributing substantially to the economic boom of Italy's urban republics. For the import ing countries, the flourishing trade in silk products caused a painful drainage of gold reserves, as had happened to Rome a good one thousand years earlier. In order to limit silk imports, Louis XI of France, for example, founded the Royal Silk Manufacture of Lyon in the year 1466. King Francis I continued to promote government workshops in France, and soon silk was produced in the respective government workshops of several of the larger European countries.

The "Silk War" between Rome and Persia

Justinian, Emperor of Byzantium, was the first to successfully terminate the economic war against Persia in the 6th century, by introducing sericulture into his empire. The contemporary historian Prokop reports as follows: "About that time (AD 540), some |Nestorian| monks came from India and knew that the Emperor Justinian was concerned that the Romans should not in future be compelled to buy silk from the Persian enemy or some other nation. For they had lived many a long year in a country beyond most Indian populations, by name of 'Serindia'; they were well acquainted with the method that could be utilized in making silk, even in the land of the Romans."

After Justinian had bestowed rich gifts on the monks they returned to Serindia, probably to the Khotan area, and supposedly smuggled silkworm eggs and mulberry tree seeds to Byzantium in their hollow pilgrim's staves. "This, then, was the state of affairs regarding the war events all around silk between Rome and the Persians."[17] Thus, both the Chinese production monopoly and the Persian trade monopoly were conclusively broken. Rome, however, had already lost its monopoly on transparent coloured glass to the Chinese of the Northern Dynasties about a century before.

FROM FAXIAN THE ITINERANT MONK TO MARCO POLO

The most detailed descriptions of the Silk Roads, of governments and peoples of Central Asia, and also of the difficult travelling conditions, have come down to us through Buddhist monks who went on pilgrimages from China to India between the 3rd and the 10th centuries, in order to study Buddhist texts at their source.

The earliest Chinese itinerant monks were probably Zhu Shixing who travelled from Luoyang to Khotan in the year 260, and Daoan (314-384) who went on a pilgrimage to India via Yarkand. However, more famous was their fellow countryman, thepilgrim monk Faxian (340-420). Shocked by the ignorance of Chinese monks and by their lack of monastic discipline, he decided to travel to India where Buddhism had originated, and there to study the original Buddhist texts and take copies of them to China. To this end, Faxian departed from the then capital Chang'an (today's Xian) and chose the overland route to India. He went along the Hexi corridor to Dunhuang and from there crossed the dreaded Lop Desert in order to reach the kingdom of Shan Shan, with modern Miran (or Kargilik) as its capital. Loulan, the old garrison city on the Middle Silk Road, by then had already been abandoned for about seventy years. In Shan Shan where the king was a Buddhist, Faxian met more than four thousand monks adhering to Hinayana Buddhism and still following the old monastic rules from India. The monk describes the bleakness of the Lop Desert as follows: "In this desert there are a great many evil spirits and also hot winds; those who encounter them

11. Until a short while ago, animal skeletons were the only signposts tor the caravans. These macabre road signs are mentioned by all important travellers, from Faxian, the 5th century itinerant monk, to Sven Hedin.

perish to a man. There are neither birds above nor beasts below. Gazing on all sides as far as the eye can reach, in order to mark the track, no guidance is to be obtained save for the rotting bones of dead men, which point the way.'"[8]

Since the section of the Southern Silk Road between Miran and Khotan was probably impassable at the time of Faxian, he had to turn north in order to reach Karashahr, where he again met a large Hinayana monastic community of four thousand monks. From there the intrepid pilgrim took the dangerous north-south crossing of the laklanukan IVsorl to Khotan, probably following either the course of the Keriya Darya or the Khotan I \m a. I le slaved in one of the fourteen largo monasteries as a guest of the orthodox Buddhist ruler and described thecitv as "flourishing and happy". \ccording to Faxian. in the kingdom of Khotan there iivod several tens of thousands of monks adhering to Mahavana Buddhism, the "Greater Vehicle". According to '.hu Shixing, Hinayana Buddhism was prevalent in Khotan just one century earlier. The strong influence of Buddhism on Khotan is also shown in a remarkable description Faxian made of an annual Buddhist procession, when a statue of the Buddha was placed on a high carriage richly decorated with flower?. and was brought to the capital from its original monastery in the province of Khotan. As soon as the procession approached the capital's city gate, the king, barefoot and bareheaded, would come to meet the statue and receive it with incense. In those times, each of the great monasteries is said to have organized its own procession. From Khotan, Faxian travelled to Kashgar and onwards to India, from whence he returned to China by sea in the year 414.

Subsequent pilgrims to India whose travel route has come down to us in detail, are Song Yun and Hui Sheng. The two monks undertook their journey in the year 518, not only in order to study Buddhism in India but also as a diplomatic mission, for the empress Hu of the Northern Wei Dynasty had ordered them to explore the kingdoms of the Hephthalites, who had conquered the Bactrians and Gandhara and hence controlled the western Silk Road. What strikes one concerning Song Yun's itinerary is the fact that he travelled along the Southern Silk Road to Khotan, which indicates that more than a hundred years after Faxian the southern route was once more open to travellers.

The most significant of all pilgrims to India was undoubtedly Xuan Zang, whose journey lasted fifteen years. His travels are the subject of a novel popular in China, *Journey to the West,* written in the 16th century. The book describes how Xuan Zang, accompanied by the King of Apes, a pig and a demon, had to undergo countless difficult tests on the way. In reality, in 629 or 630 the monk started on his journey to India

Xuan Zang's adventure in the Lop Desert

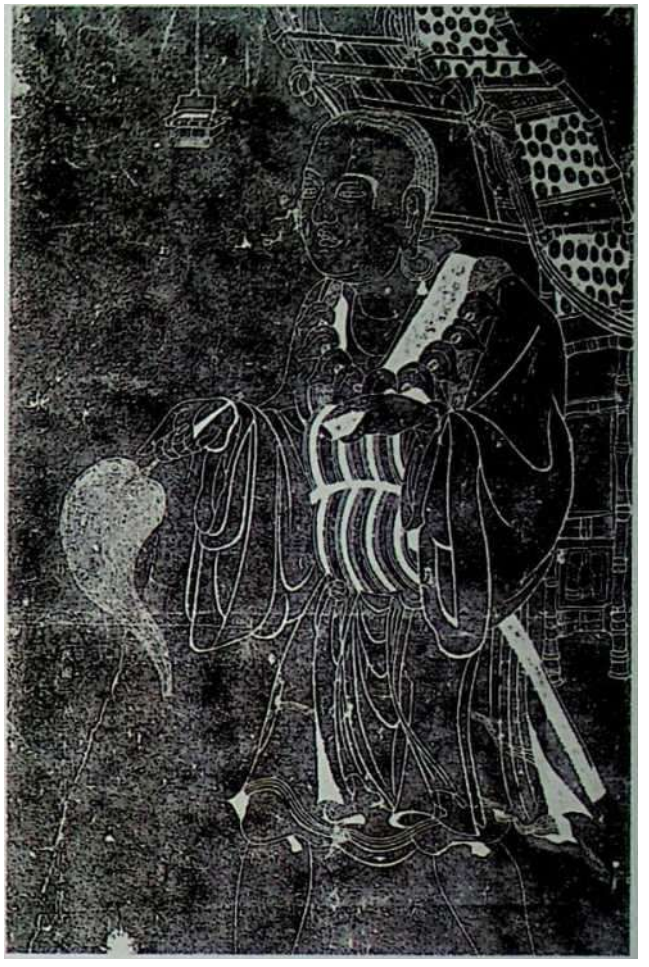
Xuan Zang's description of the dreaded northern Lop Desert crossing between Hami or Dunhuang and Turfan can very well be compared to the death march of l-ledin, who was the first to cross the Taklamakan Desert in 1895.

Xuan Zang had to quit the main stretch that was secured with watch-towers and choose a dangerous by-road through the desert in order to avoid capture, as he wanted to leave the empire without permission.

His chronicler relates:

> "Neither birds nor four-legged animals are to be seen there, neither water nor pastures. In order to find the way by himself, he applied himself to watching the direction of the shadow while he was walking. Plagued by thirst, he reached for his water container, but due to its weight it slipped from his hands, and as a result his entire water-supply gushed forth to the ground."
>
> After this mishap the monk lost courage and turned back. Yet, after a few hours, he remembered his vow
>
> "that, if I should not reach India, I would never take a step backwards to return to China. I shall prefer to die on the way to the west rather than return to the east in order to live there."

He then turned his horse once again towards the north-west and for five days remained without water, until his strength left him and he fell to the ground, unable to rise again. While he lay dying of thirst, he implored Bodhisatlva Avalokiteshvara for mercy. The latter appeared to him in his reverie, scolding him: "Why are you still asleep instead of stepping forth eagerly?" The exhausted monk rose and walked on, beside his equally weary horse. All of a sudden, the horse changed direction and was not to be brought back to the actual route. And lo and behold, the horse soon led the monk to a life-saving pond with clear water and to a green pasture. From there, the monk reached Turfan safe and sound'[9]



12. Xuan Zang (603-664) is rightly considered China's most significant itinerant monk. He brought 657 Buddhist books from India back to China, of which he himself translated 76 from Sanskrit into Chinese. The lithograph above shows Xuan Zang returning from India carrying valuable scrolls on his back. At the lop edge of his carrying rack a small oil light is fastened, to light his steps by night.

13. Wooden tablet from Dandan Oilik, Shrine D 13, 6th century AD. British Museum. London.

Khotan's ruse to gain the secret of sericulture

In his travel report, Xuan Zang describes the stratagem by which Khotan managed to acquire the secret of silk production that China so carefully kept. After Khotan had tried in vain to learn the secret of silk manufacture, the king humbly requested the hand of a Chinese princess. The emperor agreed, whereupon the crafty ruler of Khotan informed his future spouse that in her new domicile there would be neither silk nor silkworms or even mulberry trees, and if she wanted to have these she would herself have to bring them along. So she smuggled silkworm eggs and mulberry tree seeds to Khotan, concealed in her head finery.

In Dandan Oilik, Aurel Stein found a painted wooden tablet depicting this story. The votive tablet on the left shows the figure of a woman pointing with outstretched arm to the head ornament of the future queen of Khotan. A basket filled with silkworm cocoons shows the result of the successful smuggling. On the right of the princess a four-armed divinity is enthroned, identified as the custodian deity of weavers, while further to the right a woman obviously makes use of a silk reel.

The historical facts underlying this legend probably took place in the 3rd or 4th centuries AD. The date accepted by most historians, namely AD 420, is fixed at too late a time. The official name of this Chinese princess is highly suggestive as well, for in Khotan she was called "Ruyzaka", which in Persian means "the desired one".[20] Her name enhances the important role the Iranian cultural element played in Khotan.

all alone, to "look for the law left to the world by the Buddha in India."[21]

Unlike his predecessor Song Yun who had undertaken his Indian trip at the request of the Emperor, the young monk Xuan Zang was refused permission for the pilgrimage by the Tang ruler Tai Zong. But, urged on by an enigmatic dream, Xuan Zang ignored the imperial ban and stole away from Chang'an in a westerly direction.

As all pilgrims before him, he first passed through the Hexi corridor and then opted for the Northern Silk Road, by which he reached the then still independent kingdom of Turfan. It was only thanks to his presence of mind that the monk escaped a murderous assault planned by his guide. Turfan's ruler wanted forcibly to detain his guest at the court and only let him go after a hunger strike. Instead of choosing the direct way south via Kashgar used by his predecessors, Xuan Zang trekked westwards to the Issyk-Kul and to Samarkand, then crossed Bactria and reached India via the Khyber Pass.

Xuan Zang spent ten years in India, during which time he visited most important Buddhist universities and places of worship, collected copies of the sacred texts, and, as a learned representative of Hinayana Buddhism, won a victory over Mahayana scholars in a great debate.[22] When he set out to return to China, he again travelled via Bactria but then branched off to the Wakkhan corridor, and after having been waylaid by highwaymen reached Kashgar. His return journey gained a political dimension as the local kings of Gandhara province received him courteously and respectfully. Probably these rulers hoped that mighty China would protect them against incursion by Central Asiatic nomads. In Kashgar, Xuan Zang decided to continue his return journey by the Southern Silk Road and so he went to Yarkand and on to Khotan. Here, also, the Chinese monk was received politely by the king.

The King of Khotan had every reason to treat his famous guest with the utmost respect, since he would in all probability soon be reporting on his journey to the Tang emperor in Chang'an. It is true that Khotan was still a semi-independent kingdom and recognized the overlordship of the Western Turks. But the continuing expansion of Emperor Tai Zong's power towards the west threw darkening shadows over the oasis. Therefore, it was essential to have friendly relations with the approaching and overwhelming Chinese neighbour. Indeed, in 648 an imperial army conquered Khotan in a daring surprise onslaught.

About 643 or 644, Xuan Zang left the hospitable city and travelled on to Na Fo Po (now named Qiemo), then continued via Miran to Dunhuang. He describes the crossing of the Taklamakan Desert in almost the same words as those of his famous predecessor Faxian two hundred years before him: "There, the traveller enters an immense desert of shifting sand... This desert extends endlessly on all sides, and no one can find his way in it. For their guidance, the travellers have no other point of reference than the human skeletons and remains of animals left behind by the caravans that have preceded them."[23]

The indefatigable pilgrim finally returned to Chang'an in 645, after having been away for fifteen years. A triumphant welcome awaited him there by order of the emperor Tai Zong, who had previously forbidden him to leave. After an audience with the emperor in Luoyang, the master settled down in Chang'an and devoted the last years of his life to the

Marco Polo — the posthumous benefit of h is imp rison men t

t max sevra paiauaxicai. but posterity owes one oi the most interesting and adventurous travel reports ever written to the misfortune that befell '.lie author, Marco Polo, after his successful return to his country. Venice and Genoa. : v two leading naval powers of the 13th century, constantly fought for supremacy in the Mediterranean region and tor control of the trade by sea. Warlike altercations - mostly naval engagements - regularly alternated w ith brief periods of truce. Thus, in 1294. one year before the return of the three members of the Polo family from China, the old conflict had erupted once more ending in a serious naval defeat for Venice.

In the year 1298 the war flared up again. As a result, Marco Polo, according to an old Venetian custom, being a well-to-do citizen, had to fit out a man-of-war with himself in command as "Sopracomito".

During the naval engagement off the Dalmatian coast that followed the Venetians suffered a crushing defeat, for almost their entire fleet of 95 ships was either sunk or commandeered. According to Marco Polo's first biographer, Ciovanni-Batista Ramusio, who published Polo's travel report in 1553, Marco Polo was among the 7,000 Venetian prisoners deported to Genoa. There, he shared a cell with a prisoner from Pisa named Rustichello, an author of courtly novels.

During his detention that was to last almost a year, Marco Polo dictated his travel recollections to Rustichello from memory. That was the origin of the famous book *Il Milione.* The Venetian was then released in 1299 together with his companions in misfortune, and died in the year 1324, at the age of seventy.

translation of and commentary on more than six hundred Sanskrit documents that he had brought with him from India. \uan Zany, died in Chang'an in the year 664 at the age of sixty-one y ears. Wu Kong, the last important pilgrim to India of the lang Dynasty, travelled for almost forty y ears from 751 to 790, using the overland route through Central Asia to India and returning to China by the same way.

After Wu Kong, travelling to India became pointless. In China, the first large-scale persecution of Buddhists was initiated in 843-845 under the Emperor Wu Zong. This resulted in the confiscation or destruction of hundreds of monasteries, with tens of thousands of monks forced to join the laity against their will and under threat of death. On the other hand, in India, the country of its origin, Buddhism was increasingly harried and violently persecuted by resurgent Hinduism, so that soon after the turn of the century it no longer played a major role as a religion. It was therefore to a large extent thanks to the Chinese pilgrims to India that they, together with Tibetan and Ladakhi translators, saved the Buddhist tradition.

The next important Southern Silk Road traveller whose travel descriptions have come down to us was undoubtedly the Venetian Marco Polo (1254-1324) who accompanied his father and his uncle on a diplomatic mission to the court of the fifth Mongolian ruler Kublai Khan. The two elder members of the Polo family had been at the court of the Mongolian emperor once before in the years 1265-66, on the occasion of their first important journey to China. At that time, Kublai Khan had charged them to return to the Pope as his ambassador and to request him to send one hundred scholarly missionaries. No doubt this was less an expression of Kublai Khan's interest in converting to Christianity than a felt want of Western allies. Over and above this, the Khan (who personally in all likelihood preferred Buddhist teaching), followed a policy of evenhandedness among the varied creeds in his kingdom.

After the return of Marco Polo's father and uncle to their home town of Venice in 1269 and their unsuccessful efforts to secure the promised delegation of a hundred missionaries, they left again for China together with young Marco in 1271. Instead of the one hun-

(Ired scholars requested by Ihe Mongolian ruler, only two I Dominican monks accompanied them. The monks let the Venetians down a few weeks later when they fled from Syria to Palestine, as they were afraid of the victorious Mamelukes of Baibar Sultan.

Marco Polo traversed Armenia and Georgia where he recorded the oil wells of Baku, adding however that their oil was "not good for victuals and to be used for burning only." After the indefatigable travellers had passed through Persia and the Pamir, they reached Kashgar in I 273. There they met a great number of Nestorian Christians. From Kashgar the three members of the Polo family chose the Southern Silk Road, to finally reach Cambaluc (Beijing). In Yarkand, Marco Polo not only met a Moslem majority but also a Nestorian and Jacobite-Monophysite Christian minority.

He was struck - as Sven Hedin was to be several centuries later - by the large goitres from which many inhabitants of Yarkand suffered.[24] After the young Venetian had noticed the large cotton fields in Khotan, he mentions jade production in connection with Pi- Mo (situated between Khotan and Yutian), and the custom according to which a wife may marry another man if her husband absents himself for more than twenty days.

The next city Marco Polo writes of is Cherchen, from where it takes a caravan five hard days' travel through desolate sand-dunes without any water in order to reach "Lop" (today's Ruoqiang). Lop is the gateway to the dreaded "great Lop desert", the crossing of which, according to Marco Polo, would require thirty days at its most narrow point, which corresponds to a distance of almost 900 km. At the end of this march one reached Sachiu (today's Jiayuguan) with its sturdy fort, where the ancient empire actually began.

Marco Polo aptly describes the phenomenon of an acoustic hallucination met with in the glowing desert: "Beasts there are none; for there is nought for them to eat. But there is a marvellous thing related of this Desert, which is that when travellers are on the move by night, and one of them chances to lag behind, when he tries to gain his company again he will hear spirits talking, and will suppose them to be his comrades. Sometimes the spirits will call him by name; and thus shall a traveller ofttimes be led astray so that he never finds his party. Even in the daytime one hears those spirits talking."[25]

In the town of Sachiu at the eastern end of the Lop Desert in the province of "Tangut", Marco Polo mainly met Buddhists but also some Nestorians and Moslems. The Tanguts correspond to the Xi Xia who successfully resisted Genghis Khan in the region of today's Ningxia province for more than ten years. Concerning the Buddhists, Marco Polo mentions a custom that is current even today whereby, during the burning of dead bodies on the pyre, paper money and paper figures are given to the dead. These paper figures represent servants, horses and camels, which are supposed to accompany their deceased master to the beyond and serve him there. This rite is an inexpensive variant of the more ancient custom dating from the Han and Tang periods, when the dead in their tombs were given clay or wooden statues representing their next of kin, their servants and pets. These in turn had replaced the onetime human and animal sacrifices.

According to Marco Polo, in the city of Cumul (now Hami), situated north of Sachiu, there was a somewhat strange custom. The hospitable men would put at the disposal of a passing stranger not only their house but also their wife, and only return home after the stranger had left.[26]

On his way to the imperial court, Marco made a remarkable excursion to Ezina (today's Khara Khoto). which is situated about 400 km north of the Silk Road near the Edsin Gol. Under Mongolian rule it experienced a second golden age, after Genghis Khan in 1227 had destroyed the Tangut Xi Xia kingdom together with its border city of Ezina to the north-west. Following his description of Ezina, Marco Polo mentions the mysterious "John the Priest", just as Rubruk before him. The subject matter of this legend of a powerful Christian prince in far-away China, as mentioned before, no doubt originated with the Nestorian communities that were widespread in Northern China. Rubruk identified "John the Priest" with the Prince of the NaTman, a Turko-Mongolian tribe of Southern Siberia.[27] However, Marco Polo's well-known biographer, Sir Henry Yule, established that "John the Priest" had to be identical with the ruler of another Turko-Mongolian nation, namely with Toghrul Wang Khan, Prince of the

Remits.

Hero we also :no the probable o ig n of the "John the Pries;' legend :o : thove.v 009. 200,000 Keraits together with their ruler converted to the Nestorian faith." : O'. 1 the Nestor ian Metropolitan informed his super ior too Patriarch of Bagdad, of this mass conversion b\ 'otter. Indeed tow ards the end of the I 2th eon tur\ the Christian Toghrul Khan was the mightx Mongolian ruler for a short while, and numbered among •is vassals the young Genghis Khan, hr the \ea; 1203 Genghis Khan revolted against Toghrul Khan and defeated his former overlord, who was murdered while fleeing. This victory over the Nestorian Keraits cleared tire way for Genghis Khan to rule supreme over all Mongolians. The legend of a mighty Christian ruler who attacked Islam on its eastern front, parallel to one of the crusades of European princes would have become reality if Toghrul Khan had been v ictorious. It is also worth mentioning that the tradition of the priestly King John had been increasingly linked w ith Ethiopia, as from the I 4th century, Iho Iasi attempt to discover the mvsterious king was made in 1521) by the Portuguese King Manuel, who sent a delegation to Ethiopia: this delegation then stayed at the court of the Negus Lebna-Dengel for six years. '"

Shortly after Marco Polo, two famous Nestorian monks from the Turko-Mongolian people of the Onguts used the Southern Silk Road on their journey from Peking to Bagdad, t hey were Markos, the future Catholicos of all Nestorians Mar Yahballaha III, and Rabban Bar Saxvma, Ilkhan Argun's ambassador to Pope Nicholas IV.

With these two Nestorian pilgrims, the long chain of famous travellers on the Southern Silk Road is broken. The main reasons for this were the unrest in Persia and the downfall of the cosmopolitical Yuan Dynasty. Some six hundred years later the Russian colonel Prejevalsky was the next explorer known by name to report on the Southern Silk Road.

II Indo-European Migration into the Tarim Basin

In 1914 and 1934 respectively, the two great pioneer explorers of the Silk Road, Sir Aurel Stein (1862-1943) and Sven Hedin (1865-1952) discovered large burial grounds in the vicinity of Loulan, the ancient city oasis which watched over the Middle Silk Road at the eastern end of the Taklamakan Desert. There, they noticed that many mummies did not bear Chinese features but unmistakably Indo-European traits. Their faces where rather long and narrow between the cheek-bones, the skin white, the nose long and bent, the eyes in a straight line and the hair auburn, light brown or even fair. Even though neither Hedin' nor Stein[2] realized the significance of his discovery, they both risked the hypothesis that ruined cities such as Loulan had been founded by Indo-Europeans. Even before Stein and Hedin, the Frenchman Ferdinand Grenard, who explored the region of the Southern Silk Road between 1891 and 1893 together with Dutreuil de Rhins, had put forward the proposition that the oldest population of the Tarim Basin were Indo-Europeans who had immigrated from their Eastern Iranian home around 600 BC.[3]

Sensational discoveries made in the Taklamakan since 1979 show that not only had all three explorers come to the right conclusions, but that they pushed back by millennia the historical horizon of time known to us. Today, we know that two thousand to four thousand years ago, in the west of today's China, there flourished an Indo-European culture - many centuries before the immigration of Sino-Mongol populations. The recent analysis of 302 skulls from nine different archaeological sites from the Bronze and Iron Ages shows only 11 per cent to have Sino-Mongolian features while 89 per cent belong to the Indo-European family.[4] The immigration of Sino-Mongol peoples from the east into the Tarim Basin began only gradually around 1300 BC, and until the beginning of the Han Dynasty around 200 BC remained clearly behind the Indo-European immigration from the west. Many finds also give one the impression that much civilizing knowledge had not developed independently in Central China, but had been introduced from Central Asia, to wit, the Tarim Basin.

The present state of our knowledge results in the following survey on pre-historic development ip the Tarim Basin, in which the attribute "prehistoric" refers to the time before the conquest by the Han Dynasty in 130 BC:

1. Paleolithic to Neolithic: 50,000-2000 BC
2. Bronze Age: 2000-900 BC
3. Iron Age: 900-130 BC

THE STONE AGE

In the 1980s a few bones from human skull were found, 50,000 to 30,000 years old. These Paleolithic (-10,000 BC) finds are from the southern Tarim Basin - from the Minfeng, Yutian (Kerya) and Khotan districts, and from Tashkurghan in the Pamir. In addition there were Mesolithic (10,000-6000 BC) finds in the Turfan de-

pressioti ano arou 10 ha. 10 nowo>t discoveries solos'. that those woio Stone V.o cole lies also in the interiot of the Taklamakan Desert tor instance north oi Niva on. the to: me \i\a .V. ve. > ice the skull hones that ha\c beer, ton v are lathe small fragments, nothing conclusive can be s.v.o: concerning their racial affiliation.

THE BRONZE AC;:

In the Tarim Basin, the Bronze Age begins around 2000 BC and leads to the Iron Age around 900 BC. It is marked by two large immigration w aves from the west: a first one from the Caucasus and Anatolia beginning after 2000 BC, and a second beginning 1200 BC from Northern and Eastern Iran. There are excellently preserved mummies that inform us about the past history of the Tarim Basin. Due to the extremely dry climate and the high salt content of the ground, natural processes have mummified dozens of the exhumed bodies. Often hair, eyebrows and eyelashes, moustaches and nails are still there, and even facial paintings and tattoos can be recognized clearly.

The earliest burial grounds known to us are in the eastern Tarim Basin, with Lop Nor at the centre. The oldest place of discovery is the cemetery' of Qawrighul, discovered in 1979 and situated on the Konche Darya, seventy kilometres north-west of Lake Lop Nor. where forty-two tombs have been excavated. Over the largest tomb, which had a wooden chamber, wooden pegs were driven into the ground in seven concentric circles - an arrangement we also find in the Eurasian steppe culture, as for instance with the four thousand year-old Afanasievo culture in the Altai mountain range. As in the Afanasievo cemeteries, the dead at Qawrighul lie with drawn-up knees and on their backs, and as in Afanasievo, the heads and legs of sacrificial animals and bronze objects are buried with them. All mummies that were examined belonged to the Indo-European race and date back to between 2000 and 1750 BC.[5]

The most famous mummy from Qawrighul is the so-called Beauty of Loulan", discovered in 1980 and

14. "The Beauty of Loulan", about 2000 BC. A bag filled with millet had been placed next to her. Xinjiang Museum, Oriimqi.

now exhibited in the Uriimqi Archaeological Museum. The forty-five-year-old woman was a European and died about four thousand years ago. She has dark brown hair and is wrapped in brown woolen cloth; she wears short bearskin boots. Her pointed felt cap with a feather is remarkable.

The findings and conclusion of Qawrighul coincide exactly with those of "Ordek's Tomb" not far east of Qawrighul that was explored by Hedin and Bergman. In 1934 Hedin went to the Lop Nor region for the last time. He owed his discovery of a large

15. Folke Bergman, one of Sven Hedin's researchers, in 1934 discovered a large burial ground thanks to the directions given by the Uighur Ordek. Since then it has been called "Ordek's Necropolis". On this site, west of loulan, he also found three life- size wooden statues still bearing traces of red paint. It is not clear whom these statues represented - the dead or certain deities.

necropolis west of Loulan to his faithful old servant Ordek, who had previously found Loulan in 1900. For, as Ordek heard that Hedin (whom he had last seen in 1901) was present in the Konche Darya region in the spring of 1934, he did all he could to meet his former employer again, and he was successful. The old treasure-hunter then told Hedin that he had discovered a large burial ground near a tributary of the Kum Darya with many coffins, some of which were open.

Ordek's necropolis was on a small hill, so that it was safe from possible floods. Here, Bergman not only found a number of coffins but also more than one hundred wooden poles emerging from the sand, 3 to 4 m high, originally painted red, and three strange human figures carved in wood. As in Qawrighul, in this cemetery of more than 120 tombs, the coffins of the dead were in a wooden chamber covered with vertical wooden planks. Food provisions such as millet and barley were found, and branches of ephedra. This find is remarkable inasmuch as it is from the small ephedra shrub that the alkaloid ephedrin is extracted. This is used as a medicine against infections of the pulmonary tract and the eyes. Did the ancient inhabitants on Lake Lop Nor know the healing characteristics of the plant? This has to be presumed, for in the tombs the twigs of ephedra were placed either on the chest of the dead or close to their heads.[6] The ephedra roots are still eagerly searched for today, but now they are exported to central China as an alleged aphrodisiac.

In May 1934 Hedin found another mass grave with fifteen skulls east of Ordek's cemetery, and two remarkable single graves north of Loulan. The first one was the tomb of an elderly woman, who lies in a wooden coffin 1.70 m long and is wrapped in a brownish-red coat. On her head she wears a Phrygian cap decorated with two feathers. This pointed cap is also represented in Miran's paintings and was worn both by the Scythians and the Iranian Sakas. It is a clear indication of the Lop Nor population's Indo-European roots. Near the tomb of the elderly lady, Hedin found the last resting-place of a younger woman on another hill. Her mummy moved Hedin deeply: "And now we saw her, the sovereign of the desert, the queen of Loulan and Lop Nor in all her beauty. Death had surprised her at a young age. Her lips are still surrounded by a smile not eliminated in thousands of years, which made this mysterious being even more attractive and sympathetic." After Hedin had carefully examined both the mummy and her clothing, he left "the unknown young lady in her coffin for the duration of a night under the starry sky." Then, early in the morning of 7 May, the "Queen of the Desert" was laid back in her coffin and buried once again.[7]

The Tocharians: iho hirst Ivnlo European Wave o’.' Immigration

The affiliation to the Indo-European family of these roughlx four-thousanu-xear-oU: mummies is beyond doubt, hut w ho w e e the\? Where did they come from? On the basis c; archaeological. linguistic and anthropological anahses. we know that the Eurasian steppes were seized by Indo-European peoples from the Caucasus and Anatolia in the 4th millennium BC. \mong other things, in the 3rd pre-Christian millennium these Caucasians founded the Yamnaya culture in todav's Turkmenistan, from which grew the previously mentioned Afanasieva culture. They distinguished themselves by the domestication of pasture animals, the use of light chariots and horsemanship. They are credited with the invention of the stirrup, which revolutionized the art of war inasmuch as the stirrup and the bridle guaranteed the horseman so much stability and agility that an army of mobile riders was more than a match for traditional feudal armies with their war chariots. This Indo-European people moved on southwards around 2000 BC and occupied the region of the Tarim Basin. Thus, the first wave of immigration into the Lop Nor region consisted of Caucasians. At the same time begins the Bronze Age in the Tarim Basin.

These immigrants were the forefathers of the Tocharians. From them, among others, emerged the Yueh-chih - the Issedones of Herodotus. Their two linguistic lines, "Tocharian A" (Turfanian) and "Tocharian B" (Kuchean), belong to the European family of languages. The Tocharians not only represented the indigenous population of the Loulan kingdom, but they also developed a refined Indo-Persian mixed culture at the Kucha oasis near the northern edge of the Tarim Basin. Kucha's upper strata of society embraced Buddhism at the end of the second century AD, and thanks to the excellent scholar and translator Kumarajiva, played an important role in the transmission of the Buddha's teachings to the Middle Kingdom around AD 400. The wall paintings of Kizil (near Kucha), dating from the late 3rd to the 5th centuries AD, depict numerous profane scenes representing armed riders and donors of both genders who give a realistic impression of the outward appearance of the Idcharians at that time. I lore we come across tall, blue-ex ed human beings, w itb a w hite skin and auburn hair.

There is barelx a doubt today that it was the I’rota-Tocharinns who. thanks to their metallurgic knowledge, introduced the Broil, e \ge into the larim Basin around 3000 BC. and were the first to build fortified settlements in order to protect the sites of bronze manulactuie. V the same lime they brought knowledge of sheep raising and wool making. Later, in the 16th or 15th centurx BC they introduced the light battle chariot, and around 950 BC, equitation. This hastened the transition from an agrarian economy to a mixture of a primal x semi-nomadic pastoral economy xvith secondarx agriculture. The Tocharians, as from 1000 BC also traded directly xvith China. This is show'll by three thousand-vear-old shell money discovered in today's Xinjiang, xvhich could only have come from China.

In Chinese scientific circles there exists the burning question as to whether these core technologies were developed autonomously in the Middle Kingdom or had been taken over from the Tarim Basin or the Eurasian steppes. It seems that China had gained this knowledge only one hundred to four hundred years later, taking it over from agrarian societies ot Central Asia that already used metals. Thus, the oldest bronze objects made in China come from the Erlitou culture belonging to the Xia era and are to be traced to 1900 BC at the earliest. The light battle chariot was known about 1 300 BC, at the time of the Yin kings in the region of Anyang, while the use of cavalry could only be established around 400 BC.

The results of recent etymological research support this view, since they show that several Chinese words to do with chariots, wheels, wheel spokes and axles have Indo-European etymologies. In this specific case it seems that China not only adopted the technology of the light chariot, but also borrowed the names from Indo-European sources."

The economic system of the Tarim Basin in the Bronze Age is knoxvn to us not only through excavations-especially of funeral offerings-but also thanks to prehistoric rock carvings. Today's Xinjiang region is rich in rock images; it has thirty-three fairly large sites, six of which are in the Tarim Basin. What strikes one first is the great similarity with the petroglyphs of the

Scythians, lh<* I urasian steppe population from the Altai mountain range and the Ordos, especially when representing the ibex, hart with large antlers, trees of life, hunters, and dancers.

Two locations arc espec ially relevant to our subject. These are the older petroglyphs of Xingdi in the Kuruktag mountains north of the Konche Darya, and rock carvings at the base of the Kunlun in the Qiemo district, which is traversed by the Silk Road. At both sites we find scenes dealing with agriculture, cattle raising and hunting. We find plants, elongated wooden structures and bullocks; and pastoral scenes with sheep, goats, horses and camels looked after by herdsmen on foot or on horseback, their weapons being mostly the bow and arrow but also the sling and the club. These rock engravings dating from the Bronze and Iron Ages show the three different forms of economy of that time. The hunting and pastoral scenes are more frequent, and representations from the agrarian world are rather few and far between. Also, the large rock art site of Quergou in Kutubi County is noteworthy in that several human figures show clear Indo- European physical characteristics.

The Saka: the Second Indo-European Immigration About eight hundred years after the Proto-Tocharians, a second immigration wave set in from the west. This was made up of the forefathers of the Saka, advancing from Eastern and Northern Persia towards the Tarim Basin. Their migration began around 1150 BC and lasted for several centuries, right into the Iron Age (900- 130 BC). They settled not only in the region of the Tocharians, for example near the lower course of the Konche Darya near Qawrighul and near the place called "Ordek's Tomb" where Saka mummies were also found, but also near the southern and northern borders of the Taklamakan Desert. We know of several burial grounds dating from this epoch.

One of the most important sites of the later Bronze Age is Zaghunluq. This is situated on the tableland north of the old bed of the Cherchen Darya River that once emptied into Lake Lop Nor. Between 1985 and 1996, several hundred tombs were identified there and a small museum was raised over tomb 24. The funeral

16. Female mummy from Zaghunluk, 2nd millennium BC. Regional Museum, Korla.

offerings discovered allow the conclusion that these human beings pursued agriculture as well as cattle raising and lived between 1200 and 700 BC.

Some of the mummies discovered are especially impressive. For instance, a married couple of considerable stature was discovered in a tomb. The man is more than 2 m tall, the woman 1.90 m. They, too, wear the typical Phrygian felt cap that is common with the Saka.

Another find is illuminating, for it documents the custom of human sacrifice. In the tombs the mortal remains of four human beings were found

and onl\ one o; them had diod a natural death; the others had mo', urn a \ io ent death. Vhc ".lain character wa> an oldo A woman. She is 1."2 m in height and nad been im iee >onie three thousand \oars ago \\ith k ices draw i up. Site has greying hair extended in coloured wooden plaits, just as is the custom w ith today s dbelaes. On ho; forehead and around her eyes sand-golden paint was applied probably only after her death, with the tw o elliptical blue lines in the middle of her forehead being really' conspicuous. Since the lower half of the face has been painted w ith a rod- brown colour, the make-up on the upper half gi\e> tire impression of a half-mask. \ red woollen thread is drawn through the nose of the dead person. She w ears bearskin shoes and is covered with a dark-brow n cloth. The green-blue tattoos on her left hand are especially noticeable.

The custom of facial painting was w idespread during the last pre-Christian millennium in Gansu, w'hich borders on eastern Xinjiang, and in Tibet. It is therefore possible that persons of Tibetan stock, the Qiang, had also migrated to Xinjiang. In Central China, inscribed oracular bones of Yin princes from 1200 BC have given evidence of Qiang occupance. Since the western Qiang in those days lived in Gansu and in Qinghai in the north-east of Tibet, both bordering on the Tarim Basin, it may be supposed that Qiang Tibetans migrated to Chinese Turkestan. The morphological analysis of Zaghunluk skulls permits the conjecture that in the south-western Tarim Basin a certain intermixture had taken place between the Saka, Tocharians and Qiang.[9]

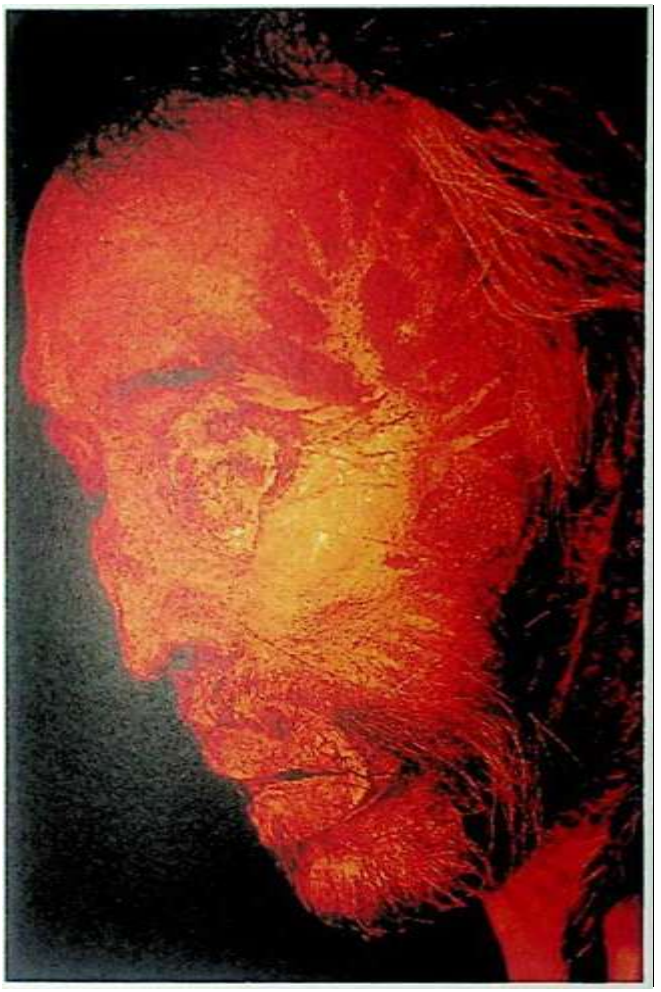
In honour of this woman three human beings were sacrificed. First of all, a boy about one year old wrapped in red cloth. He has auburn hair and each of his eyes is covered with a green stone. His mouth is wide open, as if in a frozen scream, for the child had been strangled and buried head first in a vertical position. The second to be sacrificed was a small baby and the third, a twenty-year-old woman with light- brown hair. Her features are distorted with pain and she has bitten her longue. She had been sacrificed in a brutal way, for her arms and legs were amputated while she was still alive. Her orange-brown dress is stained with blood. These mummies are now preserved in the Korin Museum.

In the Oriimqi museum are the occupants of another tomb from /aghunluk. also dating back to about 1000 BC. I bis time the main person is a man of about ! iit\ -five years whom three women accompanied to the beyond. 1 he man w as found lying on his back with bis knees slightly drawn up. I le wears an intact, claret- colouied gown made of fine wool, coloured woollen knee-length stockings and w hite knee-high boots. His iace is especially remarkable. With his well-groomed shoo beard and moustache and bis deep-set eyes, he shows obvious European features. He has greyish- brown hair and his head is encircled with a knotted band to hold the chin in position. Like a half-mask, the yellow painting on his face covers the forehead, both temples and the upper parts of the cheeks down to the beard. The coat of paint probably applied on the surface, tapers off in radiating lines, perhaps a sun symbol.

Together w ith the man, three women were buried. One of them is 1.60 m tall, forty-five years old and was also found with slightly drawn-up knees. She has greyish-brown hair that ends in two long and thick brow'n plaits with coloured woollen threads. Like the male body, she also is wrapped in a dark-red gown and has had yellow' spiralled patterns painted on her cheeks and the wings of her nose. Perhaps these are also sun symbols. Since the three women show no signs of violent death, we do not know why they were buried with the man. Were they poisoned? Or did all four die simultaneously in an accident?

A couple of metres south of the main tomb with the four adults, the mummy of a three-month-old baby in a small pit was unearthed. The child is tightly wrapped in an orange-red woollen cloth and wears a blue cap. On each eye there is a flat blue stone. It might have been the child of the man and one of the women.

The burial grounds of Sampul, east of Khotan, consist of thousands of tombs dating from between 900 and 100 BC. Single tombs were discovered here as well as mass graves with more than one hundred corpses. In Sampul, Caucasian Indo-Europeans with brown or blond hair and white skin were found as well as Saka of Iranian origin. Most tombs date from



17. Male mummy from Zaghunluk, 1000 BC, with orange-yellow facial painting. Xinjiang Museum, UrCimqi.

the 3rd and 2nd century BC - the time when Khotan, then an Indo-Persian kingdom, was founded.

Almost as large as Sampul is the burial ground of Charwighul near the north-eastern rim of the Tarim Basin. Here, more than thousand tombs were discovered in 1983. Generally, the tombs are marked with stone heaps, with the larger ones covered by four to five stone plates, around which stones the size of footballs are arranged in a circle. Frequently, small children, horses and bullocks were sacrificed. Some skulls of the Caucasian type show small drilled holes, a sure sign of trepanations; others have an elongated, narrow shape. This artificial deformation was achieved by lightly fixing two wooden boards around the head of a small child. Morphological skull analyses and funeral offerings made of bronze suggest the conclusion that, in Charwighul, occupied between 500 and 100 BC, we could be dealing with an Indo-European group different from the one in Qawrighul or "Ordek's Tomb".

Findings from the small cemetery of Yanbulaq near Hami (about three hundred kilometres north-east of Lake Lop Nor), indicate that the first immigration of Mongolian peoples into the Tarim Basin had begun about 1300 BC. For there, skulls of Indo-European as well as Sino-Mongolian human beings were discovered in tombs 3,300 and 2,500 years old. But centuries would pass until, towards 200 BC, there would occur another large immigration of Mongolian peoples.

THE IRON AGE

In the Tarim Basin, the Iron Age began around 900 BC and at first ran parallel to the Bronze Age. This co-existence can be explained by the fact that in many places the majority of metal objects continued to be made out of bronze even after the 10th century BC, even though the art of iron casting was known. There is considerable evidence that iron - as previously bronze before it - was brought from the west to Xinjiang and from there reached Central China after a delay of 300 years. Iron was manufactured in the plains of China as of the 7th century BC and replaced bronze during the 4th century BC. Yet, bronze continued to be used for ritual objects, finery and coins.

While our knowledge of the Bronze Age in the region of the Taklamakan Desert comes almost exclusively from burial grounds, not long ago two Iron Age settlements were discovered. Both are situated in the heart of the desert near a former river delta. The two colonies are Yuan Sha and Niya North.

The fortified city of Yuan Sha was only discovered in 1994, around forty kilometres north of Karadong in the former Kerya Darya delta. The circular clay city

wall. 5.5 m deep and i p to 'm ' •-.a ga\o the town its >ame or Yuan weans - a ar" and Sha, "desert".

corresponding Uighur name is "Jumbala < **rhe** vva s not perfectly circular but rather heart- sn.'.ped point'ng vtnw; d- and it has a circumference o: almost t 000 n. da a's a; 'm b'gh v it\ gate :n : v north as we ' as n . 'a see: 1.

In 1996 the first e\ca\ations were made and si\ places of interest discovered, three of which were ru insoi houses. Beside grey, black and red ceramics and woollen materials, numerous ornaments made of bronze were brought to light such as bangles and ear- ings. Some of the bronze objects uncovered seem to have come from local sites but others appear to have been imported from steppe cultures in the Mongolian and Ordos regions. An analysis of the ceramics suggests a link of Yuan Sha's culture with that of Zaghunluq's later period, w hich allows us to date the golden age to the 8th century BC. But the city remained populated for a long time, for the dating of wooden samples from the intact southern gate results in a calibrated date around 264 BC +/-65.

Since neither coins nor silk were found in Yuan Sha, we may presume that the city was given up in about 130 BC at the latest, w'hen the Chinese conquest of the Tarim Basin had begun. The probable event causing this was a south-eastward displacement of the river Kerya which formerly had provided the town with water.

The many iron arrowheads discovered suggest that the most important weapon at that time was the bow and arrow. Iron knives were also found. Yuan Sha had irrigation canals, so that its inhabitants were able to cultivate millet and barley. At the same time they had animals such as camels, bullocks, pigs, sheep and goats. Numerous antelope and red deer bones indicate the significance of hunting. Yuan Sha therefore existed on a mixture of agricultural and pastoral economies, as well as of hunting.

At a distance of 500 to 1,000 m from the city, the archaeologists chanced upon a cemetery at each of the four cardinal points. Some of the tombs w'ere covered with large dark-brown ceramic shards, and forty- live skeletons were recovered that had been buried with drawn-up knees, as in Zhagunluq. About a quar ter of the dead seem to have been lndo-1 uropeans.

I hen. 3.4 km north-west of the fortress and 12 km noi th tw o more burial grounds of an earlier date were discovered. possibly of the Bron/e Age. In some tombs two human beings are buried bead by foot. The dead a;e oi lndo-l uropean race. As in Cli.mvighul, some ka.vi been tiepanned. Finally, in the vic inity of these iast two burial grounds, the arc haeologisls discovered a Bronze \ge settlement. These finds prove that two tneusand years ago, flourishing city oases existed w ithin the heart of the Taklamakan Desert.[10]

The second ruined city from the Iron Age was discovered in 1995. some forty kilometres north of Niya. lust like Yuan Sha, Niva North had an oval, egg-shaped citv rampart made of clay bricks. The archaeologists discovered the ruins of numerous houses as w'ell as clay pots, glass beads imported from the West and necklaces, in addition to objects made of iron and bronze. The inhabitants primarily lived off agriculture, since they had easy access to water from the Niya Darya for the artificial irrigation of their fields. The golden age of Niya North may he assigned to the 4th and 3rd centuries BC. Some kilometres north of the city the archaeologists chanced upon hunters' campsites that might date from the early Bronze Age. Some of the finds give rise to the supposition that even Neolithic and Mesolithic settlements existed on the shores of the Niya Darya.

Summing up, it may he ascertained that the so- called "Silk Road" was not opened from the east for Chinese silk exports, hut from the west by the migration of Indo-European populations. At the same time, not only did significant technologies reach China from the west by way of the Tarim Basin, hut for at least four thousand years there existed a lively trade between the Tarim Basin and western regions on the one side and China on the other.

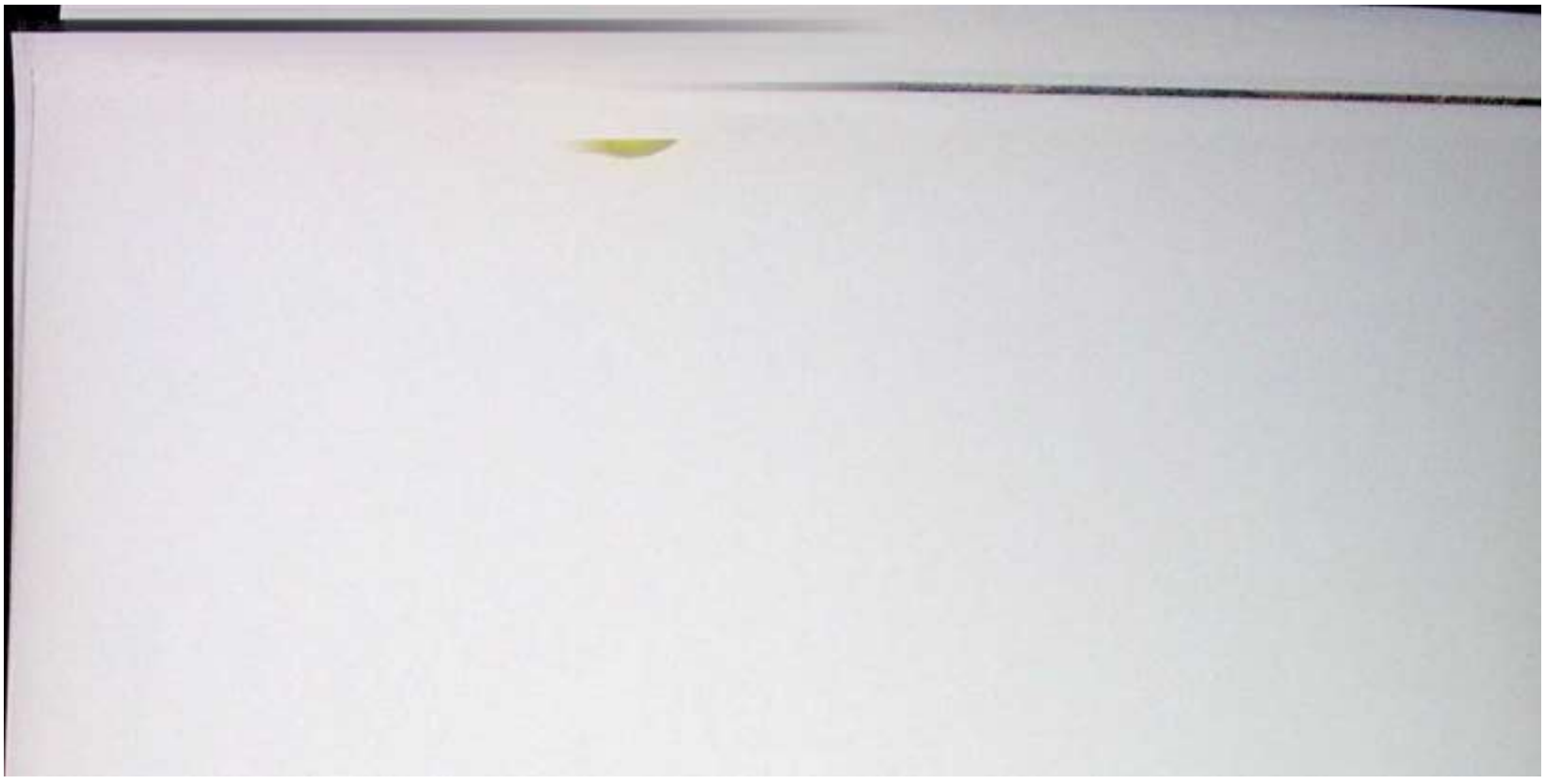
The Xiongnu: the Onset of Immigration from the East

The immigration of Mongolian peoples was sparked off by the expansive politics of the Western Han Dynasty (206 BC-AD 9) when, in 176 BC, the Indo-Euro-

ponn Yiieh-chih were driven oul of ihe I lexi Corridor by ihe Xiongnu. I liese predecessors of the Huns were A lurko -Mongolian people who lived within the great northern loop of the Yellow River in the 3rd century 13C. The emperor Qin Shi I luangdi, who united China for the first time in 221 BC, recognized the danger that this nomad nation with its propensity for raids represented to the resident Chinese rural population. He therefore strengthened the existing Great Wall that dated from Eastern Zhou times and drove the Xiongnu northwards into the area beyond the Yellow River. But a few decades later, in the year 176 BC, the Xiongnu trekked to Gansu and inflicted a shattering defeat on the Yiieh-chih residing there. Ten years later the Xiongnu advanced further south and in 166 BC even reached the suburbs of Chang'an, the capital of the Han Dynasty.

The defeated Yiieh-chih now turned westward and caused a political domino effect when they themselves dislodged the Wusun on the Hi river and the Iranian Saka from Kashgar. Parts of the latter group stepped aside into the Kholan oasis but, around 140 BC, repeatedly attacked the Graeco-Bactrian kingdom in the region of today's northern Afghanistan. Soon the Yiieh-chih recommenced their expansion and in 128 BC drove the Saka out of Bactria. They, in turn, moved to northern India and later on attacked the Parthians.

The restless Yiieh-chih rapidly expanded their dominion towards the south and at the beginning of our era founded the mighty kingdom of the Kushan, stretching from Afghanistan to the central plain of the Ganges and from Kashmir to Sindh in today's Pakistan. This nation not only assimilated Bactria's Greek culture but embraced the Gandhara region with its eminent Graeco-Buddhist culture as well, thereby creating an essential prerequisite for the spreading of Buddhism and Hellenistic influences along the Southern Silk Road. In addition, the Kushan controlled important stretches of the Silk Road between the Tarim Basin, the Parthians, and the Indian Ocean ports.



Great Powers on the Silk Road

Because of iheir aptitude for sudden raids, the Xiongnu were ominous neighbours for the Chinese Empire. The first emperors of the Early Han Dynasty initially tried to meet the dangerous nomads defensively, by buying peace with payments of tribute and a special marriage policy. This meant that Chinese princesses were married to Xiongnu rulers, while young Xiongnu princes were sent to the imperial court as hostages. In addition, several times a year the emperor had to offer the nomads large gifts in the form of silk bales, which they in turn sold to western peoples. However, these Chinese payments of tribute did not stop the Xiongnu from continuing their daring raids into China's interior. The finances of the imperial treasury moreover were thrown into confusion because of the constantly growing need for horses for the imperial army, for the nomads were well known for their horse breeding and were only prepared to barter "horse against silk".

The Han Emperor Wu Di conquers the Tarim Basin

The energetic emperor Wu Di (141-87 BC) set up an efficient administration whose officers were admitted only after a formal examination. He also decided to proceed militarily against the Xiongnu. Before he set out on his campaign proper, he reinforced the Great Wall in its western and north-western parts and began to seek out allies. The Yiieh-chih seemed ideally suited for this, since they had been humiliated by the Xiongnu a generation before. In 138 BC, Wu Di therefore charged the official Zhang Qian to cross the lines of the Xiongnu and to win over the Yiieh-chih for an offensive military alliance against the Huns.

But on his journey Zhang Qian was captured by the Xiongnu and held a prisoner for ten years before he managed to flee to the Yiieh-chih. However, these people had become well established in Bactria and showed no interest in a new war against the feared Huns. So Zhang had to return without having achieved his purpose. On his way back he was captured by the Xiongnu once again. After one year's detention he again managed to escape and he returned to the capital Chang'an in the year 126 BC. Although the ambassador had not been able to win over the Yiieh-chih for an alliance and so much time had been lost, his journey nevertheless had far-reaching consequences. He was the first to report on far-away cultures beyond the regions where the barbarians lived - on Bactria, Persia and perhaps even Rome. Moreover, he was the first who could immediately observe the exchange of goods on the future Silk Road. He could therefore acquaint China with Central Asia, and he opened the gate for the Middle Kingdom to trade with the West. In addition, he is said to have introduced to China both alfalfa (lucerne) and the vine.

Of utmost military importance was Zhang Qian's report on powerful horses "perspiring blood", the offspring of the "heavenly horses" and raised in today's

Fergana Valiev north ot Kashgai V. om; Iasi ii opened a possibility 101 tl'.o etv.poso; \N i. Pi to build up a cavalr\ equal to that ot the Hens. Thus in 115 BC he once again entrusted his ambassador with an impot tant mission. This time he w as to win over the Wusun in Fontana \ ai!e\ as aiiios an J buv stallions from them. Although not even tire Wusun were prepared to attack the odious Xiongnu, thev gave the returning ambassador tire desired horses as a gift for tire emperor.

Wu Di. around 115 or 105 BC, sent another delegation to the Parthians with the task of establishing direct contacts. The Chinese ambassadors were received by King Mithridates II. who was to establish diplomatic relations with Rome in 92 BC. These circumstances lead one to suppose that direct Sino-Parthian trade contacts originated with the journe\ of this delegation and that they laid the foundations for trade between east and west that later on was to grow so extensively.

Parallel to his diplomatic efforts, Wu Di had also initiated military operations. Thus, the imperial armies drove the Xiongnu from Gansu to the north-west into the region of Lake Balgrash. just as with the Romans, the victorious armies were followed by agricultural colonizers composed of discharged soldiers. These military colonies were to lay the foundations for the imperial protectorates that were established later. At the same time, the emperor decreed that irrigation canals be built in the conquered areas of the Tarim Basin, in order to accommodate the increase in population that was to be expected to accompany a greater agricultural output. Under General Li Guangli, there followed two military campaigns to Fergana in the region of today's Kokand which were successfully concluded in 105 or 102 BC with the seizure of several thousand stallions and mares. These formed the basis of the successful horse breeding that was so essential to establish. In this way the Chinese finally were in possession of a cavalry that was a match for that of the nomadic peoples, and their war machinery was generally superior thanks to their steel weapons.

During China's advance to the west, General Cao Po Nu (Zhao Ponu) reached Loulan in 108 BC and captured its king. After that city revolted against China thirty years later and again entered into alliance with the Xiongnu. the C hinese general was successful in quickly retaking Loulan h\ a surprise onslaught in 77 BC, whereupon he had the rebellious king beheaded and stationed an imperial garrison in the city. Aurel Stein established that at that time the individual Chinese garrison cities were linked to each other by a >vslem ei watch towers and signal lowers that sent out fire signals by night and smoke signals by day. Relerring '.o Rome. Stein called this system of securing the frontiers limes . The subsequent occupation of lurfan, Karashahr and Yarkand allowed China to control the Silk Road for the first time.

Yet this first Chinese supremacy over the Central Asian Silk Road very soon broke down, for the rebellious usurper Wang Mang overthrew the Early Han Dynasty in the year AD 9 and ruled himself under chaotic circumstances until the year 23. The Xiongnu took advantage of this weakness and reconquered Loulan, Karashahr and Turfan. Provoked by a Hun attack on Gansu, the emperor Ming Ti (Ming Di) counter-attacked. General Pan Ch'ao, one of the greatest generals of Chinese history, was successful in once more subjugating the entire Tarim Basin to the control of the Han Dynasty during the course of a thirty-years war, with troops that were far fewer than those of the enemy.

Pan Ch'ao’s strategic motto was: "Fight the barbarians with barbarians." To this end he employed auxiliary troops in his campaigns, recruited in the re-conquered principalities. Likewise, he allowed the existing administrations to continue their work and the respective princes to continue their reign if they had accepted Chinese overlordship. In order to stabilize permanently his military successes within the Tarim Basin, Pan Ch’ao systematically continued the former colonizing policy in the oases with the help of discharged soldiers. The general justified this policy as follows: "The country is wide and fertile, and the settled soldiers cost the empire nothing" since these small garrisons were practically self-sufficient.[1]

Together with this strategy, China's policy of forcible adaptation to its way of life began. Parallel to the previously mentioned colonization policy, a unique Chinese communications system was introduced. It consisted of a very extensive network of postal sta-

lions where slate express messengers could change (heir horses or hand over the documents to a messenger already wailing there.

Outside the immediate Chinese sphere of influence in the west - beyond the Tarim basin - Pan Ch'ao established a network of friendly relations with the Wusun, the Sogdians and the Kushan. The supreme strategic aim was, and remained, the isolation of the dreaded Xiongnu and the prevention of their attempt at re-conquering their former domains. It seems that Pan Ch'ao (like Mao Zedong much later) was an intelligent pupil of the famous pre-Christian military theoretician Sun Tzu (Sun Tsi). He had maintained that "those who win every battle are not really clever, but those are the real masters who, without any battle, put the armies of the others out of action."[2]

Pan Ch'ao not only endeavoured to secure Chinese overlordship within Central Asia but also was eager to acquaint himself with the unknown countries beyond the western borders of his sphere of influence. For this reason he entrusted an ambassador named Gan Yin to undertake a reconnaissance journey to the mysterious "Da Qin" (Rome). According to the annals of the Late Han Dynasty, Gan Yin reached the Persian Gulf where he wanted to embark for Rome. But the Parthians who controlled the trade between China and Rome regarded Gan Yin's expedition with suspicion and tried to prevent a direct commercial exchange between the two. To this end they tried to strike terror into the Chinese delegate and vastly exaggerated the dangers of navigation. As they had hoped, their ruse was successful for Gan Yin gave up the idea of continuing his journey and returned to China without having achieved his purpose.

In recognition of his achievements, the Imperial Court bestowed the title of "Supreme Protector" on the valiant commander-in-chief Pan Ch'ao, making him the actual viceroy of Central Asia, with its seat in Kucha.

After a short period of disturbances, Pan Ch'ao's son Pan Yung (Ban Yong) re-established China's sphere of influence that had been built up by his father, which guaranteed trade security along the Silk Road until about AD 140. During his visit to Loulan in AD 124, Pan Yung recognized the exceptional strategic importance of the city which controlled the Middle Silk Road and which could interrupt trade along this route at any time. For this reason he decided to establish a garrison of one thousand men there, whose tasks were to protect the Silk Road from Xiongnu raids and to watch over the uncertain loyalty of the King of Shan Shan.

The kingdom of Shan Shan (1 st century BC to 4-5th century AD) stretched over a distance of more than 800 km, from Loulan in the east to Niya in the west, at the time of its zenith in the 3-4th centuries. Shan Shan's history is characterized by alternating periods of independence and submission. While it had to accept the overlordship of either China or the Xiongnu in the first two and one half centuries of its history, it was virtually independent (although under some influence from Kushan) from AD 185 to about 265 when its king, Amgoka, had to submit to Wu Ti, the first emperor of the Western Jin dynasty (265-316). After the collapse of the Western Jin, Shan Shan became the target of the regional dynasty from Gansu, the Former Liang (317-376), and of the Xiongnu. But the kingdom survived another century. Then it was first unsuccessfully

Pan Ch'ao (Ban Chao)'s bold strategy

An example of Pan Ch'ao's smart martial art is the tactics he used in once again subjugating to Chinese rule the rebellious city of Loulan which controlled the Middle Silk Road. When accepting the capitulation of Turfan, he was told that the king had received a high ranking Xiongnu delegation in Loulan and was planning an alliance with the Huns and not with the Chinese. Instead of waiting for the negotiations between Loulan and the enemy, Pan Ch'ao was convinced that "he who does not enter the cave of the lion cannot capture its brood." He therefore rushed to Loulan with just a few soldiers and during the night raided the tents of the Xiongnu ambassadors and had them decapitated. Their heads he sent to the treacherous King of Loulan who understood the unequivocal hint and hastened to proclaim his loyalty to China.

attacked by the \o:the ' . a:v. o"' Cau>u n around 44.'. and liuaiU de:eak\ * • •' b\ . v No:'hem Wei (386-534).

Diring this pe od u:\io- the ad vi nitration of Pan Ch ao and bis son Pan \i ig. the expansion of China's power aOv.ndessA was a. ;s 'anight to: the first time in Cent'a. \s a v !V>te:;aa - gnirica.ncc of their rule lies less in their military successes than in the fact that they made the >ik Road as sue h - the lively exchange of goods ideas ana cultures between l ast and West poss bleat all. The era of economic development that lasted to the first halt of the 3rd century \D also favoured the dissemination of Buddhist influence coming from the southern kingdom of Rushan.

CHINA AND TIBET FIGHT FOR CONTROL OVER THE SILK ROAD

The Han Dynasty lost more and more power and authority after the 2nd century AD, as a result of the grow ing influence of the eunuchs at the imperial court and their altercations with the administration mandarins. Peasants' revolts, riots by religious movements such as the "Yellow Turbans" and the struggle of three local lords for supremacy, led to the downfall of the Han Dynasty in AD 220 and to internal disturbances. This resulted in the formation of three independent kingdoms which gave this era the name of "Three Kingdoms" (220-280), followed by the Western Jin (265- 316). Then, China rapidly disintegrated into several northern and southern dynasties. It was only in 581 that the Sui Dynasty put an end to this dance of shortlived regional dynasties and reunited China.

The Xiongnu look advantage of China's dwindling authority in Central Asia during the last decades of the Han Dynasty, and re-mounted their dreaded raids into north-western and northern China. In these troubled times the principalities of the Tarim Basin were also successful in reasserting their autonomy, but they often also had to recognize the supremacy of a regional power. Thus, the major part of the Tarim Basin was a vassal of the mighty Hephthalites (the so-called "White I luns") w ho in >18 wore visited In the two Chinese pilgrims Sung Yun and I Uii Shong on the occasion of their diplomatic mission. I atei. in the second half of the l>th eentuix the Tarim Basin fell to the Western luiks. \s a consequence of this general disintegration of authority along the Silk Road, international trade inc 'vasingK opted for the sea route.

Although the Chinese rcconquest of Central Asia huv i begun under the short-lix ed Sui I dynasty (581 -618), was the Vang Emperors w ho were to reassert Chinese control over the Tarim Basin and Fergana. The Emperor Tai Zong (627-649) rightly deserves the fame of establishing the base for the renewal of Chinese rule over Central Asia by his offensive strategy. After having vanquished the neighbouring kingdoms of the Eastern and Western Turks, in 630 he turned towards the west and by 635 had brought Turfan, Kashgar and Yarkand under Chinese control. In 648 Khotan and Kucha had to capitulate as well. Tai Zong's son, the emperor Kao Zong, managed to consolidate Chinese authority in the Tarim Basin with the establishment of the so-called "Four Garrisons". These consisted of military bases at Karashahr and Kucha along the Northern Silk Road, Khotan on the southern route, and Kashgar where the two routes joined. Thanks to a victory over the Turks in the year 658, the Chinese were able to extend their immediate sphere of influence even as far as Kabul. It was during this time also that a delegation from Byzantium visited Chang'an, supposedly in 643, according to the imperial annals.

But no extended period of peace was granted to the Tarim Basin, for in 662 there suddenly appeared a new expansive superpower in Central Asia. It was Tibet that during the next two centuries would make its decisive mark the history of Central Asia. After Tibet had inflicted a shattering defeat on the imperial troops in the region of the Koko Nor in today's Qinghai province, it advanced like a hurricane into the Tarim Basin. According to the Tang annals, the "Four Garrisons" were lost to the Tibetans between 670 and 692. In the latter year General Wang Hsiao Chili (Xiao Zhi) managed to repel the Tibetans and thus to terminate their first occupation of the Southern Silk Road.[3]

Even after this victory the imperial armies stationed

in Central Asia could nol enjoy a lasting resl. At the start of the reign of Emperor Xuan Zong (71.3-762), a new aggressor, this lime coming from the west, threw his threatening shadow across the Silk Road: the Arabs who, under the highly gifted commander-in-chief Qutayba Ibn Muslim, by 715 had conquered Bactria, Sogdia (around today's Samarkand) and Fergana. Meanwhile, China's first direct contact with the Arabs had taken place in 651, when an Arab delegation paid its respects to the Emperor Kao Zong. Other diplomatic contacts took place in 713 and 732. Only the murder of Qutayba saved the "Four Garrisons" from an Arab attack.

Although the imperial troops were able to stop the now leaderless Arabs, they were exposed on their southern flank to increasing attacks by the Tibetans who had formed an alliance with the Arabs against the Chinese. In spite of this Tibetan policy of "needle pricks", China had the situation mostly under control and thereby introduced another economic golden age.

At the beginning of the 8th century, China and the Arabs were the decisive super-powers on the Eurasian continent and both practised an expansive foreign policy. Since both realms had a common border in Central Asia, a direct confrontation was inevitable. It began in the year 741 when the Arabs advanced in the direction of Tibet from their Bactrian base. The emperor Hsiian Zong recognized the danger of a military merger of the Arabs with the Tibetans against China, for already isolated Tibetan units had been advancing along the Indus as far as Gilgit and Yasin, into Baltistan. He therefore decided to thwart this threatening alliance by means of a daring campaign across the Pamir, and he entrusted General Kao Hsien Chih (Gao Xianzhi) with this difficult task.

With his campaign against the Arab-Tibetan alliance in the year 747, this Korean-born general accomplished a feat that in no way falls short of Hannibal's crossing of the Alps. As Sir Aurel Stein proved, in his advance from Kashgar to Gilgit with his army of ten thousand men, Kao Hsien Chih surmounted the dreaded Darkot glacier pass, which is almost five thousand metres high.[4] With this unexpected attack he managed to surprise and eliminate the Tibetan troops. Thus, the threatening danger of an Arab-Tibetan coalition against China was dispelled. When shortly thereafter a Tang army snatched the Ili region on the Issyk-Kul from the Turks in 748, China was at the peak of its might in Central Asia. Not only was the Tarim Basin under its sovereignty, but also the expanse from the Ili region to Tashkent, in addition to certain Pamir regions, Kabul and Kashmir.

But three years later a Turkish-Arabian army attacked the Chinese occupation troops in today's Kirghizia and in 751, on the Talas River, inflicted a defeat on General Kao Hsien Chih (the victor of the previous "Pamir War"). This brought an end to Chinese rule in Central Asia. As shortly thereafter the rebellion of An Lushan (756-762) broke out in China itself and threw the country into civil war-like conditions, the Tang rulers not only had to renounce all regions west of Kashgar but also they were not even in a position to initiate a counter-offensive. In addition, the power vacuum left by the Chinese was soon to be filled by the Tibetans and after them by the Uighurs.

It was one of the side-effects of this battle on the Talas that paper reached Europe, for apparently the Arabs had also captured some paper craftsmen and deported them to Samarkand. There, a paper industry quickly developed and then spread over the entire Islamic world reaching Spain in the mid-12th century.

TIBETANS AND UIGHURS ON THE SOUTHERN SILK ROAD

The Tibetans did not miss the opportunity they were given by China's defeat on the River Talas, and from 758 on they attacked along the entire Tibetan northern frontier. At first they conquered Gansu province, then, in 763 even occupied the Chinese capital Chang'an and advanced to the Tarim Basin. From 766, the direct connection between the Chinese garrisons in the Tarim Basin and Central China was cut off, causing a renewed transfer of trade to the sea routes.

Surprisingly, the Chinese commanders of the "Four Garrisons" were able to maintain their authority on

18. The strategically important fortress Mazar Tagh on the Khotan Darya was occupied by the Tibetans from 790 to about 850.

the region until 791 without support from the motherland but with the help of the Uighurs. A Tibetan sgraffito from the year 791 in the ruined city of Endere reports on Tibet's victory over China. The Sino-Tibetan peace treaty of 823, which is recorded on a stela in Lhasa, regulated the peace between the two realms.

The Tibetans, in their turn, now began to secure their new zone of influence with a chain of fortresses more than one thousand kilometres long, all lying within the sphere of the Southern Silk Road. This defence system began in the west near Mazar Tagh on the lower course of the Khotan Darya, then led eastwards to Endere on the Southern Silk Road, and to Miran where branches of the Southern and Middle Silk Roads joined up. It finally ended in Dunhuang, at the strategically vital bifurcation point of the Southern from the Northern Silk Road. We owe our knowledge of this branch of history most of all to Aurel Stein who, through his systematic investigation of these Tibetan fortresses at the beginning of this century, excavated documents that enable us to reconstruct historic events.

In spite of the Sino-Tibetan peace convention of 823, the northern frontier of Tibet enjoyed a mere twenty years' peace. This was shaken by two events that took place independently. The first was the murder of King Langdarma (an enemy of Buddhism) in the year 842, which saw Tibet plunged into civil war and led to the breakdown of the central authority. The sec-

19. A Tibetan sgraffito from AD 790 or 791 reports on a Tibetan victory over China. Endere, building E III.

one! was the appearance of the Turko-Mongolian Uighurs after 840, displaced from their homeland in the Karakorum by the Kirghiz. They settled down in the northern oases of the Tarim Basin and founded their capital, Kocho, in theTurfan depression. Thus, the rule of the Tibetans over the Tarim Basin was irreversibly broken between 860 and 873.

The Uighurs were mostly followers of the Manichaean religion which originated in Iran, and they employed the Sogdian alphabet in their written language. This, in turn, derives from the Syrian and the Aramaeic alphabets. The Uighur alphabet was later taken over by the Mongolians and also successfully maintained its hold against the alphabet based on the Tibetan script, which was introduced by the Tibetan Lama Phagpa.

After the conquest of Turfan, however, the Uighurs quickly converted to Buddhism. Yet they remained tolerant in their relations with Manichaeans and Nestorians. Thus, the Uighurs laid the foundation for a unique Sino-Iranian synthesis that also expressed itself in a wonderful way in the paintings of Dunhuang. Although the Uighur kingdom was limited to the northern half of the Tarim Basin, thereby enabling the oases on the Southern Silk Road to reattain their independence, it represented a stronghold against the advance of Islam. For, when the Uighur kingdom lost importance at the beginning of the 12th century, the first and

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at the same time the nos; oo\\o c U • me wave of conquest had long > vo Ov\w\i.

L mil thetc • i o : v m' 'co m • the ndependent Bud dhist kingdom of Khotan was able to stand its ground aga ist the eve more threatening Islamic assault. It "as on \ i .Ye v o r v ' t h a t it had to surrender to the Islamic luihish karakhanicls of Kashgar. In the south, the raklamakan I teserl also put an end to a further ad\ance to the east of the Islamic aggressors. Since their expansion came to a halt in the 15th century near I lamionthe Northern Silk Road. Dunhuang remained spared from the iconoclastic Moslems, protected by the desert.

IV A Meeting Place of Religions

The special charm of the culture of Central Asia, especially along the Southern Silk Road, lies not least in the assimilation and synthesis of various cultural elements. As has already been suggested, the Tarim Basin has cultural elements from Northern India, Gandhara, Bactria, Iran, China, Tibet and Islam.

The intermediaries were most of all traders who linked the various cultures through their travels. Thus, for instance, Indian tradesmen went to Yarkand and Khotan where they met Chinese merchants, or Iranian traders made their deals with Hephthalites, their Turkish partners, who in turn were familiar with Chinese as well as Indian businessmen and their customs.

The second upholders of civilization were the missionaries of the great religions of the world, advancing into Central Asia in the wake of the business people. Buddhism, Nestorianism and Manichaeism were part of this, and these religions all tried to win over followers by peaceful means.

Only Islam, which desired to establish a worldwide order based on the Koran, used military means as well. The Islamization of conquered areas, however, often did not take place by way of force but happened gradually, with social and fiscal discrimination against non-Moslems being one of the greatest incentives for conversion.

LOCAL POPULAR BELIEFS

Contrary to a world religion that appeals to people independently of their ethnic allegiance, the attraction of a popular belief remains restricted to its original ethnic group or nation. Such popular beliefs are those of the early Tocharians and Saka as well as of the Xiongnu.

Tocharians and Saka

Since not much is known of the religious ideas of these Indo-European immigrants, we can base our conclusions only on their funeral rituals and on rock carvings. The rich offerings in the tombs and the food provisions laid inside them seem to indicate that these people believed in some sort of afterlife. Human and animal sacrifices also substantiate the belief that the sacrificed beings would accompany the dead into the beyond to keep them company or to serve them.

One piece of evidence is a large rock relief only discovered in 1987 in the Tian Shan mountain range near Quergou, which is about one hundred kilometres southwest of the modern provincial capital of Orumqi On a surface area of 112 sq m a fertility ritual is represented, during which horses were sacrificed. Over a hundred strongly stylized human figures between 10 cm and 2 m high dance around two sacrificed horses. Some of the male figures are drawn with erect penises out of all proportion, while other figures

20. The teaching Buddha followed by six disciples.
Miran. Shrine M 111. 3rd century AD. National Museum, New Delhi

are androgynous; a third type is a human being with two female heads and a broad female pelvis as well as an erect penis. Other representations give information about on the probable authors of these rock engravings. These are also stylized figures in whose bodies a human head is incised, and whose long noses undoubtedly represent Europeans and not Mongols or Chinese. Since these rock images can be dated to the 11th or 10th centuries BC, we can presume that these Indo- European Asians practised fertility rituals with horse sacrifices.'

The Xiongnu

Of the early Mongolian immigrants' religion we also know very little, so that we have to rely on the traditions of those Turko-Mongols who lived north of the Gobi Desert. The Mongols venerated the sky "Tengri" as a supreme deity who ordained the fate of the Mongols and conferred authority on their ruler. Next to Tengri, the Mongols adored the earth and a multiplicity of secondary deities. Rock carvings from the region north of the great Ordos loop of the Yellow River - from the Xiongnu's country of origin - give us the

impression thal these people, moreover, adored the sun and the moon. It also seems that they saw a cosmic correlation between their totem animals and the signs of the Zodiac.

BUDDHISM AND I IHLLENISM

When Buddhism began to spread in the Tarim Basin, this religion already had a history of five hundred years. Originally, Buddhism was to be understood as an egalitarian reaction to the rigid Hindu caste society and its formalistic rituals. In Hinduism, a believer could only manage to escape earthly misery or enter into contact with divinity through the intercession of Brahmins and the rituals laid down by them. With its "Eightfold Path", Buddhism indicated a solution to terrestrial plight. The "Four Noble Truths" were: the understanding that all life is supposed to be of grief-stricken transience; that grief has its root in ignorance and the craving for existence; and that redemption from the eternal cycle of life and death can be attained by overcoming precisely this ignorant craving - a state attainable through the fourth truth, that of following the "Eightfold Path".

This new teaching attracted the broad masses because it basically addressed itself to all human beings independent of their caste affiliation, and because, in its original form at any rate, there was no need of a mediating authority between man and "Supreme Reality". Thus redemption from the afflicting succession of rebirths was open to every human being. But, on principle, in their struggle for salvation from the worlds of desire and suffering, Buddhists remained alone and could not count on heavenly assistance. This perception, called "Hinayana" or "The Lesser Vehicle", which could be described as the "Path to One's Own Salvation", remained predominant in the pre-Christian era.

In India after the turn of the millennium a milder form of Buddhism developed, whereby the faithful could lay claim to a Bodhisaltva's aid. A Bodhisattva is an enlightened being who has reached the point where he may leave the chain of rebirths (*samsara*) by having strictly followed the "Eightfold Path", but who renounces the bliss of nirvana in order to assist the

21. Bronze statue of the Buddha dating from the 7-8lh century. The statue looks Indian and was either imported from Kashmir or made by an Indian artist in Khotan. The inscription on the pedestal indicates that the figure had been donated by the wife of a general bearing the Iranian title of *spalapati.* Regional Museum, Khotan.

22. Painted wooden tablet from Dandan Oilik, ruin D 7 b, representing two riders (6th century AD). The one above rides a dappled black-and-white horse and bears a long straight sword customary in the Persian area. The face of the rider on top shows Chinese as well as Indian features. The lower figure rides a Bactrian camel and also carries a straight sword. The heads of both riders are surrounded by an aureole, and in their right hand they hold a drinking bowl. A black bird plunges towards the bowl of the rider on top. In Dandan Oilik. Aurel Stein discovered another wooden tablet with this rider's subject, as well as a corresponding wall painting. This scene must represent a legend popular in Dandan Oilik. but unfortunately unknown to us. British Museum, London.

believers on limit wav lo salvation, litis teaching is known .is Wahavana' . " Circa lor Vehicle", in which the figure of tlm altruistic Bodhisattva lias once again created a mediator between the absoluteness of Buddha and human beings in search of redemption.

Wahavana Buddhism not onlv was less exacting on lav people and therefore more accessible, but it also made it possible to integrate divinities of other coniessions. for instance from the I lindu pantheon, as Bodhisattvas ot custodian figures. Under the Tang T)v nastv in China in the 8th century an additional tendency c ame about, that of integrating the figure of the emperor into the circle of Buddhist protectors. It interpreted Buddha's law as the accomplishment of imperial law. which secured peace between heaven and earth. This teaching is a synthesis of Buddhist and Confucian thought, and contributed to the promotion of Buddhism by the Tang emperors.[2]

Later on from this would develop Tibetan Lamaist Buddhism with its extremely profuse pantheon, and thus the circle once again closes on Hinduism with its leagues of deities, rituals and a mediating priestly class.

In Mahayana Buddhism there w'as room for imagining a paradise where pious and virtuous believers could find a place of bliss, even if this paradise was merely an interim stage on the way to nirvana. This prospect w'as obviously more attractive to the peoples on the Southern Silk Road and in China, than the strict Hinayana view of the extinction of all individuality after the successful conquest of the cycle of rebirths. It is also easy to understand that the belief in compassionate Bodhisattvas, in a position to protect the traveller on his dangerous journey, catered for the difficult circumstances of life along the Southern Silk Road.

Buddhism owes its swift advance towards China mainly to the Silk Road; frescoes and statues that have been preserved until today are impressive witnesses of this. Hinayana Buddhism, however, gained acceptance most of all along the Northern Silk Road and left as most important evidence the cave temples of Kumtura and Kizil; the latter with a marked Indian influence. On the other hand, Mahayana Buddhism became predominant on the Southern Silk Road and in the oasis of Turfan around the middle of the 4th century. Impor-

b\ tho tact that the i: -viani 'ionk> often travelled in the companx o; panic > e. v probablx also of cratts-men-sculptors. In Miran, the name of such an itinerant painter has come down to us. tor on the frescoes of temple \\\ the following inscription from the 3rd venture \D can be read: "This fresco is the w ork of Tita who was paid 3000 Bhammakas. \urel Stein's interpretation of the name Tita' as Titu> stands to reason, all the more so since the paintings obviously show Helleno-Roman style components.

While this itinerant painter Titus probably came from the eastern Mediterranean region, most style components appearing in the Tarim Basin that strike us as being Hellenistic can be linked to Gandhara art. Direct imports from the West, such as Stein had excavated in Loulan, are exceptional.

The impulses of Gandhara art originated in the Hellenistic kingdom of Bactria, where the kings Demetrios I (200-185 BC) and Menandros tl85-1 30 BC) w-ere said to be kindly disposed towards Buddhism. King Demetrios' sphere of influence is supposed to have spread as far as Khotan. Gandhara art proper had its golden age during the first centuries of the Christian era in the northern region of the kingdom of Kushan, in today's Eastern Afghanistan and in Northern Pakistan. It may be defined as the pictorial or figurative expression of Buddhist religious beliefs in a form reminiscent of the Greek style. The encounter of Hinduism with Greek cultural elements essentially changed Buddhist art. This at first avoided the figurative representation of Buddha, and merely symbolized him with certain attributes from his life such as the *"boelhi tree"* of enlightenment, a footprint, the wheel of *dharma* or the *stupa* as a symbol of his entry into nirvana. It was only under the Kushan that Buddha, under Hellenistic influence, began to be represented physically. This was also an expression of Buddhism's turning towards the world, the here-below. The statues of the Rawak monastery and the paintings of Miran are probably the most beautiful examples of Gandhara art on the Southern Silk Road, the influence of which spread as far as Loulan.

The success of Buddhism along the Silk Road, where it was confronted with other strong world religions can bo explained by its great permeability in the theoretical sphere. I or Buddhism understood itself less as an intellectual structure with fixed dogmas than as a practical philosophy. It thus could assimilate impulses from other religions, for instance by reinterpi cling I lindu deities as custodian deities of its own. On the other hand, this fact enabled it to gain a broad response, which encouraged others such as Manichaeism and the Nestorian church to lake over certain elements of its symbolism. To give a contrary example: Zoroaster's Iranian teaching was unable to take root outside the Persian trade community, in spite of every support by Persian royal dynasties.

NESTORIAN CHRISTIANS IN THE MIDDLE KINGDOM

Today, almost no one remembers that once, next to the Western church under the aegis of the Pope, there existed a patriarchate independent of Rome and also of Constantinople, whose authority extended over a much larger part of the then know'll world than that of the Western church with which we are familiar. This was the Nestorian patriarchate of Seleucia-Ctesiphon, with its seat in Bagdad and extending from the Levantine coast on the eastern Mediterranean along the Silk Road as far as Beijing, with 250 dioceses and eighty million believers.

The Nestorian Church, also called the Church of the Orient, in 424 declared itself as having equal rights with Rome. It followed the ideas and teachings of the theologian Theodor of Mopsueste and the patriarch of Constantinople, Nestorius, who in the year 431 was excommunicated on the occasion of the Council of Ephesus. Nestorian beliefs differed from Roman interpretation inasmuch as the former insisted on Christ's humanity and refused to designate Mary as "theolokos", or "Mother of God". Christ, so they maintain, reconciles in his person two different natures and substances. In his godhead, he was created by God the Father, as a human being by Mary. Thus, according to them he died as a human being, but not as God.

For I his reason Ncslori.m leaf hing sees Christ nol so much as the Crucified One, but as the Risen One. Hence it not the crucifix that is venerated in the Church of the Orient, hut the cross of Resurrection, which is composed of four equal bars and was later on taken over by the Order of Maltese Knights. Nestorian teaching also rejects the concept of original sin. It believes that man was created mortal by God and that sin is the result of his self-chosen actions. In these ways, the diophysite Nestorian church was in sharp contradiction to the Coptic monophysites, the so-called Jacobites, and also to Rome. From this dispute arose the Nestorian church that could hold its own in all of Asia until the 15th century.

The European Renaissance owes to the Church of the Orient its access to classical Greek thought, for it was Nestorian scholars who translated Greek philosophy, astronomy, mathematics and medicine from Greek into Syriac in the 6th and 7th centuries and into Arabic in the 9th century. Three hundred years later, this knowledge was translated into Latin by the Toledo School. Without the work of Nestorian and Arab scholars, Europe would have remained forever separated from its roots in classical antiquity.

It is not possible to ascertain when exactly Nestorianism advanced to Central Asia and China. The most likely period is the middle of the 5th century, when Nestorian Christianity was able to expand furthest along the Northern Silk Road. The most important Nestorian finds were made in the large oases of Turfan and Dunhuang where numerous manuscripts were discovered, among which were bilingual texts in the Syriac and Sogdian languages. In 1905, Albert von Le Coq even discovered Nestorian paintings in a ruined church. These can now be admired in Berlin.

Nestorian communities also existed along the Southern Silk Road, namely in Yarkand and Khotan. The discovery of a Nestorian cross in Khotan by Grenard in the year 1891 is one piece of supporting evidence. It is remarkable that Marco Polo mentions Nestorian communities several times - on the Southern Silk Road, in Ningxia, in the Sichuan province, and in the region of Nanjing and Yunnan. He also reports that Prince Nayan, one of Kublai Khan's most dangerous rivals, was a Nestorian. Another famous Nestorian opposed to the dynasty of Genghis Khan had previously been the Naiman prince Kiichlug Khan, ruler of the Kara Khitai empire which encompassed the whole of Eastern Turkestan. Being hostile to Islam, during his reign (1211-1218) he endeavoured to force the Moslems of Kashgar to renounce their religion and to embrace either Nestorian Christianity or Buddhism. Due to the continued persecution of Muslims, the predominantly Moslem population of Kashgar welcomed the advancing Mongol army of Genghis Khan as liberators and forced Kuchliig Khan to flee.

Probably the most famous surviving evidence of Chinese Nestorian Christianity today stands in Xi'an, the former capital of Chang'an. It is a large stela, discovered in 1625 (or 1623) and inscribed in the Chinese and Syriac languages. It dates back to 781, and at its top the Nestorian triumphal cross can be recognized. The stela contains the text of an edict issued by the Tang emperor Tai Zong, who had ordered the translation and the propagation of the Nestorian teachings, proclaiming: "This teaching is helpful to all creatures and beneficial to all men. So let it have free course throughout the empire."[9] It seems quite incredible that the almighty ruler of China should recommend to his people a Christian faith! The text of the stela further reports on the Nestorian priest Alopen who came to Chang'an in 635 with "scriptures and images". After he was received by the emperor, the latter was supposed to have ordered the construction of a special monastery.

This tolerance, incomprehensible to Europeans in those times, came to a sudden end between the years 843 and 845. The emperor Wu Zong blamed foreign religions for the dwindling of state authority in China and ordered all Buddhist, Manichaean and Nestorian priests to revert at once to being tax-paying laity. He further ruled that all possessions of the three non-Chinese religions be converted to public ownership.

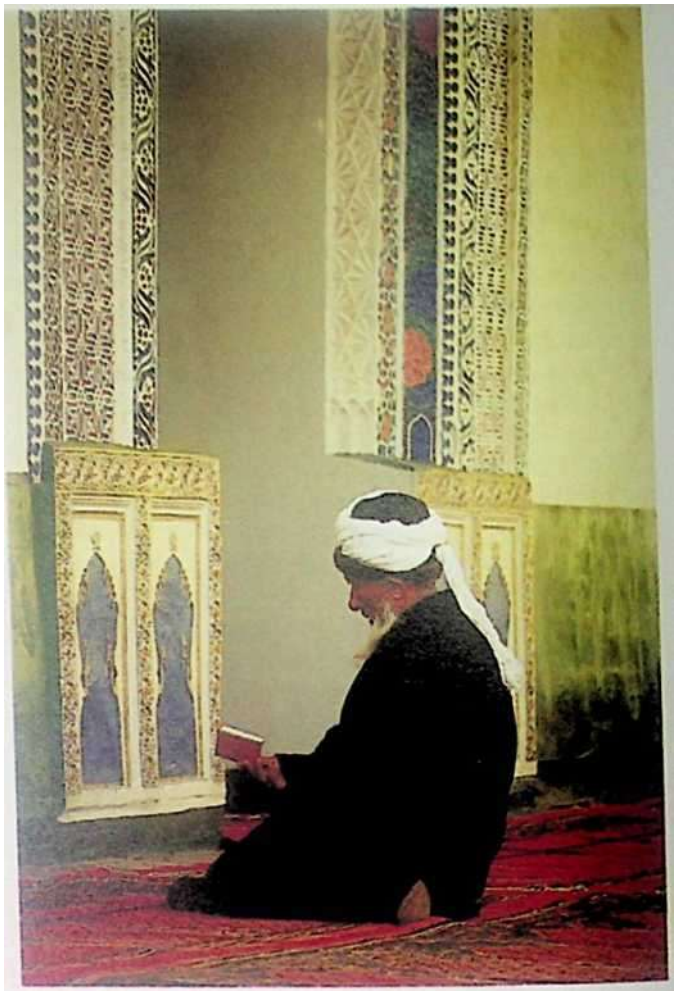
Yet, at the turn of the millennium the church of the East dared make a renewed missionary offensive in Mongolia that soon was crowned with success. In the 11th and 12th centuries the Mongol peoples of the Kerait, Naiman, Merkit and Ongut were converted. At

tho same time NostoMv' on.'.: ios wore successful w ith the iar.gcts o: V Y.a .vv n Maivhuria. Although, with Genghis k'v.n . w e - x\ a \estorian Prince who became Khan e: al \Vv;ah. the Nestorian church in China 'evertireless could \ ther expand under the Mongolian d\ nast\ o the h uan 0 *2*~ 1 -1368). \s a result of its association with Mongolian foreign rule, it was outlawed by the nationalist Ming after the dow n-fall of the Yuan and practicalh disappeared from the Middle Kingdom.

PROTECTION FOR MANTCHAEANS ALONG THE SILK ROAD

Manichaeism was the third world religion of those times that had reached China via the Silk Road. The spreading of Manichaeism to China was less the result of conscious proselytism than of a flight from persecutions in its Persian homeland where, around AD 274 or 277, the religion's founder, Mani, had been tortured and crucified and tens of thousands of his followers executed. The great majority of adherents turned eastwards, while a minority fled to the west where they were persecuted as w'ell for being heretics, among others by Augustine who himself had spread Manichaean thought in the nine years from 373 to 382.

A Chinese document from the year 387 affirms that the Manichaean religion had begun to spread within China from the 4th century AD. During the times of the Tang it found favour most of all with Sogdian tradesmen. However, due to an edict in the year 732 which forbade conversion to the Chinese, expansion among the Chinese population was limited. When, as an ally of the Tang emperors, the Uighur Prince Muyu Khan reconquered Luoyang in 762 in the struggle against the rebellion of the Sogdian general An Lushan, he met Manichaean scholars there. He then converted to Manichaeism and sent Manichaean missionaries to his Mongolian homeland as w'ell as to the Yangtse Basin in Central China. In spite of the 843 prohibition of non-Chinese religions, Manichaeism sporadically survived in China and experienced a certain revival under the tolerant dynasty of the Mongolian Yuan.[10]



2-1. The Imam of the Id Khan Mosque in Kashgar.

Since Manichaean missionaries directed to Mongolia by Muyu Khan had originated from the Sogdian trade community of Luoyang, they not only converted the Shamanistic Uighurs to Manichaeism but also hastened the transition from a pastoral to a mercantile economy. When the Uighurs settled within the area of the Turfan depression after 840, a Manichaean kingdom emerged there. But in the following century, when the Uighurs converted to Buddhism, they remained

tolerant of Manicliaeism as well as Neslorianism, so that all three religions could coexist peacefully. With the breakdown of the Uighur kingdom of Kocho around 1250, Manicliaeism became extinct on the Silk Road. However, thanks to the Manichaean scrolls discovered by Stein in Dunhuang and by von Le Coq in Turfan, the history of Manicliaeism in Turkestan can be reconstructed and its teachings understood.

With its insurmountable dualism of light and darkness, of "the Elected" and "the Listeners", and its ultimately fundamental negation of life, it is not surprising that Manicliaeism, and its strange mixture of Zo- roastrian and Christian elements, did not become firmly anchored, except for a short-lived conversion of the Uighurs. Manichaean asceticism was practically unworkable, and the irreconcilable contrast between spirit and matter contradicted the Buddhist teaching as well as the Chinese Yin-Yang principle, according to which the aim lies in the equilibrium between the two and not in the destruction of one principle by the other.

ISLAM IN THE WAKE OF THE ARAB CONQUEST

The first wave of the Arab thrust towards the East had reached Samarkand by the beginning of the 8th century, and in 751 culminated in the Arab victory over China at Talas. The only direct military confrontation of the two expanding eastern superpowers not only brought the Chinese advance towards the west to a standstill, but was also the prelude to the gradual Islamization of the Tarim Basin.

During the following centuries Islam advanced into the Tarim Basin, and after forcible conversion of the Buddhist Uighurs in the first half of the 15th century, reached Cumul (today's Hami). Here the Islamic advance literally trickled away in the Gobi Desert, so that the Buddhist works of art in Dunhuang were spared the iconoclastic Moslems.

While Islam spread only slowly along the Northern Silk Road, on the southern route it advanced more rapidly in spite of strong resistance by the Buddhist kingdom of Khotan. Thus the Karakhanid dynasty of Khashgar was able to conquer Khotan in 1006 (or 982), whereby the Buddhist monasteries lost the seigneurial support of the local princes.

Sunni Islam - in the form of the rather tolerant Hanafite school - prevailed in the Tarim Basin not only by the sword, but also through excelling in unusual flexibility by taking over non-Moslem customs and sanctuaries and integrating them. To cite but one example: about sixty kilometres south of the ancient oasis of Niya there is the place of pilgrimage called Imam Jafar Sadik, or "Mekka of Turkestan". In a tomb are venerated the mortal remains of the Imam Jafar, who is said to have been a descendant in the fifth generation of the Prophet Mohammed. What strikes one most of all in respect of this tomb are the animal hides and horsetails hung at the entrance gate. These are modi-

The King of Rats helps Buddhist Khotan

The tradition of the last victory of the Buddhist kingdom of Khotan over the Islamic invaders towards the end of the first millennium AD strikingly resembles an ancient local legend recorded by Aurel Stein." According to this, soldiers of beleaguered Khotan changed into dogs and bit to pieces the armour of the besieging Moslem cavalry- regiment, so that the following day the Khotanese defenders were able to disperse the enemy siege.

Aurel Stein has established that this story originated from an ancient legend told by Xuan Zang, who reports that Khotan was once beleaguered by the Xiongnu and about to surrender. At that point the King of Rats appeared to the ruler of Khotan in his dream and promised him assistance. The rat army then invaded the ranks of the Huns and devoured the chords of their bows and their armour, whereupon the Khotanese troops were able to cut down the defenceless soldiers.

tied versions ot forme; an ma'. sai :«'o iHulls. Gount- less pieces of doth and flags imprinted with sacred epigrams tlap :■ the wine tea the entrance to the mausoleum s*aw.;S\ rem niscent 01 Tibetan prayer flags.

Islam has boon able to hold ils own in the Tarim Basin to this dav. Its unbroken attraction as a focal point of nationalist cravings became evident, for instance. during the Dungan revolts under Yakub Beg v 13(m 1377) and Ma Chun Mn (193I -1935).

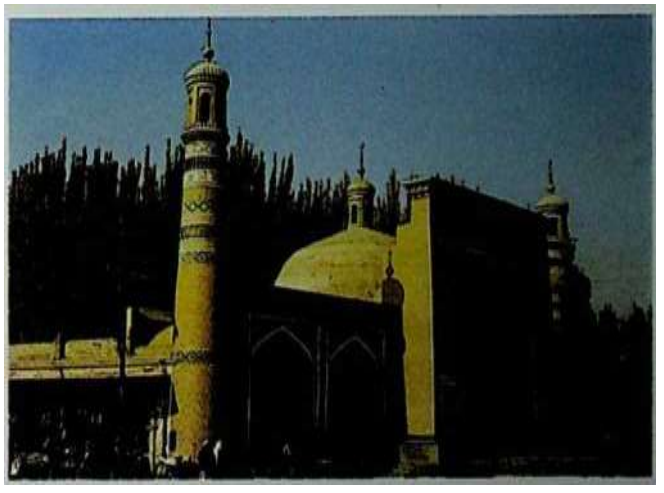
V Kashgar, the Kingdom of Khotan, Rawak Stupa and Fort Mazar Tagh

Kashgar, formerly Shule, has always been an important traffic junction due to its geographical situation. On the one hand it is located at the western end of the Taklamakan Desert, and on the other it belongs to the region where the Pamir, the Hindu Kush and the Kunlun mountain ranges join together. Not only did the various Silk Roads leading through Turkestan meet here, but Kashgar also dominated the continuation of the Silk Road to Persia and India. Because of its significant strategic position, even during the Anglo-Russian cold war around the end of the century Kashgar was a "listening post" where information and rumours from China could be monitored.

KASHGAR: FULCRUM OFTRADE ON THE SILK ROAD

During the Western Han Dynasty the city came under the sovereignty of China for the first time; then, after the disturbances sparked off by the usurper Wang, it attained independence and around AD 75 was once more integrated into the empire by the commander- in-chief Pan Ch'ao. After an eventful history, fluctuating between local independence and the acknowledgement of foreign powers, Kashgar submitted to Tang authority at the beginning of the 7th century, but then fell under Tibetan dominion from 670 to 692 or 694. The subsequent Chinese reconquest of Kashgar was only of short duration, for the imperial troops suffered a crushing defeat at the hands of the Arabs at Talas in 751. At the beginning of the 10th century Kashgar fell to the Turko-Islamic Karakhanid dynasty.

Later on, beginning in the 16th century, Kashgar came under the supremacy of religious teachers called Hodja. In 1759 the fate of the city was decided when the great Manchu emperor Qianlong once again annexed this region to the Chinese realm, one thousand



25. In the extreme west of Xinjiang lies the city of Kashgar, more than 2,000 years old. At the beginning of our era it belonged to one of the earliest Buddhist principalities of the Tarim Basin. Later, a small Christian Nestorian community flourished in Kashgar, of which Marco Polo speaks at the end of the 13th century. Since the 10th century, Sunni Islam has predominated in Kashgar. Witness of this is the Id Khan Mosque, the largest of its kind in China, erected in 1442.

\o,'r> after t'io L vnoso view.: v. • Ka-hgav has remained a pan. oi c ' ;a :v>:'> ea\ apart from a >hort spoil of t!v:c;v \v\v . v-e ; v advonturerYakub !H\i;. who made kashga. the eapital ciiv of his kingdom oi Eastern Turkestan from 1865 to 18"". and the politi- cal unrest in tne 1930s. Too oldest Islamic edifice in Kashgar where the population today consists of about 80 per cent Uighurs' is the Id Khan Mosque built in 1443 and know n as the largest mosque in China. Once again, the faithful till the vast inner courtvard for Friday prayers and thus are a witness to the lexical of Islam in Xinjiang. Facing the m amthe main gate built of yellow tiles), there has been much hustle and bustle for centuries: traders offer their diverse w ares: \ eiled women do their shopping; men sit about and tell each other endless tales. Immediately next to the mosque the air is filled with pleasant odours and aromas of all kinds, for north of the great square countless little restaurants and food stalls are ranged side by side.

Kashgar was not only the meeting-point for the trade caravans, but from here Western travellers and explorers went eastwards to investigate the Silk Road.

The first and probably most famous Western traveller was Marco Polo, who was in Kashgar in 1273 and whose travel report has come down to us. The Venetian was struck by the "wonderful gardens and vineyards and the large quantities of cotton." The next to visit Kashgar was probably Bento de Goes. Born in the Azores, he spent almost a year from 1603 to 1604 in \ ai Lind, w hit h w as then the capital of the Kashgar kingdom. IV Goes had successfully ingratiated himself with the roval tamilx then in power, for in Kabul he had bellied piincess \gu I lanem. the king ol Kashgar'ssis- v and the Lug of Khotan s mother, in a financial crisis on her return from pilgrimage to Mecca.[1]

i be Russian soldier Efremov, when escaping from seven vents' imprisonment in Buchara, reached K.'shgni m 181 and later went on to Delhi. Yet his : cjto; *i* has remained almost unknown. Seventy years later the German Adolf Schlagintxveit was less lucky ban he Russian refugee. In 1857 the Hodja rebel Wall khan had him beheaded on the spot when he disdainable remarked that the siege of Kashgar, which had lasted three months, would have taken a mere three days had German troops been called in.

The first Briton to reach Yarkand and Kashgar was Robert Shaw. In 1869 he was kept prisoner in Kashgar lor nearly three months by the tyrant Yakub Beg, who enjoyed the support of the Ottoman Empire. Elowever, •his prolonged house arrest did not prevent Shaw from joining the official Forsyth Mission to Kashgar the following year. The adventurer Hayward almost literally lollowed at Shaw's heels, for he reached Yarkand and Kashgar in each case just a few clays after Shaw. Since Hayward travelled alone, he was watched with extra suspicion and was put under strict house arrest in both towns. Although Shaw and Hayward were in these two cities at the \'ery same time, they were not allowed to

JO. Two Uighur traders from Kashgar.

27. About half of Kashgar's women are veiled.

Sven Hetlin — pioneer of the Tciklcimakan

Sven Hedin's path through life* ho was horn in Stockhom in 1865 was marked by two characteristics: first, his tremendous curiosity for the unknown coupled with a corresponding spirit of adventure and, second, his admiration of exceptional personalities. Already, at the tender age of twelve, Hedin was especially interested in Livingstone's and Stanley's travel reports and Jules Verne's visionary adventure novels. But the key experience that determined Sven Hedin's future life happened in 1880. The famous Swedish polar explorer Nordenskiold was given a triumphant reception in Stockholm, after he had accomplished the north-east passage from Spitzbergen to the Jenissei estuary and hence to Japan. Hedin, who at that time was fifteen years old, describes his feelings as follows: "On April 24, 1880, the 'Vega' INordenskiold's ship] arrived in Stockholm. The entire city was illuminated ... In the midst of this sea of lights, the famous ship glided into the harbour. With my parents and brothers and sisters I stood on the mountains of Sddcrmalm, from where we had a dominant view. All my life I shall think back to this day which has become decisive for my future way. Thundering jubilation resounded from quays, roads, windows and roofs. 'I, too, want to come back home in this way', I thought."[2]

As a college student Hedin had drawn maps with enthusiasm, and after his graduation fate somehow directed his future career when he received an invitation to Baku on the Caspian Sea. For there, a Swedish engineer working on the oil fields of Alfred Nobel wanted a private tutor for his son. Hedin grasped the opportunity, and not only learnt Russian and Persian but also rode from Baku via Teheran to Southern Persia and Bagdad.

A few years later fate steered Hedin's life towards Central Asia with finality: in 1890 King Oscar II of Sweden had decided to confer the Seraphim order on the Shah of Persia. However, the Swedish ambassador required an interpreter for the Persian language. On the basis of the positive public response to Hedin's first book on his Persian journey, he was entrusted with this task and promoted to the rank of temporary Vice-Consul. Following the official ceremonies in Teheran, Hedin undertook his first journey to Central Asia that led him to Buchara, Samarkand and Kashgar. Thus, Hedin did not become a polar traveller but a desert traveller.

28. Sven Hedin (1865-1952).

nuke contact.

Kashgar must have had some inexplicable attraction, tor St allured many intrepid explorers and adventurers during the years that followed. The most famous \ s vgar pilgrims* were probably the Britons Ney Elias ' 880 uid Sir At SU 900 and ' . ich of his four expeditions.

V.so worth mentioning are Kuropatkin, a Russian who visited Kashgar on an official mission in 1876; Mannerheim 0906!, the latter field marshal and president of Finland; as well as the two German explorers of the Northern Silk Road, GrGnwedel and von Le Coq. But the most well-known modern explorer is sureh the Swede Sven Hedin, who visited Kashgar for the first time in 1890.

THE KINGDOM OF KHOTAN

Ancient Khotan, formerly named Yotkan, lies ten kilometres west of today's city of Khotan. The honour of being the first to have reported on Yotkan belongs to the Indian spy Mohamed-i-Hamid w'ho, disguised as a *pundit* (scholar), had set out tor Khotan from Ladakh in 1863 in order to secretly survey and map the land. On the occasion of this one year's reconnaissance, he reported on ancient cities that had been "swallowed up by the desert" in the vicinity of Khotan, and he mentioned that the local people often dug up old objects in these secret cities.

Although Mohamed-i-Hamid died on his return journey, in 1865 his diary inspired William lohnson, a surveyor, to accept an invitation to visit from the Khan of Khotan. But Johnson's tales of "cities buried in the sand" sounded too fantastic to excite the archaeologists of that lime, although even Hayward mentions "cities covered by sand" in his travel report published in 1870.

This is all the more surprising, since the British diplomat Sir Douglas Forsyth confirmed Johnson's narratives on the occasion of his two missions to Yarkand and Kashgar from 1870 to 1873. In addition, he also u'as able to buy ancient Bactrian and Byzantine coins supposedly found in an old ruined city east of Khotan. I lo ev en managed to acquire tw o ancient clay figures representing the Buddha and the Indian monkey-god I lanuman. \ treasure hunter had discovered them in an old ruined city five walking days north of Keriya dodav s Yutianl. I lence. ev en in those days there were enough indications of a pre-Islamic culture having existed along the Southern Silk Road lo warrant further investigation.

But. at that time the attention of the experts was focused on the rich finds in Greece, Egypt and Mesopotamia - regions less dangerous than the unpredictable Turkestan. Finally, the specialists in those days based their assumptions on the premise that "merely Islamic ruins were to be found in the Tarim Basin.

The spectacular change in the views of the experts was sparked off by the discovery of the so-called "Bovver Manuscript". This discovery has its origin with the British lieutenant, Hamilton Bower. In 1890 he pursued the murderer of the British explorer Andrew Dalgleish who, together with A. D. Carey, had crossed the Taklamakan Desert from Khotan to the Tarim in 1885, and was murdered by an Afghan national from Yarkand in 1888. While Bower's agents intercepted the assassin in Samarkand, Bower acquired an ancient book made of birch bark in Kucha, which he sent to India.

The famous Anglo-German philologist Rudolf Hoernle deciphered the text as being Sanskrit written in the Brahmi script and he dated it to the 5th century AD. This find hit the professional circles of that time like a bomb for it proved India's influence in the pre-Islamic Tarim Basin for the first time.

Soon after, similar manuscripts were offered to the Russian Consul in Kashgar. These had probably also come from Kucha. Hoernle then prevailed on the Indian Government to entrust its representative in Kashgar, George Macartney, with the purchase of such mysterious documents. When it became known in eastern Turkestan that Macartney would purchase old manuscripts at a fair price, the British Consul soon found that he was flooded with offers.

While Hoernle struggled lo decipher the manuscripts that were increasingly difficult to read, there appeared in the legacy of the French explorer Jules Dutreuil de Rhins, who had been murdered 1894 in Tibet, a manuscript he had bought in 1892, written on

2'J. Wooden documents inscribed in the Kharoshthi script, from Niya, 2nd-3rd century AD. Xinjiang Museum, Oriimqi.

birch bark and probably also originally from Khotan. What is remarkable about this text is that it is written in the northern Indian Prakrit language, using, however, the characters of the Kharoshthi script. The Kharoshthi script is based on Aramaeic which was the state language in Iran during the time of the Achaemenids (550-330 BC). Since Kharoshthi was used only between 300 BC and AD 400, Kharoshthi manuscripts supply valuable dating indications. This discovery provided a second, independent proof of Buddhist influence along the ancient Silk Roads. Research made later showed that mostly Sanskrit was used for religious texts, with Kharoshthi reserved for administrative documents.

The Buddhist kingdom of Khotan looks back on a thousand-years-old history, for the oasis has been inhabited since the Paleolithic period (to 10,000 BC). During the Iron Age, semi-nomadic ethnic groups related to the Saka settled in Khotan, followed by a wave of immigration from India around the 3rd century BC. These Indian immigrants founded the city of Khotan and proclaimed one of their own as its king. In order to document its claim to sovereign authority, the royal house related itself to the mighty Indian king Ashoka, as well as to the Buddhist tutelary deity Lokapala Vaishravana - the "Lord of the North".

According to tradition, the first king of Khotan was the eldest son of Ashoka who was a great promoter of Buddhism. He had been banished to the north from his father's court during the second half of the 3rd century BC, after which he founded Khotan with his faithful Indian companions. As he had no son he implored Vaishravana in his temple to assist him, whereupon a male child emerged from the head of the statue. This child was supposed to have been one of the king's ancestors.

Khotan's conversion to Buddhism probably oc-

30 + 31. A wooden tablet from shrine D 7 b in Dandan Oilik (6th century) painted on both sides depicts Khotan's silk god or the Persian hero Rustam on one side (to the right) and ithyphallic Maheshvara on the other. Maheshvara is the three-headed manifestation of the Hindu deity Shiva, who was absorbed by Vajrayana Buddhism. The central head with the third eye of all-powerful knowledge stands for the absolute, the unfathomable origin. The smiling female face at the left represents Shiva's Shakti, his active energy, while the angry male face at the right symbolizes his violent and destructive aspect. In his two upper hands he holds the discs of the sun and the moon, in his lower right one probably a pomegranate, in his left a thunderbolt (va/ra). British Museum, London.

currecl at the beginning of our era - about 250 years after the founding of the city - first through Indian traders and then through monks from the Kushan realm. Xuan Zang reports one hundred monasteries with more than five thousand learned monks of Mahayana Buddhism.

At that time a Persian Mazdaist religious commu nity lived in Khotan along with Chinese immigrants, creating a unique Buddhist Indo-Iranian mixed culture that had also integrated Chinese influences. It radiated far beyond Khotan's boundaries to other city oases such as, for instance, Balawaste, Dandan Oilik, and Domoko. In the 7th century AD, when China's political influence was once again more strongly felt

in Khotan, Chinese culture also became more significant in the oases. This led to a synthesis of art styles of the Indian post-Gupta and the Tang eras. Even Tibet was strongly influenced by this Khotanese culture. During the first half of the 8th century, Buddhist monks migrated from Khotan to Central Tibet and took part in the foundation and organization of the important Kachu monastery. Tibetan annals also report that during the 9th century Khotanese painters and translators had been active in the Snowlands, or Tibetan uplands.

The Indo-Iranian cultural synthesis is very apparent on a wooden tablet painted on both sides and dating from the 6th century which Aurel Stein had excavated in 1900 in the north-east of Khotan, in Dandan Oilik. Whilst on one side the three-headed Hindu deity Maheshvara (Shiva) is pictured sitting on his mount Nandi, the other side shows a bearded man of Persian countenance wearing a princely green gown. This figure has been identified as the Persian hero Rustam, or as the Silk God of Khotan. Another example of the assimilation of various cultural influences so typical of Khotan is the Khotanese written language. It may be traced back to the eastern Iranian dialect of the Saka, which replaced Prakrit as the colloquial language in about the 4th century AD. Prakrit, however, remained the official language of the royal administration. Khotanese was written in a square form of Indian Brahmi until about AD 500, then in a cursive adaptation of Brahmi as well.

Old Khotan experienced an economic golden age in those days, thanks to silk production and exports to the west. The mulberry trees in the plantations not only furnished the leaves to feed the silkworms, but from the bark valuable paper was manufactured, an export article also in great demand. This kind of paper manufacture was widespread in Khotan even at the beginning of the 20th century, as recorded in the diary of the British Consul-General in Kashgar, C. P. Skrine.[3]

Marco Polo writes that, under Kublai Khan, paper made from mulberry tree bark was also used for printing one of the world's earliest forms of paper money. It was the Song Dynasty that was the first to issue paper money, in the early 11th century.[4] According to Marco Polo this paper money was valid in the entire Mongolian kingdom, and refusal to accept it as legal tender entailed a death sentence.[5] However, th golian rulers also anticipated the inflationary pi enon so well known to us, by printing a great uncovered money which brought about a deva of their paper currency.

Khotan's wealth was not based on silk anc alone, but also on the production of felt and v carpets and on the export of precious jade. Kho- indeed predestined to be the centre of jade com for jade was found along the upper course of b- ers that surround the city. In the west runs the Kash which means "white stone" in Uighur and white jade is found, while in the east flows tf Kash - the "black stone" - which yields green

Apparently, a lively jade exchange with China had taken place from the 3rd millennii onwards. Not only was jade considered the syr immortality but also attributed to it was the *a* to preserve dead bodies from decaying. Perfi pressions of this belief are the jade clothes fo 1968 in the princely tombs of Mancheng in thi ince of Hebei. The intact jade gown of Prince Liu of the Western Han Dynasty consists of no les 2,498 green jade lamellae stitched together wh thread, the weight of the required gold thread amounting to 1.1 kilograms.

Khotan's strategically important situation < Southern Silk Road and its economic wealth h, ways attracted foreign powers. During the 1 st c BC independent Khotan came under the Xi sphere of influence where it was to remain ur conquest by the Chinese commander-in-chi Ch'ao around 75 AD. A century later the influe the Indian Kushan gained in importance althoi the same time, Khotan recognized the formal | age of China. During the following centuries s foreign rulers followed one another. At first i became a vasal of the Hephthalites **(502-536)** ar of the Western Turks (561 -631). Around **640 th** once again advanced into the southern only to be dislodged by the Tibetans thirty years later Khotan fell under influence and remained so until the China was dislodged by Tibet, phase of relative independence to I

over ihe Tibetans .vo. \ 860. Tire military conquest o Khotan about the ti \o the century by the Islamic Karakhanids of Kashgar caused this unique Buddhist culture to end abruptly. When Khotan dared to resist Genghis khan two bundled \ears later, the cit\ was razee to the ground.

\\ hen Hedin \ isited ancient Khotan in 1896 onlv a tew shabby clay shards in the nearbv brook told ot Yotkan's existence. However, he was successful in acquiring a collection of terracotta figures that had been dug out nearby. The pieces represented Buddha, men and women, two-humped Bactrian camels as w ell as horses and griffins. These can be seen toda\ in Stockholm's Folkens Museum. Although Hedin was no archaeologist he nevertheless recognized that many of his new acquisitions belonged to "Graeco-Buddhist or Indo-Hellenistic art .' They were joined bv glass vases, bronze figures, and a most interesting coin-shaped Christian pendant bearing a monk adoring the cross on the face and Saint Irene on the reverse.

Stein's excavations in Yotkan in the year 1900 confirmed Hedin's hypotheses that the kingdom of Khotan acted as a multicultural melting pot. Very soon his excavations brought to light works of art with Indian, Graeco-Buddhist and Persian influence. These were statues of the Buddha and Bodhisattvas with evident Gandhara influence, and bilingual copper coins from the Later Han Dynasty showing on the face Indian Kharoshthi characters, with the value in Chinese characters on the reverse. From this evidence the Northern Indian roots of Khotan's culture may be deduced, as well as its recognition of Chinese supremacy. This Indo-Chinese mixed culture moved Aurel Stein to have recourse to the expression used by the Byzantine historian Prokop: "Serindia".

The folk tales Hedin had heard in Khotan were decisive for the subsequent exploration of the Southern Silk Road. For they tell of the legend similar to that mentioned above, according to which formerly wealthy towns were buried by sandstorms. These distant ruined cities attracted treasure-hunters who tried their luck there but often got lost and did not find their way back. The tales spurred Hedin on to return to the Taklamakan Desert and to search for these "ghost cities . In his autobiography he w rites: "Wherever we happened to arrive, we heard tales of the Taklamakan i Vsetl that w as our goal. People spoke of an old town called taklamakan (the ancient Dandan Oilikl, supposed to be submerged in the midst of the sandy desert; hut in between the ruins of lowers, walls and houses, b.v< of gold and lumps of silver were supposed to be \ ing around quite openly. If ever a caravan reached such a spot, ... their leaders would he bewitched and begin to walk around in circles till they fell dead. Is it surprising, then, that I was irresistibly attracted, despite last year's unhappy desert trek, to enter the mysterious land under the eternal sand!"[11] This time, Hedin's urge to discover was crowned with success, for he found two important ancient oases, Dandan Oilik and Karadong. A few years after Hedin, these tales moved Aurel Stein also to visit the mysterious cities.

ISLAM AKHUN'S **FORGERIES**

At the lime Hedin began to lay bare the first secrets of the Southern Silk Road between 1895 and 1897, the number of ancient manuscripts acquired by Macartney, the British Consul in Kashgar, kept increasing. Hoernle soon was no longer able to decipher these manuscripts on birch bark. At first the Brahmi characters were familiar, the language however unknown, but very soon the characters themselves turned out to be incomprehensible. While Professor Hoernle desperately struggled for translations and interpretations and correspondingly published voluminous scientific dissertations, the philologist and orientalist Marc Aurel Stein, bom in Hungary, but a British citizen leaching at Lahore University, became suspicious and felt that these undecipherable manuscripts were forgeries. Urged on by Hedin's book *Through Asia,* Stein decided to organize an expedition of his own, in order to check the authenticity of the "Hoernle Manuscripts" on site and also to explore in detail Hedin's "ghost cities".

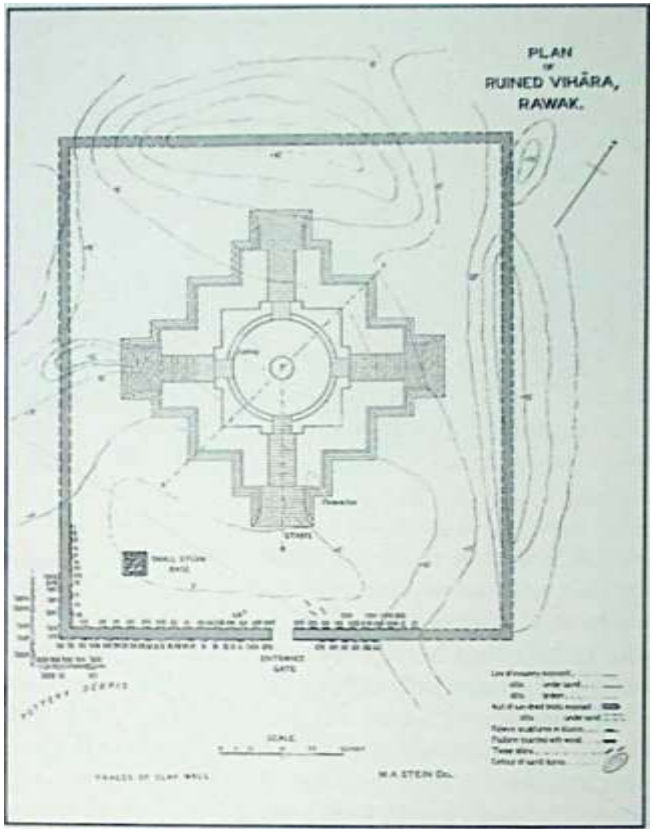
In May 1900 Stein set out on his first Turkestan expedition to Gilgit and Kashgar. This expedition was to

32. Islam Akhun, the counterfeiter.

last one year and, indeed, proved a success. Following Hedin's footsteps he was successful in excavating in Yotkan, Dandan Oilik, Karadong and Endere. In addition, he discovered the Domoko oasis, the great Rawak Stupa, and the extensive settlement of Niya. Before returning to Kashgar, Stein convinced the Amban of Khotan, Pan Darin, with whom (like Hedin) he had developed a good rapport, to have Islam Akhun - the main provider of ancient manuscripts - brought to Khotan for a direct confrontation. The two-day interrogation of the crafty Uighur by Aurel Stein was highly revealing, for it confirmed Stein's suspicion that most of the Hoernle manuscripts were nothing but more or less clever forgeries of an enterprising local person. Akhun had at first begun to imitate Brahmi characters true to the original. In a second phase he employed others to keep on copying these signs. In a third phase he even encouraged his employees to invent characters of their own, and in the last, fourth "developing stage" he opened a small factory where "ancient" manuscripts were literally printed in series using newly carved wooden blocks. In order to make these "manuscripts" look old, he had them hung briefly above a heavily smoking fire and then buried in the sand. These forgeries of a more or less analphabetic but clever Uighur had caused one of the leading philologists of those days to spend years of study!

Stein was so satisfied with his success in unmasking the forger of the "Hoernle manuscripts", that he asked the Amban Pan Darin to dispense with punishing Islam Akhun. With the greatest of forbearance he also endeavoured to inform the already ageing Hoernle that he had been taken in by a cunning Uighur. Surprisingly, Hoernle "rehabilitated" himself a few years later, when he correctly and successfully deciphered several documents written in the Brahmi script and found by Stein in the Khotan oasis, and proved the Persian origin of the language he called Ancient Khotanese.

The city oasis of Khotan was a welcome resting-place for almost all explorers of the Southern Silk Road, and it also was the starting point for Stein's journey to discover the Rawak Stupa. His caravan was led by a local treasure-hunter, Turdi, who had promised to lead him to Rawak, which can be translated as "tall house". On 11 April 1901 Stein reached one of the most remarkable constructions of the Southern Silk Road: the great stupa of Rawak.



Map III. Aurel Slein discovered most clay statues on both sides of the southern wall enclosing the great Rawak stupa. In 1994 the author found fragments of Bodhisattva statues in the outer northeastern corner, in 1998 on the inner eastern wall. Map by Aurel Stein, 1901.

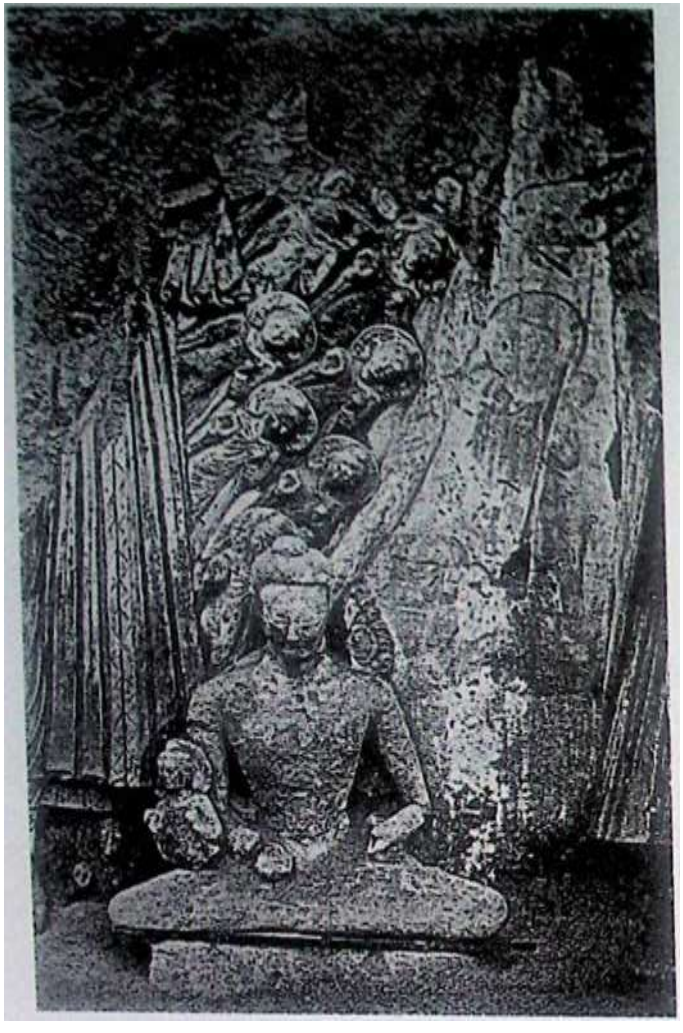
34. During the excavations, Stein as well as Trinkler and Bosshard had to secure the heavy heads of the statues by means of ropes, as they no longer were supported by the sand. After having photographed them, they once again covered up the statues with sand.

RAWAK: A MARVEL OF GRAECO- BUDDHIST SCULPTURE

The 9 m high stupa with three steps is surmounted by a cylindrical construction formerly crowned by a cupola that has now crumbled. From each of the four cardinal points steps led to the uppermost room. The stupa, with its cruciform base platform, is surrounded by a rectangular wall 3.5 m high and 50 x 45 m long and can be understood as a three-dimensional mandala.

Stein found that the northern parts of the surrounding wall lay buried under sand-dunes that reached a height of up to 7 m. But, when he investigated the southern side of the wall, he chanced upon fragments of large clay heads - an indication that treasure-hunters had already dug there. Moreover, in the southwestern corner of the encircling wall, remains of a second wall could be recognized. Stein did not hesitate for a moment and he sent his camel drivers back to Khotan to fetch workmen for the forthcoming excavations. At the same time he had a well dug in the vicinity of the stupa.

Stein managed to unearth a total of ninety-one large stucco statues near the inner and outer sides of the wall. These statues were joined to the wall at their backs. The series of large statues facing the faithful



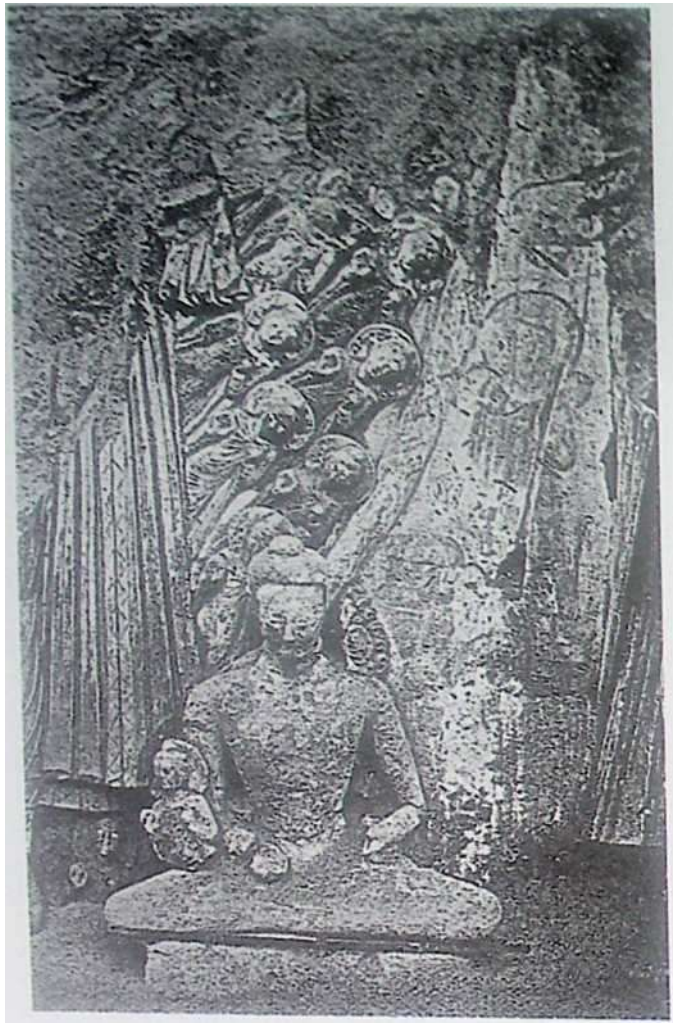
35. Sealed Buddha figure between two colossal statues inside the southern enclosing wall of Rawak stupa. Stein pointed out that this Buddha represents an individual work, in contrast to the serial production of most other figures in Rawak. The large statue behind the seated Buddha is remarkable for its mandorla filled with small standing Buddha statues. No doubt it is a representation of the Sravasti miracle, when the Buddha multiplied himself infinitely in order to demonstrate his omnipresence. (Style I).

and looking down at them must have been extremely impressive in olden days. Traces of paint showed that most of these almost five hundred more-than-life-size Buddhas and Bodhisattvas had originally been painted red. Placed in between the colossal statues additional smaller figures decorated the enclosing wall.

36. Three colossal Buddhas, possibly a triad. (Style II).

Because of the extremely brittle nature of the stucco statues, excavation work proved to be exceptionally difficult. Originally, wooden frameworks and bales of straw supported the interiors of the statues. The desert in Rawak has relatively high soil humidity and, even today, reed shrubs point to the presence of subsoil water. Over the centuries this caused the wooden interior skeletons of the statues to rot and then break down under their own weight; that they did not crumble was only due to the sand that protected them. Since Stein and, more than twenty years later, Trinkler and Bosshard began to excavate the statues and thus remove the supporting sand walls, several of the heavy clay heads dropped from their torsos onto the ground; even entire statues collapsed in this way. Thus, Stein as well as Bosshard excavated the statues for photographic purposes only, fixing their heads with ropes and then having the statues covered up again with sand.

The modelling of the folds of their garments is an especially striking feature of these stucco figures. It often leaves the right shoulder free and thus clearly indicates Gandhara influence. The face, with half- closed eyes, is slightly bent forwards, and with some of the statues encircled by a cloud-shaped halo. The stereotyped expression on these faces cannot be overlooked and is explained by the fact that these heads were manufactured serially, using moulds.



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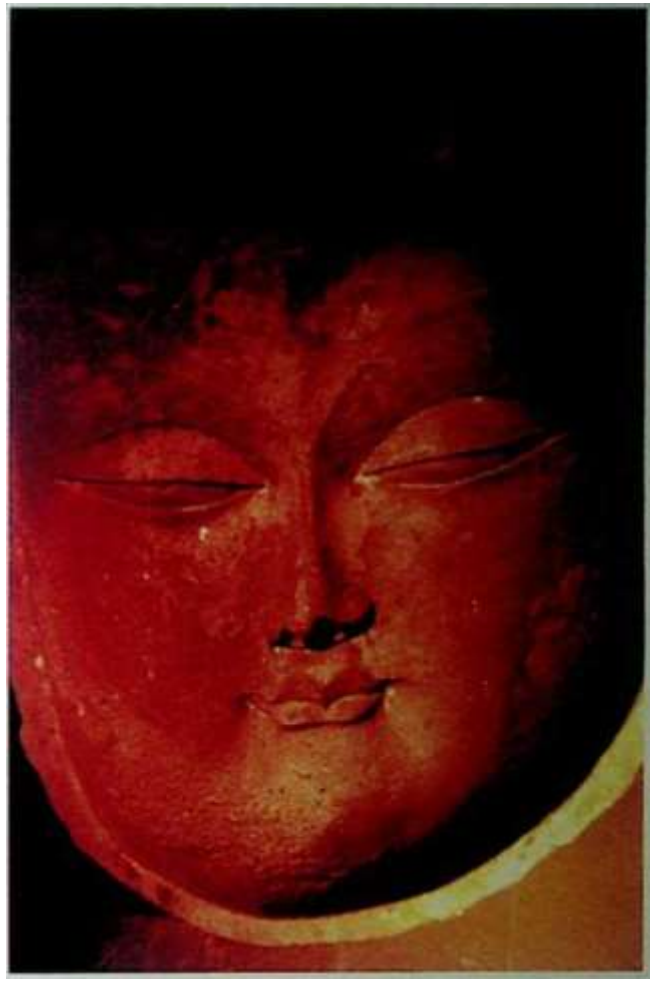
Allowing himself .il limes lo he j»uiflc*fJ by the travel report of the monk Xu.in Zang, Aurel Stein was especially pleased therefore when he found remnants of extremely thin gold plates near one of Ihe statues. Was this not reminiscent of that old custom described by Xuan Zang, whereby believers stuck gold foil to those parts of a statue's body considered to have healing powers that corresponded to their ailment?" The author was able to observe this custom repeatedly very recently, in Burma. A similar custom, widespread in China today, consists of fixing coins to the body of sacred statues. Stein found such coins from the Han Dynasty, which made him fix the golden age of the Rawak stupa between the 2nd and 3rd centuries and the abandonment of the shrine between the 4th and 7th centuries.

Recent studies indicate that the stupa was constructed in the late 3rd or early 4th century AD.[10] They also distinguish two different styles and periods of sculptures: the first is typified by classical uniformity and feature almost exclusively Buddhas. The total absence of Bodhisattvas suggests that the figures from the first phase were created in a Hinayana environment concurrently with the stupa. The sculptures from the second style are more mannered and include Bodhisattvas. Therefore we can date them to around AD 400 to 450 when Mahayana was dominant in Khotan. This division of Rawak's sculptures in an earlier Hinayana and a later Mahayana phase ties in with the above - mentioned observations by Zhu Shixing and Faxian.

Stein endeavoured to protect the valuable stucco statues by reburying them in the sand, after they had for a short while seen the light following centuries spent in darkness and this, in his eyes, appeared like a funeral. Yet his attempt was unsuccessful. His dream of preserving this imposing collection of large statues in a Khotan museum did not come true."

When Stein returned to Rawak in 1906 he was appalled to find that indigenous treasure-hunters had ruthlessly destroyed the colossal statues of the southern surrounding wall, hoping to find gold inside them. He maintained that "the wall, which I had found lined with a continuous row of stucco relievo figures, mostly colossal, now displayed bare brickwork. My care in burying these [figures] under sand, just as I had found them, had proved in vain, and of the interesting specimens of Khotan sculptural art then unearthed, all that survives now, I fear, are my photographs."[12]



37. The heads of the Rawak statues show signs of serial manufacture. Specialized itinerant artists made them by means of moulds. Regional Museum, Khotan.

The next explorers in the area were Emil Trinkler and Walter Bosshard. The German Trinkler was lucky to be one of the last in a position to explore the Taklamakan region before the outbreak of the Dungan revolt in the year 1931 and the subsequent civil war. In 1927 his expedition had set out from Srinagar, travelled to Leh and then crossed the Aksai Chin plateau

38. Excavations bv Trinkler on the northern enclosing wall in 1928. ■Style lit.

to Yarkand and Kashgar under the most difficult of circumstances. Alter having enjoyed the hospitality of the British ambassador Williamson, Trinkler, Bosshard and the expedition's geologist De Terra crossed the southern part of theTaklamakan Desert. However, their route lay at a southern and therefore safe distance from Sven Hedin's "death route" of 1895, and they reached Kliotan in February 1928.

When Irinklei and Bosshard began their excavations near Rawak with the unearthing of thirty-nine statues near the western enclosing wall, the topo- gtaphic c hanges since Stein's visit were conspicuous. In his unpublished manuscript *The Art of Ancient Ce.t'*\:\ Trinkler noted the following, concerning Rawak: The aspect of the ruins of Rawak visited by Man \urel Stein in 1901 had changed considerably.

I he mighty dunes, that in those days had occupied more than three-quarters of the area including the tow er, now had moved considerably further east. The south-western wall where Stein had excavated some ot the best-kept statues, was now almost completely hidden beneath a sand embankment."[13]

Today, almost seventy years after Bosshard's excavations, most of the remaining statues luckily rest below tow ering sand-dunes once again and therefore are out of the reach of local treasure-hunters and Moslem fanatics. However, when the author visited Rawak in autumn 1994, the north-eastern corner had been laid quite bare. Outside, he chanced on the remnants of two red-painted statues. Although he carefully covered them with sand, on the occasion of his second visit in 1998 they were completely destroyed. In exchange, inside, the torso of a larger statue had been exposed. But only a few weeks later he was told by

Emil Trinkler and Walter Bosshard

Emil Trinkler was born in 1896 in Bremen. During his school clays he was fascinated by Hedin's books, which made him wish to be an Asian explorer himself. Instead of taking over the flourishing business of his father who dealt in raw tobacco, he went to Munich to study geography and geology. In 1923, soon after completing his thesis on Tibetan geography, he set out on his first Asian journey to Afghanistan. But barely had Trinkler returned to Germany in the autumn of 1924 than he began to prepare for another expedition to Central Asia, being constantly in touch with Hedin by correspondence. Unfortunately, Trinkler died in 1931 only a few years after his return from Central Asia, not yet thirty-five years old.

His fellow-students Hellmut de Terra and Walter Bosshard accompanied Trinkler on his expedition to Central Asia. Bosshard, born in 1892 and of Swiss nationality, had at first been a teacher and then lived in Sumatra from 1919 to 1927 where he worked on a plantation and dealt in precious stones. After his return to Switzerland he turned photographer and as such took part in Trinkler's expedition, also making an extremely interesting film on the course of the journey in Ladakh and in the Taklamakan Desert. Later on, from 1933-39 and 1946-49, Bosshard lived in Beijing as a photo-journalist.

39. Mazar Tagh fort controlled the north-south transverse road through the Taklamakan, which linked Aksu to Khotan.

one of Khotan's archaeologists that this figure, too, had sadly fallen victim to local vandals.

THE TIBETAN FORT MAZAR TAGH

It is true that the Southern and the Middle Silk Roads were separated from each other by the Taklamakan Desert, but since the Bronze Age there were north- south connections along a few rivers such as the Khotan Darya and the Keriya Darya. Since after a great thaw in the Kunlun mountain range the waters of the Khotan Darya cross the desert and reach the Tarim even today, this transverse line linking Khotan to Aksu and going along the river has never been abandoned.

About 180 km north of Khotan a mountain range with a reddish hue rises up from the desert plain. It consists of marl and alabaster and runs from southeast to north-west. The geological structure of this mountain range (200 m high and 95 km long) is identical with that of a chain of rocks further north-west near Maralbashi. Thus, it may be presumed that these two ranges once formed one single massif with a length of 270 km, which in turn was a southern buttress of the Tian Shan. Lava stones found sporadically near Mazar lagh probably originate from the eruption of an unexplored volcano, with a crater 70 km north west of Mazar Tag that can be well distinguished from an aeroplane. The abrasive action of the everlasting windstorms over millions of years must have eroded this mountain chain down to its present unimportant size.

The Mazar Tag chain of mountains ends next to the Khotan Darya. Here, on a rocky ledge about 150 m high, the well-preserved Mazar Tagh fort proudly looks down on the river and watches over the former trade route. The position of the fort was almost impregnable, for the rock face near the southern crest falls almost vertically and is also quite steep in the east, while a tower at a distance of about 30 m protects the northwestern access. This massive 6 m tower reminds one of the limes of the Eastern Han and Jin eras between Loulan and Dunhuang.

Below the fort thin poplar poles project from the sand in a quadratically arranged formation. Here was the Buddhist temple mentioned but not excavated by Stein. The quadrangular basic pattern is easily detected, with the outer wall and the pole above the inner cella, around which was made the *Pradakshina,* (ritual circumambulation). Three more rooms adjoin the temple. In a somewhat more northern direction, the rectangular pedestals of two small stupas can be recognized.

When the Russian Prejevalsky, the first of the Western explorers, crossed the Taklamakan Desert in a

or

EASTERN EXTREMITY OF MAZAR-TAGH, WITH DETAILED PLAN or RUINS or MAZAR-TAGH FORT.

1

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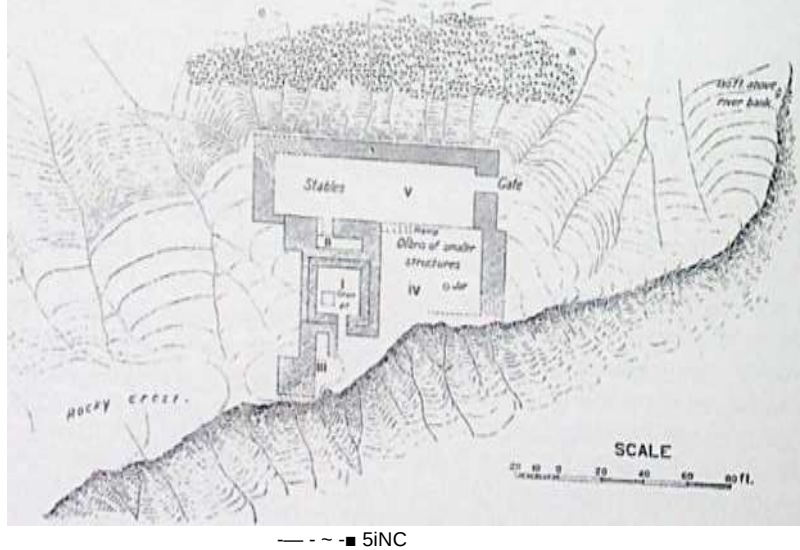
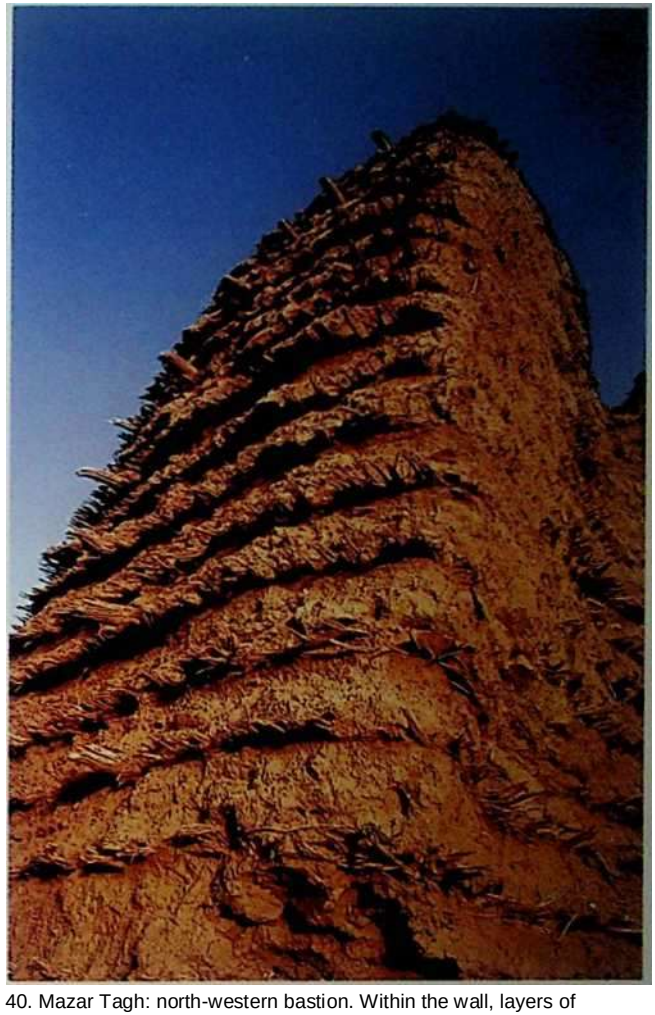


Map IV. Mazar Tagh: map by Aurel Stein, 1908. The rooms 1,11,11 and IV date from the Tang dynasty. The stables, room V, and the main gate were built by the Tibetans after AD 790.

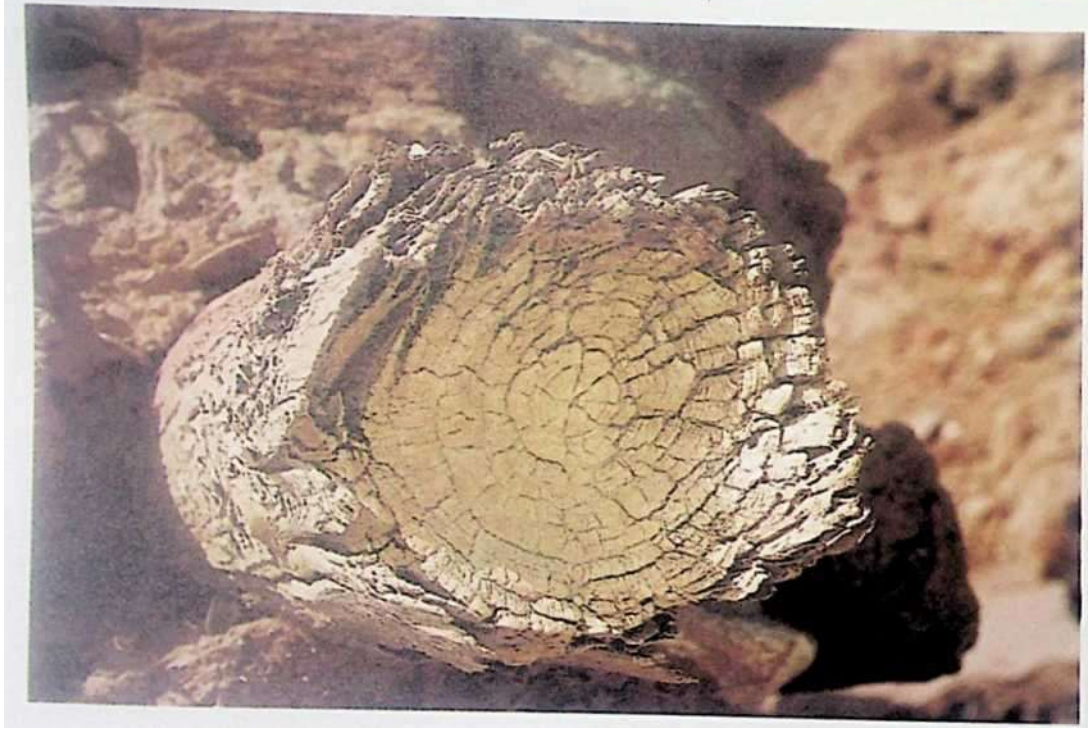
norlh-soulh direction along the.* Kholan Darya in 1885, he noticed the fort hut ascribed its construction to an Islamic warlord." In 1908 and 191 1, Aurel Stein excavated the site. On a garbage heap he discovered a great number of documents both on wood and on paper, written in Tibetan. I le also found documents in Chinese, Khotanese, Brahmi, Sogdian, Arabic and Uighur, which not only shows clearly the international character of trade in those times, but also allows us to infer the history of Mazar Tagh.

The tower is certainly the most ancient structure and could date from the 3rd or 4th century AD. Later the Tang built a first small fort of sun-dried brick and plaster on the rocky ledge. Within the wall and at 60 cm intervals a layer of tamarisk and poplar wood separated the rough clay courses one from another, lending additional stability to the construction in an extremely dry climate. The Chinese adopted this technique of fort construction in their western provinces and it was also taken over by the Tibetans. This Chinese fort consisted of three rooms and two defence towers. The most recent Chinese document found by Stein - a traveller's pass issued by the Kucha prefecture - bears the date AD 786. Since Khotan surrendered to the charging Tibetans in 790 and Kucha a year later, the Tibetan conquest of Mazar Tagh must have occurred in 790 or 791. The Tibetans set fire to the fort; the singed cross-beams that supported the floor of the second tier in Room I bear witness of this. They then reconstructed the fort and extended it by adding stables, Room IV and a bastion. When they lost control of the Tarim Basin around 850 they also left Mazar Tagh, which slowly decayed.



40. Mazar Tagh: north-western bastion. Within the wall, layers of tamarisk and poplar wood separate the rough clay layers from one another, to increase the construction's stability.

•I I. Mazar Tagh: room I, where Aurel Slein discovered numerous Tibetan wooden and paper documents in 1908.



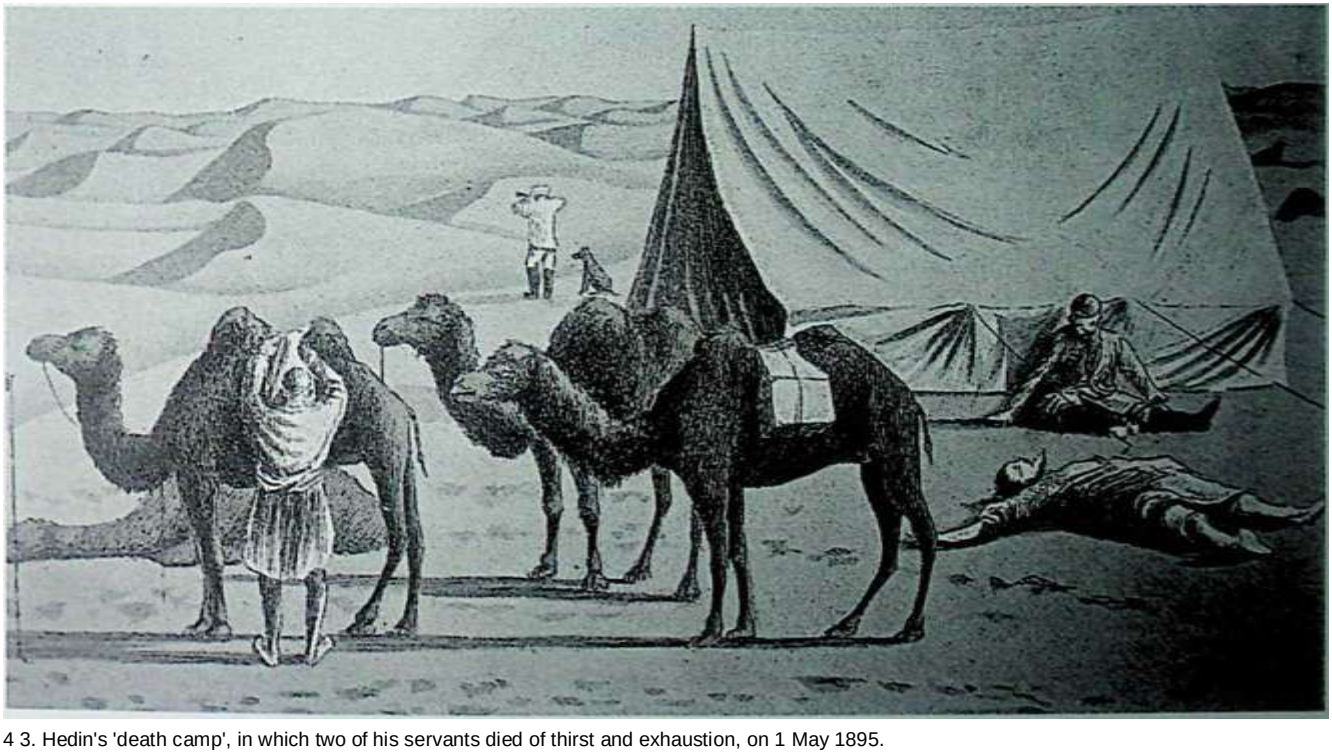
42. Mazar Tagh: poplar wood in the eastern wall.

VI Dandan Oililc
The Secret City

It was the successful crossing of the Taklamakan Desert in 1895 and the discovery of the ruined ancient cities of Dandan Oilik and Karadong in 1896 that made Sven Hedin the leading explorer of this desert and of the Southern Silk Road. Even Sir Aurel Stein owed his first stimulus to the reading of Hedin's travel reports. Yet, Hedin's first Central Asia expedition could easily have been his last, for, in 1895, he lost two of his four companions and seven of his eight camels owing to exhaustion and lack of water, and it was only by a hair's breadth that he saved his own life.

HEDIN'S MARCH OF DEATH

Hedin described the aim of his audacious Taklamakan crossing as follows: "For I had the feeling and faith that in the midst of the desert where there are no men



4 3. Hedin's 'death camp', in which two of his servants died of thirst and exhaustion, on 1 May 1895.

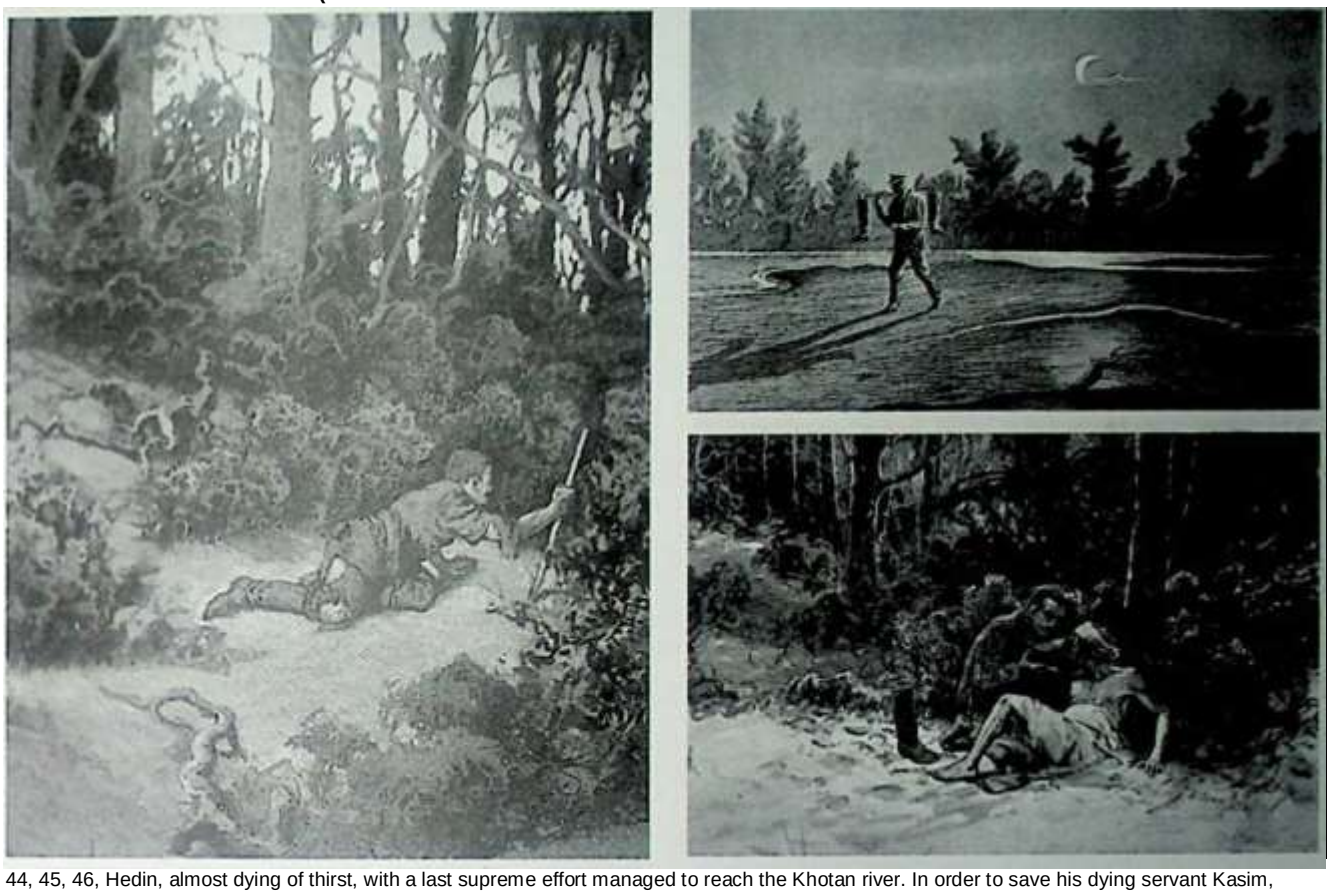
to be found one. no roads wot.'- d discover traces ot an ancient culture. V the >n v.e time \ led in w anted to check on the cartographic records made In ' e e\al$k\ n 1885 according to which the Mazar Tagh mountain range stretches right across the Takianiakan Desert from the Yarkand Darya to the Khotan Dar\a. Hedin therefore chose Merket situated south-east of Kashgar on the Yarkand Dai \ a. as a starting point for his expedition. From here he planned to reach the Khotan Darya east of Merket within fifteen day s. Yet the crossing of the sea of sand was to last for twenty-six days. Hedin left -Merket on 10 \pril 1895 with a small caravan consisting of eight camels, three servants and Yollchi. the "guide . Hedin describes the departure as follows: the camels were "hea\ ily loaded, and the bronze bells chimed solemnly as if for a funeral. The villagers' faces were thoughtful. We heard an old man say: They'll never return. Another one added: The camels are too heavily loaded.

It soon became evident that not only were the camels too heavily laden, but also that Yollchi the guide did not know the way. They were soon to pay the penalty for this. Before leaving the last source of water Hedin ordered ten days' supply of water rations to be taken along, although Yollchi maintained they were a mere four days' march from the Khotan Darya. When the water containers seemed to Hedin suspiciously hollow two days later, he was appalled to realize they held a mere two days' water supplies. Indeed, Yollchi had only filled water for four days into the canisters! It went against Hedin's uncompromising will to turn back on his tracks, so he ordered the march to go on and enforced a severe rationing of water supplies. Thirty years later, how'ever, Hedin was forced to admit, in self-criticism: "It would have been more judicious to return on our own tracks; the caravan would have been saved and no lives lost."[1] In all likelihood the water rationing ordered by Hedin would have saved all five men's lives, but it soon became apparent that Yollchi even stole from the precious water supply. As, once again, he w'as caught red-handed, Hedin had to act !luickly in order to prevent the other camel drivers from killing him in their anger. From 30 April onwards, the c nra\ an had not a single drop of water and it was still in the heart of the desert. I driven to desperation I ledin tried to drink the methylated spirits meant for the cookei while the set\ants slaughtered the last surviving sheep to drink its blood. I\vo especially thirsty servants drank camel urine but soon broke down with ter- ; b!e , :amps. In this "death camp" two of the four camel drivers died: the perfidious Yollchi and old Mohammed Shah.

With their remaining strength Hedin and his servants Kasim and Islam Bai set out for the east together w ith the few camels. The expedition's entire equipment including the "photographic cameras with over a thousand plates, of which a hundred or more had been used during our journey" was left behind. "But I w as buoyed up by an abounding energy and the joy of life. I would not die in the desert. I was too young. I had too much to lose. Life had still much to give me. Never before had I valued it as I did now."[4]

But the following day Islam Bai remained back with the last camels and lay down to die in the sand. Hedin had no choice but to carry on eastward, together with Kasim. In order to escape the killing heat the two men marched during the night and dug themselves into the sand right up to their necks during the daytime. Then, on 4 May salvation seemed to be within reach, for Hedin and Kasim chanced upon the footsteps of two men - until Kasim realized that these footsteps were their very own and they had been moving in a circle. Both men sank to the ground in despair. The following day, Kasim too, could carry on no longer, so that Hedin continued on his own in the direction of the Khotan Darya. Already the silhouettes of trees stood out clearly against the horizon, a sure indication of the saving river's proximity. Hedin dragged himself towards the forest where, on reaching the river bed, a truly fearful surprise awaited him: "But the sand [of the river bedl was as dry as that of the desert dunes, the river bed being empty and waiting for the summer floods from the mountains!"[5]

During the night Hedin struggled on through the dried-out river bed that had a width of one kilometre. All of a sudden he heard the flapping of wings and the splashing of water and shortly thereafter chanced upon a small pool that had remained in the dried-up river bed.



44, 45, 46, Hedin, almost dying of thirst, with a last supreme effort managed to reach the Khotan river. In order to save his dying servant Kasim, he filled his boots with water and took it to his companion.

After quenching the worst of his thirst Hedin thought of his dying servant who he had left at the edge of the forest. In an interview years later Hedin would relate how Kasim nevertheless was saved: "Then I thanked God for my rescue, rested for a while and then filled both my boots with water to return thereafter with an easier step, following my own footsteps, to find Kasim the dying servant and save him."[6] But Kasim was too weak to carry on so that Hedin had to continue on his own. After another three days' march Hedin met a group of shepherds. Then, four days later, he not only saw Kasim approach but also Islam Bai whom he had believed to be dead. Merchants had rescued both men. Faithful Islam Bai had even kept with him Hedin's diary and maps. Hedin was well aware that the consci

entious servant had saved the expedition's records: "Islam Bai had acted like a hero; for while I and Kasim thought only of ourselves, he had done the utmost to save that portion of my belongings to which he knew I attached the greatest value."[7]

HEDIN DISCOVERS

DANDAN OILIK

Although Hedin had to accept this tragic episode his spirit of enterprise remained unbroken. No sooner had he arrived in Kashgar at the end of June 1895 than he ordered new geodesic instruments from Sweden; for

he was as lirmiv bote m vo .is eve to v the tirst to discover the mxstci oi >w.«. e' o: the inklamakan. Together with hi> ktorvossh'ie companion Islam Bai. on 14 January 1 896 the Sw ede staited off on the expedition that would prove the existence of formerly flour* s ■ ig city oases along the ancient Silk Road for the first time. After departing from Khotan the caravan trekked northwards along the Khotan Darya and then, after a few days, branched off eastwards into the deadlv desert. After a five davs' march Hedin chanced upon the ancient citv oasis that local guides used tit call bv the names of "Taklamakan" or "Dandan Oilik'; the latter name being translated as ivorv houses".

Hedin quickly saw that these ruins were basicallv different from the ancient cities hitherto discovered at the edge of the desert. Whilst the latter consisted of sun-dried clay, there were no clav constructions to be seen here, for all the houses seemed to have been constructed of poplar wood. Everywhere, wooden beams projected from the sand and sometimes even the walls of clay-covered reeds were partially preserved. Although Hedin hac! neither the time nor the necessary equipment for a thorough excavation, he did manage to make some spectacular finds.

Thus, he discovered extensive poplar alleys that once had grown across the city as well as apricot orchards with the traces of proper irrigation canals. Heavy millstones, once driven by running water, also suggested the one-time existence of irrigation canals. Hedin supposed that these canals had once been fed by a tributary of the Keriya Darya situated to the east. Stein was later to prove that neither the Keriya Darya nor a tributary could ever have flowed to the oasis, which was situated sixty metres higher up. He believed the city had received its w-ater by means of canals from the former delta of the Chira River, which now percolates into the sands sixty kilometres south of the ruined city. Perhaps this system of canalization was also connected to the neighbouring rivers Domoko and Gulakhma. But on a satellite photograph that the author had the opportunity to study, no traces of a former river bed could be made out within the area south of Dandan Oilik. It therefore must be assumed that the Chira Darya's waters had been flowing partly under-ground surfacing shortly before Dandan, similar to the Keriv a Daiva of our day.

I low ever, I ledin s ev idem e of Buddhist culture in Dandan Oilik w as ev en more significant for the exploration of the l ari in Basin, for these discoveries prov ed the truth of \uang /.ang's descriptions concern- cv; the existence of lost cities in the desert.

[1] ledin w as indeed successful. Not only did he excavate sev eral small clav Buddha and Bodhisattva figures but he also discovered Buddhist wall paintings on a white base in the ruins of two temples. These represented Buddhas both seated and standing, and I ledin was struck by their very long ears with hanging lobes and thought of "idols in the Buddhist world", a supposition which proved to be correct." Other representations of "men with full black beards" Hedin rightly associated with elements of Persian style. Stein's later finds - a w ooden tablet painted on both sides - would confirm Persian influence in Dandan Oilik. Although Hedin was no archaeologist he had recognized the Indian and Persian influences as well as established the existence of an ancient Buddhist culture within the area of the Tarim Basin, dating from a period before the Arab invasion. Later on he describes his feelings in the book *Through Asia* as follows: "Who could have imagined that in the interior of the dreaded Desert of Gobi, and precisely in that part of it which in dreariness and desolation exceeds all other deserts on the face of the earth, actual cities slumbered under the sand,...the ruined survivals of a once flourishing civilization? And yet, ...there I stood like the prince in the enchanted wood, having awakened to new life the city which had slumbered for a thousand years, or at any rate rescued the memory of its existence from oblivion."[9]

When Marc Aurel Stein set out on his first expedition to Central Asia in the spring of 1900, Hedin's book *through Asia* was one of his most important sources of information. He noted not only the names of individual places, desert areas, sources and respective dignitaries and guides across the desert, but also Hedin's records on climatic conditions, the purchase price of camels, and the necessity of using iron containers for water during the expedition. At the Tawakkel settle-

Sir A u re I Stein — the leading archaeologist of the Taklamakan

Mar< Aurel Stein, Sir Aurel Slein from 1912, was born in Budapest in 1862 and shared many traits of character with Hedin. Like his contemporary he was determined to be the first to investigate scientifically "his" field of discoveries, and he felt content only when "on site". And, like Hedin, he remained a bachelor. His employment at various Indian universities was but a means to the end of being in a position to inquire into the Southern Silk Road from Kashgar to Dunhuang, in the footsteps of Xuang Zang, the Chinese pilgrim to India who he venerated.

Stein differed from Hedin inasmuch as he would pay heed to neither politics nor heroes, a fact that protected him from falling into the traps of national interests. But Stein could not match Hedin's enormous range of linguistic skills, which extended over thirteen languages. His failure to know Chinese would make itself fell most painfully during his abortive fourth expedition to Central Asia.

As had been the case with Hedin, Stein's interest was marked by key experiences in his youth. A book on Alexander the Great's Asian campaigns had awakened within the young Stein the question of how far Greek influence could have penetrated into the East and whether traces of Greek culture could be detected in distant China. The second writing to impress him was a report by the Hungarian Sandor Koresi Csoma on the walking tour the latter had made in 1820 from Hungary to Ladakh, there to investigate the origins oi the Hungarian language. Even if Stein was not interested in the origin of the Hungarian language, he nevertheless learnt from Csoma the necessity of making scientific enquiry on the spot.

In the course of three successful expeditions to Central Asia, Stein managed to prove the cultural superimposition of Chinese, Indian, Persian and Hellenistic elements within the sphere of the Tarim Basin. While Hedin, by discovering Dandan Oilik, Karadong, Endere and most of all Loulan, was able to point out the existence of an independent pre- Islamir culture along the Southern Silk Road, it was Stein who was able to place the reciprocal cultural influences within an historical context.

However, towards the end of his scientific career Stein the scholar experienced some painful setbacks. First among these was the dividing up of his art and documents collection between the Indian National Museum in Delhi and the British Museum in London, which made scientific evaluation extremely difficult. Second, large parts of his collection that had been awarded to England were stored in the warehouses of the British Museum and therefore were inaccessible to the public. Thus, many exceptional works of art that Stein had snatched from the sands of the Taklamakan Desert were merely transferred to the catacombs of the British Museum.

47. Aurel Stein near Kholan in 1908. From left to right: Ibrahim Beg; Chiang Suyeh the secretary; Stein with his dog Dash II; lasvant Singh, the cook; Rai Bahadur Lal Singh, surveyor, and Naik Ram Singh who soon after suffered a brain stroke.

morn north of Khotan Stein engaged the tvvo hunters who had also shown : loo. ' the wa\ to Dandan e'Jilik lour \ears previously in. addition Stein hired Turdi the experienced treasure-seeker who would accompany him to sev e-al ruins during the course of the one- \ear expedition. Stein reached Dandan Oilik on Id December 1900, there to make his first large excavation of an ancient Buddhist tow n. In 1905 this archaeological site was \isited briefly by 1 luntington. to 'no followed b\ Trinkler and Bosshard in the spring of 1928.

However, Trinkler and Bosshard neither conducted any scientific exploration nor were they active in mapping out Dandan Oilik: they were satisfied to remove a few wall paintings and take awav carved wooden beams and small stucco figures. Since then Dandan once again has rested in the stillness of the desert.

THE REDISCOVERY OF DANDAN OILIK

It was only on 8 October 1998 - seventy years after Trinkler - that the "ivory houses" were once again entered, this time by the author and his international team. It took our camel caravan five days to cross the approximately 80 kilometres as the crow flies (about 120 kilometres marching distance) from Mazar high to l \rndun Oilik. I hero, wo not only could idon- tit\ thirteen oi the fifteen ruins marked by Stein, but wo also lound throo additional silos. 1 ho geographical locations of all sixteen structures discovered were registered by means of a Global Positioning System instrument, so that now a precise map of Dandan Oilik b available tor the first time. For the identification of no sites wo used a now counting system, enumerat- n; '. thorn at cording lo the sequence of our discoveries (D 3 to D 18). At the same time the team excavated throe temples with w all paintings and found countless Buddhist stucco figures, all of which wrere re-buried n the protective sand. The shrines also were covered w ith sand once again. As the author had unfortunately to realize several times, these precautionary measures are essential, because of professional treasure-hunters w ho w ould rob temples of their antique paintings and statues with the aid of published information. For this reason the author consciously declines to publish any geographical coordinates in respect of Dandan Oilik.

The entire Dandan Oilik oasis, where we found a total oi eighteen sites, formerly extended over approximately 22 sq km. Its lengthwise extent of 12.5 km starts in the north al a large site covered with red, grey and black ceramic shards named "rawak" by Stein and D 1 by the author, and ends in the south near the small temple "Stein XVI". However, sand-dunes 5 to 8 m high separate the larger northern from its smaller south-

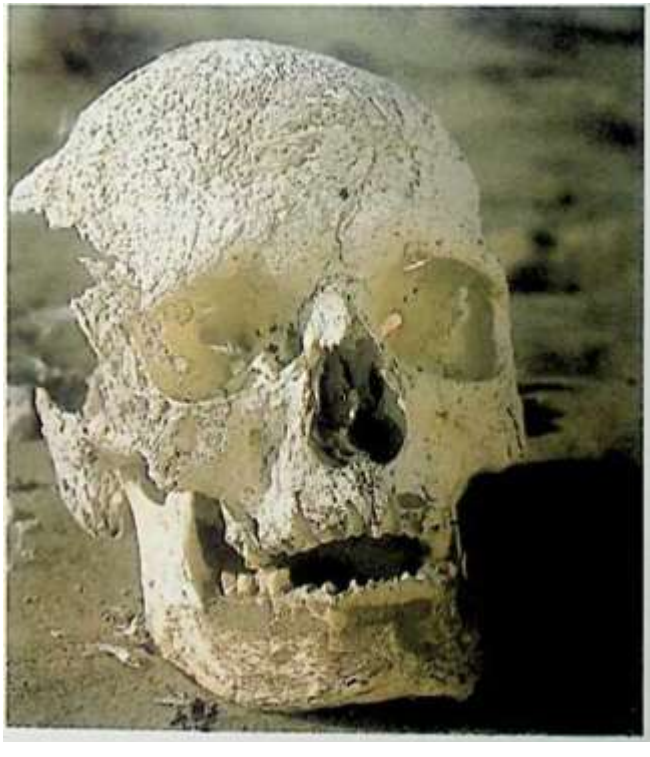
4-' \s in Hedin's limes, the author crosses the Taklamakan with a camel caravan.

49. The author's caravan numbered 15 camels, which carry 1.7 tons of luggage, including 700 litres of water.

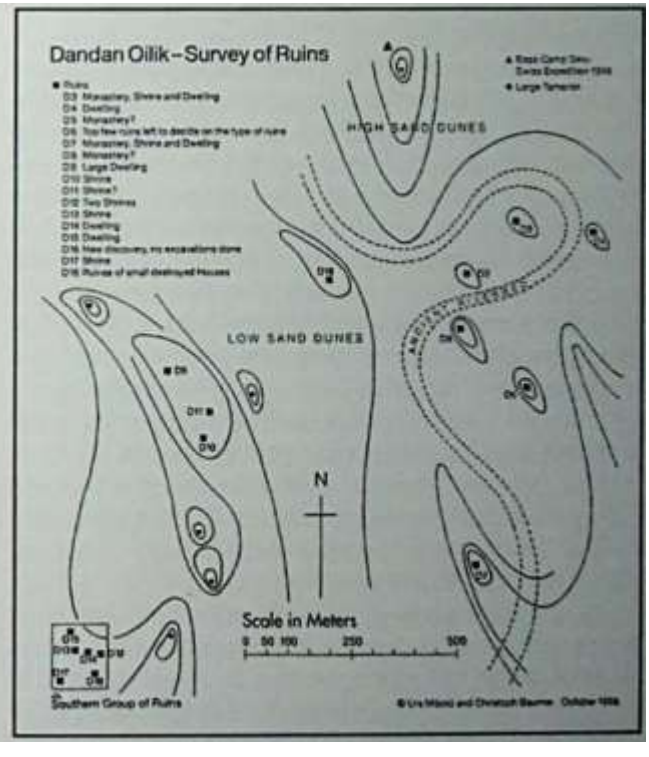
ern section. The maximum width .it ihe centre of ihe town is a bare 2 km. Willi the exception of two structures, namely I) I and the small shrine I.) 2 (Stein XVII), all ruins are situated at the southern end of the oasis. The limits of the occurrence of ceramic shards define the extent of the c ity proper as about 4.5 sq km. The city is divided into an eastern and two western parts by a range of low sand dunes, while a 1 0 to 30 m wide moat runs through the eastern group.

What strikes one first - as with other larger ancient settlements, for instance Niya or Karadong- is the small number of existing ruins. However, the reason for this is evident. As in today's oases, so too in those times the houses of the average inhabitants were purely clay constructions and have perforce long since turned to dust. Only the few houses of the well-to-do and the monasteries had wooden supports and plastered walls. Far sturdier than mere clay constructions, these types of half-timbered buildings could withstand exposure to wind erosion from Ihe moment of Dandan's abandonment to the time when they were covered with sand.

The structure of most one-storeyed buildings and of the shrines is practically the same in all of Dandan Oilik: wooden poles made of poplar or tamarisk trees were driven into the ground and the spaces closed with walls made of clay-covered reed mats. Some ruins still show how these reed walls had been fastened to the poplar poles with some kind of raffia rope. The flat roofs, too, were made of interwoven tamarisk branches and reeds covered with clay. This two thousand-years- old building method seems to have proved successful, for most new houses along the Keriya Darya have been constructed by the very same method. Near several farms former orchards with dried-up peach and apricot trees can be recognized, surrounded by a fence



<0 Dandan Oilik: skull from a group of 3 skeletons near D 1, 10.5 km north of the centre.



Map V. Dandan Oilik city: survey of all ruins within the limits of the remaining ceramic shards. The map was drawn by means of a Global Positioning System instrument.

made of thin popla: vwxv A.V eod>.

Formerlv DandanOs •. AT uv o 'ridod ilsolt on dAN ing A Luge com;nu'v;\ ot Buddhist monks, lor of the stxtee ■ u \s w thin the city At least ten may be identified AS shrines or monasteries. Dandan, like Ka adong o Niya ■ as ■ •

«vn.

S p . . es us any clues AS to the existence ot A north-south route connecting iho Southern to the CentrAl Silk Road \ ia Dandan Oilik. But it i> conceivable that a cross-link connecting the roads along the Khotan and the Keriva Darva then existed, as it would have allowed the caravans to travel directly from Kucha to Khotan. thus avoiding the detour via Keriva. Occasional finds of shards, and traces of a small wood planted by men about 15 km west of Dandan, support this thesis. A comparison of the inhabited area of Dandan with contemporary oasis settlements allows us to estimate the one-time population at about four hundred families and two hundred to three hundred monks, plus the Chinese administration and a military guard.

As to the date of Dandan Oilik's foundation, we are groping in the dark, for although the dated or datable literary and numismatic finds have been traced to the 7th and 8th centuries, many of the discovered works of art were created before the Tang Dynasty. The painted votive tablets can be dated to the 6th century whereas the stucco figures of Buddhas and Bodhisattvas found by Stein and the author are clearly related to the Gandhara art of the 4th and 5th centuries. It is true that the team, like Stein, found several small copper coins in the centre of Dandan Oilik, as well as in the northern site D 1 - copper coins such as were common under both Han Dynasties. However, as these blank coins continued to be stamped even after the Han's downfall, it is difficult to date them. For this reason a cautious estimate places the beginning of Dandan's golden age at the 4th-5th century AD.

As some documents tell us, Dandan Oilik had been a prosperous city up to the middle of the 8th century AD but began to be hard pressed as a consequence of Tibetan invasions into the Tarim Basin from AD 758 onwards. A letter dated AD 768, written by the Chinese military commander and addressed to the King of Khotan, relates to this. In it the commander complains about pillaging gangs of robbers (probably Tibetans' and asks for the suspension of enforced labour.

I he vvealtln inhabitants apparently bad already left thoi: , v and found relugo in the vicinity of Khotan. C'nlv the monks, the low er strata of society, and some militaiv had remained behind. Therefore, the officer asked the king permission for the emigrants to fetch theii grain stored in Dandan in order to pay their tax debts and that those left in the city be relieved of forced labour.[10]

The last dated document from Dandan is from the year 790. One year later, Kucha, the headquarters of the Chinese military administration that had remained in the Tarim Basin, capitulated, thereby putting an end to a thousand years of Chinese presence in Turkestan. -\s the Tibetan conquerors in the Tarim Basin were merely interested in controlling the merchant routes and in launching raids and not in the administration of the civilian population, they did not occupy Dandan Oilik, as they had done with Mazar Tagli, Endere or Miran. Shifting sands that constantly threatened desert settlements and irrigation canals, political unrest, and a declining population, quickly brought about catastrophic consequences. Therefore the last agriculturalists left the oasis and the formerly fertile land was to lay waste from that time on.

TEMPLES AND RUINS OP DANDAN OILIK

Since the constructions at Dandan Oilik had not been carefully explored since Aurel Stein, they are hereunder described one by one, starting in the east (Eastern Group) of the city and then moving west (Central Group) and south (Southern Group).

The Eastern Group

This stretches on both sides of the river bed and encompasses seven sites - the ruins D 3 to D 8 and D 18.

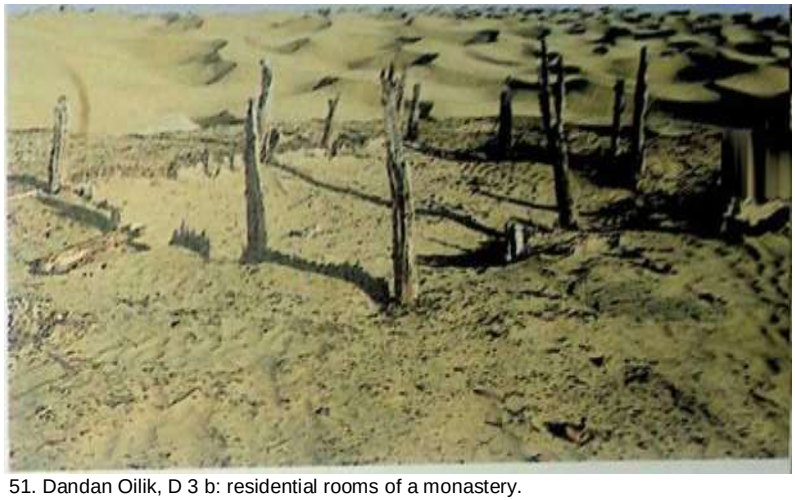
D 3 - just like D 4, D 5, D 6 and D 8 - is situated on an elevated clay plateau. It is a monastic construction with a rectangular temple (D 3a) and seven adjoining large rooms (D 3b) that perhaps were monks' cells. The temple clearly shows the inner cella, with

DANDAN Oil IK Till SI CIO I <'N ᵛ four wooden beams ihal clcsi«n.iU* ll»<? grourul plan still lying in their original plar <'S. I ho plan of lho mon aslery is L-shaped, with Ihe shrine oc c upying ihe shorter side, and Ihe living quarters Ihe longer one. This pattern can be observed in several religious < on- structions in Dandan. Shrine D 5a is identical with Stein IV; Ihe living quarters I) 3b with Slein V. An age analysis based on the C-14 dating method, of reeds which were part of Ihe walls, gives a range from AD 480 to 580. The small shrine Stein XV, which we could not trace, would be situated about 100 m south of D 3. It is quite possibly covered by a sand-dune.

In D 3b, Stein had discovered numerous documents in Brahmi and Chinese, written on paper or elongated wooden slates. Among these are two especially interesting letters of Dandan Oilik's Chinese military commander, addressed to the King of Khotan or to one of his arsenal administrators. The first letter is the above- mentioned request for an exemption from enforced labour, the second urgently asks for a supply of quail feathers for the manufacture of arrows. These two documents also reveal the original Chinese name of the city, which was "Li Hsieh" (Li Xie), the meaning of which remains unclear." Both these records raise the question as to whether the Chinese administration did not perhaps have its offices in this monastery. On the floor of the living rooms the author's team found three hair combs, one of them of horn and the other two of wood. Also found was a phrygian cap made of felt - a distinctive mark of the Saka of eastern Iran - and three shoes consisting of thick wool woven cross-wise and provided with a leather sole.

D 4 lies on the other, eastern, side of the city moat opposite D 3. It is a residential construction, with part of the courtyard having fallen into the river bed. One of the large architraves has obviously only recently been brought to its present position; others are singed - the work of treasure-hunters perhaps? D 4 corresponds to Stein XIV.

D 5 is situated on the western side of the moat, north-east of D 3. This large ruin was in all likelihood a monastery. It is marked by a wooden beam 4 m high that stands in the middle of the largest room. This beam perhaps once supported the roof of a two-storied temple. Next to the monastery there was also a farm, for



51. Dandan Oilik, D 3 b: residential rooms of a monastery.

stables as well as "ancient" dung-heaps and garden fences can be found. On Stein's map we do not find any entry that might have corresponded to D 5 - is this perhaps a new discovery?

About 600 m north of D 5 there is a fort that once was probably circular. In some places remnants of mud walls project from the sand, and they could originate from a large circular construction with an 80 m diameter. Similar fortifications are to be found in Karadon; and Endere but in a much better condition. Since the fort is situated 500 m north of the limit where ceramic shards can still be found, it stands outside the actual city. It is interesting to note that nearby, at a spot that Stein had marked as "well" on his map, we too found water at a depth of only 3 m. It must be admitted that it was quite salty, but thirsty camels would consider it just about drinkable.

D 6 lies on a small plateau. A great number of wooden beams have fallen into the river bed, just as with D 4, and in the vicinity we located two millstones. We found a completely intact ceramic pot with one handle, and two wooden cross-beams that belonged to a roof or gateway, as well as several fragments of bronze coins. No entry that would have corresponded to D 6 can be found on Stein's map.

D 7 consists of two structures: the small temple D 7a (Stein VI) and the residential quarters D ~b (Stein VII). A few metres south-west of the shrine, traces of an irrigation canal leading to the city river can be seen.

52. Dandan Oilik. D 5: mon.v-tor\ with shrine, dwellings, stables and garden fences.

A clune, running in a north-south direction, covers up half of the ruin. On the inner side of the southern temple wall, we unearthed the paintings of small Buddhas described by Stein. They are depicted seated, in blue or rose colours, and with their heads encircled by whitish haloes.

In the house D 7b, Stein found two important painted votive tablets. The first one is the famous slate painted on both sides, representing on one side the three-headed, four-armed Hindu god Shiva riding his mount Nandi the bull, and on the other side the Persian Prince Rustam or the silk god of Khotan, in a sit- *'[n]y position. The second tablet shows two riders, one above the other: the lower one rides a camel, the top one a dappled horse. The wall paintings of the shrines D12 and D 1 } also show a black-and-white piebald horse. Both riders have an aureole and each one, in his right hand, bears a bowl towards which a black bird plunges." Unfortunately, the significance of this representation is not known. In this residential tract

' !. Dandan Oilik. D (>: broken part of a millstone.

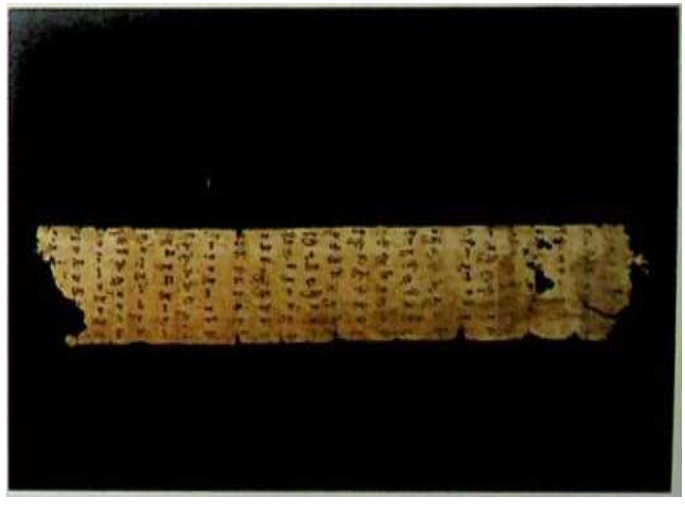
54. Dandan Oilik, D 6: intact ceramic pot, Tang Dynasty.

55. Dandan Oilik, D 8: the largest monastery of the city.

Stein chanced also upon the credit contracts mentioned earlier, namely credits granted by the monastery to private persons. These not only inform us of the usurious 10 per cent monthly interests but also of the name of the monastery: "Hu Guo", meaning "protector of the land".[3]

D 8, once again, is situated on a plateau about 30 m high. Since neither Stein nor we have excavated this ruin it is difficult to assess its use. Probably it was one of the larger monasteries for, like D 3, this one shows an L-shaped ground plan. The longitudinal side pointing westwards measures about 38 m; the shorter side pointing north is 20 m long. The rooms are about 4-6 m wide. But a sand-dune running from north to south covers more than half of the northern wing. The western construction consists of eight larger and several smaller rooms. In the central room we excavated an oven 1 m high made of clay interlaced with straw. D 8 is identical with Stein IX.

56. Dandan Oilik, D 8: dwelling rooms.



57. Dandan Oilik: paper document from site D 18. The manuscript is 30 cm long and 7 cm wide. The text is written in Middle Khotanese language using a modified Brahmi script. It is a Buddhist spell against diseases and dates from the 7-8th centuries.

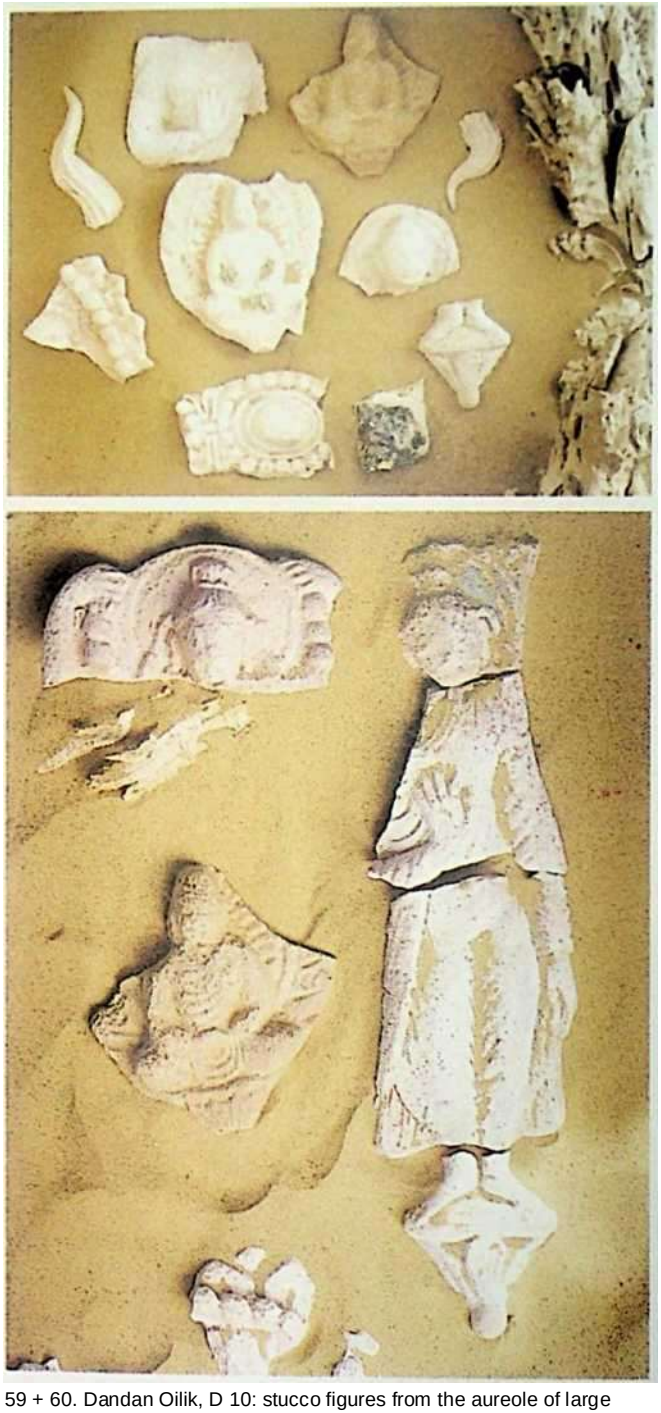
D U> is a latge co'on\ cv." - "got numerous ruins o w ses Ste i's uins of $ «a es o> e ' hoi ses . Hero wo found a pane nanusu'pt in two pieces, a scap of silk with Chinese characters and a copper coin dating back to . v KaiyOan Period (713-741 ADi of the Tang env.vro \v.ang dong Cl2- “5b \DT Stein too. had found six such coins.[1]'The paper manuscript is in Middle khotanese using a modified Brahmi script and dates from the “th-Bth centurv \D. It's a spell against diseases. It records the discussion between the Buddha and several naga kings who could send human beings various illnesses such as typhus or leprosv. but who now' vow to protect people from such sufferings. Tine nagas involved are Sagara, \na\atapla. kadaka. Migala, Gavasirsa, Grahavatta and Kautakarna. \\ hiie this content is w ell know n, it's the first such document found w ritten in Khotanese.

The Central Group

This lies about 500 m west of the city moat and consists of D 9 to D 11. D 9 is large building corresponding to Stein XIII. Around the house former stables and fences are easily detected, just as with D 5, and also the still upright trunks of apple and apricot trees. Stein found a unique paper document here. It contained thirty-seven lines of a Persian text written in a fine cursive 1 lebrew script. This Persian-!tebrewdocument i> a business letter written by a lew residing in Iran in tire vear Al t 718.'"

b 10: hardlv anything remains of the former building - identical w ith Stein I on this site, but we discovered a g.reat number of small rose-coloured stucco hgures. These represent sealed and standing Buddhas with the mudras of teaching and absence of fear. For- merlv. they were fastened to the walls, inside the aureoles of large Buddha figures or paintings and, after Dandan Oilik was given up, fell to the ground and were soon covered bv shifting sand. In his book, *Through* \s/a. Hedin relates how by chance he had found such figures at the same spot in 1896. Some of them he had taken along with him, but the rest he had buried in the sand - the very same that now lay before our eyes. Gandhara influence in the fashioning of the raiments can be recognized at first sight, so that the small statues may be dated back to the 4th or 5th centuries AD. Such figures used then to be serially die-cast and consequently were widespread. Stein found identical figures within the cultural area of Khotan, such as for instance in Yotkan, Rawak, Akterek and Khadalik, a fact

>H. Dand.in Oilik, D 10: the team discovers dozens of small Buddhist stucco statues.



59 + 60. Dandan Oilik, D 10: stucco figures from the aureole of large Buddha statues, 4th-5th centuries AD.

ihat underlines the mass production of these statues. Judging from the location of D 11, this seven-roomed ruin doubtlessly corresponds to Stein VIII. However, although Stein merely mentions a small room, the layout of the wooden poles jutting out from the sand could well indicate a monastery. Moreover, the contents of one of the Chinese paper documents discovered here by Stein are quite surprising and shed an ambiguous light on the clerical moneylenders For here, a monk named Ta-Pi is mentioned as having contractually asked for a maidservant by way of security for a loan![17] This find also argues in favour of D 11 having been a monastery.

The Southern Group

This consists of four to five shrines and two to three residential buildings, a total of seven ruins (D 12 to D 17). D 12 coincides with the important site Stein II, where the British explorer was fortunate to excavate two adjacent shrines. The cella of the larger shrine (our D 12a), is in the shape of a square, with an interior wall length of 3 m. It is surrounded by another rectangular wall that measures 4.4 m by 4.8 m. As with all shrines in the Southern Group, the entrance to both rooms lies to the north, whereby the narrow corridor between the cella and the enclosing wall must have served the pilgrims for *pradakshina,* the ritual circumambulation of a sanctuary. It seems that in Li Hsieh, both sides of the cella walls were usually painted: on the inner side of the whitewashed walls are large Buddha figures and various deities and adorants, whereas the outer side shows a homogeneous sequence of small, seated Bodhisattvas.

In former times, a large painted Buddha figure made of stucco was enthroned on a red-painted pedestal, right in the centre of the cella. In each of the four corners there stood further red stucco figures approaching life-size, and representing Buddhist custodian deities. Finally, there were small stucco statues fixed to the painted walls. Here, Stein detached from the walls those paintings that showed Brahmi inscriptions, in order to take them to British India.

In the neighbouring smaller shrine D 12b, Stein made a very interesting discovery. He found in the

volUi not onl\ the pedestal of the main statue and the ioot and legs ot a broken custodian figure, but also a N'ge stucco statue ot l okapala Vaishravana, the Buddhist Lord of the North. I he I m high statue stood aeai the south-eastern coi ner and, except for the head, had remained intact until the year 1900. We are able to recognize on Stein's photo that Vaishravana - the legendary ancestor of the khotan royal lineage-wears scab armour. Such armour made of hardened leather w as popular among the peoples of Central Asia of that time. With his boots. Vaishravana crushes a large-headed dwarf ly ing on the floor, thus possibly symbolizing the victory of Buddhism over Hinduism.

Immediately next to the dwarf we recognize the image of a bare-breasted woman standing in a lotus pond with a small Eros-like allegorical figure clinging to her left thigh. Further to the left a rider on a piebald horse can be identified. Probably the woman represents a divine *nagini,* thus pointing to Indian influence. Stein connected this image with a legend transmitted by Xuang Zang, according to which the widow of a river god, a *nagin*i, had asked the King of Khotan for a minister as husband in order to vouchsafe the regular flow of the river. One of the ministers thereupon sacrificed himself of his own free will and rode into the river. Stein supposed that the small male figure near the goddess's leg also shows the minister, since the reoetition of a figure was common in the painting style of those times in order to represent various episodes. Upon freeing the shrine from sand and carefully excavating Vaishravana, we unfortunately only found the miserable remains of the once proud custodian deity. The statue is shattered and only the dwarf, painted red, is preserved, except for his head. South of the dwarf there appears the foot of a corner statue, also painted red; to its

Map VI. Dandan Oilik: southern group of Ruins.

61. Dandan Oilik, D 12 a: shrine excavated by Aurel Stein in 1900.

62. Dandan Oilik, D 12 b: statue of Vaishravana standing on a defeated dwarf, and mural painting of the river godess of Dandan Oilik requesting a husband from the King of Khotan. In order to secure a continuous flow of the river, a minister of Khotan sacrities himself and rides into the river. Early Tang dynasty. Excavated in 1900 by Aurel Stein.

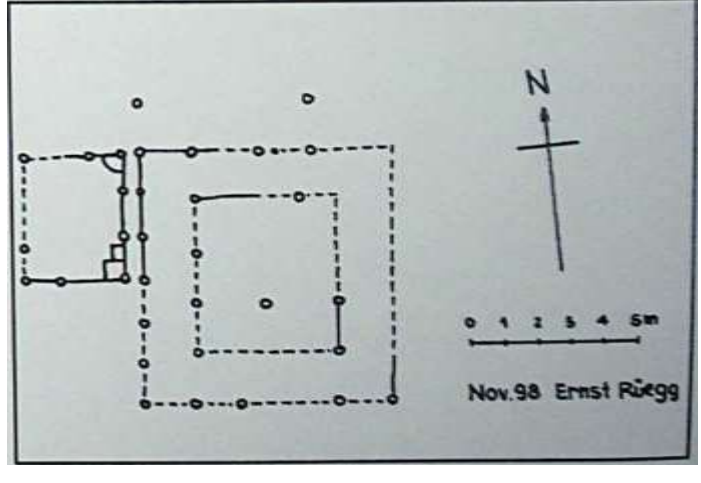
63. Dandan Oilik, D 12 b: of the shrine decoration shown in the illustration left, only the dwarf remains in 1998.

north the poor remains of paintings that represent the *nagini* and the self-immolating minister. To her left at floor level we discovered the painting of three ironclad horsemen. They wear the laminated armour typical of the Saka, and the Persian long sword, and they ride black and white dappled horses. Obviously the shrine had been excavated again after Stein's discovery and only badly re-covered. Was it Trinkler, who was known to have brought to light some temples and detached pieces of their paintings to take back to Germany? Or had there been robbers at work?

D 13 is also a shrine with great iconographic surprises in store. The shrine measures 6.5 by 4.9 m and has an inner corridor 1.0 to 1.5 m wide. Here we dug up the inner cella from the sand and not only found the central pedestal of the statue, but also Buddhist paintings on all four walls. But with which temple noted by Stein does this shrine coincide? Judging from its situation it could well be Stein X, yet Stein's somewhat summary description of the paintings in his temple XII rather suggests identification with that shrine. However the paintings exposed by us neither tally with Stein's photographs of temple XII, nor is the ground-plan of D 13 identical with that of Stein XII. Thus our D 13 must correspond to Stein X.'[8]

Yet not even the paintings of D 13 accord with Stein's description of his temple X. For he mentions by way of paintings merely stereotyped small Buddhas of inferior quality,[19] whereas we found a multiplicity of subjects. Admittedly, we came across the symbolic representation of the one thousand and one Buddhas in the north-eastern corner, on the eastern wall and partly also on the southern wall, traced onto the walls by means of a stencil and then painted with various co!-

Map VI. Dandan Oilik: shrine D 12 a (right) and shrine D 12 b (left).



64. Dandan Oilik, D 13: excavated shrine.

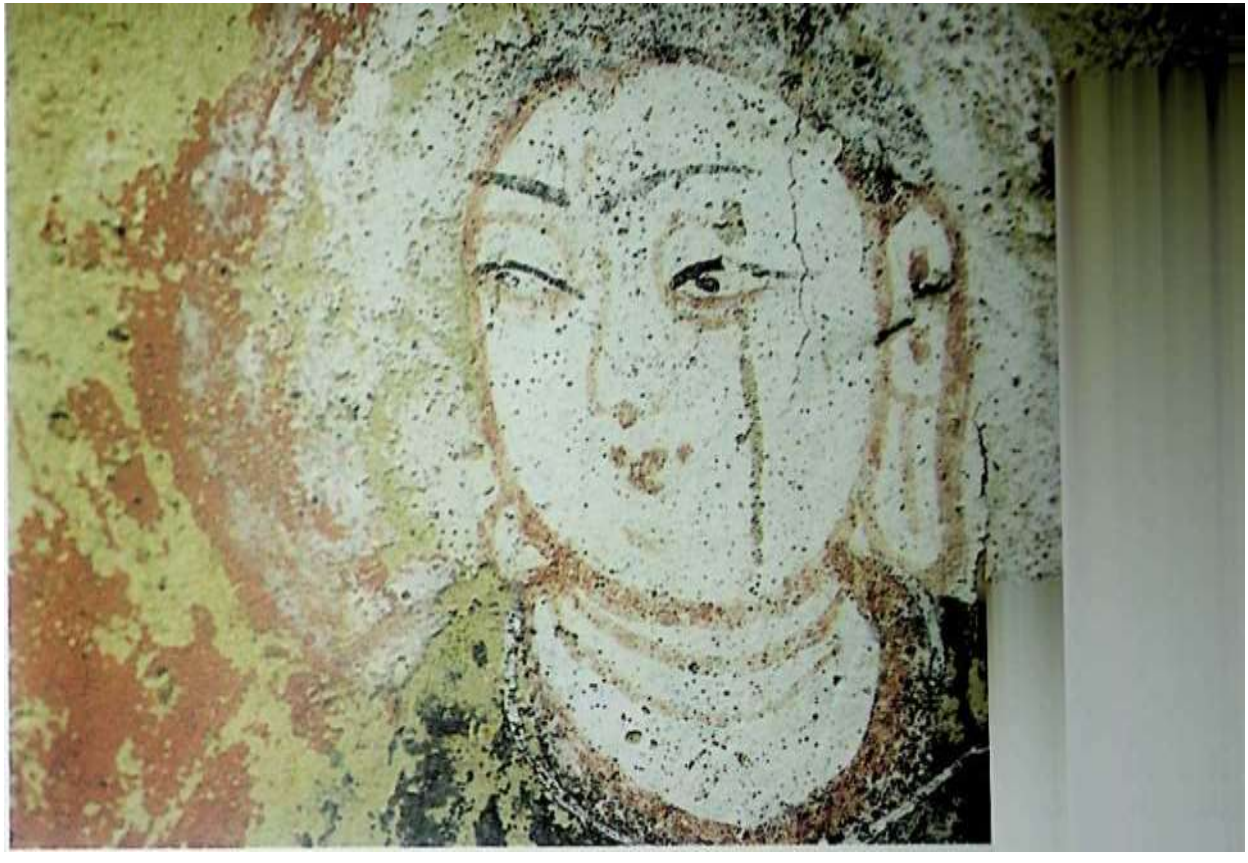
65. Two Chinese-looking worshippers holding a lotus bud in their hands and a rider on a red camel. 8th century AD.

bb. ileft) Dandan Oilik: D 13. Two Chinese-looking worshippers. 8th century AD.

ours. But we discovered more: for instance the feet of three large upright Buddhas, numerous worshippers, a rider on a red camel and, above all, two divine triads. Could it be that Stein had only excavated the eastern wall ot the cella, but not the other three sides?

This conjecture is strengthened by the representation of the two divine triads, both featuring in the middle a female deity with one or two small children and on both sides male gods. The heads of all six sitting deities are surrounded by an aureole and are, with one exception, turned to the right,-a characteristic trait for most murals and paintings on votive tablets found in Dandan Oilik. The disk-like flat shape of their faces is also typical for the murals from the Domoko oasis, located east of Khotan and south of Dandan Oilik, which date from the middle of the 6th century AD.[20]

The lirst triad, located on the western inner side of the northern wall, shows at the left a triple-headed ithyphallic deity, at whose feet a black bull is resting. As an initial interpretation we can identify him as Shiva- Maheshvara with his mount Nandi. This deity of Hindu origin was integrated into the pantheon ofVajrayana Buddhism and is mentioned in Khotanese texts as Mahesvara, one of the eight protectors of the cosmos.[21] As mentioned, Stein found in D7b an almost identical



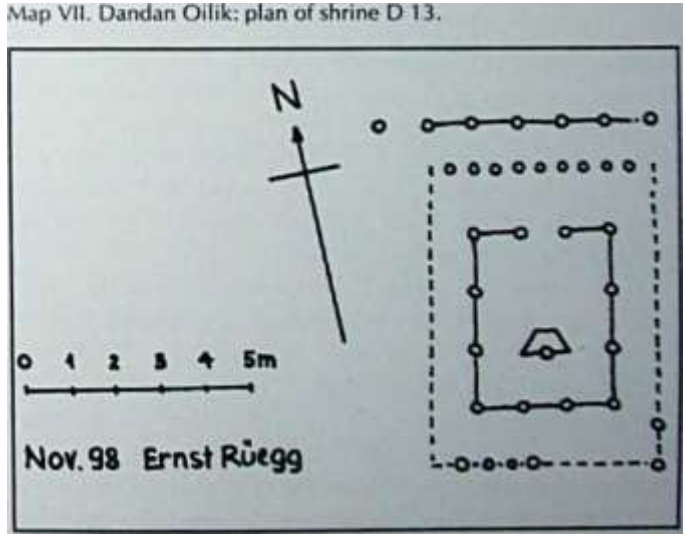
67. Dandan Oilik: D 13. One of the one thousand and one Buddhas. 8th century AD.

painting of Mahesvara on a wooden votive plaque[22] and also a similar mural at Balawaste.[23] However, the strong Sogdian cultural influence in the oases of the Taklamakan suggests another interpretation.[24] Murals from Pendjikent and Bundjikat show each a similar triple faced and triple eyed male divinity holding a long three-pointed scepter (trisul). They are identified either as the creator god Vishvakarman of Hindu origin or as the God of the Winds, Weshparkar, and date from the 8th century AD.''

The male deity at the right of our triad is also three-headed and ithyphallic. Like the first male deity he holds in his upper hands the sun and the moon or the cosmic eggs and in his lower ones a trisul. This deity could be Brahma, shown with only three heads, the fourth being hidden. But we believe that it also represents a Sogdian deity, namely Weshparkar. To summarize, we identify the left male deity as Vishvakarman and the right one as Weshparkar. At the right of Weshparkar there was once a fourth seated figure, now damaged beyond recognition.

In the centre we recognize a female deity cradling a tightly swathed infant in her arms. Who is she? Inci- dently, Aurel Stein found in D 13 (his D X) a wooden votive plaque similar to the discussed triad. Joanna Williams''' suggested to identify the central female as

Map VII. Dandan Oilik: plan of shrine D 13.



68. Dandan Oilik: D 13. Three worship-pers holding lotus flowers and buds kneeling in front of a jar filled with flowers - probably a symbol of purity. 8th century' AD.

Maya-Sri, the mother of Shakyamuni, but since that figure doesn't hold an infant, this interpretation can't give us guidance. Two other options have to be considered. The first one is Guanyin, the Chinese transformation of Avalokiteshvara, Bodhisattva of Mercy, into a female deity bestowing protection from dangers, aiding on the path to deliverance and also helping women wanting children. While the initial scriptural mention of a female form of Guanyin goes back to Kumarajiva's translation into Chinese of the "Lotus Sutra" in 406 AD , her first pictoral representations didn't appear before the 9th century and really spread in China only as of the Northern Song Dynasty (960 - 1127), amalgamating aspects of female Taoist deities.[2] '

This leaves the second option, the one of the goddess Hariti, who protects children and fosters fecundity, as the most likely one. According to Buddhist mythology, Hariti was initially a maleficient Yakshini, an ogress spreading small-pox and eating young children. It is only when Lord Buddha abducted her own children that she experienced the grief she had inflicted on the countless mothers whose children she had de- \ <Hired. She repented her past sinful deeds and became the donator of fecundity as well as the benevolent protector ot children. She is usually represented holding an infant to her breast or with several children dancing around her or blessing families with children.[29]

Hariti seems to have been quite popular in ancient Central Asia. Stein found for example in Farhad Beg Yailaki, 3 miles north-east of Old Domoko, a mural of Hariti with five children playing around her, dating from the end ot the 6th century AD.'[0] Another representation ot her from the 9th century AD was discovered by Albert von Le Coq at Yar Khoto, Turfan.[3ı]

The second seated triad at the lower southern end ot the western wall looks more refined than the first. On the left we see a three-headed male deity holding three arrows in his upper left and a bow in his upper ught hand, while his lower left hand holds a cock. Close to his left knee stands a goose. If we believe that the latter represents the wild male goose Hamsa, we are conlronted with Brahma, or more likely, again with Weshparkar depicted under the traits of Brahma. A simi- ar figureis to be found at the entrance to Cave 8 at Yungang. *

69. Dandan Oilik: D 13. First divine triad featuring at the left the ithyphallic creator god Vishvakarnam or Maheshvara, and the Lord of Winds Weshparkar at the right. The central female figure, cradling a swathed infant, represents Hariti. She was converted by Buddha from a malefic ogress spreading smallpox to a benevolent deity protecting children and fostering fecundity. 8th century AD.

The striking feature of the deity at the right is his animal-head resembling a boar or a wolf. While at first the third avatar of Vishnu, Varaha, comes to mind, also a Sogdian deity is not excluded: he could be the ancient Iranian god of victory, Verethragna, who is symbolized by the head of a boar. However, we believe that we are rather facing a "graha", a benevolent deity ensuring the good health of children. Its head is covered by a crown of flames with the sun in their middle. In his upper hands he may hold the cosmic eggs or balls of food while his lower right hand holds a plant identical to those held by two Chinese-looking worshippers in a neighbouring painting. Stein found in Dunhuang six paintings on paper bearing Chinese and Khotanese inscriptions from the 9th century and featuring female deities with animal or bird heads. According to the texts, all of them protect children from various diseases. One of them has the head of a wolf and is identified by the relating Khotanese inscription as Mukhamanda and who had, according to the adjacent Chinese text, "to be propitiated in order to protect the child".

Finally, the female figure occupies also here the central space, yet she is shown with two children: She holds a wrapped-up infant and, on her left knee, a perhaps 5-year-old child. The most probable interpretation is again Hariti. That the cult of this protectress of children was wide-spread in Dandan Oilik we can gauge by Stein's finding in neigbouring D 10 (Stein's D II) of a votive panel featuring two female figures holding each a swaddled infant.

To summarize, we believe that both triads feature as central deity the children protecting goddess Hariti and that shrine D 13 was a place of focus for worshippers asking for descendants, the healing of ill children or for their continued well-being. Maybe its no accident that the above mentioned paper spell is the only Khotanese document to mention Grahavatta as a medicine deity. In that case one may surmise that Dandan Oilik was a Buddhist pilgrimage, a kind of ancient "Lourdes". Finally, the C-14 analysis of a piece of wood taken from a poplar pole within the western wall ot D 13 suggests a date around 750 AD.

thr- thh'i'l^ivatar'nfv/fa h3' SeC°ud diTe lriad: From left lo riSht are featured the God of Winds Weshparkar or Brahma, Hariti and either Varaha, of children *Thpc. 'S ?U' T !h®. ancie"t ,ranian God of victory Verethragna or, more likely, a benevolent graha deity ensuring the good heall children 3ih - t nVr °AD 'S md'ca,tf ,F,al shr,ne D 13 vvas a place of focus for worshippers asking for descendcnts or the well-being of

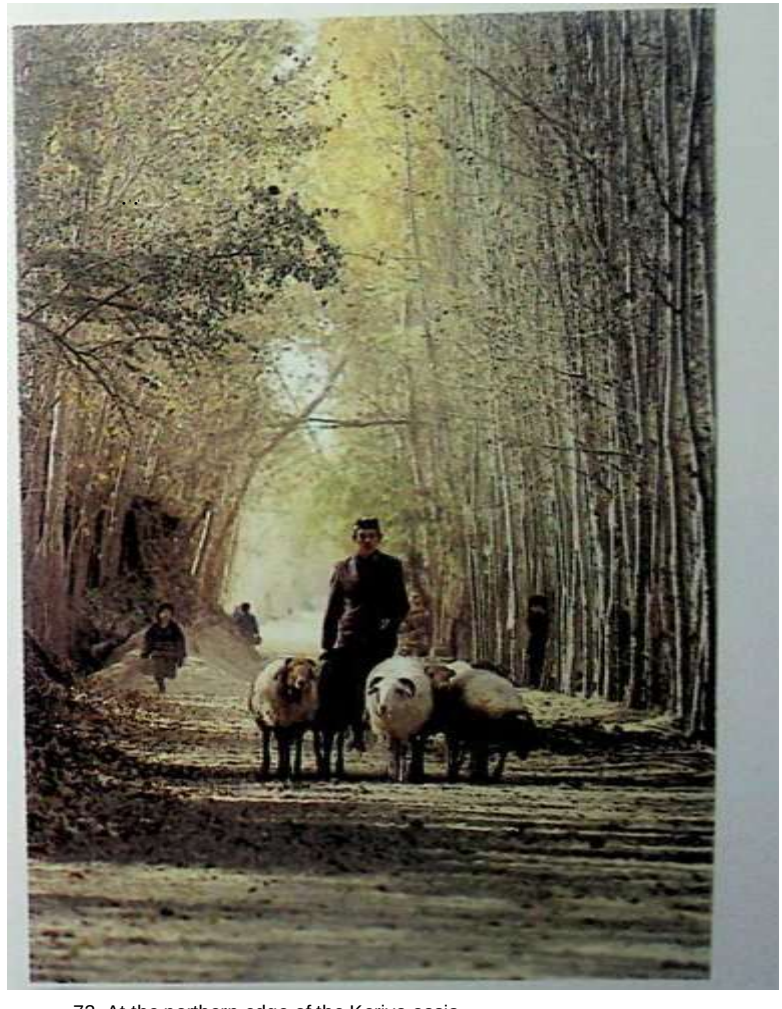
In this residential building Stein had discovered his first old manuscripts written in ancient Khotanese, using the cursive Brahmi script. Opposed to this, the upright Brahmi script in the so-called Gupta style was used for Sanskrit texts. We finally discovered, 50 m south-west of D 12, another building not mentioned by Stein, D 16. Since there was no time left for exca vations it was impossible to decide whether we were confronting the ruins of a monastery or of a residentia construction.

It remains to be hoped that this mysterious Dandan Oilik will be spared the treasure robbers and that, within the near future, a systematic exploration can be undertaken.

\f ttt Karadong, a fortified V II Caravanserai of the Han

After his brief stay in Dandan Oilik, on 25 January1896 Sven Hedin started out eastwards in the direction of the Keriya Darya. During his journey he had to traverse eleven dune ranges up to 180 m high, running from north to south, as did the author one hundred years later. After one week he reached the Tunguz Basti oasis, situated on the frozen river. Here the nomad shepherds told him of another ruined city not far away, named Karadong, or "black hill". Indeed, Hedin discovered this settlement about twenty kilometres north of Tunguz Basti; however, it seemed significantly smaller than Dandan Oilik and Hedin only found meagre remnants of pop-

71. Falconers mostly hunt for foxes and hares.



72. At the northern edge of the Keriya oasis.

5- T,lt' waters of the Keriya Darya reacli the Tunguz Basti oasis only in earls summer, during the thaw in the Kunlun mountain range.

!ar wood houses and Buddhist paintings, as well a the axle of a chariot with wooden wheels.

Hedin stayed in Karadong only as long as he neede to map the area and left the excavations to the archae ologists. With his caravan he turned north, and by to lowing the Keriya Darya river bed. went through th Taklamakan Desert until he chanced upon the cours of the Tarim River. Here he set himself the task of soh ingthe riddle of Lake Lop Nor and its tributary, the Tarin

Stein, for his part, after the successful excavatio

74. The fortified Caravanserai Karadong. Later Han dynasty.

or Dandan Oilik went east and discovered Niya. In March 1901 he was once again near the Keriya Darya and followed its course northward in order to visit Karadong. This time the archaeological yield turned out to be rather modest, for although Stein did indeed reveal the large entry gate of the fort and a ruin in its interior he could not find the Buddhist wall paintings described by Hedin.[1] His second excavation campaign in February 1908 brought to light three residential buildings, but once again not the hoped-for frescoes.

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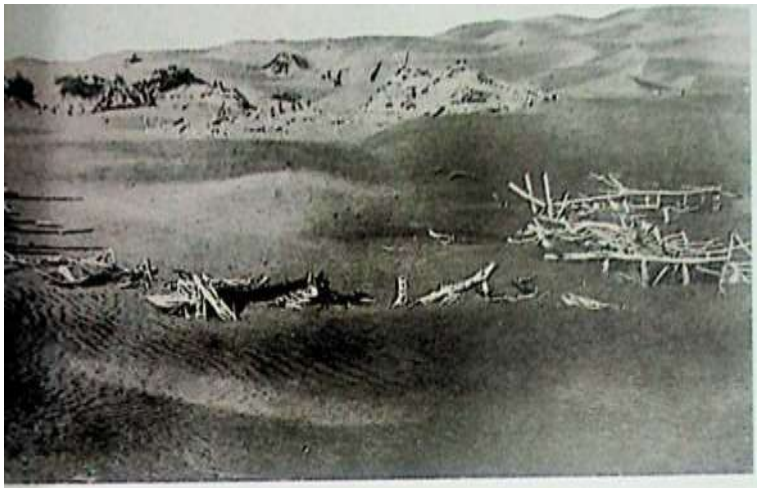
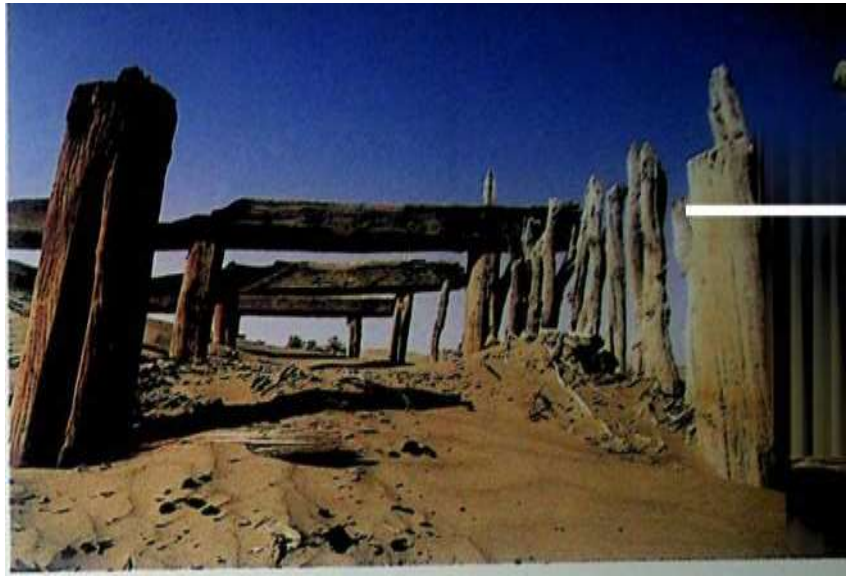


76. Fort Karadong in 1908. Photo by Aurel Stein.

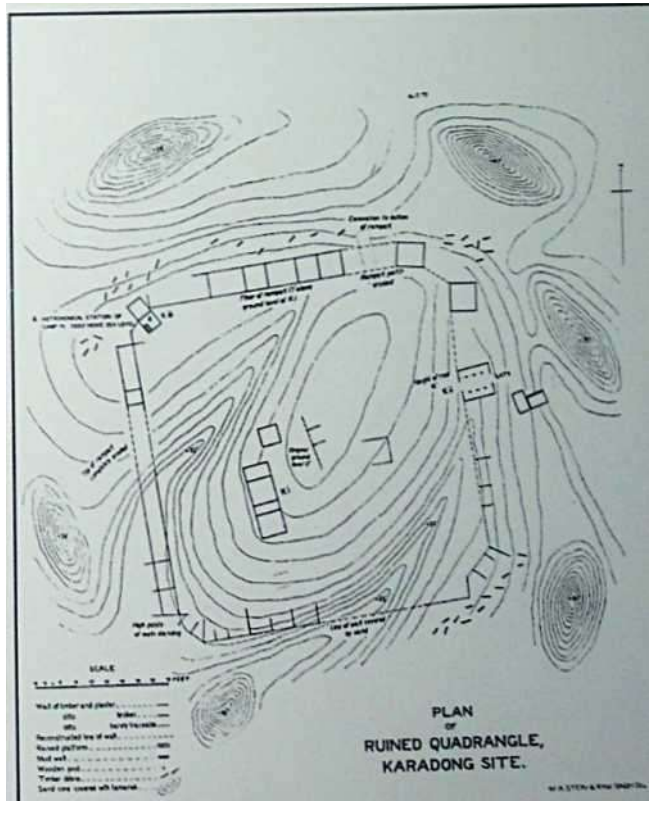


77. Fort Karadong: eastern gate.

Had Hedin been mistaken?

A look at the map as well as analysis of the satellite photographs show that a trade route along the Keriya Darya would be the shortest connection between the two former kingdoms of Khotan and Kucha. If one believes the report of Mirza Haidar, Kashgar prince and historian, the Keriya Darya was supposed to have reached the course of the Tarim as early as the 16th century. We may therefore surmise that Karadong, which was halfway between Keriya (today's Yutian) and the Tarim south of Kucha, had been a fort at the beginning of our era, besides serving as a caravanserai for trade caravans.

The most significant ruin of Karadong is beyond any doubt the large fort. Its ground plan is quadrangular but the corners were probably slightly rounded. The ground plan could also have been octagonal. The longest side measures 68 m, the shortest 58 m. The clay walls of the fortress, about 4 m deep, were formerly covered with a ring of wooden constructions. At the eastern end three mighty rafters that formerly supported the ceiling of the eastern gate project from the sand. When Stein excavated the bastion he measured a height of more than 6 m. The middle gateway, 3.5 m wide, was provided with a folding door, while the two flanking side entrances were 1.5 m wide. The bastion had a second floor that served as a lookout. However, as the author observed, the gate has since been misused as a fireplace by treasure-hunters, for one of the rafters has been singed. The roof, consisting



Map VIII. Fort Karadong: map by Aurel Stein, 1908.

78. Fort Karadong: dwellings inside the fort.

79. Karadong: dwelling Ka I in 1908. Photo by Aurel Stein.

80. Karadong: dwelling Ka I in 1998.

of wooden braces reinforced with clay and photographed by Stein, no longer exists. Since the ground is strewn with burnt wooden fragments we must presume that the fort has fallen a victim to the vandalism of plunderers. In the interior there are the ruins of a large residential block that had once been two-storied and contained at least five spacious rooms.

When Stein returned to Karadong in 1908, a few large dunes had shifted south and thereby revealed the structures of three houses. The largest ruin, called Ka I, extends over a surface area of 250 sq m and consists of at least twelve rooms. The building is clearly divided into two separate units connected by a corridor. The excavations not only revealed half-timbered walls, but also large intact amphorae, benches and an oven fixed to the wall. Even today, two wooden doors stand on their hinges. To the west of the building, hedges that had probably enclosed fields can be recognized. Finally, Stein chanced upon two small irrigation canals, leading to the conclusion that Karadong had not only been a fortified caravanserai but also enclosed an oasis settlement.

Recent discoveries in Karadong

The excavations of ancient Karadong by a Si no-French team, which began in 1991, have brought to light sensational finds and caused a reassessment of Karadong's importance. First, in an area five kilometres long and three kilometres wide next to the fort, the archaeologists found twenty ruined houses, a temple and forty other ceramic sites that indicate completely destroyed houses or ceramic kilns. Most structures are concentrated in the northern half of the oasis south-east of the caravanserai, in an area of 1300 m by 800 m. In the southern half, an intricate irrigation system could be identified, extending more than three kilometres in a north-south direction. Coins from the Han Dynasty and numerous remnants of millet, wheat, oats and rice were also found. In view of the extended irrigation network, conceivably one or more of these cereals had been produced in Karadong itself.

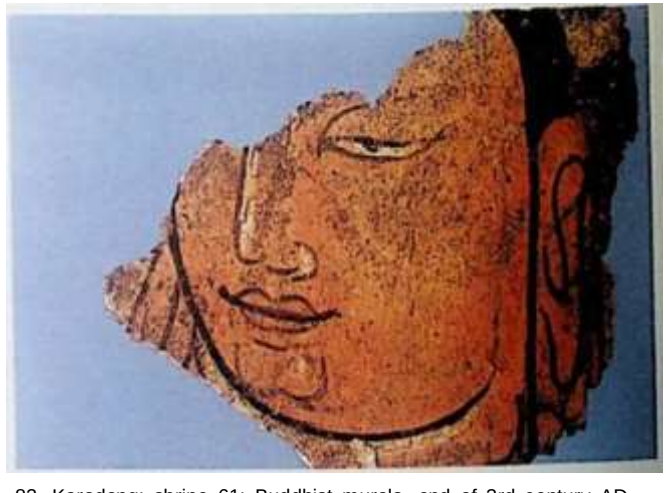
The second discovery can rightly be called extraordinary. For, in 1993 the archaeologists chanced upon a temple ruin that had been covered by a sand-dune during their first inspection two years earlier. This shrine, KRD 61, consisting of three concentrically arranged quadrangular walls, contained the wall paintings previously mentioned by Hedin in 1896. They were on the interior side of the middle encircling wall that formed the inner corridor together with the cella wall. The remaining frescoes were near the floor, and with their surface of 4 sq m, represented a mere fraction of the entire painted surface that had been estimated at 70 sq. m. The iconography seems to have been restricted to standing and sitting Buddha figures. In these paintings the influence of Indian art is especially evident, also the absence of otherwise widespread elements from Iran and Gandhara. They may

81. Karadong: shrine 61: Buddhist murals, end of 3rd century AD. Xinjiang Museum, Urumqi.

be dated towards the end of the 3rd century AD and are, together with those at Miran, the most ancient Buddhist paintings of the Tarim Basin.[2]

As previously described, forty kilometres north of Karadong are the extended ruins of the proto-historic town of Yuan Sha as well as traces of even older settlements. Since Yuan Sha had been abandoned shortly before the turn of the era in favour of Karadong, the golden age of the latter settlement must have been in the first two centuries of our era. In those times Karadong was part of the Yumi principality which extended as far as Kenya. The complete lack of coins from the Tang Dy nasty and ot artilacts oi a younger date than the 4th centui \ \l t loads to the conclusion that Karadong must have been abandoned in the 4th century AD. The politic,il distiiibances alter the breakdown of Chinese authority in the 3rd century \D must have led to a recession ot trade, depopulation, and as a consequence, neglect oi the irrigation canals, which favoured the advance of the desert. The Keriya Darya probably transferred its river bed eastwards during this period, a fact that also made living conditions more difficult. This supposition is all the more probable, as such a change occurred again in this century. In 1901 the watercourse of the Keriya Darya was located eighteen kilometres east of Karadong; in 1908 the distance was reduced to a bare five kilometres.'

In Karadong too, in 1998 the author chanced upon traces of treasure-hunters and art plunderers. The Sino-French team of archaeologists had left certain wall paintings on site in shrine KRD 61. But the author found that precisely those wall portions whose position had been publicized were completely excavated and devoid of all paintings. Traces of a sharp instrument preclude any other conclusion than that the painting had been brutally knocked off. Only coloured clay chips the size of a fingernail could be found on the ground. Probably, the wall painting had been stolen purposefully and "on order" - an outgrowth of the international art trade that has afflicted the Himalayan countries in the past few decades.



82. Karadong: shrine 61: Buddhist murals, end of 3rd century AD. Xinjiang Museum, Urumqi.

The Sealed Archives

V of Niva

After having completed his excavations in Dandan Oilik, on 3 January 1901 Stein proceeded to explore Niya, where he was to succeed in making one of the most spectacular discoveries on the Southern Silk Road.

In Mazar (also called Kabakasgan), a village south of Niya, Stein met Ibrahim, a treasure-hunter, who in the preceding year had found some wooden tablets with inscriptions. Ibrahim had been so disappointed about his find that he had thrown away most of the tablets and had given the rest to his children to play with, and very soon they had destroyed them. Fortunately, another treasure-hunter had collected the tablets that Ibrahim had thrown away and sold them to Stein. When Stein realized that they were inscribed in the rare Kharoshthi script, which was until then known

83. Niya:Aurel Slein found hero in N I his first Kharoshthi documents from Niya in January 1901.

S. M.izar Imam jafar Sadiq village: the style* of construction of >«* nouses as well as the people s way of life have remained almost the same for two thousand years.

■ dnooi'es away 80 km south of the ruined city.

in the Tarim Basin only through the manuscript or Dutreuil de Rhins, he immediately engaged Ibrahim as his guide.

On 28 lanuary 1901 Stein reached Niya, being the first European to do so. Even on the first day he discovered three Kharoshthi wooden tablets in the ruin N I. Eighty-two more documents were found during the days to follow. The Kharoshthi script, which is written from right to left, can be traced back to the Aramaeic script and predominantly contained texts in Prakrit, a language that dominated in India's northwest during the last pre-Christian centuries.

The find proved the correctness of Stein's hypothesis that the Southern Silk Road had once been under a strong Indian cultural influence. This was a consequence of regular trade contacts with India, as well as of a reported Indian wave of immigration from the 3rd century BC. Sporadic finds of wooden tablets with Indian Brahmi characters confirm the important presence of Indian culture.

Most documents consisted of a pair of elongated wooden plates, 20 to 45 cm long and inscribed on the smooth inner surface with black ink. In exceptional cases the wooden documents were 2 m long. On the outside front of the documents was written the name of the addressee, and on the outside reverse that of the sender. These two pieces were tied together with a >tring and provided with a superimposed seal, thus ensuring that unauthorized persons could not read the document.

A few days later Stein was able to discover more archaeological treasures near the ruin N XV, about three kilometres north of the Buddhist stupa - an immense ancient garbage heap! It is probable that an administrative office had been here. In the mass of unassorted rubbish that was almost two thousand years old and reeked abominably, Stein had found during his three days' excavation no less than two hundred wooden tablets inscribed in Chinese or Kharoshthi letters, as well as several Kharoshthi documents made of leather. I he latter were all official documents, for they inevitably began with the formal introduction: "His Majesty, the sovereign, ordains in writing, that ..."' These leather documents therefore were an extremely valuable basis tor reconstructing Niya's history. After Stein had removed the layer of grime from the seals of the wooden documents, another significant surprise awaited him. The clay seals revealed the figure of Pallas Athene, a Hermes or a sitting Eros, which proves that the Hellenistic cultural influence that was already established in the Khotan oasis, had reached Niya as well. Later finds in Miran and Loulan proved that traces of Graeco-Roman culture had extended as far as the Lop Nor region.

86. Mazar Imam Jafar Sadiq village, 60 km south of ancient Niya.

87. Mazar, the Islamic place of pilgrimage, lies about 80 km north of today's road linking Khotan to Ruoqiang. It contains Imam Jafar Sadiq's tomb from the 16-17th century, known as "Mecca of Turkestan". The skins of sacrificed goats and sheep hung near the [entrance to the mausoleum are remarkable; the custom indicates the ^continued existence of pre-Islamic traditions.

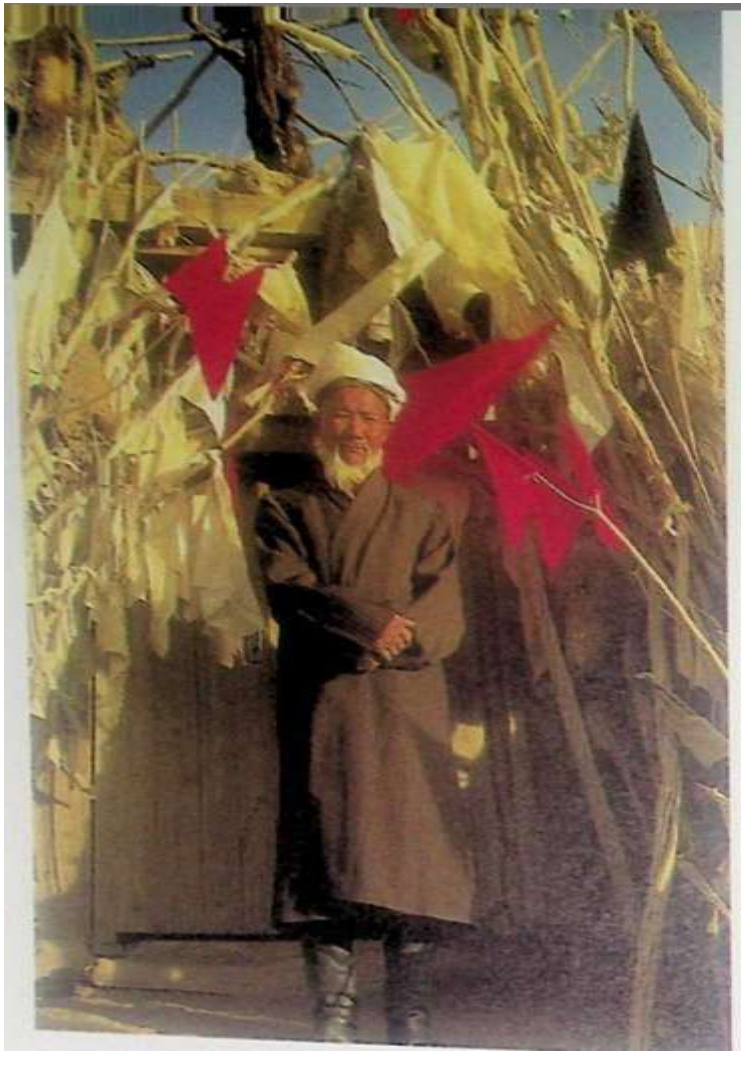
In Niya, wood and (exceptionally) leather were the usual writing materials, for Stein in his three excavation campaigns in 1901,1906 and 1913 had not found a single piece of paper. It seems therefore that paper, invented around the 3rd or 2nd century BC in China and perfected by Cai Lun in AD 105, spread only slowly into Central Asia. The considerable age ot the Niya city oasis is also revealed by the fact that virtually all documents date back to before AD 269. In those times, the Kingdom of Shan Shan, to which Niya belonged, was called "Cadota".

Stein presumed that Niya was abandoned as a consequence of water scarcity towards the end of the 3rd century AD. This calamity had probably been caused by interplay between political, social and ecological factors, bearing some resemblance to events in Karadong.

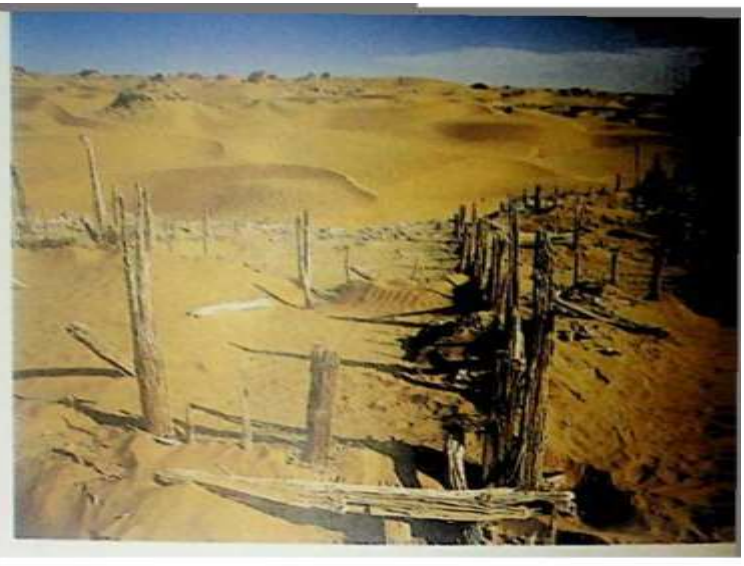
Yet, because of shards from the Jin Dynasty (AD 265-420), many Chinese archaeologists think that Niya was given up only in the 5th century AD. This view gained increasing credibility when in 1981 a Kharoshthi document dating from the middle or end of the 4th century AD was found. In any case it is to be assumed that the place "Ni-jang" mentioned by Xuan Zang in the year 644, cannot be identical with an ancient Niya, but probably relates to a settlement between Mazar and today's Minfeng that is still called "Niya" today.

The good state of preservation of Niya and the other former colonies in the Taklamakan Desert is due to the extremely dry climate. In the desert area, there is never any precipitation except an occasional light snowfall. Under these extreme climatic conditions there is neither rot nor putrefaction, which explains Stein's uncommonly copious finds. During a first excavation, which lasted seventeen days, Stein not only discovered documents but also various artifacts. These included, for example, a large chair or altar carved with Indian flower themes (now to be admired in the British Museum in London), and several wooden beams decorated with patterns in the Hellenistic style. There were also red and grey ceramics, lacquerwork pieces that point to trade with China, the neck of a string instrument and pieces of valuable silk cloth. In the ruins of a house, one of Stein's workers even chanced upon a former underground storeroom where ice blocks were kept during the summer, a custom the author encountered even in 1994 in Mazar.

In all likelihood Niya was incorporated into China's sphere of influence during the last pre-Christian



88. Sheik Abd-el-Bakr, the friendly Imam, is standing before the entrance to Imam Iafar Sadiq's tomb. According to legend, the lat< was supposed to have been a descendant of the Prophet Muhammed.

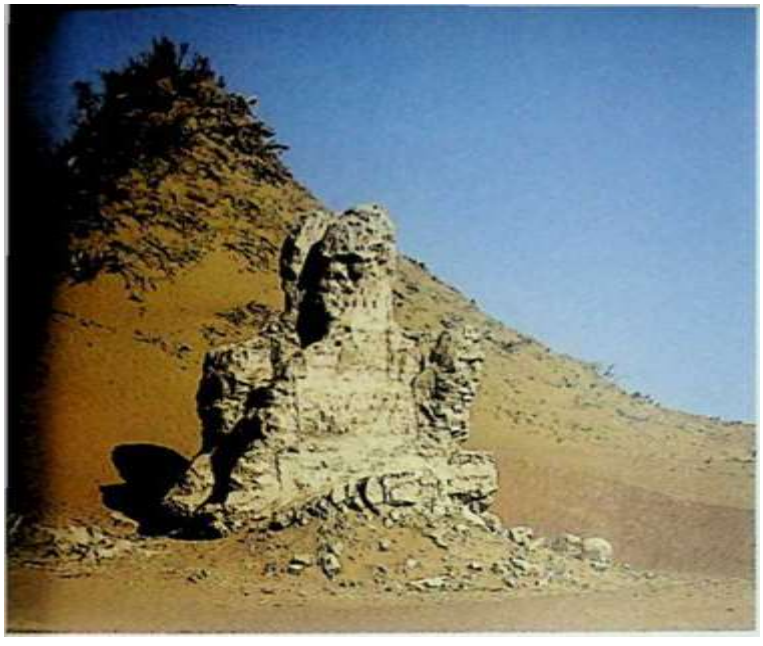


II: where. 2,000 yo.irs ago, wealthy oases were ,
' ' A ™ ' ' ⁿ j^cre is the deathly silence of the Taklamakan
- ft RemaTJTs of these antique cities have been preserved for us onK thanks to the extreme aridity oi the desert climate.

century. A piece of coloured silk brocade discover! in 1995 permits us to arrive at this conclusion, for, inscription embroidered on this piece of cloth describ a rare astronomical occurrence. It is the simultaneo appearance of the planets Jupiter, Mars, Mercury, S, urn and Venus in the eastern celestial sphere. The at picious significance of this planetary constellation confirmed by an imperial edict of the year 61 BC: five planets appear in the east at the same time, t Middle Kingdom will be victorious; if five planets *i* visible at the same time in the west, the Barbarians will win. Before the above proclamation, the phenomenon auspicious to China happened for the last time in 205 BC-

Niya, with its inhabited surface of 45 sq km, was one of the largest city oases on the Southern Silk Road in those times. While Stein had already identified over torty ancient structures during the course of his three excavations, a Sino-Japanese team was able, from 1993 on, to lay open thirty more buildings as well as two graveyards. As in other oases only half-timbered buildings have withstood the winds and sandstorms, while the more numerous clay buildings have long since crumbled away. A cautious estimate of the population tigures arrives at about 800 to 1,000 families and perhaps 100 monks. According to the Han Chronicle, the local prince in the oasis also had kept an army of about 800 men.

Most ruins stand on small terraced hillocks consisting of loam or loess, so it may be inferred that the territory of the oasis must once have been marshland, liven today, numerous remnants of irrigation canals can be found. In the southern part of Niya there is even an almost-intact wooden bridge - an indication of a previous abundance of water in the oasis. But today, in all of Niya there is not to be found a single reed, nor a single living tamarisk shrub that would hint

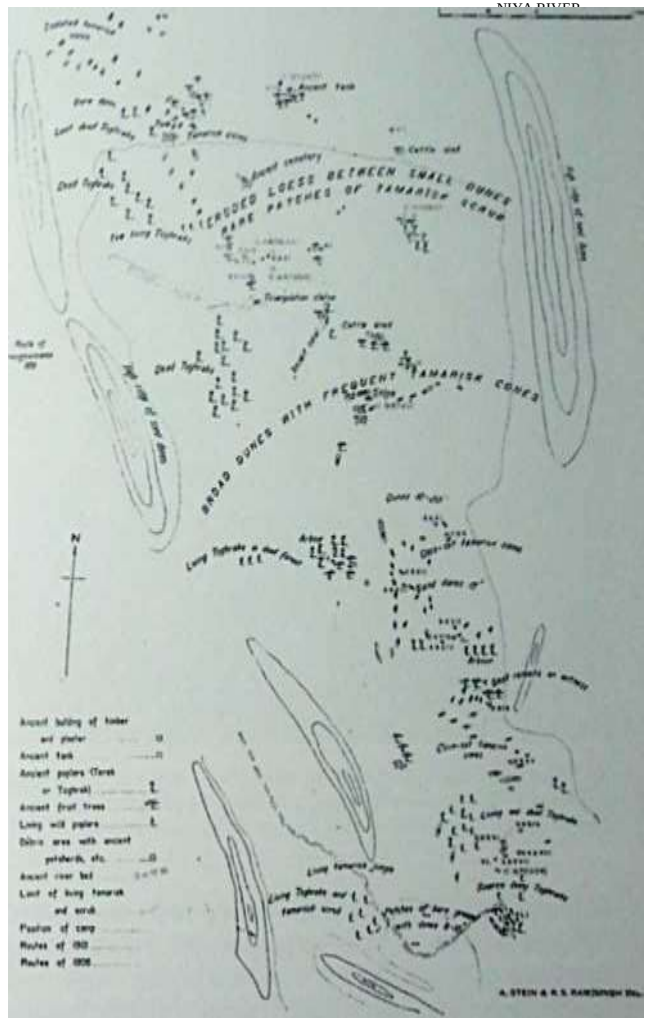


90. Niya: the 6 m high Stupa stands at the centre of the ancient city.

at the proximity of subsoil water.

In Niya we find predominantly profane constructions, in contrast to Dandan Oilik where the majority of the buildings discovered were shrines. The few religious buildings are the 6 m high stupa situated at the centre of the city, and two Buddhist temples recently excavated. Stein had already guessed that one structure was a temple, but Japanese archaeologists only excavated the small shrine N5 in 1995 and found fragmented Buddhist murals. In the same year they also found two graveyards. The larger one is situated in the immediate neighbourhood of the stupa and contained thirteen mummies, the smaller one lies north of the oasis and harboured eight mummified dead. The dead were dressed in fine clothing made of coloured silk brocade showing various geometrical patterns, animals and Chinese auspicious signs. In addition, another bluish-red or golden-green silken cloth enclosed the entire body that was laid in a wooden coffin. Niya's population probably consisted largely of Indo-Europeans, tor only two mummies had black hair and unmistakably Sino-Mongolian features. But it cannot be excluded that, deliberately, only Indo-Europeans were buried in these two cemeteries.

Within the range of almost all of the ruins, grey and red ceramic shards from the Han Dynasty can be



Map IX. In Niya, Stein excavated more than forty ancient ruins. The map from Stein's work *Serindia* shows the stupa at the centre; south of it lie the well-preserved farms N III and N IV, while the hiding- place of the largest archive is to be found near N XXIV, at the centre of the northern third. The irrigation canal lies near N IX north of the stupa; the old bridge at the very south of the former oasis, near XLI (not indicated on the map).

,---------- v..3v.ovcieu m ivy5, irom tomb 8, burial gro
1. The oracle "live planets arising in the east are beneficial to China" is written twice on the sleeve. Xinjiang Museum. Orum

found, finely decorated pieces as well as rough par of large amphorae. The latter sometimes cover the ei tire area of a house and are surely the work of loc treasure-hunters who had dug up the amphorae hii den in the sand and broken them, hoping to find go hidden inside. When removing the upper layer of san even today one finds in many of the ruins remnants silk material, of wool or felt, as well as pieces of leath and ends of string spun from camel hair. The authc moreover, found several coins of the Han Dynasi arrow points made of bronze, a knife, and pi era semi-precious stones and glass beads that had oni been part of a necklace.

Before Aurel Stein returned to Niya on his second expedition in October 1906, the American Huntington had briefly visited the oasis in the autumn of 1905 without making any excavations. Stein was not content to merely see the one-time oasis that he had discovered once again; with his team of seventeen men he immediately began renewed excavations, and was soon rewarded with the discovery of a dozen wooden tablets with Chinese characters. He had discovered a small historical archive! From this he learned (among other things) that during the Han Dynasty the oasis had been the capital of the principality "Jing Jue", situated between Keriya and Cherchen, according to the

92. Niya': in front of the group of ruins N VI there is this stone mortar and pestle. Even four or five millennia ago, such mortars and pestles were in use and have been found all over the Tarim Basin.

Han Annals.'

Yet, Yue Feng, the Director of the Archaeological Services of Xinjiang, points to a specification of the annals according to which Jin Jue had a large city wall. Such a city wall could not be discovered in Niya, but in Niya North some forty kilometres away. Is Niya North therefore the old Jing Jue? As no excavations have yet been made in Niya North, for the time being this question remains unanswered.

Shortly after the discovery of the above-named wooden tablets the Uighur Rustam, who had worked for Stein in 1901, managed to excavate an even larger archive in the ruin designated as N XXIV. It consisted of three dozen rectangular double-sided and still sealed wooden tablets. The seals picture Greek deities such as, for instance, Zeus or Heracles with club and lion pelt. Later on, the deciphering of these wooden tablets inscribed with Kharoshthi characters showed that they were sale contracts of land and lists of real estate. Stein presumed that the owner of that time, an officer called Cojhbo Sojaka[4], had his archives buried here before leaving the house in order to be able to assert his rights of possession in case he should return.[5]

Seven years later, in 1913, Stein once more had the chance to visit Niya, which he called "my little Pompeii". On the way there he observed something

03. The wooden frame of an altar or a throne excavated by Stein ii Niya. dwelling N III. On the rectangular front piece, two four-leafc flowers frame a pomegranate. Similar motifs were also found on wooden panels in loulan. Such floral patterns are still found on wooden houses in north-eastern Pakistan.

very revealing near the small village of Mazar: whe but a few years earlier he had found fertile orchart he now saw only hall dried-up trees suffering from shortage of water. What had happened? For three coi secutive years the Niya Darya had carried so muc water that floods had been the result and the fine ne work of irrigation canals had been destroyed. Won still, by the end of the third year of flooding the riv had changed its course so that the orchards receive water no more. It may sound paradoxical, but eve floods can lead to the dessication of a once fertile landscape when excess water cannot drain away.

I his time also Stein found dozens of Kharoshthi manuscripts, wooden furniture and several mousetraps. He was less fortunate when undertaking his fourth and l«ist expedition to Central Asia seventeen years later. (hinese university circles of that time were angry with Stein's earlier "looting" of Dunhuang because he had bought tons of ancient documents at a ridiculous price from the unsuspecting guard of the cave temples in 1907 and 1915. In this difficult situation, Stein lacked the diplomacy and also the willingness to compromise. Quite unlike Sven Hedin, who under most difficult conditions between 1926 and 1935 had successfully

9-4. Niya: Stein excavated several ancient archives consisting of wooden tablets. Many of these documents were written in Kharoshthi and several of them were still sealed.

95. This linen fragment from Niya depicting the goddess Tyche and her wine amphora shows Hellenistic influences.

e gate to the N

[l]~ \i\ •: in the immediate vicinity of the N VII group of houses. a \\.».'iiios;:n; sand-dune has revealed the exceptionally well-kept "own reed wall of house A-13. Two stone pestles lie in the sand in front of the wall.

headed the great Sino-Swedish “field university by integrating Chinese scientists in his expedition, Stein insisted in travelling only in the company of local Uighurs. The consequences were quick to show themselves: after he had once again reached Niya, the va-

[ndil]V [Ol] his passport was annulled in February 1931. Stein could only terminate his expedition and return to Kashgar where he had to leave behind all his finds.

98. Niya: il is impressive to note how the walls were literally tied to the wooden poles by means of a kind of raffia rope.

Endere and Miran: Evidence of Tibetan Predominance

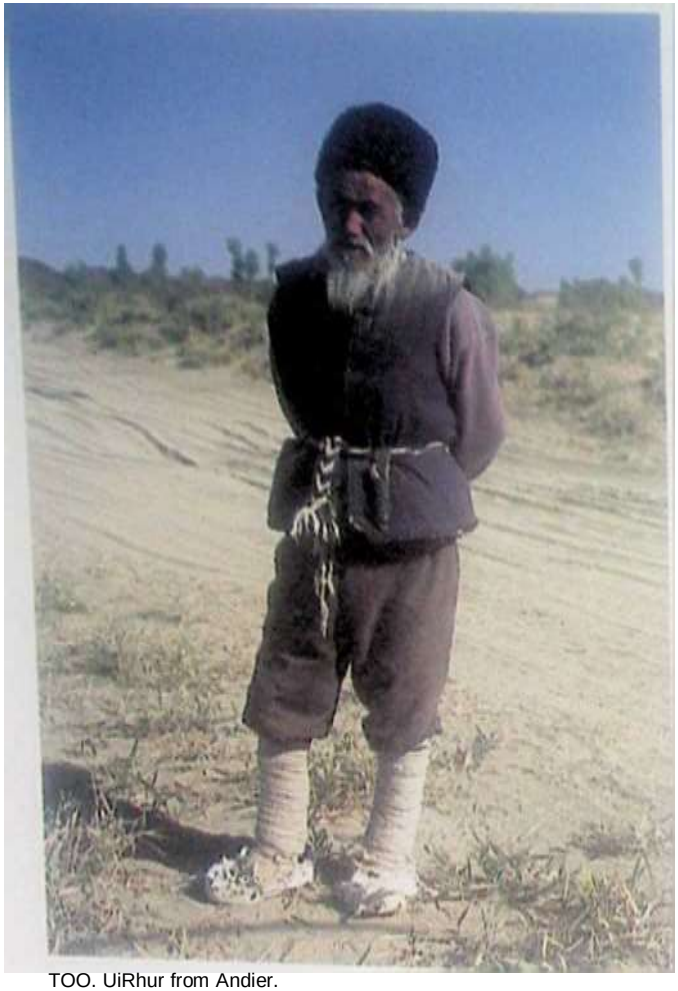
The significance of the ancient Endere ruins lies in the fact that here, as in Miran, the eventful history along the Southern Silk Road can be traced very clearly. From the beginning of our era, Endere initially experienced a lasting golden age and withstood the political unrest towards the end of the Han Dynasty, unlike Niya and Karadong. Sung Yun, the itinerant monk, informs us that in the year AD 518 he had come across a large Buddhist monastery in Endere with more than three hundred monks and a shrine where a six metres high golden Buddha statue was venerated.[1]

ENDERE: XUANG ZANG'STUHUOLUO

But a mere few decades later Endere - the city and its monasteries - were abandoned. For when Xuang Zang returned to central China along the Southern Silk Road in 644, he found the stretch of 400 km between Minfeng and Cherchen completely depopulated. He also mentions a town in the desert, Tuhuoluo, long since abandoned. Xuang Zang's precise description leaves no room for doubt that this ruined city corresponds to Endere. The name "Tuhuoluo" is remarkable, for it is identical with the word "Tukhara" and establishes a relationship with Kucha, the Tocharian kingdom on the Middle Silk Road. The nature of this relationship between Tuhuoluo and theTocharians still remains a mystery to us.[2]

After the Tang rulers once again had brought the Southern Silk Road under their control towards the end of the 7th century, they rebuilt Endere and established an administrative and military centre there in about AD 700. At the same time the civilian population also returned. A Chinese sgraffito of AD 719, discovered by Stein in 1901 in the main temple, substantiates this renewed Chinese occupation. This document reports the death of a Chinese commander-inchief, about battles probably between the Four Garrisons and the "Great Tibetans", as well as the arrival of a Chinese dignitary of high standing.[3] We indeed know that the Tibetans, in alliance with the Western Turks and the Arabs, constantly attacked China's four garrisons, but were driven back from the Tarim Basin in

99. Poplar alley in the oasis of Andier.



TOO. UiRhur from Andier.

719 bv a Chinese counter-offensive.

But in the area of the Tarim Basin, after the defeat of Talas at the hands of the Arabs (in 751) and the rebellion of An Lushan (756-762), the Chinese once again experienced heavy military pressure from the Tibetans. True enough, for a few more decades they could retain their position in individual forts, but by 791 at the latest they had to withdraw from the assailing Tibetans, and also from Endere. Thus, aspiring Tibet controlled one of the strategically most important forts along the Southern Silk Road.

In January 1900 Hedin was the first Westerner to briefly visit Endere, which he called "Kona-schahr" told town). Since one fool ol snow lay on the ground, ! ledin gave up the idea of excavating. A year later Stein was on his first expedition and completed the ii!>: excavation ol \iva on Id February 1901. Endere was his next goal. Stein s two brief excavations of 20- .15 I ebruarv !°0l and later from 8-14 November ! °do. were not onlv to be the first, but until today also the last scientific explorations of Endere.

The I ndere ruin forms the centre of a fairly large settlement that spread over approximately 16 sq km in the Han era. I low ever we must not imagine that this settlement was a compact city but rather a multiple itv of small, enclosed residential communities between which orchards blossomed and irrigation canals distributed water from the nearby Endere Darya. During Endere's golden age the river ran 800 m east of the administrative city centre, while today it runs 9.5 km west of the town. Two factors may have caused the various changes in the course of the river bed. First, the sediments carried along by the river filled up the river bed, leading to meandering. Also, the early summer thaw in the Kunlun can cause lloods, causing the river to overflow its banks, seeking a new run.

Endere was given up in the 9th century AD as a result of such a change in the Endere Darya's flow, but in the 11 th century a new colony, Bilel-Konghan, was established on the western banks of the river as it was then. The ruins of this colony, protected by a wall, do not differ from Endere, but the absence of ceramic shards and of some indication of Chinese or Tibetan colonization show that Bilel-Konghan was founded only after the Islamic conquest, and on a lower cultural level. When the river once again changed its course, this time 3 km to the east, this settlement was also deserted.

The centre of Endere is marked by two buildings, namely the great stupa and the Tang citadel. The stupa, with its height of 8 m, gives the impression of being taller, for the wind has eroded much of the loess ground at its base, so that the ground level lies 3 m deeper than the foundations of the constructions. Since coins from the Han era have been found near the great stupa, it may be dated back to the epoch of the Eastern Han (AD 24-220).

About 300 m north-east of the stupa, a quadrangu-

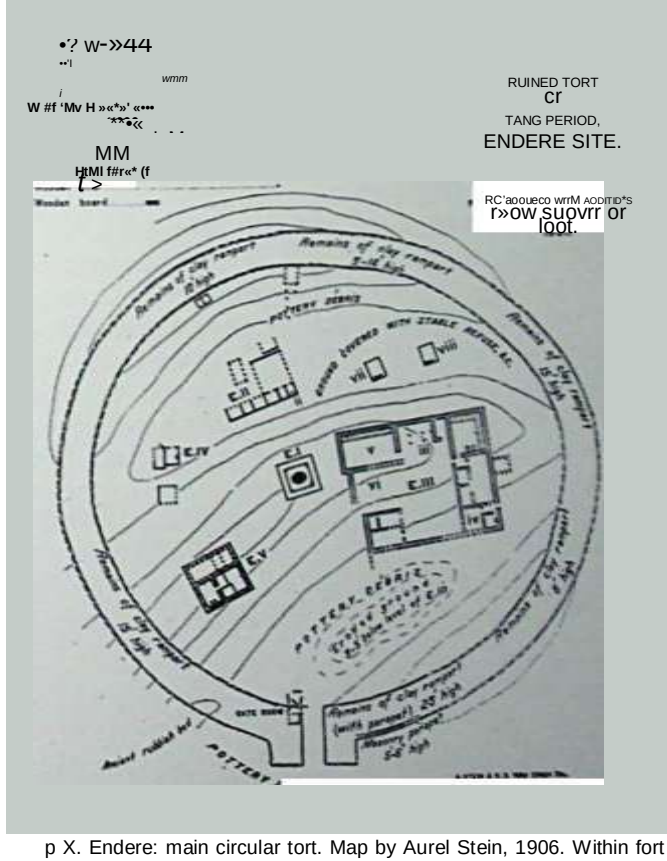
101. Endere: large stupa, Later Han Dynasty or Three Kingdoms period.

102. Endere: “Stupa City". Later Han Dynasty or Three Kingdoms period.

lar city wall of archaic aspect projects from the sand, at places up to 9 m high and 10 m deep. Stein overlooked this construction during his first visit in 1901 for he thought that it was natural terrain, eroded by wind. Even in 1906 he was satisfied to reconnoitre rather superficially and did not excavate. But he did find a large piece of a glass bowl almost certainly imported from Rome.

The rectangular construction is about 130 m long and 115m wide. Inside the fortified settlement the ruins of three fairly large houses can vaguely be recognized and there are fields rich in black and red ceramics in two places. South-east of the city an enormous quadrangular bastion with a lateral length of 40 m juts out. Some 300 m further south there is a smaller stupa about 6 m in height. In between there are more ceramic fields. No doubt there must have been a fairly large colony here, belonging to the ancient city of Tuhuoluo. This dating is based on the fact that a bilingual coin bearing inscriptions in Chinese and Kharoshthi had been found in the centre. As is generally known, the Kharoshthi script was used only until the end of the 4th century AD. Moreover, no coins of the Tang Dynasty were found in the "stupa settlement".

The large round Tang fort that later belonged to the Tibetans lies 1.5 km east of the "stupa town". It has a diameter of more than 110 m and the sun-dried



p X. Endere: main circular tort. Map by Aurel Stein, 1906. Within fort Stein excavated two shrines (E I and E II) and 5 buildings.

103. Endere: southern wall ot the main Fort: Tang D\ nast\ and Tibetan occupation from AO “90-91 to 850-t>0.

brick wall at its south-eastern side rises to a height of 8 m. Here there is also the city gate. 4.5 m wide, secured on each side by a bastion. Endere must have been a strong fortress once. The depth of the walls at their base is between 7 m and 10 m. The bastion becomes narrower as it rises to a height of more than 4 m. In former times a rampart 2 m high and 90 cm wide crowned the wall. Since, in 1906 Stein could prove that the walls of the fortress had been constructed on the ruins of an older colony, one may assume that Tuhuoluo city spread from the large stupa to the citadel. The discovery of a Kharoshthi stone inscription was the major discovery of the author's expedition in Endere on October 21st, 1998. The two parts of the broken steatite (soapstone) slab were found lying upside down at the foot of a dilapidated stupa close to Stein's ruin EVI, about 400 m west of the fort. Since the inscription was found at the foot of a stupa we may presume that it was originally placed on one of its walls

104. Endere: administrative Kharoshthi text inscribed on a soapstone stealitci found in 1998 at the foot of a dilapidated stupa close to EVI, 100 m west of the fort. This very rare inscription proclaims the titles of Amgoka, who was King of Shan Shan from AD 246 to 277. At that time the kingdom of Shan Shan stretched over a distance of 800 km from Loulan in the east to Niya in the west. While Amgoka inherited an independent kingdom, it seems that he had to accept Chinese ov< dordship from about 263 AD. This date coincedes with the re- (,< (upalion of Loulan by the Chinese general So Man (Suo Mai).

105. Endere, inside Ihe main fort: in the foreground the brick building of the civilian and military headquarters, in the background Shrine E I.

106 + 107. Endere: wooden pillar from building E III, room V. 'above and below)

or in its immediate vicinity. Its language is Central Asian Gandhari (Prakrit) and its script is Kharosthi.[4] Although such documents written on wood or leather have already been found in Shan Shan, this is the first inscription on stone found from this kingdom.

The text is a proclamation listing the titles of a king of Shan Shan. Although the king's name and the date are lost, the titles point to king Amgoka (ruled 246- 277) although his predecessors Pepiya andTajaka can't be ruled out. Since the list also contains titles usually applied to Kushana rulers, we can imply that Shan Shan was at that time a kind of semi-independent vassal of the Kushana Empire. This fact suggests that the inscription predates the 17th year of Amgoka's reign around 263 AD when the king had to yield to Chinese overlordship. Another interesting cue is given by the word "hinargami". The ending-"mi"-is probably a such documents written on wood or leather have already been found in Shan Shan, this is the first inscrip- The most important finding stemming from this inscription concerns Mahayana Buddhism, for it also includes the title "mahayana-samprastida", the one "who has set forth the Great Vehicle". This is the earliest official proclamation of this title in Shan Shan and it demonstrates that Mahayana Buddhism benefited from public regal support already during the first half of Amgoka's reign, several decades earlier than previously assumed.[5]

Within the fort, the sun-dried brick walls up to 3 m high of the "Stein E III" ruin are especially remarkable. Without excavating, fourteen rooms can easily be recognized; probably there were more. It is also most likely that this was the administrative centre of the town. This block, entirely built of clay bricks, reminds one of Loulan where the military garrison's head-

quartersand tiv adm * straUive a.ato > woio also lo cated in a single brick >. i ve in the city, inside the largei uv»m\ \\ₖ\w ' vlo> Vv 11 thic.N that lormorlv

x>rted the roof protrude from the sand at regular Uerva s. Some 400 m west o: the fort the author found such a \%ooden post measuring i .5 m in length, \\ hich surely must have been turned so finelv on a lathe. Il is \er\ likelv that it had been dragged there b\ treasure- hunters and then left.

In another room of E 111. the author, thanks to Stein's specifications, was able to excavate two sgraffiti that arc significant for Enderes history: a vertical Chinese and a horizontal Tibetan inscription. \\ nile the Chinese text mentions the imperial ambassador Hsin Li Chan (Xin Lizhan), the Tibetan inscription, consisting of three lines, implies the following: This arm\ had been waylaid in the province of Jomlom the Superior near Pyagpag, and a tiger meal was prepared. Now eat till you grow fat." Aurel Stein interpreted the text as follows: “the Chinese army was ambushed and destroyed. Many enemy soldiers have been killed".' The inscription is from the same period as the end of Chinese presence in the Tarim Basin.

Endere symbolizes the interplay of history. Tibet successfully fought China on a front 2,500 km long and dislodged the proud Tang from the Silk Road 1,200 years ago. However, today the Chinese tiger has swallowed up the Tibetan snow' lion: Tibet has become a mere pro\ hu e of China.

Onl\ a lew metres west of I III there is a forest of elegant popl.ii poles: temple I I. with two easily-recognized concentric rectangular walls. Here, in three ' o' v- o! the cella Stein discovered almost life-size,

• v i'.unuxl;.;v >tatues. but the fourth one had been eeslioved. I hex represented the four Lokapala, each et whom rules over one of the cardinal points. The burping ot their gowns is reminiscent of that of the divinities in Damian Oilik and the Bodhisattvas in Rawak. I he unequivocal relation to Gandhara art allows these figures to be dated to the 4th or early 5th century \D. In this shrine Stein also found many paper manuscripts with a Sanskrit text in the Brahmi script, or written in the Tibetan language. All these documents are concerned with the Buddhist canon, as. for instance, the Salistamba Sutra from the Kanjur.[7] Stein presumed that these texts had been offered by pilgrims as votive gifts just like the pieces of clothing found in the temple.

A mere few steps north of the temple E I Stein found shrine E II where he exposed the only wall paintings found in Endere. On the wall of a small chapel there had once been depicted a large standing Buddha. But only his feet and part of his garment had been preserved, since the wall had been pulled down to a height of 1.2 m. Around the aureole of the Buddha, small seated figures - probably Bodhisattvas - had been

108. Endere: Shrine E I.

p,link'd in red on .1 blue ba< kground. I \rrr, Slfin *iho discovered «i small wooden lablel with the the four-armed, elephanl-headerl god known as GanesHa in Minduism and Vinayaka in Maliay.ma Buddhism. This find shows that the influence of Indian culture reached as far as Endere. When the author visited Endere at the end of October 1990, he unfortunately had to observe that this shrine had been looted; the paintings were no longer there.

The site E Viii had also been plundered right down to its foundations. In this room Stein had come across the same kind of room chimney as in Dandan Oilik. The excavations of the plunderers appeared to be quite fresh. Indeed, the son of the local guard from Andier told the author that his father had caught the two robbers in the act. But the two had threatened his father with a gun and a pistol, and forced him to flee. It is hard to understand how the provincial government does so little to protect this place which is so important to the history of art.

Finally, the author's team found the skeleton of a child of about three years of age in the immediate vicinity of the former river bed and about 600 m south ot the citadel. Either this child had drowned more than a thousand years ago and had been washed up near this embankment, or the seasonal floods had disturbed a cemetery and brought the skeleton to this spot. This discovery raises another unsolved question, namely where did Endere's cemetery lie? For until today, not a single tomb has been discovered. The team had indeed found the remnants of two old human skeletons 250 m west of the main stupa but nothing indicating a grave could be discovered.

MIRAN: ZENITH OF GRAECO-BUDDHIST ART

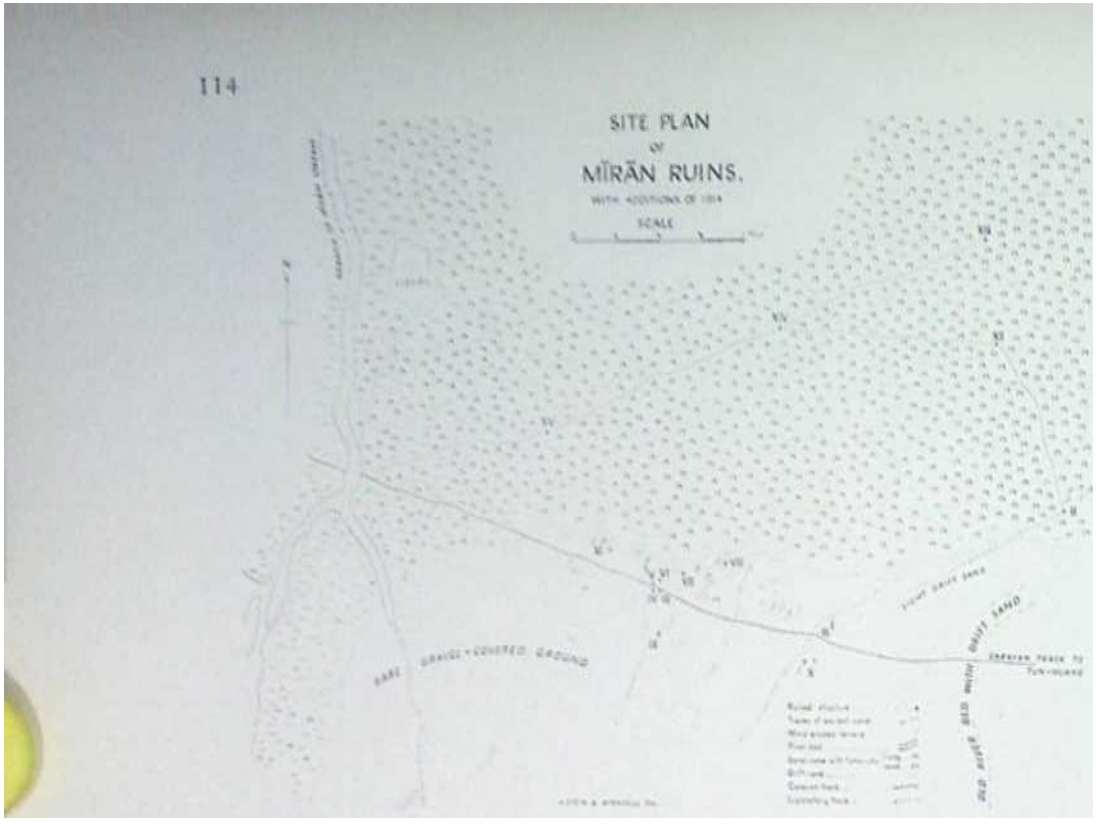
The Russian geographer General Nikolai Prejevalsky was the first Western researcher who, on his second expedition in 1876, learnt of the existence of Miran, which was called Kunia-Shari in those days.[8] Obviously he had not visited Miran himself, for he was satisfied to note that the city lay between Kargilik and I .ike I op Nor the- Karakoshun Lake.

I ho honour of being the first to examine Miran, if rally briefly at the end of December 1905, must bo- awarded to Ellsworth I lunlington. During his short >fa/ in Miran, Huntington nevertheless managed to identify the fort, the monastery, tv/o stupas and the remains of nine more sun-dried brick constructions and to recognize the Buddhist character of the site.

As was the case with Dandan Oilik, Karadong, Endere and Loulan, it was to be the role of Aurel Stein, not to be the first to discover an ancient ruined site, it is true, but to be the first to excavate and reconstruct its history. During the course of this he was able to prove that the Graeco-Roman influence from the eastern Mediterranean region had advanced as far as Miran.

When Stein had departed from Kargilik on 6 December 1906, he merely wanted to have a quick look at Miran, for the actual goal of his expedition had been Loulan, the mysterious city discovered by Sven Hedin in the year 1900. True enough, the British Consul Macartney, resident in Kashgar, did inform Stein of the activities of his rivals Hedin, Paul Pelliot and Albert von Le Coq, but he was determined to solve the Loulan mystery himself. For this reason, at first Stein limited

109. Endere: camel suckling her calf sketched on paper, found by Stein in Shrine I. British Museum, London.



Map \l. Muan: map by Aurel Slfjn, 1*107. Ilu- lilu-lan fort is montioiu-il hy Stein as M I. the \ ihara (monastery) as M II. and the two smaller sani tuarics with tlu-Caaecn-lUiddhist paintings as M III and M V.

110. Miran: Fort M I. The imposing circular fort dates from the Tibetan occupation in the 8th and 9th centuries.

himself toa quit l< slot kl.ikmK his't arrv-1 oftwo(l..ys.On lO IX-ct-mlx-r, lo Abdal caravan loaded with ICC* blot ' , . .j |<irjrn Delta, situated west of the Karakoshun11 •' • nossible. in order to reach his goal, I oulnn, as soo • _l ^ ^ But before leaving Stem re-< overecl a fort with sand; this was a - precaution in case any casu traveller visiting the lonely ruin before my return, shout be ill-advised enough to hunt for treasure.

It argues in favour of Stein's arc haeology a in that he recognized Miran's significance after a mere two days and had therefore decided to return after completing the Loulan excavations. For on the very first day the Briton had made an extremely revealing find in a small room within the large rectangular tort. He discovered yet another centuries-old yet still toul- reeking garbage heap with more than two hundred Tibetan documents on wood and paper. Most ot this was official administrative or military correspondence.

Concerning the many registered names of places, it is worth mentioning that Miran was called "Fort of the small Nob" and Kargilik "Fort of the large Nob". The latter is considered to be the capital of the Shan- Shan principality, to which Loulan probably belonged as from 77 BC.'° The fact that wood was used as writing material for the majority of the Tibetan documents from the 8th and 9th centuries, shows how difficult it must have been in those times to get hold of paper.

Further finds were remnants of red and black lac-quered harnesses of hard leather. In a nearby temple Stein found traces of Buddhist stucco reliefs and a colossal head of the Buddha. From these discoveries Stein concluded that Miran, just as Endere, had experienced a first golden age during the first post-Christian centuries, a proof of which are the splendid wall paintings in the Graeco-Buddhist Gandhara style. The subsequent transfer of trade on the Silk Road to the northern route caused Miran to sink into oblivion. In was only when Tibet began to challenge China's oyerlordship over Turkestan and to extend its sphere of influence right to the Tarim Basin and to Gansu, that M,ran, in the 8th and 9th centuries, experienced ano er golden age when it developed into a strategical y significant garrison town. Nothing however points ° ic possibility that Miran would have remained

populated after th'- *(it -il* 1 bgnur ■*/;< Uj'y r,/t r* - bb'-t- ,iris around *A I J HhO .*

After his exploration of oulan, *'/<■ ■* .".-'orr'-d *o Miran on *2.1 janvary* 1907 and mad'- some- extremely successful excavations there, lasting until 11 February. I fe first applied the *spade to that area of the* Tibetan fort where he had *already* diV ovc-red r *jr* ero >s Tibetan documents. It *seems* that the fibefar a'" . of

‘ .u. : ------

111. Minin: shrine M III. Princely disciple of the Buddha, i'd < entury AD. Ndti

National Museum, New Delhi.

' I Miran: shrine M V. The name of Ihe artist who painted the portraits surrounded by a garland is recorded in an inscription as I itos. He probably came from the Mediterranean region. 3rd century AD. National Museum, New Delhi.

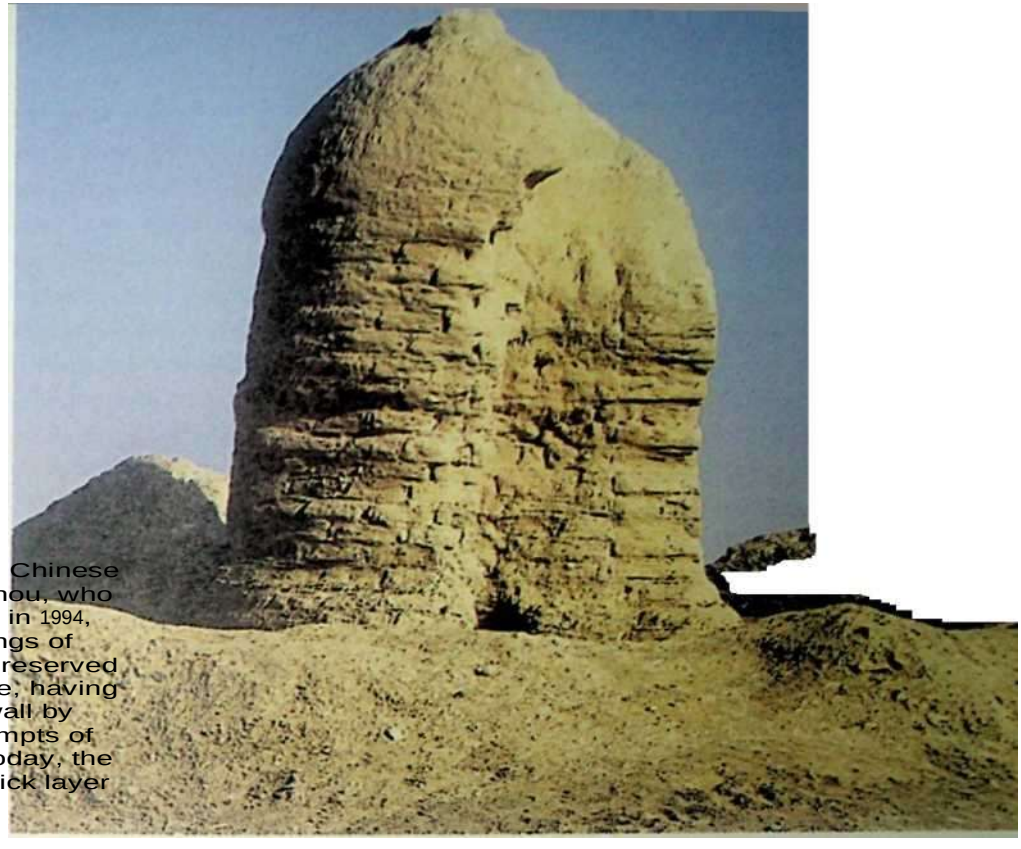
and to then misuse the next room as a garbage heap. Stein describes his work in the tort of Miran as follows: "I have had occasion to acquire a rather extensive experience in cleaning ancient rubbish-heaps, and know how to diagnose them. But for intensity of sheer dirt and age-persisting smelliness 1 shall always put the rich 'castings' of Tibetan warriors in the front rank." Stein continues that he could recognize the origins of a millennia-old garbage heap even on the basis of its stink."

Besides the Tibetan documents he also found paper fragments with a Turkish runic script, reminiscent of the advances of the western Turks to the Tarim Basin. The great age of Miran now seemed evident, after Stein had discovered important old documents such as a palm-leaf inscribed with Brahmi characters, probably of Indian origin, and three pieces of silk material inscribed with Kharoshthi texts.

Miran became famous most of all for its magnificent frescoes that Stein discovered in various sanctuaries, with the finds in the stupas M III and M V being especially spectacular. Both sanctuaries are less than two kilometres west of the large fort. Stein describes his surprise when excavating the circular interior wall surrounding the Stupa Mill proper and thus forming a circumambulatory: "When the digging had reached a level of about four feet above the floor and a delicately painted dado of beautiful winged angels began to show on the wall, I fell completely taken by surprise. How could I have expected by the desolate shores of Lop Nor, in the very heart of innermost Asia, to come upon such classical representations of Cherubim! And what had these graceful heads, recalling cherished scenes of Christian imagery, to do here on the walls of what beyond all doubt was a Buddhist sanctuary?"[12]

Indeed, the somewhat chubby-faced, red-painted winged angels that cannot deny their similarity to Greek putti (chubby-cheeked, winged celestial infants), seem to be more befitting of a Greek temple or an early Christian church than an ancient Chinese city at the southern border of the Taklamakan Desert. The influence from the eastern Mediterranean area or from Western Asia where the idea of winged angelic beings already was known in pre-Christian Iran cannot be overlooked. Stein presumed that these winged angels represent the Gandharvas, heavenly musicians known from Buddhist mythology. Another two paintings from the stupa M III showing the Buddha in a teaching attitude, also unmistakably show elements of the Gandhara style.[13]

In the neighbouring round temple M V Stein found



114. Miron: shrine M III. The Chinese archaeologist Shen Chun Shou, who accompanied the expedition in 1994, confirmed that further paintings of the winged genii had been preserved in the lower part of the shrine, having escaped removal from the wall by Stein or the amateurish attempts of the Japanese Tachibana. Today, the murals are protected by a thick layer of sand and rubble.

a Kharoshthi inscription from the 3rd century AD within a painted frieze. The frieze shows a series of twenty- eight portraits surrounded by a garland carried by putti. Above them are scenes from the Vessantara Jataka, one of the many tales from the previous lives of Buddha.'[4] The style of these paintings is described as "Orientalized Hellenistic art" by Stein.'[1]

Next to the winged putti there is a second type of creature claiming attention, for it wears a Phrygian cap. This headgear, coming from Asia Minor and also worn by the Saka, has been found with some mummies excavated in the eastern Tarim Basin as well.[16] The inscription, in turn, identifies a man called "Tita" as the originator of the temple paintings. As already mentioned, Stein does not hesitate to identify this name with "Titus". Probably this Titus was an itinerant painter from the eastern Mediterranean area who was familiar with Buddhist iconography and who had received an order to decorate the walls of this temple in the 3rd century AD. The subject of the garland could originate from the eastern Mediterranean area as well, for it shows conspicuous similarities with the garland decorations of altars in Asia Minor and sarcophagi of the Roman imperial era.'[7]

In the Buddhist monastery M II, situated east of the fort (the so-called Vihara), the middle wall is decorated with capitals of Persian aspect, and Stein discovered the remains of a series of six large seated Buddha statues and two corresponding stucco heads. Here the influence from Gandhara is less obvious for the heads and the remains of the seated Buddhas seem rather to be related to the Chinese figures from Yunkang, Datong, which were made about AD 460.

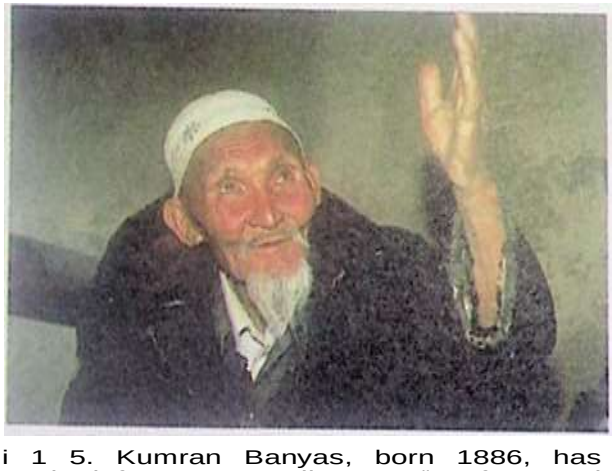
Thus it may be maintained that in Miran an extraordinary synthesis of Indian, Persian and Greek elements of style has occurred in the representation of Buddhist beliefs, designated as "Gandharian latecomer" by Mario Bussagli.'[8]

But before Stein left Miran for Dunhuang on 11 February 1907, the question arose of how to "preserve" the excavated paintings. After the British explorer had carefully photographed most finds he was faced with

A Contemporary of Sven He Jin and Sir Aure! Stein remembers

-' ' °^4 • fv* ».i' '.-v kx enough to hear the MOIA OI

I a ' >.v A) mran Banxa> who lixcsi in Now Mi tan \ k’ge v: ».v : om the old Tibetan tort. This man was born in ’ $$b 108 xears previously - on former Lake t op Nor. or Karakoshun, and has experienced the "return trip of this lake to the north and its old bed and the consequent dr\ ing •‘P of the Karakoshun. The author d.Ov ;.iod to meet him tot perhaps he had met Stem or ! !edm. In his diarx he records the meeting with kumran Banxas as follow s; in New Miran t'ne local guide Villaxali quiiUx leads us to kumran > house. We enter the inner court of an attractive small peasant house, sheltered from w ind and the outside world by tall poplars. And already there appears with slightlx dragging footsteps a irail old man: kumran Banxas. He wears a broxxn jacket and his head is coxered b\ the white cap of the Moslem Uighur. His lively face marked by high cheek-bones is framed by a white (Jointed beard. With large deep-set brown eyes he looks questioningly at the group of strangers, and at tirst does not seem to appreciate the visit. But then he recognizes his friend Villayati. and thanks to the latter's mediation, agrees to receive the two "long noses" with their companions.



i 1 5. Kumran Banyas, born 1886, has worked for Sven Hedin as well as for Aurel Stein

We thus enter a simple small room serving as sleeping and living room, kumran inxites us to take a seat on his bed. this is a ti.ulitional Chinese Ling, a large clay bench crossed in several horizontal depressions filled with em- v N in xx into; to heat the suriace ex enly. A coloured blanket with gay Tibetan patterns covers the Ling. Kumran sits doxvn opposite us. on a stool near the xvood-stove. A simple bulb hangs from the v. oiling and brightens the room with a pallid light.

The conversation that is now being initiated flows slowly and i> repeated several times, for Kumran speaks in an old dialect practically forgotten today. Villayati translates into the Uighur language, and a Chinese then translates into 1 nglish. Kumran indeed remembers Hedin very well and relates: When I was about twelve years old, Etzin (as the indigenous escort called Hedin) arrived from very far away, probably Russia, to Lake Karakoshun, and he had two Russian soldiers as his escorts." It is immediately clear to me that Kumran has met the Swedish explorer in 1900-01, when he was in the Lop region, accompanied by two Cossacks. I ihen asked Kumran whether he had also met the British explorer Sir Aurel Stein. I le considers briefly, then asks whether I mean the “robber of the Miran paintings". Yes, he had worked once for Stein, about ten years before Lake Karakoshun disappeared. Hence Kumran undoubtedly means Stein's third visit to Miran, in the year 1914. With an agitated voice he compares the two explorers:

"Etzin most of all was interested in land survey, in mapping and photographing, w'hile Stein endeavoured to take away as many objects as possible. He promised a reward to every excavation labourer if he could find something. He also removed the paintings from the Miran temple ruins. Together with other workers, as for instance Tokta Akhun, I have helped for days to carefully wrap statues, coins, xvritings and paintings in cotton wool and to pack them in large crates that were then transported to Kashgar." Kumran's xvords clearly show that he was not sympathetic to Stein.

Thus I am confronted with the classical dilemma of all archaeologists: is the removal of art objects from their original site to another country justified if their preservation in

their <ountry of origin is endangered'

While I still refler I on this apparently insoluble prob lent, Kumr.in with .1 radiant far e begins *hi* loll of his youth: "In my village on the Karakoshun we liver! almost exr lu- sivcly on fish and barley. In summer we went out on the lake with our dug-out < anr*e .inrl < aught fish with wooden harpoons. We then laid them out on the sand to rlry or buried them in the hot sand. After a few weeks the completely dried-up fish were dug out again and made into fishmeal. In winter, fishing was more laborious, for the surface of the lake would free/e up for months. We dug holes into the thick ice at regular intervals and spread nets woven of reeds, from one hole to the other. Thereupon the whole village would gather and trample around the ice screaming loudly, to drive the fish in the direction of the net. Since the Karakoshun water was sweet, it served us as drinking water as well, and we did not have to dig wells. At the farm we kept a lew chickens and sheep and sometimes went hunting for hares or gazelles with falcons or eagles. The most exciting, but also the most dangerous, was hunting for the wild boar through the rush thicket along the lake. Once every five boars a hunter or beater would be injured."

It is almost unbelievable, but Kumran somehow had grown up in the Stone Age, for during his childhood there was no iron in his village. All tools were made of wood. Kumran s first encounter with iron, however, was of a rather brutal nature; when a Tangut gang of robbers attacked his village, one ol the bandits injured him with a knife. Fruit, also, was tor a long time unknown to Kumran, for, as he tells smilingly, as a fifteen-year-old he had seen a large melon in a field near Miran for the first time. This awakened his hunter s instinct, and thus he quickly shot an arrow at the unknown 'animal" to prevent it from fleeing.

It strikes me how much the tales of the old Lop Nor fisherman coincide with Prejevalsky's description of the population on Lake Karakoshun where he had stayed for almost two months in the beginning of 1877.“ The Russian explorer, in his travel report published in 1878, emphasizes the dependence ot the local population on fishing and describes the very same fishing methods as Kumran.

Prejevalsky also mentions how the fishermen comported lh.it the river flowing into the lake, the *farirr,* carried ess and less water, thereby rendering the lake more sha!>/•// and allowing the reeds lo spread. This had caused a reduction in the fish population. Moreover, around the sweet- water lake a threatening crown of small moors had formed, with brackish or even salt water.[21]

Kumran's further report illustrates the consequences of the hydrological changes just mentioned. Later on, when his sons had formed their own families, living conditions on the Karakoshun became more and more difficult, as the lake retreated incessantly and the water became more salty. Now the villagers had to march further each day to reach the shores of the retreating lake, to catch fish or "merely" to fetch water. Consequently, the village lost all basis for life and had to be given up. Sadly, Kumran relates how he was one of the last to trek to New Miran about 100 kilometres away. Once again I marvel at the precise coincidence between Kumran's tales and Hedin's explanations minutely describing the salting-up and the shrinking of Lake Karakoshun.

Suddenly, silence fills the room, as if Kumran's reminiscences of his long-lost youth on the Karakoshun had caught up with him. I am deeply grateful to the old fisherman, for he has made me the rich gift of his tale, helping me to build a bridge, so to say, to my own youthful dreams. We get up to leave. Kumran accompanies us through the inner courtyard to the gate, where the upright walk of the more than a hundred-year-old man strikes me.

But now we must take our leave. For a long time Kumran holds my hand and wishes me much luck and success on my search for Loulan. And he adds that, "should I return to Miran, he would expect me to visit him again."

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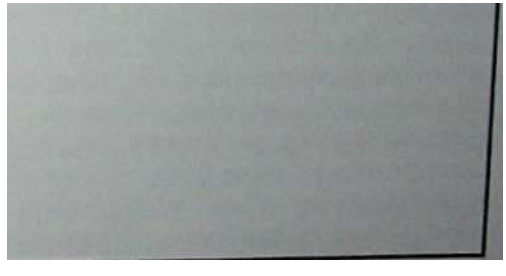


the alternative e» \ \ v.. the ev.\wed paintings once again o; Irving to \-vo\o hoir from the wall to take them to Europe. Stein opted for a compromise. He care-

•e ".owe . re >ma e; e>eoe> Horn the wall and sen:; *e " to \ vtan ' oaehoo cases. The majorits of the \v ge ,v\: more b ittle paintings, how e\er. he once again cove oc w ith sand and pebbles, as he feared that he w ouid damage them far too much in remov ing them. Stein described ir is feelings on the occasion as follows: It was a melancholy business to watch these graceful wall-paintings ...as thev slowlv disappeared again under the dust and clav debris. It seemed like a true burial of figures still instinct with life."

The detached frescoes surv i\ ed intact both the long journey to London and their subsequent relocation to the Indian National Museum in Delhi. But Stein had no forewarning that the paintings that he left behind, to which he was so attached, would soon first be the witnesses of a human tragedy and then fall victim of an amateurish rival.

In March 1908, after the first successful visit to the caves of Dunhuang, Stein sent his faithful and respected colleague Naik Ram Singh back to Miran to complete the photographic recording of all the frescoes left behind and perhaps to remove a few more paintings. The unfortunate Ram Singh turned blind in Miran as the result of an apoplectic fit and, via Ladakh, had to be taken back to his native Punjab, where he died in 1909.

Stein, as indicated, suffered another bitter disappointment in January 1914, when he visited Miran once again, on the occasion of his third expedition to Central Asia. For it became evident that his careful burial of the wall paintings and the efforts of Ram Singh had been in vain. "An ill-managed attempt to remove the frescoes was made, some years after my discovery had been reported, by a young Japanese traveller who lacked preparation, technical skill and experience equal to his archaeological zeal. The attempt was thus bound to result in mere destruction. The greater portion of the paintings I had first brought to light here, my photographs, imperfect as they are, and my notebooks have alone preserved a record."[20] This young Japanese was no other than the spy Tachibana, masquerading as an archaeologist, who had damaged beyond salvation about half the paintings of the stupa M \. Stein then was Mieeesstul in removing important parts of the remaining frescoes without further damage. Oi the w ingeil angels in the stupa M III, Stein had unearthed touileen of the surmised twenty-four and removed seven of them. I lie Vice-Director of theAr- v haeologieal Museum in Uriimqi who accompanied the Swiss expedition in 1994 confirmed that the remains ot the angels left on site were present even then, beneath the protective layer of rubble.

One vear later, in March 1915 Stein once again w as i. onfronted w ith the "excavation methods" of the lapanese Tachibana when he visited the ancient junction of Yingpan, north of the Kum Darya where the road from Loulan met the connection from Miran to Korla. As Stein began to explore the group of stupas discovered in 1896 by Hedin in Yingpan, he was struck by the numerous pieces of broken Buddhist clay statues near an important temple. As in Miran previously, here too Tachibana had tried without success to remove ancient works of art from their sites.[21]

During the last two weeks of January 1914 the British explorer was under great pressure of time. He had received Macartney's warning from Kashgar that the provincial government in Uriimqi had sent an edict to all district administrations according to which Aurel Stein would be forbidden all work in the fields of land survey and archaeology. Therefore he urged his workers to the utmost speed for he feared daily that the Kargilik authorities would prohibit his removal of Miran frescoes from their original site.

Stein's work in Miran and the continuation of his expedition, however, were saved by a small local revolution that spread from Cherchen to Kargilik. During the subsequent unrest, the leading officers of Kargilik were murdered and the written orders from Orumqi remained unopened at the governor's residence for weeks on end. Thus, Stein was able successfully to terminate his work in Miran and to depart with his caravan of thirty-five men through the Lop Nor Desert in the direction of Loulan, on the first day of February. This removed him from the reach of the Kargilik authorities. Amazingly, no further excavations have been conducted at Miran since 1914!

' % / ' The Lop Nor Mystery

ne of Sven Hedin's greatest achievements was l^ondwitMheCherchen Darya; and the sea "Pu
that in the course of two expeditions in 1896 In^econd wt.n the Che ^ ^ ^ The chjne5e

and 1899-1900 he brought the scientific dts- f ha h n8 rmnre believed that an underground river some
cussion concerning the location of the mysterious Lake , . kilometres further to the east ot the Pu
Lop Nor to a conclusion and cleared up all relevant few hundred k.lome.tre ^ ^ of ,he Huang
questions. Hedin owed his success not only to his spirit ^ . ■ : the Yellow River. '
of adventure and his explorer's urge, but also to the o f Mowing fact highlights again the lively con- selt-discipline of
substantiating theories by means ot rhina and Rome: Marinos ot Tyros, the
precise surveying and. las. bu, no. least to his readi- mentioned, furnishes us with
ness to listen attentively to the tales of the local peo- G *Z b* information on Lop Nor as the old pie. It was above all this
character trait together with almost mesa jn hj$ second great scientific
hi gift o acute observation which helped Hedin solve C lines *Tibet* proved that the so-called Lake
the Lop Nor mystery and distinguishes him trom his wor , *o* described by Marinos was identi-
great predecessor, Kozlov. It must also be remembered Oc ... rjver gautisus with the Tarim.[3]
that by discovering Loulan, Hedin inspired further ar- ca wi P ' hjs tum mere|y speaks of a large

EARL.EST REPORTS

The oldest mention of Lop Nor dates from the period of vv ien ® ener Palace of the Doges in Venice.[4] the Warring States
(475-221 BC) when there is some a map o < sQme } 70 years later by the Swedish
talk of a western and a south-western tributary to Lake lieutenant Renat also is remarkable. Renat had
Lop.[1] Apart from this, a document originating from the ar i e y . 17Qg g y the victorious Russians at
turn of the era reports that a river coming from the Pamir, ee£ cap a toge ther with another three thou-
together with another river springing from the Kunlun 1 6 ff:rpr c and banished to central Siberia. From mountain range,
flowed into the salt sea Pu Chang. This san !■ rted by the Kalmucks to live in sou -
sea was supposed to lie west of the Great Wall and
^Siberia. But he was successful in making a mi«-
measure three hundred li in length and equally as much rareer under his new lords and on his retu _
in width, with a li corresponding to about four hundred ^^Ljen in 1733 he produced a surprisingly precise
metres.

map oi Contra: \s a w ·th . ako l on Nos entered under the name of L8p Bi t Re >aC$ nap fell into disuse and was onix or >co\eiee b\ the writer \ugust Sli v.v.-g in 1879. -\t that point the scientific discussion betweei ' e e\ a sk> and von Richthofen was al- av.bx we e.nder wa\.

116. The Russian General Nikolai Michailovic Prejevalsky (1839-1888) led four expeditions to Central Asia.

THE CONTROVERSY BETWEEN PREJEVALSKY AND VON RICHTHOFI N

In 1876 General Nikolai Prejexalskx left Kulja in the Hi Valley for Korla. and after follow ing the course of the Tarim River towards the south, readied the sweet- water Lake Karakoshun at the end of December. To his surprise, here Prejevalskx learnt that he was not the first Russian visitor on the Karakoshun since in 1861 a group of about one hundred so-called "staroverzy" (Russian “traditional believers’) had briefly found refuge here in their flight. Later, in 1900 Hedin indeed found graves of some of these Russian schismatics.[6] Prejevalsky was convinced he had re-discovered the legendary Lake Lop Nor - the Pu Chang sea of the Han Annals. Thus, he thought Lake Karakoshun to be the last small remains of the once land-locked sea.

No sooner had Prejevalsky returned to Russia than, in 1878, the famous German geographer Ferdinand Freiherr von Richthofen called into question the Russian researcher's claim to have rediscovered the ancient Lop Nor. He reproached Prejevalsky for locating his so-called Lop Nor one full degree of latitude further south than indicated by the Chinese sources. In the process of doing this, von Richthofen in part relied on a Chinese map of 1863 w'hich in turn fell back upon ancient sources. On this map the main stream of the Tarim indeed flows southwards, west of Korla, and together with the Cherchen Darya forms a lake called ‘Khas Nor. But, according to the map there actually also exists a tributary of the Tarim, flowing eastwards into the Kuruk Darya and thereby forming the actual “classic" Lake Lop Nor. In addition, old Chinese sources mention a salt lake while Prejevalsky had discovered a sweet-water lake.[7]

On the basis of these documents von Richthofen concluded that Prejevalsky had not discovered the original Lop Nor - the Pu Chang Sea of the ancient Chinese - but another, newly formed lake, the Karakoshun to be precise, and that the original Lop Lake would have to lie further north. In the process, von Richthofen had already considered the possibility of the Tarim having "left the course in the eastern direction, as shown on available maps, and the present river flowing south-east", to form the lake discovered by Prejevalsky.[11] In reply to this, Prejevalsky pointed out that there was no other lake north of the Karakoshun. On his fourth expedition in 1885 when

117. Professor Ferdinand Freiherr von Richthofen (1833-1905) supported Sven Hedin in his determination to solve the Lop Nor mystery.

lie returned to the area, he remained convinced 01 having discovered the original Lop Nor. Again, lie was struck by the continuing shrinkage of the lake and the reduction of its fish resources.

Hedin had studied under von Richthofen in Berlin from 1889 to 1892. He also admired the Russian explorer, "who had entered such significant parts ot Asia while exploring them. I myself dreamt of the happiness to be allowed, once, to take part in one of Prejevalsky's expeditions, and I remember how sad I felt when hearing of his death in 1888.""

Young Hedin was eager to test the correctness ot his teacher's theory by investigate g or» v fe. /.oreo vcr, his ambition was heightened by I- e :V ‘ of the explorers who had visited the I op .or regior after Prejevalsky contributed little tov/ards the clar fi (at ion of the scientific debate. Among these .vere ’he Britons A.D. Carey and Andrew Dalgleish H 886>, tr e Russian Pievtsov (1890) and the Frenchmen Gabriel Bonvalot and Prince Henri d'Orleans. In 1889 the [1].vo Frenchmen observed a further reduction in size of the Karakoshun since Prejevalsky's last visit, as a result of more intensive use of the water in the Korla area. They also heard of hidden ruins in the desert.[1]"

Only Prejevalsky's pupil, Kozlov, was on the right track when he discovered the dried-up river bed of the Kuruk Darya during the winter of 1893-94. However, he did not recognize the significance of this, perhaps out of loyalty to his mentor, Prejevalsky.[1] The old river bed of the Kuruk Darya would have led Kozlov to the ancient Lake Lop Nor and to Loulan, as it did Hedin a few years later. Looking back, Hedin wrote in 1905: "It is unfortunate for Kosloff, that he should have placed such blind confidence in Preschevalskij's views as to the position of the Lop-nor. By doing so he has done himself an injustice. When he published his book Kosloff was the only European who had seen the northern shore of the old Lop-nor..., but unfortunately he did not know how to interpret what he saw. Had he gone a few kilometers farther south, and discovered the ruins of Lou-lan, he would certainly have arrived at a very different opinion."[12]

Also, after Hedin had lectured in St. Petersburg on the results of his first expedition in 1897, Kozlov insisted on the views of his teacher, Prejevalsky. Thus, the controversy between Prejevalsky and von Richthofen was joined by one between Kozlov and Hedin. As Hedin summarizes, "it was the decided opposition of the Russian geographers, and especially of Kosloff himself, which more than anything else determined me to pay yet one visit more to the Lop-nor country."[13]

Urnix's JOURMAS ro mi 1 or NOR

it was von R chthofiv who \\Lv: ' ledin to his first lo' \o o:\v ; o • ' this \e • v wrote in Decem- be 189o to s '. o.: ' Tashkent: The question oi Loo Nor vou w 1 think 'Aaliv solve. So the task :av o ' Heel:'s -'HX Uie:s lo settle the scientific dis pute between his professor anti the most famous explorer of Central Asia at that time. In 1894 Hedin w rites: Three things interest me espeeialK concerning mv Lop-nor journey: an exact topographical map of the Tarim. ... the search for Richthofen s Lop-nor and ti- nallv for the ruins of Marco Polo's large cit\ of Lop."

Hedin started out on his journey in i 896. Alter the discovery of Dandan Oilik and Kamdong he followed the dried-up river bed of the keriva Darya, reached the Tarim and followed it or the Konche Dar\ a ivv hich ran parallel to it) to the western shores of Lake Karakoshun. This relatively short exploration in the Lop Nor area confirmed von Richthofen's view that the Karakoshun was a water of more recent origin and could not be identical with the historical Lake Lop Nor as Prejevalsky had believed. How'ever, from the presence of the dried-up river bed of the Kuruk Darya that he had found, Hedin drew a different conclusion to that of his predecessor. He was convinced that it had been precisely here that the historic course of the Tarim must have been, and that the classical Lake Lop Nor had also been situated here, in its extended form. Talk with the indigenous people further made Hedin presume that this modern lake, Karakoshun, had been in existence only since about 1725.[1,1] It is very revealing that Hedin presumed a change in the site of the historical Lop Lake on the basis of a change in the course of the Tarim.[r] Already, in 1896 he asserted that "the two lake-systems are mutually related in an extraordinarily close and intimate way; or; in other words, as the northern Lop-nor increases, the southern Lop-nor dhe Karakoshun) decreases, and vice versa".[18] Therein lies the root of the Lop Nor theory as a "wandering lake".

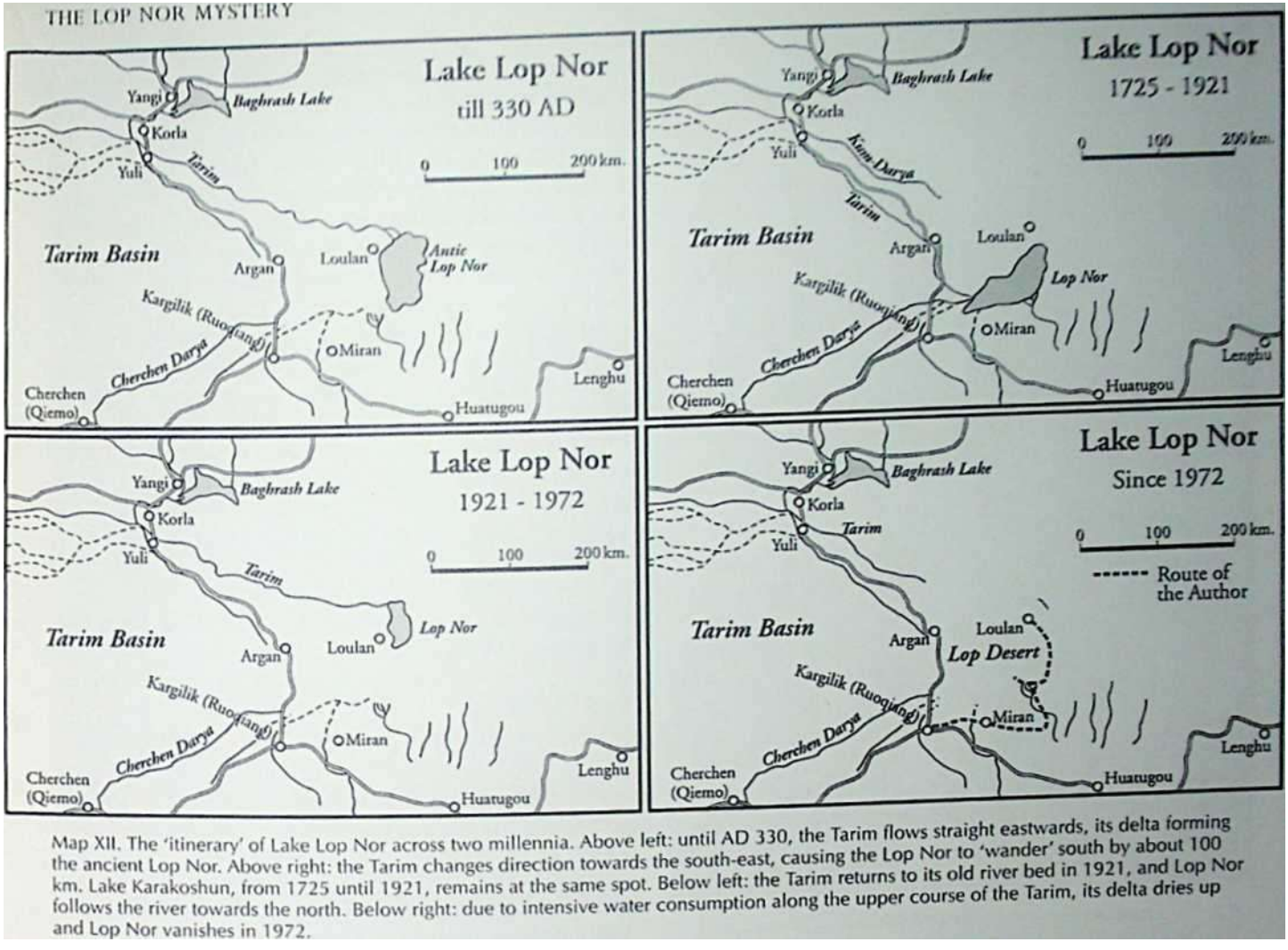
When Hedin returned to the Tarim area in 1899 he decided to remove the last doubts concerning the correctness of his theory. He therefore resolved to explore the Tarim on a raft. On 17 September 1899 he boarded the raft at l ailik about seventy kilometres north of Yarkand. I le was lucky to have the camel hunter \lulu Rehim lor a guide, for Alulu was familiar with the terrain and had guided Kozlov through the north of the lop Desert to \ltmyseh Buluk six years previously.

The ii\ei ride of about nine hundred kilometres lasted almost three months and ended on 7 Decem- ooi when the frozen rivei near Karaul made it impossible to proceed further. So, on foot, in the beginning oi the year 1900 Hedin followed the dried-up river bed of the Kuruk Darya to the west until he found traces of the ancient Lake Lop Nor and by chance discovered Ionian on 30 March.

A RIDDLE AND ITS SOLUTION

For Hedin, the key lo the understanding of the hydrological changes in the Lop Nor area lay in the minimal incline of the Tarim between the spot where it changes its eastern direction in order lo turn south, and the area of its delta near Lake Karakoshun. The result was that in the lower reaches the river tended to fill up its bed with the sediment that it carried and to meander widely. Such sluggish riverturns easily could form pools or small ox-bow lakes, forcing the river to change its course. Further, Hedin's altitude measurements showed that the surroundings of Lake Lop Nor are very flat and a lake therefore could rapidly change its site as soon as its bed was completely filled with sediment.[20]

The history of Lop Nor can be summed up as follows: the salty Pu Chang sea was a remnant of the earlier land-locked sea that once covered the Tarim Basin. Countless shells on the floor of the Lop Nor desert are proof of this. It is probable that it was only at the end of the glacial era that this land-locked sea retreated to the eastern declivity, where it formed the ancient Lake Lop Nor on whose northern shore lay the historic garrison town of Loulan. Since the annals of the Western Han named the lake "Pu chang hai" - "the lake abundant in reeds" - it is obvious that the Lop Nor already contained large areas of marsh in the



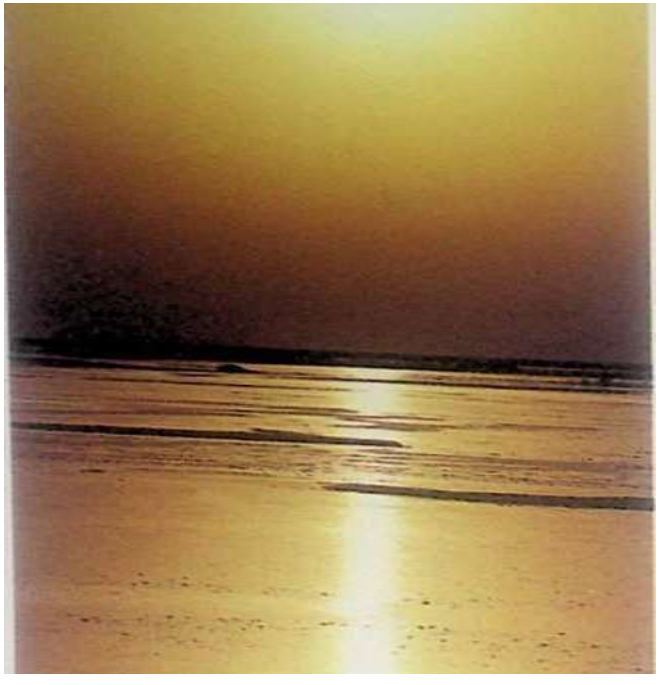
Map XII. The 'itinerary' of Lake Lop Nor across two millennia. Above left: until AD 330, the Tarim flows straight eastwards, its delta forming the ancient Lop Nor. Above right: the Tarim changes direction towards the south-east, causing the Lop Nor to 'wander' south by about 100 km. Lake Karakoshun, from 1725 until 1921, remains at the same spot. Below left: the Tarim returns to its old river bed in 1921, and Lop Nor follows the river towards the north. Below right: due to intensive water consumption along the upper course of the Tarim, its delta dries up and Lop Nor vanishes in 1972.

last centuries before our era.[21]

loulan is first mentioned in 176 BC. Haifa millennium later the city was unexpectedly abandoned and the military garrison shifted to Haitou, about fifty kilometres towards the south, and designated by Stein as L.K.'. A few decades later this settlement also was given up.

I he reason for this dramatic event lay in the fact that the Tarim, as the most important tributary of Lake Lop Nor, or its extension, the Kuruk Darya, no longer tlowed eastwards in the direction of Loulan. It anched off to the south and had made a new bed in e desert. Now the Tarim formed new *lakes in its*)uthern delta resulting in the creation of Lake arakoshun about 1725. With this spectacular change i the direction of the Tarim, the city of Loulan lost its ssh water supplies and the ancient Lake Lop Nor lost ie necessary water input to compensate for the high agree of evaporation. The Lop Nor had indeed "wan- sred off" eighty kilometres towards the south.

Hedin's explorations and conclusions constitute a imarkable achievement. But what is even more re-



118. The Cherchen Darya is the second tributary of former Lake Lop Nor. but this river no longer reaches the lake and ends in a shallow marsh.

markable is that, on the basis of his observations in 1900 he dared to make a hydrological prognosis (already suggested in 1896) that became a fact in 1921. From the shrinking and salting-up of Lake Karakoshun, Hedin drew the conclusion that now, at the beginning ot the 20th century, the same hydrological process would be repeated as had occurred in the 4th century AD: that the Tarim once again was about to change its river bed. Hedin felt his opinions confirmed by the discovery of several new small lakes that the Tarim had formed some dozens of kilometers north-west of the Karakoshun. f rom this ho inferred that "the Lop \or must be a wandering lake, a lake that poriodi- call\ wanders from north to south and from south to north just like the brass w eight at the end of a pendulum. I lore, the pendulum is the lurim."*[M] I ledin continues: I am lirmK convinced that after some years we >hall lincl the lake again at the spot where, according to L Tineso indications, it once had been and where, as Kiv hthofen has theoretically proved in a sagacious wav. it must indeed have been."-[4]

Hedin further surmised that the bottom of the once ilat l op Noi depression near I oulan has been cleansed of old deposits of sediments as a result of strong wind erosion, thus slightly lowering its level. Meanwhile, in the course of time the bottom of Lake Karkoshun would fill up w ith sediment, so that the water would necessarily have to go elsewhere - w'est or north.-' How ever, the Chinese explorations in the years 1980- SI have show n that Hedin was mistaken on this last point. Lake Lop Nor does not "wander" from one basin to the other by the spilling over of its water surface, but the changing location of the lake is explained solely by the changes in direction of the Tarim, whose final lake it is.

Hedin was lucky not only to experience the predicted return of Lake Lop to the north, but also to be able to explore it at the age of 69. In 1927-28 he headed the large Sino-Swedish expedition and in February 1928, as he rested in Turfan, recorded: "I received a geographic information as unexpected as it was interesting. My informants were two inhabitants of the city: Tokta Akhun, who for eighteen years had gone three to four times a year via Ying-pen on the dry river bed of the Kuruk Darya to Tikkenlik on the Kontsche Darya ... and Khodscha Abdul. Tokta Akhun now tells me, and Khodscha Abdul confirms his words: seven years ago, the water of the Kontsche Darya had gone over to the bed of the Kuruk Darya and since then run there ... The new river in the old bed passes also Ying-pen, where there is a ferry, for the river cannot be crossed on foot." [26]

Hedin recognized the significance of Tokta Akhun's statements, according to which Lake Lop Nor had "re-turned" to the depression north-east of Loulan in 1921. At once he dispatched his colleague Erik Norin to the

119. The Tarim, bordering the northern side of the Taklamakan desert, has changed its course three times since the 4th century AD. Its southern lower course has been completely dried up since 1921.

area mentioned. Norin fully confirmed the descrij tions ol the trader from Turfan and also found a mult plicity of shallow sweet-water lakes in the delta of th new Tarim. However, the Tarim had not chosen th ancient depression south-east of Loulan for its delt but a deeper depression further north. Apart from th Chinese archaeologist Huang Wenbi, two more col leagues of Hedin (Nils Horner and Parker Chen) wer able to confirm Norm's observations in 1931. The also maintained that only the western lakes am marshes had sweet water, while the eastern lakes al ready were salty, a fact that indicated too low a vol ume ol fresh water flowing in from the Tarim river.

In 1933 Hedin was commissioned by the *Chinese* government to inquire into the possibilities of building a new road from Beijing to *Xinjiang* and of repopulating the area around Loulan. Shortly thereafter, in the spring of 1934 (after *the members of his* expedition had been kept prisoners for two months by Ma Chun Yin (Ma Zhongying), the *leader of the Dungan* rebels, and only just escaped an execution) *Hedin* unexpectedly had the possibility of *making another* excursion into the Lop Nor area.'[7]

On 5 April 1934 Hedin for the last time left on a river journey in the Tarim area. He allowed *himself to* drift down the Konche and then the Kuruk Darya *until*

120. The loam strata covering the floo of former Lake Lop Nor are called Yardang. They mark the landscape south of Lou an. the ancient garrison cii\. Until the \ear VD 330 when lake changed its position. Loulan lay on the northern shore of Lake Lop Nor.

he reached the new Lake Lop on 9 May. In the process of this, near Tomenpu he passed the place where the Konche Darya had chosen its new course towards the east in 1921, and where the authorities had tried in vain to force the river to return to its old bed by build-

in;.; a retaining wall. In 1994 when the author drove from kargilik to Korin, only n completely dry riverbed spoke of the once powerful tributary of Lake karakoshun.

Upon arriv al at I ake l op, I ledin made several ex-cuisions on the "hallow waters but abandoned the idea of another visit to Loulan. eighteen kilometres from the lake's shore. Instead, the C hinese topographer Chen took upon himself the march to Loulan, after which the expedition party went to Oriimqi where it was detained for four months by Sheng Shicai, the governor of Xinjiang province.

Hedin noticed the heavy use of water from the Konche Darya in the Korla area, as well as how rap- icilv the new Lop lakes were turning marshy and salty. He concluded, therefore, that perhaps the river's “swing of the pendulum" had been terminated and the final lake would "wander back towards the south." Hedin could not foresee that the water consumption from the Tarim and the Konche Darya would increase to such an extent in the 1960s as to dry out the new Lop Nor after 1972, but this time without "wandering" anywhere else.

121. Loulan, dwelling L VII and headquarters of the city's administration. Sven Hedin discovered Loulan in 1900. The following year the Swedish explorer cleared up the mystery of the long-forgotten city when he found hundreds of administrative documents in a garbage heap. With the help of these documents the history of the city could be

Loulan 1
Ghost Citv on Lake Lop Nor

Hedin owed one of his most remarkable discoveries to the misadventure ot an Uighur came driver. On the occasion of his crossing ot the Lop Nor desert at the end ot March 1900. Hedin hat headed south from Altmysch Bulak which is situatei close to the ancient Lake Lop Nor, and after a tew kilometres had found the ruins ot three houses and a small stupa. When he wanted to dig a well the lot lowing evening it transpired that the camel driver Ordek had left the expedition's only spade near those ruins. Ordek returned at once, but lost his way in a sandstorm in the dark. But in doing so, he discovered Loulan. He told Hedin of several ruined houses and ot "richly carved wooden planks". Since his water supplies were nearly exhausted and the hot summer season was approaching, Hedin decided to return to "Ordek's city" (called L.B. by Stein) the following year. The presence of countless shells south of Ordek s site of discovery confirmed the hypothesis that once Loulan was situated on the northern shores of the former I ake Lop.[2]

At the beginning of March 1901 Hedin oner? again set out from Altmysch Bulak and headed southwards, in order to explore "Ordek's city". In its noighbom hood he discovered two more ruined sites, the larger of which was the actual garrison city of Ionian situ ated about ten kilometres east of Ordek's ruin. I oulan (also named L.A.) was quite small, for the only |»-» tially-preserved enclosing walls, whir h were about ' m high, merely formed a rectangle of '440 rn by 4I d *"• The city is overlooked by two buildings a law

brie k building Im longand MMI .I .IIII.; >>i iln, and a lower I.' in high * OII-.lUH led * a -am . ■ ■■[1]i • ■ . thought to he ,i stupa hv stem mu ,i wall h • m . Hedin. the autlmi shams the lust \ ;ew r • •.• •• tation ot this touci as a stiip.i is SUP' ■ . ■ • that I .A. was tin* headquaiteis >i[1] . v • . lishments in the kingdom ot Mia - *• •t» w •, ahK i onstiiu («•,! m the late .'no o' en b ; • > AD. Around these two sinu tmes: hv so. ■..• . teen houses made ot popkn wooe • • . . (him-se an haeologisis have ve • .s' v, buildings. Iheumstuu tionoU'we'sv >- > *\ [1] '«v\ built on small hills is identn a[!] w • • • > • Niva. In I oulan the destuu tns* vwu u- w y storms < an he espe. iall\ We e *.,• wy s s .-▰ out e in the height hetwtvn iheivvey s \ . \ • > ings and the depiessioUs IM t<'v g w v ' at limes moii' than n m this obvO'V ' . ..s with Stein's i ah illation that otove [v l]v " • 'w> v amount to mote than a loot Hd v *•' S' w ■ x With the oyavalion o' a • • - w.ss.. ■« \ [v] I ledin pioved the utilratv* O' s'w [v] w \ >w (MI I ailed aiahax ' and on d V' ■ v[k nV] '• s.% Ins most lemaikahlo at\ *.nv »'• \\d • AvW'V huge bill k building piohahb s v»v o inillt.ilS' i ommnndet ho »oe v " • heapi otisNIngol huudnv s ' • win id, papei and silk i tii the ha'.ls ot thix mah • > ' w\ 's w Mi'InS MM a\ attorn ml..... *i* uii'iinii I I oulan H hiMoiv h KS-.VAV >' x- ■[v*1]

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SITE. PLAN
or
RUINED STATION.
L.A..
LOU-LAN SITE.

SCALE

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A STUM i Af«AIGUI KHAN Du

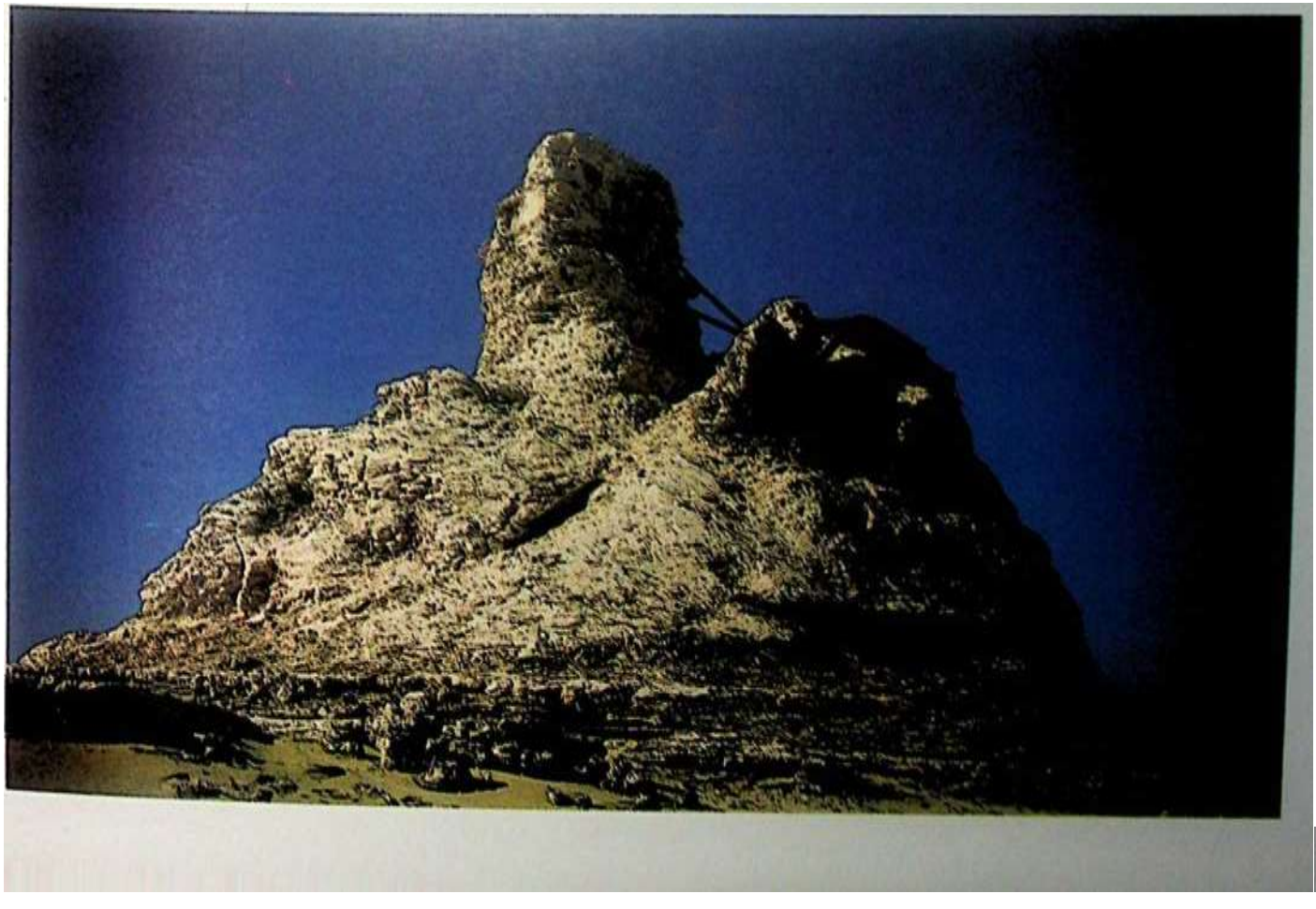
M,ip XIII. Ionian: map by Aurel Stein, 1914. The headquarters of the military administration is marked as II. In the north-east of the map we find the stupa.

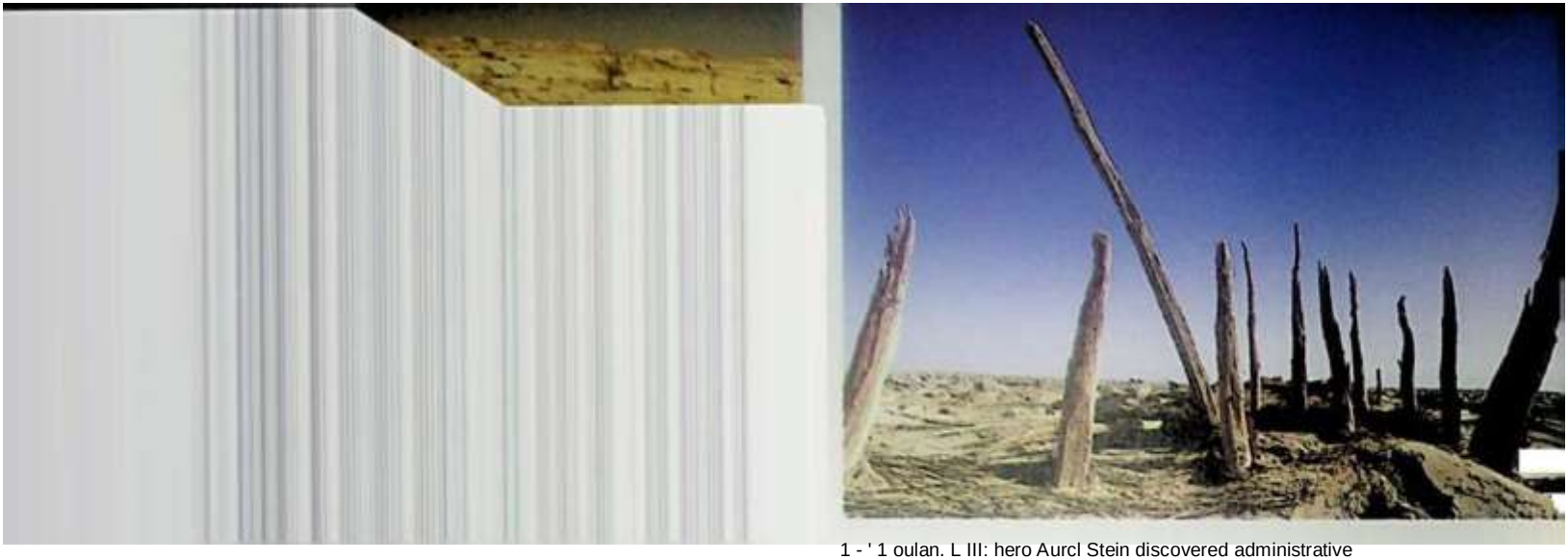
122. Loulan: an early Chinese historian mentions that the Chinese general So Man reached Loulan around AD 260 with 1,000 soldiers, and had a "white house" erected as the local garrison's headquarters. At the right eqge, the large stupa can be seen.

wood was used lo writ" ori almost[us]. /c-iy for offi cial or business purposes, with several //oobc-r. 'ablets being used again and again by s' rap eg away a message no longer needed, to be replac ed .v;'c cc-v/ writing on top of it. Some of the wooder docurr.c-' 's founrJ also seem to have been used for writing e/er- cises, so that they almost could be called "slates" 'or schooling purposes. Stein had recognized the r v - pie use of the wooden slates through the presence of many wooden shavings with writing on them, pianed away from the used tablets/

Paper was used as the writing medium predominantly for private records. Apparently, letters or. paper

123. Loulan: the city's landmark is a tower 12 m high made o;' sv- dried brick. Sven Hedin interpreted it as a military watchtov.er. used by soldiers to send smoke and fire signals. Aurel Stein hov.e.e- thought the tower was a Buddhist stupa. On the basis o: his observations, the author shares Stein's opinion.





1 - ' 1 oulan. L III: hero Aurcl Stein discovered administrative Ionian. reminds us that, once upon a no o. Ian was n the midst documents on the garrison's history, or a fertile oasis.

w ere not sent off in a roll but folded several times and sealed in a wooden cassette.' There was, for instance, a report on the preoccupations of a soldier separated from his family for years on end, and even wishes for the New Year were found. Among the numerous texts there was also the anecdote concerning Chang Chou: "Chang Chou was a hostage in Yen. The King of Yen wanted to kill him, but he escaped and crossed the frontier where he was caught by the frontier guard. Chou said to this man: 'The King of Yen wishes to kill me because people say that I am in possession of a precious pearl .... I have lost it long ago, yet the king does not believe me. If you deliver me into the hands of the king, I shall say that you have stolen the pearl from me and swallowed it. Then the king will surely have you killed to open up your body right into the bowels ... My belly, too, would be slit open, but your intestines would be cut up inch by inch.' The frontier guard naturally became afraid and let him go.""

In the refuse were found documents in the Sogdian language as well as in Kharoshthi, partly concerning official business. Hence it may be concluded that, as with other oases of the Southern Silk Road, China had granted a certain autonomy to the authorities in Loulan who were influenced by Indian culture, by allowing them to use the Prakrit language of northern India, which was written in Kharoshthi. Stein found the original name of the city on several Kharoshthi wooden tablets, with its Indian sound - namely "Kroraina". The name of Loulan is nothing but the phonetic adaptation to the Chinese language.[7]

The international character of Loulan as a significant intermediate station on the Middle Silk Road is shown also by a woollen cloth Stein discovered in a tomb. On the fragment of cloth, the head of the god Hermes can be seen with his sign, the caduceus, in a style reminiscent of classicism. It cannot be clearly determined whether this piece of cloth had been imported from the West or manufactured by an artist trained in the West, similar to the painter of the Miran frescoes.[8] At any rate, the reproduction of Hermes, who, in Greek mythology was also considered the companion of the dead in the underworld, suggests that it could be the fragment of a shroud.

As is the case with Dandan Oilik and Karadong, the exploration of Loulan is connected with the names of both Hedin and Sir Aurel Stein. In the beginning of December 1906 Stein left Miran for Loulan, having been able to engage the experienced Uighur hunter, Tokta Akhun. Formerly, Tokta had worked for Hedin and had led the American Huntington to Loulan. On 17 December 1906 Stein reached his goal and triumphantly noted in his diary: "I found the whole site with its known ruins scattered over ten miles, clear of French or Germans, and thus the 1000 mile race from Khotan is ... won!"[9] Stein did not omit to pay tribute to Hedin

for the "ox(client survcyiiij'." of the I op Nor region.[1]

The author, too, in 1994 w.is able to confirm trie* high decree of acourat y of the googr.iphic.il dHermi- nation of Loulan by I led in (1901) and Stein №14). The Briton's measurements were espcc ially impressive, for his calculations of the degrees of longitude; as well as of latitude differ by less than one kilometre from the values determined by means of satellite technology.

In the region around Loulan we find many individual sites, most of which were discovered by Stein and labelled from L.A. to L.Q. Of these ruins, the following are the most important ones: the walled city L.A. with the large stupa; the ruined stupas at L.B.; the fortified city L.E. which might be even older than L.A; the graveyards at L.C. and L.F; and finally the walled city L.K, to which the military garrison of the Former Liang was moved after the abandonment of L.A.

Stein left Loulan on 29 December 1906 in order first to explore Miran in more detail. From there he hastened to Dunhuang, for he had come to hear ot a rumour according to which a large unknown collection of ancient manuscripts was supposed to be hidden in a cave there. Thanks to his quick reaction, the Briton was able to be there before his French rival Paul Pelliot.

Stein returned to the Loulan area seven years later, in February 1914, and on that occasion not only examined the garrison city called L.A., but also the surrounding sites and graveyards. It is surprising how speedily Stein was able to explore a ruined site. This can be explained not merely by the fact that excavation methods in those days were less demanding than they are today, but also because it was relatively easy to make excavations in the sand. Moreover, for excavation purposes Stein mostly hired teams of twenty to thirty men from among the local population and motivated them to work hard with an incentive bonus system.

Loulan is first mentioned in 176 BC, in a letter of the Xiongnu ruler addressed to the Chinese emperor Wen Ti, in which the Hun leader praises the victory of his commander-in-chief over the Yueh-chih and the tact that he had subjugated Loulan as well as twenty- eight other kingdoms." The mention of Loulan is a clear indication of the significance of that town in those times. In 126 BC, Zhang Qian, the famous travelling

126. Loulan: letter written on wood, discovered by Hedin. The address ot the receiver is written on the front side and names Loulan. Hedin Foundation, Stockholm.

ambassador of the Han emperor Wu Di, concisely yet revealingly describes Loulan: "The areas of Loulan and Gu-Shi have a walled city and walled suburbs; they are situated on a salt marsh."[12] Therefore, the city situated on the salty Lop Nor played a military role even then.

But it seems that Loulan had abused its strategic position on the Middle Silk Road to raid and plunder Chinese trade caravans, leading to the first Chinese military reprisal under General Cao Po Nu in 108 BC. Defeated, Loulan was made a tributary to China, but at the same time could not free itself from the Hun sphere of influence. Thus, the weak King of Loulan

v,d :o scv. one or ' > >o *> :o the C ' u'>o court us a hostage ,vv a >o ; a secern son at the disposal 01 the Huns.

When a w. king had to be chosen in the year 92 BC it was tiie pi nee who had been educated b\ the \iongnu who was to occupv the throne, as his unfortunate brother had been castrated at the impe; iai court. But. because the new king recommenced the plunder of Chinese traders and also informed the X Chinese troop movements, China sent off a >econd punitive expedition in the year 77 BC. The commanding Chinese general, Fu Gia Dsi Fu iiezil captured the treacherous king b\ an underhand trick, had him beheaded, and then sent the head to the imperial court as proof of having done his duty. Thus ended Loulan's history as a more-or-less autonomous kingdom, for the Chinese no longer installed the new prince in Loulan, but rather in southern Shan Shan (today's Kargilik, or Ruoqiang), in this way removing him from Xiongnu influence. Loulan, however, remained an important garrison city on the Middle Silk Road and until about AD 330 was part of a chain of forts and watch-towers securing the stretch from Punhuang to Korla, as an extension of the Great Wall.[11]

From the old. dried-up mulberry trees discovered b\ Sic n one may conclude that at one time sericulture was puu ti >od in Loulan and silk was manufactured.[14]

low ever, as w ith the rest of the Tarim Basin, Shan Shan once again fell under the control of the Huns in he beginning of the 1st century AD when the Flan P\nast\ was shaken by a severe crisis. But although General Pan Ch ao successfully re-established Chinese supremacy in around AD 75 (as already mentioned) it is not possible to determine the strength and duration of Chinese military presence in Loulan after AD 124 and during the following 140 years.'[5]

On the other hand, on the basis of numerous documents dating back to the time between AD 264 and \D 330, we are well informed in respect of Loulan's last golden age. It began with the establishment of a military colony of one thousand men by General So Man about AD 260.[1] The AD 527 commentary by Li Daoyuan on a considerably older book of unknown authorship known as *Classic of the Waters* describes

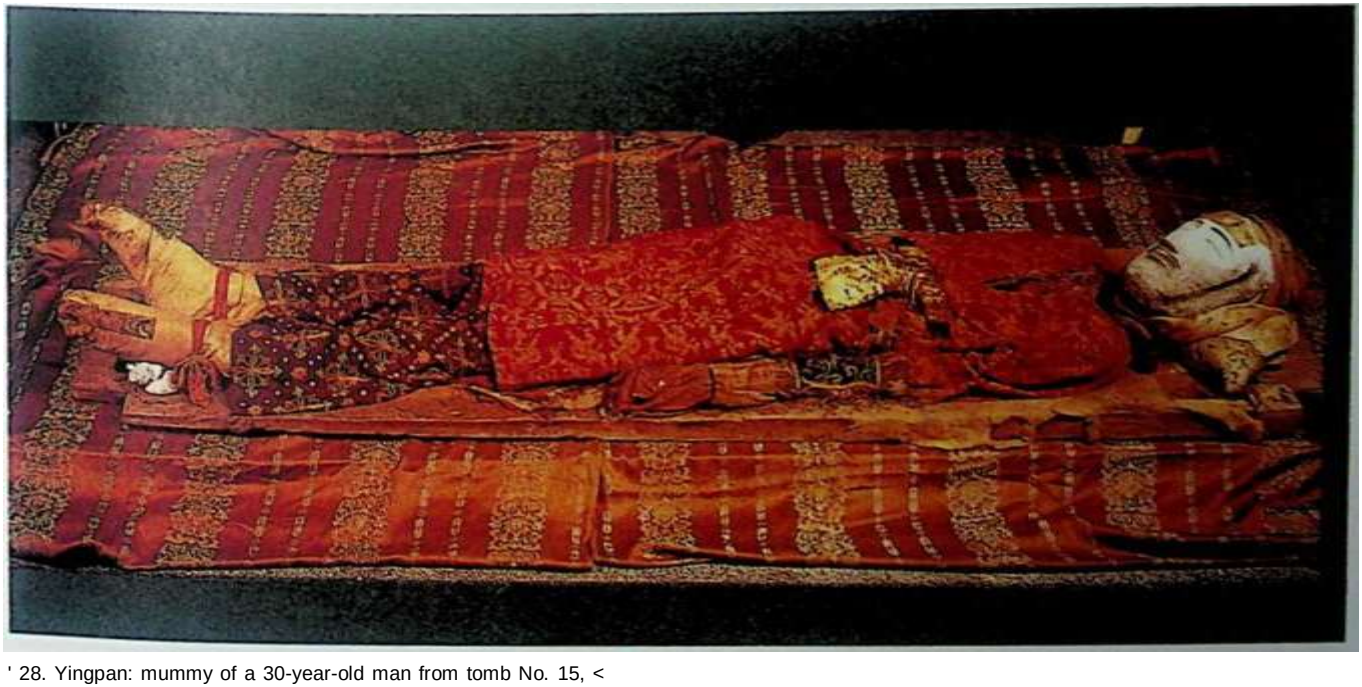
127. Loulan: the Greek god Hermes on a woollen textile, 3rd century AD. II is a remnant of a shroud, since Hermes acts in Greek mythology as the guide of the dead in the underworld.

ihe event as follows: "So Man ... was an able person. He look over the offic i.il position of a general; at the head of 1,000 soldiers ... he came to l.oulan with the intention of starling an agri< ultural colony. I le constructed a white building."[17] I bis "while building" no doubt is identical with the large three-room sun-dried brick construction in l.oulan which had been whitewashed at one time. Thereby, Stein's supposition would be verified; this building had been the seat of the military commander.

Loulan's revival as a garrison city falls in the era of the Western Jin Dynasty (AD 265-316) which, under the leadership of its energetic first emperor, Wu Ti, once again brought the "Western countries" - today's Xinjiang-under their sovereignty. However, the small garrison city rapidly seems to have fallen into oblivion, for the last dated document of AD 330 was still written in the name of the last Western Jin emperor whose rule had ended in 316. Hence, in the year 330 Loulan already must have been isolated from the central government for fourteen years. As mentioned elsewhere, Loulan was abandoned in that year because of hydrological changes in the Lop Nor area. The military garrison was transferred some fifty kilometres further south, to Haitou, designated by Stein as L.K.'[%] Maybe the successful attack on Shan Shan in 335 by the Former Liang (317-376) of Gansu also influenced the decision to move the garrison from L.A. to L.K. But the fort of Yingpan, situated to Ihe north-west, remained occupied right into the time of the Tang Dynasty.[1'7]

In 1995 a sensational discovery was made in the Yingpan necropolis: the perfectly preserved mummy of a man in his thirties, dating back to the time *of* the Han Dynasty. The 1.80 m tall man lay flat on his back in a wooden coffin painted with coloured flowers and crimped leaves. On top of the coffin a blanket was spread, with a lion woven into it. The dead man wears a mask of white painted hemp paste on which the eyes, the eyebrows and moustache are painted black, the lips red. A thin leaf of gold covers the forehead, the head resting on a pillow of twilled silk.

The man wears felt boots covered in fine silk, with quadrangles and triangles of gold leaf, and woollen trousers of a violet colour with floral and rhomboid



' 28. Yingpan: mummy of a 30-year-old man from tomb No. 15, < iscovered in 1995. Han Dynasty. Xinjiang Museum, Uriimqi.

patter . s • ce. g.v "om s. -o or wool. with pal:sot go!o-colo; red ukeo putt ,oats end steers around a pomegranate tree \\o\r -to i his pattern represents a , roue svnthesls or Graeco-Roman and Persian elements of st\le. In all likelihood this cloth was not reported but made b\ artists 'n the eastern Tarim Basin ram I liar with western patterns. This discovery confirms that the Lop Nor culture at the time of tire Han was nearer in orientation to the West than to the East.

\t the beginning of 200T another important discover was made 22 km north of I onian. It consists of a 10-metre lone, subterranean passage leading to two huhal chambers. There the archaeologists found sev- e: .■*.! unfortunateh recently looted, w'ooden coffins and muials depicting scenes from daily life. The tomb is tontatixeh dated to the Jrd century AD.' This incident is the third major looting at Loulan within only five vears. It's a direct side-effect of the recently intensified search for petroleum in the eastern part of the Taklamakan desert.

[1] Yin-pan: the woollen robe of a mummy, with paired fighting putti.

Epilogue

There are few regions in the world that demonstrate as well as the Tarim Basin the transitory nature of our existence and of what we believe to be our achievements. Some four thousand years ago immigrants from the West populated a prosperous area, which soon became the melting pot of a broad variety of peoples, cultures and religions and where one of the first multicultural societies of history was formed. At the same time it acted as an intermediary for the transfer of technologies such as metallurgy and mounted cavalry travelling from the West to the East, and in the opposite direction, for the art of manufacturing paper and silk. It was in the Tarim Basin that such different religions as Buddhism, Hinduism, Manichaeism, Nestorianism, Confucianism and Islam met.

Due to its strategic importance, the Tarim Basin at the same time was witness to and a scene of the wars between the major oriental powers, namely China, Tibet and the Arabs. Once these empires crumbled and transcontinental trade vanished, the region lost its importance and fell into oblivion. It was only as a consequence of the Anglo-Russian cold war around 1870- 1918 that Xinjiang re-entered into the orbit of world politics. At the same time, European explorers started to lift the veil hiding the ancient civilizations and to reveal the past importance of Xinjiang, for both the East and the West. Then political turmoil again interrupted this process from the early 1930s, and it was not until half a century later that scientific research could resume.

In the 1980s two discoveries dramatically changed our vision of the Tarim Basin. The first was the discovery of large oil and gas reserves in the heart of the desert. Suddenly the Taklamakan is no more viewed as a "sea of death", but as a "sea of hope" - hope for developing China's urgent need of new energy resources. Hundreds of oil prospectors have flocked to the Taklamakan, desert airstrips have been built, and in 1996 a "Desert Highway" was constructed straight across the Taklamakan, linking Minfeng on the ancient Southern Silk Road with Kucha on the former Northern Silk Road. Today, we should not talk anymore of "Silk Roads" but of "Oil Roads".

The second key discovery is, of course, the number of Indo-Europeans mummies found in various corners of the desert. These findings radically changed our perspective of the Taklamakan's past, in as far as they show that the early civilizations of the Tarim Basin were not so much part of China's, but of the West's cultural vanguard. Recent discoveries of ancient settlements dating from the Bronze Age or earlier in the centre of the desert suggest that the Taklamakan looks back on a much older history of human civilization than it was assumed just a few years ago. It can be expected that further archaeological undertakings in the heart of the Taklamakan will lead to many new surprising findings.

To conclude, let us shift to our present world. What could happen to some of today's civilizations if climatic conditions should change? Or if the impact of future wars or ecological pollution should provoke a longterm deterioration of living conditions? Will the present cultural and political centres of gravity shift to other regions? And what will future archaeologists deduce from the ruins of our civilization?

We do not know. We only know the truth expressed by the Greek philosopher Heraclitus who was a contemporary of the Buddha: *"Panta rhei",* "Everything is moving" - like the shifting sands of the Taklamakan.

CHRONOLOGY O! CHINESE DYNASTIES

XIA	21st- 16thcentur\ Be'
SHANG	16th centurx - 102" BC
WESTERN ZHOU	1027- 771 BC
EASTERN ZHOU	770 - 249 BC
Spring and Autumn period	770 - 475 BC
Warring Stales period	475 - 221 BC
QIN	221 -206 BC
HAN	206 BC - 220 AD
Western Han	206 BC - 9 AD
Xin (Wang Mang Interregnum)	9 -23 AD
Eastern Han	24- 220 AD
THREE KINGDOMS	220- 280 AD
Wei	220 - 265 AD
Shu Han	221 - 263 AD
Wu	222 - 280 AD
JIN	265 -420 AD
Western Jin	265 - 316 AD
Eastern Jin	316 -420 AD
NORTHERN DYNASTIES	386 - 581 AD
Northern Wei	386 - 534 AD
Eastern Wei	534 - 550 AD
Western Wei	535 - 557 AD
Northern Qi	550 - 577 AD
Northern Zhou	557 - 581 AD
SOUTHERN DYNASTIES	420 - 589 AD
SUI	581 - 618 AD
TANG	618 -907 AD
FIVE NORTHERN DYNASTIES	907 - 960 AD
TEN SOUTHERN KINGDOMS	902 - 979 AD
LIAO (QI DAN)	907 - 1125 AD
SONG	960- 1279 AD
Northern Song	960- 1127 AD
Southern Song	1127 - 1279 AD
XIXIA	1038 - 1227 AD
JIN	1115 - 1234 AD
YUAN	1271 - 1368 AD
MING	1368 - 1644 AD
QING	1644 - 1912 AD
REPUBLIC OF CHINA	1912 - 1949 AD
PEOPLE'S REPUBLIC OF CHINA	1949 - present

Notes

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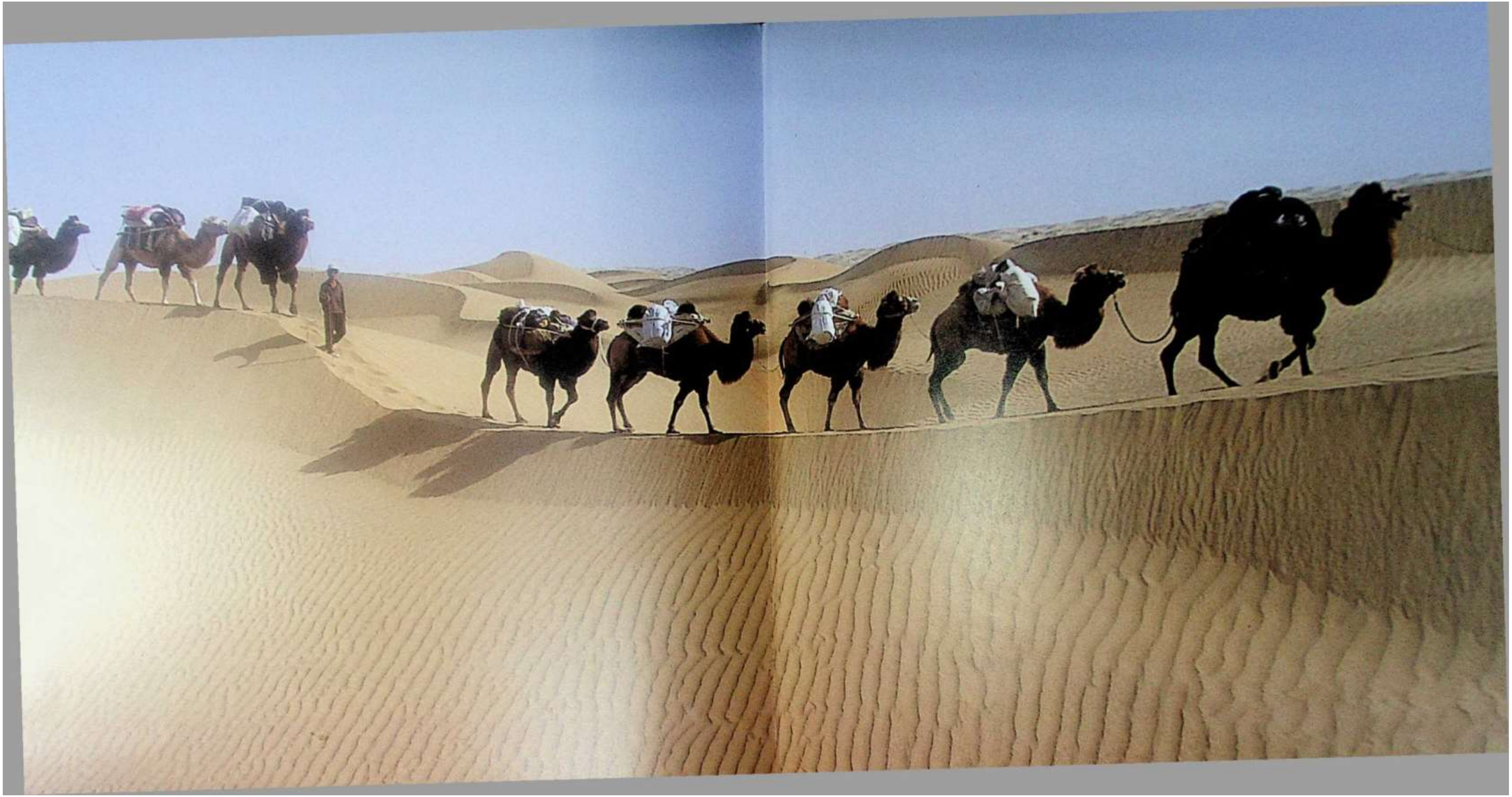

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