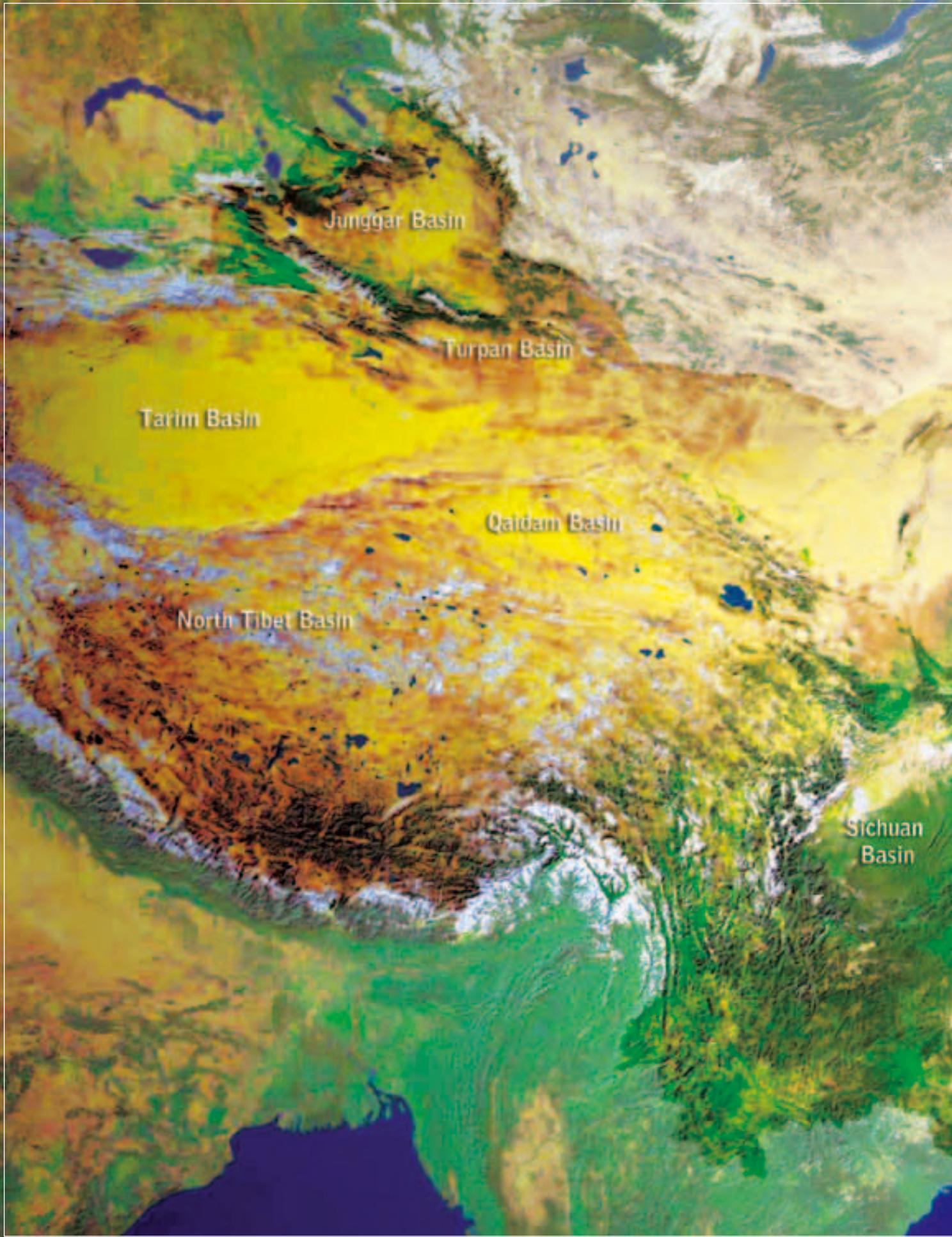




Tarim Basin



China National Petroleum Corporation



Junggar Basin

Turpan Basin

Tarim Basin

Qaidam Basin

North Tibet Basin

Sichuan Basin

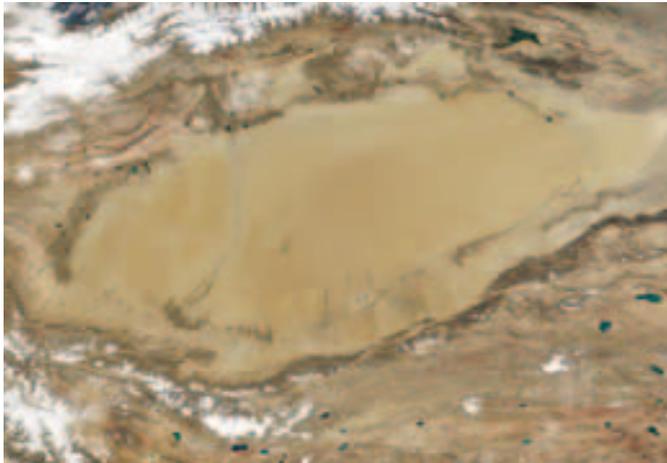


Spread across the vast territory of China are hundreds of basins, where developed sedimentary rocks originated from the Paleozoic Era to the Cenozoic era, covering over four million square kilometers. Abundant oil and gas resources are entrapped in strata ranging from the eldest Sinian Suberathem to the youngest quaternary system. The most important petroliferous basins in China include Tarim, Junggar, Turpan, Qaidam, Ordos, Songliao, Bohai Bay, Erlian, Sichuan, North Tibet, South Huabei and Jiangnan basins.

There also has over ten mid-to-large sedimentary basins along the extensive sea area of China, with those rich in oil and gas include the South Yellow Sea, East Sea, Zhujiangkou and North Bay basins.

These basins, endowing tremendous hydrocarbon resources with various genesis and geologic features, have nurtured splendid civilizations with distinctive characteristics portrayed by unique natural landscape, specialties, local culture, and the people.

In China, CNPC's oil and gas operations mainly focus in nine petroliferous basins, namely Tarim, Junggar, Turpan, Ordos, Qaidam, Songliao, Erlian, Sichuan, and the Bohai Bay.



Tarim Basin

It is in no sense exaggerative as an American anthropologist said: "Tarim Basin is the cradle of world culture. The whole world is opened up with this key." Changes in history have left many mysteries to be solved, making Tarim Basin more attractive.

The Tarim Basin is China's largest inland basin located in south of Xinjiang Uyghur Autonomous Region between the Tianshan Mountains, Kunlun Mountains and Arjin Mountain. Stretching 1,500 kilometers from east to west and 600 kilometers from south to north, it covers an area of 530,000 square kilometers. At an altitude of 800 to 1,300 meters, the basin slopes down from west to east, forming a typical sector-like pattern from its margin to its center, where is located the world famous Taklamakan Desert bordered by mountains, Gobi and oases. The Tarim Basin is surrounded by high mountains with its annual precipitation less than 100 millimeters. The climate here is extremely dry, as the rainfall is less than 50 millimeters for most of time.

The Tarim Basin is a large sedimentary basin formed by superposition of many types of basins at different periods in the long geological evolution. The basin has stable lands restricted by many deep fault ruptures. The basin foundation is proterozoic metamorphic rocks with the sediments of Sinian system,

Paleozoic marine, Mesozoic and Cenozoic continental deposits with the thickness up to 7,000-10,000 meters.

The basin entraps abundant oil and natural gas resources, which amount up to 8.062 billion tons and 8.86 trillion cubic meters respectively and each makes up one sixth and one quarter of China's total.

Mass hydrocarbon exploration and development in the Tarim Basin started in 1989. By the end of 2010, 26 oil or gas fields had been discovered, with accumulative proven reserves of 730 million tons of oil and 1.21 trillion cubic meters of natural gas.

As south path of the Silk Road, Tarim Basin used to be a hub of Chinese and Western cultures. It is in no sense exaggerative as an American anthropologist said: "Tarim Basin is the cradle of world culture. The whole world is opened up with this key." Changes in history have left many mysteries to be solved, making Tarim Basin more attractive.





Gravel Gobi at the basin margin

Formed by torrential proluvial fan in ancient time, the Gobi is tilted a little to the center of the basin with the slop of 6°- 8°, width of 10-30 kilometers and depth of over 1000 meters. The surface is formed by 2-3 meter thick gravels without any plants as water has been seeped.



Oasis at the basin margin

Rivers have flowed along the suddenly dropped slop with different currents, forming fantail plains and over 100 oasis including Shule, Shache, Akesu, Hotan and Kuche. Agriculture around oasis is developed, producing wheat, corn, paddy and cotton. Oasis will be formed along the watercourse.

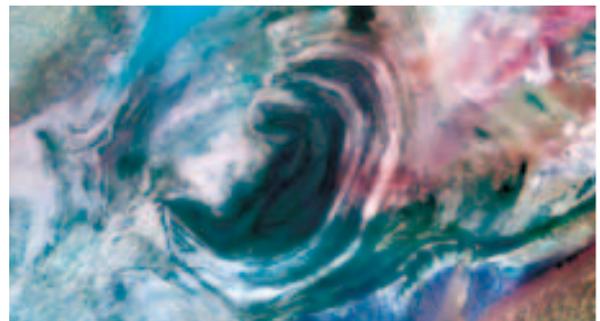
The Basin has four typical ring structures from the margin to the inside.

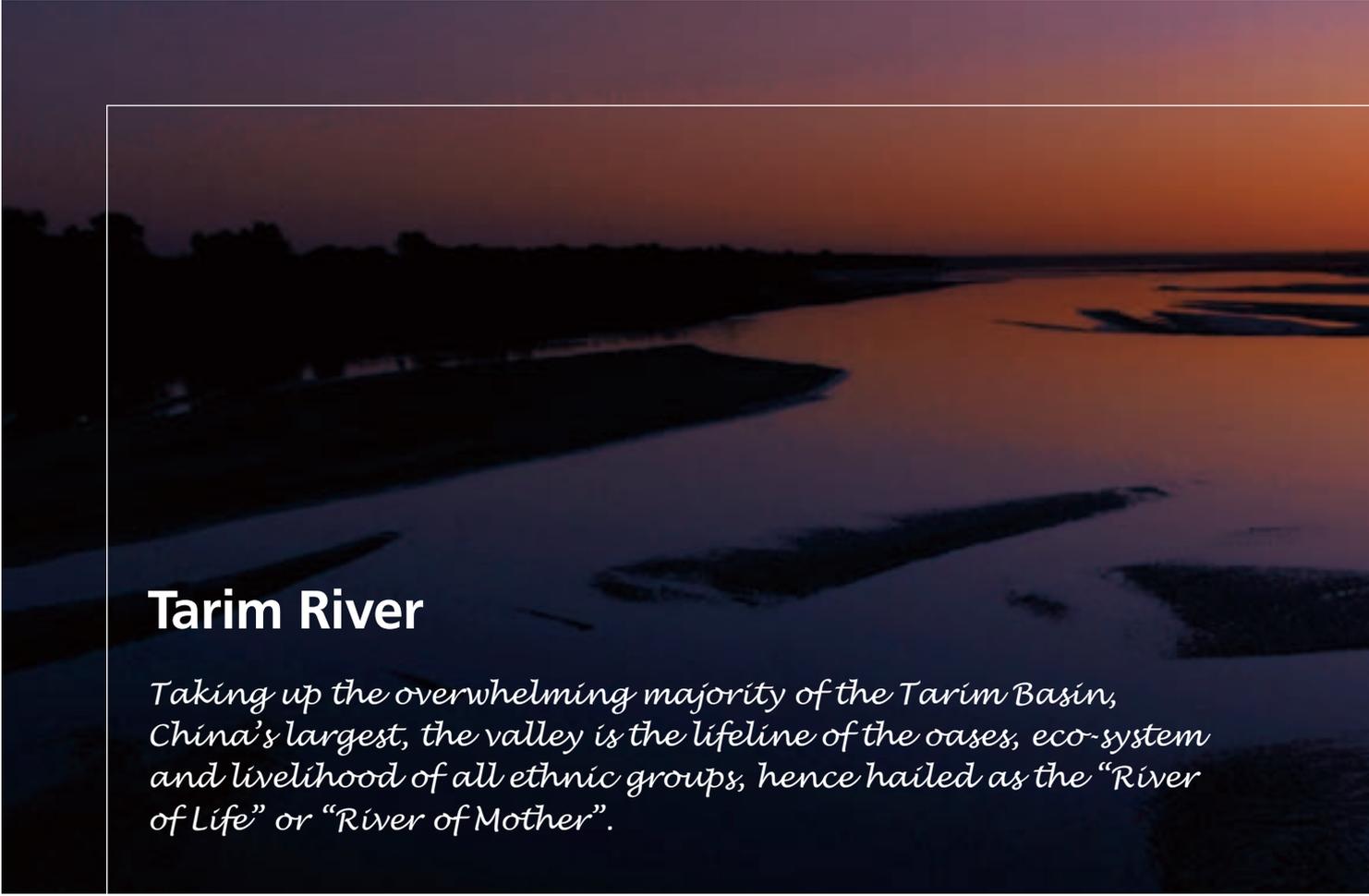
Desert at middle of the basin

Taklimakan Desert covers an area of 324,000 square kilometers, accounting for 47% of the total desert area in China, and is the second largest desert in the world only next to the Sahara. The desert is predominated by migratory dunes, mostly over 50 meters high and some formed early may even as high as 250 meters. The migratory dunes are in various shapes such as crescent, barchan chain, strip and pyramid.

Lop Nur at east of the basin

Covering an area of 2,400-3,000 square kilometers and standing at an altitude of 780 meters, it is the lowest place in Tarim Basin. Lop Nur used to be the second largest inland lake in China and dried up at the end of 1970s. It is mainly composed of salt encrustation with wind erosion Yadan topography. The lake shoot by satellite looks like a human's ear with helix, ear hole and even earlap.





Tarim River

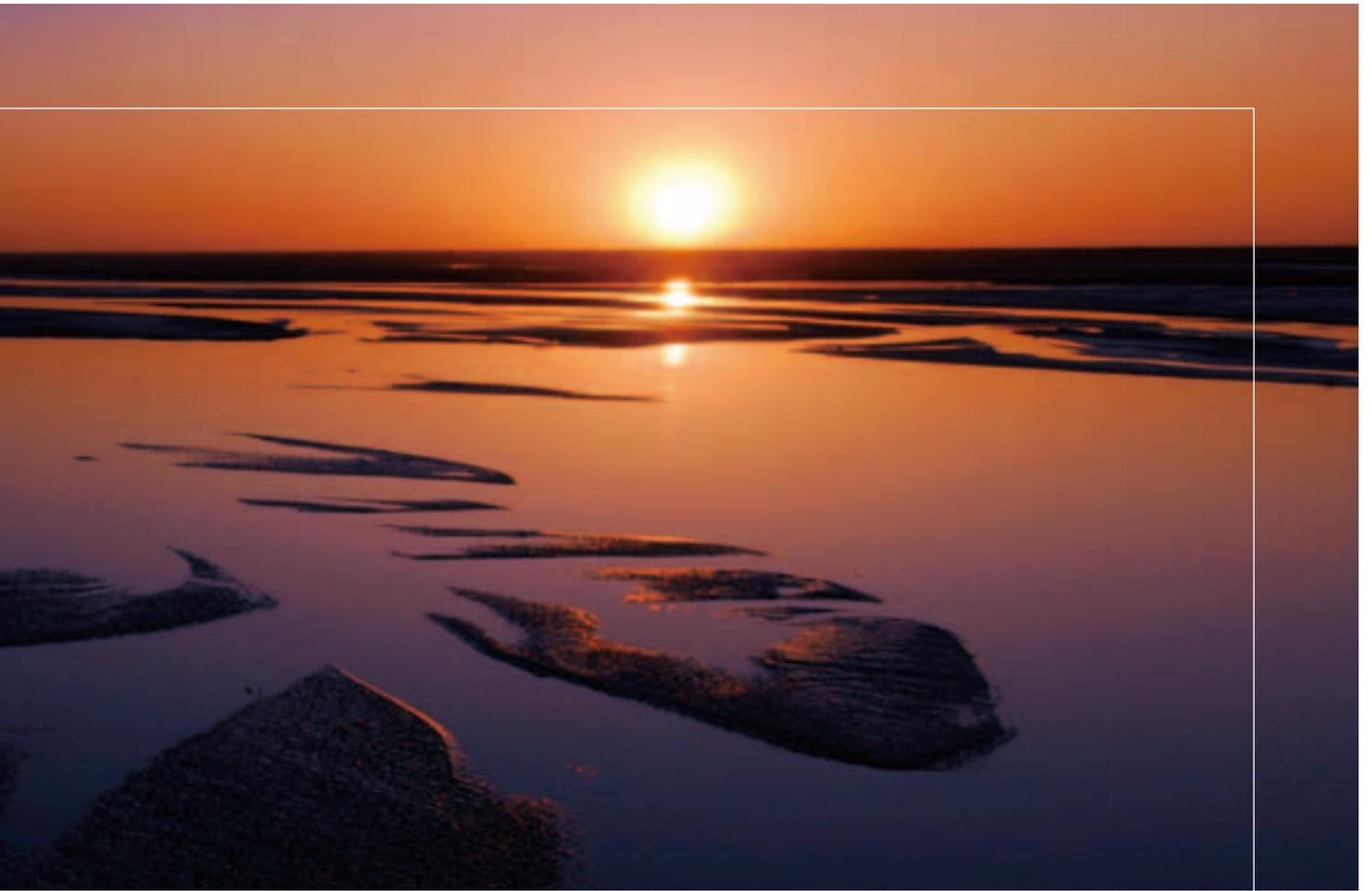
Taking up the overwhelming majority of the Tarim Basin, China's largest, the valley is the lifeline of the oases, eco-system and livelihood of all ethnic groups, hence hailed as the "River of Life" or "River of Mother".



Tarim River is running along the north of Tarim Basin from the west to the east. Converged by Akusu River originated from Tianshan, Yeerqiang River and Hotan River from Kela Kunlun Mountain, Tarim River empties into Taitema Lake. It is the largest inland river in China with a total length of 2,179 kilometers. Tarim River means "water in the desert" in the ancient Turkic language. It used to be an important lifeline of the Silk Road.

The Tarim River valley is the general term of the nine river systems composed of 114 rivers in the Tarim Basin and mainstreams of the Tarim River with the running area of 200,000 square kilometers. It is a relatively independent hydrological area featuring closed inland water recycle and balance. Taking up the overwhelming majority of the Tarim Basin, China's largest, the valley is the lifeline of the oases, eco-system and livelihood of all ethnic groups, hence hailed as the "River of Life" or "River of Mother".

The main stream of Tarim River runs to the east into north margin of Tarim Basin and umbrella distribution features are getting more obvious to the east. The upper reach is mainly uneven desert area and the melted water from glaciers carries a large amount of sands. The river has flowed along the suddenly dropped slope with different currents, forming fantail plains and over 100 oases including Shule, Shache, Akesu, Hotan and Kuche. Agriculture around oases is developed, producing wheat, corn, paddy and cotton.



Stream volume of Tarim River has big differences due to seasons. The river surges in hot summer when the snows and ice are melting, running like a roaring “wild horse without bridle” on stretches of desert and grassland.

The unrestrained Tarim River harbors a unique biological system, taking on mysterious forests and grassland in desert. There is the world’s largest primitive *Populus Euphratica* forest distributed along the Tarim River like a corridor. Sand plants such as saxoul, liquorice, *tamarix chinensis*, and *alhagi pseudalhagi* are available feeding hundreds of wild animals such as red deer, wild bi-peak camel, *gazella subgutturosa*, *Cygnus* and *aigrette*. After middle of October every year, Tarim catchment covered by *Populus Euphratica* takes on golden yellow. Looking down in the air, the land seems dressed with a golden scarf and the river forks and lakes are like inlaid diamonds, showing scenery which is very special and spectacular.

The river catchment features not only various kinds of natural landscapes, such as Bositeng Lake, China’s largest inland freshwater lake, the swan lake in Bayinbluke, Muztag Ata as “father of glacial” and Lop Nur, the famous and mysterious “salt marsh”, but also a lot of ancient civilized heritage sites such as Kizil Thousand-Buddha Caves, Qiuci Ancient Town, Etigar Mosque and ancient Loulan site.





Populus Euphratica

Populus euphratica is an ancient and mysterious tree of salicaceae family. It is as precious as ginkgo, and named as living fossil. As a xerophytic deciduous plant, Populus euphratica boasts surprising resistance to dryness, sandstorm and salinity. Marvelous vitality of the tree is described as “living for millennium, standing for millennium after death, and won’t rot for millennium if fall down”.

Populus euphratica is unique in that its leaf shape varies from stage to stage of its growth, as evidenced by its leaf shape of seedlings looking similar to that of willows and the leaf shape of a meters-high one resembling that of a populus. Even on one tree, you may see willow leaf-like leaves on the lower part and populus leaf-like ones on the upper part. Populus euphratica has a long period of growing and most of them have peculiar and strange shapes affected by windy sand and drought.

In the Tarim River catchment are scattered the world largest forests and reserves of Populus euphratica. With the changes of environment and climate, their shapes will also change accordingly but with pursuant and desire for life.

Deep in autumn, both sides of the Tarim River are dotted with golden Populus euphratica, creating a picturesque and poetic landscape inviting your heart. Be on the dunes or along the river, the pure golden glory shown by Populus euphratica enjoys the beauty of un-restriction and vicissitudes.





Located at the middle reach of Tarim River at the northeast of Taklimakan Desert and 70 kilometers away from south desert road of Luntai County of Bazhou, Tarim Populus Euphratica National Park covers an area of 100 square kilometers with the most concentrated Populus euphratica forests in Tarim region. Wandering in the park, one will find around 220 curves, a scenic spot with the most curves in the world. Populus euphratica along the roads are tall and strong with some bending, some erecting into sky, some standing silently and some appearing heroic. Apart from exalting, praising or keeping silent, visitors are full of respect for life.

Loulan Civilization as a Legend

Loulan has always been a mystery attracting archeologists, historians and geologists from both home and abroad. Located at Ruoqiang County, west of Lop Nur and seven kilometers away from south bay of Phoenix River, Loulan heritage is in Yadan landscape in the west of Lop Nur. In history, Loulan was one of the 36 kingdoms in the Western Region of Western Han Dynasty 2000 years ago. Surrounded by mountains and rivers, Loulan City was the political, economic and cultural center of Loulan Kingdom. As the transportation hub of China, Persia, India, Syria and Rome, Loulan City was one of the most open and prosperous "metropolis" in the world, playing an important role in cultural exchange between east and west.



*Sven Anders
Hedin*



Sven Anders Hedin was the first to discover Loulan Kingdom. In early March 1900, exploration team led by Hedin arrived at Lop wasteland at the left of Phoenix River and found that they lost their shovel in their camp last night after crossing a stretch of desert. His assistant got back the shovel quickly and collected several pieces of woodcarving. Seeing the pieces, Hedin was very excited and decided to unearth the wasteland. In March 1901, Hedin began to dig and found a pagoda, three halls, woodcarving architecture components with Greek culture, Wuzhu coin and a letter in Kharosthi. Later on, at the southeast of the wasteland, they discovered beacon towers which extended to an ancient city covered by sand in the west of Lop Nur. The city was Loulan ancient city.

"Three Rooms" side by side is one of the two adobe architectures in Loulan city, the most profile architecture in the city and the then government office. After Hedin's evacuation of a lot precious documents at the corner of three rooms, Zuicho Tachibana from Japan and Stein from Britain came to unearth cultural relics and brought them back home. All the relics were collected by museums. The expert's study on the relics has waged a hot wave for "Loulan Study" internationally. The houses built by *ammania gracilis* and reed have no roofs and walls left but one can tell the layout from the basement. Pagoda with a height of around 10 meters was the tallest architecture in Loulan City.

The world was surprised by the unearthed relics including the precious handwritten the Records of the Warring States in Jin Dynasty and a female Mummy in Loulan tomb cluster. The Mummy, with a history of 3,000 years, has complete clothes and accessories and delicate looks and is named as "Loulan Beauty". Other relics include fine and delicate brocade of Han Dynasty, Han Wuzhu coins, coins of Guishuang Kingdom, coins of Tang Dynasty, Han text and broken letters in Kharosthi.



As early as 77 B.C, Loulan was a developed oasis in the Western Region and the happy garden for human development. Citizens here belonged to Indo-European race, growing wheat, breeding cattle and sheep and using Populus euphratica wood, animal's horns and grass woven products. People were catching fish on Lop Nur with mists and ripples and hunting in dense Populus euphraticas.



How did the booming Loulan civilization decay? This is a question that has been discussed for a century without a clear answer. There are three representative guesses:

Natural environment changes Stein was the first to propose such a speculation. After visiting Loulan early this century,

he speculated that reduced river and land desertification were the reasons behind Loulan's demise.

Shift of political and economic center The Silk Road led to the booming and decay of Loulan. After East and West Jin Dynasties, the Silk Road began to take on the north way as the main path road and the garrison and tonden endeavor in Central Plains transferred to north, leading to the decline of Loulan.

Humanis activity damaged nature

While creating developed civilization, deserts were coming into being with a rapid speed. Youth archeologist Lin Meicun holds that "it is a shared tragedy for world ancient cultures". He also takes the cradle of ancient civilization such as Egypt and Mesopotamia as examples to compare with Loulan.



Though many concrete evidences to prove decline of Loulan civilization, nobody knows when Loulan people escaped in war and nobody understands their mystery.

Where are the homeless Loulan people?

Which civilization does the run-away Loulan people emerge into?



Kizil Caves

There are few attractive places which can leave eternal expression at the first sight, but Kizil Caves known as “pearl on the ancient Silk Road” is just one of them. It is on a cliff of a big Gogi seven kilometers away from southeast of Kizil town of Baicheng County of Xinjiang Uyghur Autonomous Region. Boasting long history, large scale, diversified shapes, rich contents and unique features, Kizil Caves is known as one of the “Four Buda Grotto” together with Mo Kao Grotto at Dunhuang, YunGang Grotto in Datong and Longmen Grotto in Luoyang.

Documents show that Kizil Caves was the largest grotto cluster in the ancient Qiuci Kingdom. With construction starting from early years of East Han Dynasty and ending at North Song Dynasty, it had 2000 years of history, longer than the famous Mo Kao Grotto. Having withstood vicissitudes of both natural and human damages, the picturesque architecture relics have left 236 caves, over 10,000 square meters of frescos and several wreckages of Buddha statues and debris of temple and towers, telling people the boom of Buddhism into early stages of China.

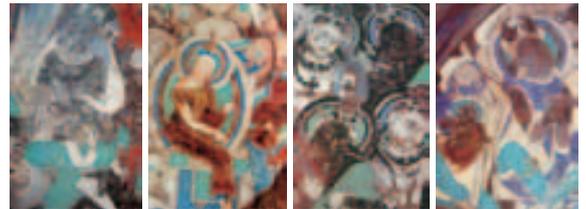


Grotto, carving and fresco of Kizil are very important in Middle Asia and Middle East Buddhist art. Qiuci Kingdom was at an important transportation juncture on the Silk Road and used to be the political, economic and cultural hub of the Western Region. Buddhism was firstly introduced to Xinjiang from India and to Central Plains after it was evolved into “Buddhism in the Western Region”. The geological position of Qiuci makes it a center for “Buddhism in the Western Region” and an important bridge of introducing Buddhism to Central Plains. Grotto is an important form of promoting Buddhism with architecture and frescos.

Kizil Caves have the most Buddhist stories as each diamond grid tells a story of Buddha’s reincarnation, showing the promotion of Buddhism from west to east and serving as an important reference of studying Buddhism history. The frescos can also show the production and living of Qiuci Kingdom with multi-ethnic groups and multi races. Experts hold that it is the collision and integration of multi arts between west and east that makes the frescos prospering and booming.



All these frescos have provided valuable scientific and art references for studying politics, economy, culture, military, ethnic groups and customs of ancient Xinjiang and economic and cultural exchanges between China and the rest of the world.



The prototype of frescos and sculpture is humans who are strong and plump, graceful and elegant, quite different from the Buddha statues of Yungang Grotto excavated in North Wei Dynasty who are detached and unapproachable. Visitors can't help but touching the strong arms and smooth cloth wrinkles.

There is an impressive fresco in the 17th cave showing a Buddhist story: a monk with a fair face, deep eye frame and high nose is lightening up road by holding hands which are on strong fire for Qiuci commercial team in darkness. Despite its religious favor, one can tell the close relationship between camel commercial teams and Buddhist monks on the Silk Road. Businessmen and passengers needed monks to pray for their safety and monks needed cargo and charity from business team and also used to travel with camel business team, went to the west for scripture or disseminated Buddhist in Chang'an and Luoyang.

The 38th cave of Kizil Caves is called music cave. The frescos describe a playing scene by Qiuci music band. On the frescos on the left and right, there are 20 musicians. Each of them is playing a musical instrument. Judging from their gesture and music position of the instrument, it is surprising to see that they

all stop at the same time simultaneously. The frescos can tell the prosperity of this ancient kingdom. There are also many images showing fairies with instruments soaring into the sky and Qiuci dances. Most of the dancers are elegant and slim young ladies who are wearing translucent clothes on the top. Some of them are flying up to the sky, and some are spinning gracefully on their toes. They are dancing flexibly and softly.





The most impressive feature of the frescos is their diamond grid pattern. Most of the frescos in Dunhuang Caves are shown in comic strips, telling stories with many scenes. While Kizil Caves use one picture to tell a story and it is fantastic to see that excellent painters compose the picture with protagonist or animal as the core and complement with necessary persons, animals and background to smartly tell a complicated Buddhist or a cause and end story in one grid. As the essence of Kizil Caves, the diamond grids are unique artistically and big in quantity. The number of frescos doubles that total number of Dunhuang, Longmen and Yungang, a record in the world.



Characters on the frescos are painted by knee iron method and uneven dyeing method with good sense of rhythm. The characters have ellipse faces, coarse necks, strong chest, long statue, fat hand back, plump and elastic palm. They all have naive and simple beauty, which is consistent with aesthetic sense of local ethnic groups. The frescos demonstrate prosperity of Qiuci Buddhist and represent cultural and art development of Qiuci ethnic group.

Kizil Caves make visitors reluctant to leave and arouse wild imagination with its time-honored history and profound cultural and art background. That being said, one can't help feeling sorry for what happened to the caves as arch type niche for a Buddhist statue is empty, the left cassocks for all the Buddha statues on the frescos have been robbed as they were made of gold foil and even a whole fresco is ripped, leaving traces of ax and chisel on the wall. At the end of 19th century and at the beginning of 20th century, successive western exploration teams plundered a lot of delicate frescos which are being exhibited in museums and galleries in western countries, especially in Museum für Indische Kunst Berlin in Germany.







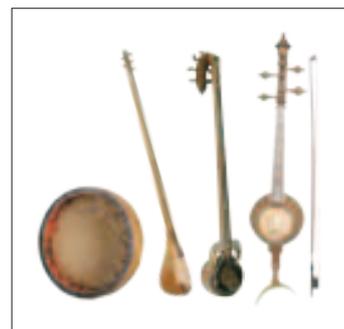
Twelve Muqam

The Twelve Muqam is one of the greatest symbols of the Uyghur culture, which is an expressive and narrative combination of traditional music, performance music, literature, art, drama and dance. Such form of music is even unique in the world history of ethnic culture.

Muqam has a time-honored history and profound background, keeping abreast with Uyghur culture. As there are many tribes belong to Uyghur ethnic group, music also takes on the feature of multi-layer and multi-source. But it is still different from music of other ethnic groups.

There are actually two sources for the Twelve Muqam timely and geologically. The first is songs developed on the basis of traditional music passed from ancient times and the second is local music, such as Kuche, Kashgar, Turpan, Hami, Hotan music and Daolang music. The integration of time and geological factors comes from the ethnic melody features of living method, features, morality and psychological quality of Uyghur people. The features are demonstrated by unique musical forms, playing methods and unique musical instruments.

In respect of the meaning in the name of Muqam, it is a special name for a whole music. Starting from the 16th century, the current scale and models came into being guided by musicians of Dirham, Yaerkadi, and Amannishahan and thanks to collection of many civil musicians. The Twelve Muqam includes Rak, Rābbiyat, Segah, Rahargah, Pānjigah, Özhal, Äjäm, Uššaq, Bayat, Nava, Mušavräk, and Iraq. It has some regional variations with Daolang and Hami as the most famous and unique ones.



The first Muqam has three parts including Danaiemam, Dastan and Maixirefu. Each of the part is composed of four main tunes and several partitas. A music is the organic composition of main tunes and also an independent one with harmonic features. Uyghur Muqam is a musical form of Uyghur poem. Each Muqam, coupled with classic poems which are rich in content and easy to hum and double line poetry, is more lively and dynamic. The 18 metrics in the double line poems make Muqam even more special and unique.

In 2005, the Uyghur Muqam of Xinjiang, China was designated by UNESCO as part of the Intangible Heritage of Humanity.





Old Kashgar City

Located in the southwest of Xinjiang Uyghur Autonomous region, Kashgar is the most western city in China. Kashgar city is the political, economic, cultural, transportation and religious hub in Kashgar region.

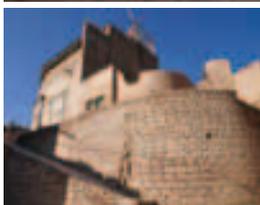
Located at the center of Kashgar City, old Kashgar city is the most completely preserved maze city block featuring Islamic culture. It is opposite to the famous Etigar Mosque. It has over 2,900 families with over 20,000 populations. Standing in old city, one is involved in a vivid picture with Uyghur flavor.

In the old town, two or three hundreds of allies are intertwined in a flexible layout. Most of the houses are made of wood or bricks and many traditional houses have a history over 100 years. The wide allies paved by earth and rocks can pass carriage and narrow ones by two persons shoulder by shoulder. The allies are as long as over 600 meters and as short as 50 meters. All the allies have many twists and turns, and one will encounter another alley after walking to the end of this one.

Uyghur houses are standing at both sides of the allies. All the houses are very special as there have 2 to 3 stories of building made of wood at the limited platform and some of them are basement. All the lobbies and bedrooms are equipped with wood stairs. Each house has balconies on the flat roof and a small yard for flowers or potted landscapes which are complementary with all decorations on peristyle and roof overhang. Somewhere at the juncture of two allies, visitors may encounter small crossover buildings which add more primitive simplicity and profoundness.

The houses are available for visiting. The opening two leaf gate means that the male host is in, and one leaf gate means only the female host is at home. A cloth curtain hanging at the gate means there are visiting guests. It is very interesting to observe the gates with different situations while walking in the old city.

If one gets lost in the old town, the bricks on the road can tell directions and help you out. Hexagon bricks can lead the way out of old city while bricks with four corners will take visitor into a blind alley. This is an argot for local people. Visitors often get lost as they are not familiar with it. The method is proven to be practical, so one can't help admiring the people who constructed the road as they have applied their wisdom into life in a flexible way.



Lop People

The Lop people are one of the most ancient ethnic groups in Xinjiang and live on the land between small lakes one generation after another. Their folk customs, songs and legends have a unique position in the cultural history. The Lop people are now like other nomadic tribes such as Mongolians who follow the river course for habitation. What distinguishes them from other nomadic tribes is that they rely on fishing in the surrounding wetlands and hunting in the primitive *Populus euphratica* forests for a living.

The Lop people are industrious and diligent and don't stop laboring even in their seventies or eighties. Their catch from fishing is freely available to all the villagers. Their boat is made of *Populus euphratica*, and even their kitchen tools are made of *Populus euphratica* wood. Iron is seldom used by these people.

Longevity is characteristic of the Lop people, many of whom are more than one hundred years old. Despite their old age, their faculties remain sensitive and thinking clear. Gracious, generous and tolerant, these elder people live an energetic and lively life.







Tarim is the largest petroliferous basin in China. Hydrocarbon exploration and development of the basin began in 1952. On November 17, 1988, the discovery of Lunnan oil and gas field marked the start of the large-scale development of Tarim. More than 30 oil and gas fields, four field groups and three gas enrichment areas, including Tazhong Oilfield, Hade Oilfield, Kela-2 Gas Field, Tazhong-1 Gas Field, and Yaha—Yingmaili oil and gas field group have been identified.

As at the end of 2010, the basin had accumulative proven oil in place of 730 million tons and gas in place of 1.21 trillion cubic meters. The Tarim Oilfield, China's fourth largest oil and gas production base, is capable of producing 20 million tons of oil and gas equivalent every year.

The Kela-2 Gas Field is located in Baicheng County, and is China's largest onshore uncompartimentalized gas field featuring massive reserves, abnormally high pressure and high abundance, and high production rate. The operation of Kela-2 Gas Field is a milestone in China's natural gas industry.



Kela-2 Gas Field

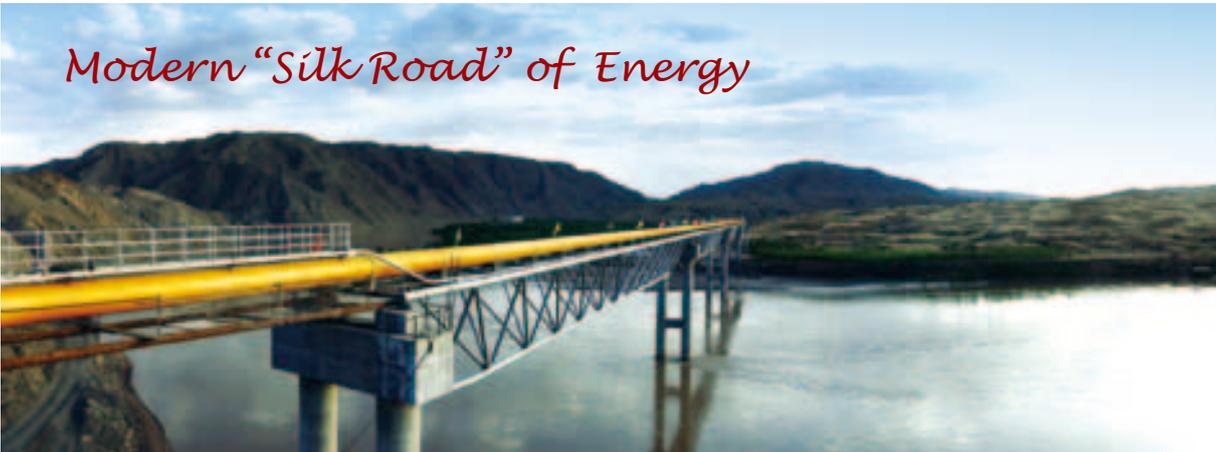
“Kela” means “black nose” in Uygur language. September 17, 1998 is a day for Tarim oil worker to be proud of as they have conquered the “black nose” and released high yield gas flow — “devil’s treasure” in the sterile land. After two years exploration, Kela-2 Gas Field was proved to have a gas-bearing area of 48 square kilometers with average layer thickness of 287 meters and gas in place of 284 billion cubic meters. The discovery and proven of Kela-2 Gas Field has made possible the construction of West-East Gas Pipeline — the energy artery across China.

On August 27, 2003, the Kela-2 Gas Field started to be constructed and put into operation on December 1, 2004 after 15 months construction. Two natural gas processing plants have become operational in the field, capable of processing 50 million cubic meters of natural gas every day, making Kela-2 the largest natural gas processing district in Asia. It has an annual capacity of 12 billion cubic meters and an uninterrupted deliverability for 30 consecutive years. Up to May 27, 2010, Kela-2 Gas Field had produced 50 billion cubic meters of natural gas accumulatively.





Modern "Silk Road" of Energy



West-East Gas Pipeline

West-East Gas Pipeline is an important part of China's natural gas development strategy and a symbolic project of developing China's west. With gas fields in Tarim Basin as the main source, Yangzi Delta of China's Middle East part as the targeted market, trunk pipelines, major branches and gas storages are built to form a natural gas supply network covering 80 million end users along the pipeline.

Construction of the pipeline commenced on July 4, 2002.

On October 1, 2003, section from Jingbian to Shanghai was successfully put into operation and supplied gas to Shanghai officially on January 1, 2004. The whole line was completed on October 1, 2004 and put into commercial operation on December 30, 2004. Starting from Lunnan, Xinjiang, the West-East Gas Pipeline traverse 66 counties of 10 provinces (regions and cities) including Xinjiang, Gansu, Ningxia, Shaanxi, Shanxi, Henan, Anhui, Jiangsu, Shanghai and Zhejiang with a distance of 4,000 kilometers and a designed annual delivery capacity of 12 billion cubic meters. It is the first world-class pipeline independently designed and constructed by China with a total investment of RMB 140 billion in the up, middle and low stream domains, including over RMB 40 billion for pipeline construction.

The project faces construction difficulties rarely seen in the world as it passes through different geological landscapes including Gobi deserts, Loess Plateau, Taihang Mountain, highlands, Yellow River, Huaihe River, Yangzi water network and large amount of agricultural lands. The pipeline serves a significant role in adjusting China's primary energy mix and industry structure, promoting economic and social development of regions along the pipeline.

The Second West-East Gas Pipeline

Composed of a trunk pipeline and eight branches, the Second West-East Gas Pipeline starts from Horgos of Xinjiang and reaches to Shanghai in the east, Guangzhou and Hong Kong in the south. The pipeline travels through China from west to east, covering 15 provinces, regions and cities with a total length of 9,100 kilometers. It has a designed annual delivery capacity of 30 billion cubic meters and a service life for over 30 years.

The trunk of Second West-East Gas Pipeline has been put into operation. By May 28, 2011, the pipeline had received and transmitted an accumulative of 10 billion cubic meters of natural gas from central Asian sources. Sections connected with other natural gas pipelines in China have benefited 100 million people in 18 provinces, regions, and cities. The operation of eight branches next year will benefit 500 million people covered by the network.

The Second West-East Gas Pipeline also connects Tarim, Junggar, Tuha and Changqing gas provinces which can provide around 15 billion cubic meters of emergency guarantee gas for the Second West-East Gas Pipeline at any time and form a "gas net" together with the West-East, Shaan-Jing and Sebei-Xining-Lanzhou pipelines. The "gas net", with a total length of 40,000 kilometers and capability of coordinating supplementary gas sources, acts as the natural gas supply artery in China.

Service of the Second West-East Gas Pipeline will promote the utilization of clean fuel, effectively improve atmospheric environment while enhancing people's living standard. It is estimated that, on a yearly average, natural gas introduced from central Asia can replace 76.8 million tons of standard coal, reduce 130 million tons of CO₂ emissions and 2.46 million tons of hazardous emissions such as sulfur dioxide, nitrogen oxide and industrial dusts.







Tarim Basin



9 Dongzhimen North Street,
Dongcheng District, Beijing 100007, P. R. China
www.cnpc.com.cn