

China Reconstructs

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• Foreign Drama on Chinese Stage



• *China's Silk Industry*

• *Fou Tsong, Noted Pianist*

• *Qinghua University Today*



Zhang Fei Temple in Yunyang
county, Sichuan province.

Wang Guanmin

China Reconstructs

中國建設

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Front: Aesop telling his fables to Clea, wife of his master Xanthos. *Zhang Shuicheng*
Back: Spring Song (traditional-style painting) *Yu Zhixue*

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Articles of The Month

China's Sericulture Develops

Existing from prehistoric times China's silk industry has developed greatly in the past 30 years. Silk is again a major export. Page 2



Qinghua University Today



The country's oldest and best known polytechnic institution has recovered from the ravages of the gang of four and is busily training the young scientists and engineers urgently needed in the modernization drive. Page 10

Agnes Smedley, American Friend

Agnes Smedley, a famous writer of great heart and talent, died thirty years ago. The Chinese people have never forgotten this front-line reporter of their struggles and tireless worker for their revolutionary cause. Page 18



Page 18

Hybrid Rice Brings More Grain



A young agronomist and his assistant developed, against numerous odds and man-made obstacles, a new strain that is now grown on nearly 5 million hectares. Page 41

Cancer In China

To help fight the scourge of cancer, a medical atlas gives the distribution and rate of mortality of 14 types of malignant tumors in 1975-1977. It resulted from a survey covering 850 million of China's people, the biggest ever made in the world. Page 14

Fou Tsong Returns

A famous pianist known worldwide for his playing of Chopin recounts his feelings on revisiting his homeland after an absence of 20 years. Page 48



Page 48

Developments in China's Silk Manufacture

XIE HONGSHENG

The printing shop of the Huzhou Silk Factory, Zhejiang province.

Xinhua



CHINA gave the world silk and today she still produces two fifths of the world's total raw silk output of 50,000 tons. Silk cloth has been exported from this country since the Western Han dynasty (202 B.C.-A.D. 23). In those days, exports went north and east to Korea and Japan and a larger volume went west overland to Europe over the trade route passing through central and western Asia. As silk made up the bulk of the goods transported over this East-West highway, the route became known to the world as the "Silk Road," and China the "country of silk."

Glorious History

Silk production, of course, began long before the Silk Road. Historians tell us that even in the Shang dynasty more than 3,000 years ago, China was producing silk fabrics with woven veiled designs and colored silk embroideries. Then, later, gauzes and brocades were manufactured. The period between the Han and Tang dynasties (202 B.C.-A.D. 907) saw the silk manufacturing industry solidly established. The biggest workshops had several hundred workrooms and employed thousands of workers. New and better dyeing and printing techniques were also introduced in this period. Archeological excavations in recent years have brought to light a surprisingly large amount of silk fabrics made in the Han and Tang dynasties. There are gauzes as thin and delicate as cicada wings, silk fabrics of amazing elegance and brocades of rich colors and designs. Some of the silk fabrics have finely woven designs of landscapes, birds and flowers, celestial beings, human figures and geometric patterns. Some have brilliantly printed designs with colors unfaded by time.

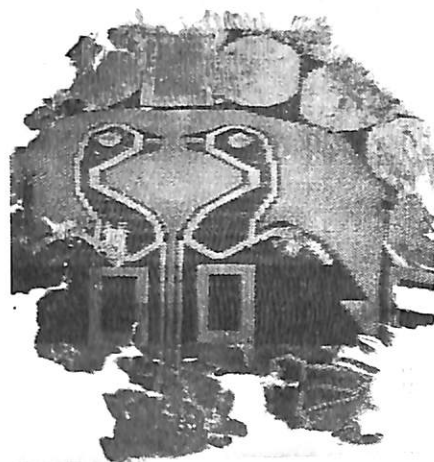
With the Yuan dynasty (1271-1368) cotton growing and weaving grew in importance, but cotton did not displace silk. The ancient industry continued to play an impor-

tant role in the lives of the people and silk production continued to develop after the Yuan dynasty. Cities like Nanjing, Suzhou, Hangzhou, Huzhou and Shengze on the lower reaches of the Changjiang River each had thousands of looms operating. Even at the turn of this century China was still the biggest silk producer in the world.

Recent Developments

The art of sericulture was developed by the Chinese people many centuries ago, but unfortunately the country remained a feudal society and the production techniques of silk making remained almost unchanged throughout this long period of feudal rule. The situation grew progressively worse after the arrival of the imperialists and the birth of a bureaucrat capitalist class in the 19th century.

After the country's liberation in 1949, energetic steps were taken to restore the cultivation of silk and silk manufacture. The state rapidly adopted policies and took effective measures to revive and expand production of mulberry and tussur silkworm cocoons, the main raw materials for the silk industry. Silkworm rearing was given every encouragement. (See "China, Silk and Sericulture" on page 7). As cocoon production rose, the industry revived and expanded. More and more filatures and printing and dyeing mills were established. The mills in Zhejiang, Jiangsu and Sichuan provinces, the country's chief silk-producing areas, were gradually equipped with automatic reeling and spinning machines. Other steps were also taken to

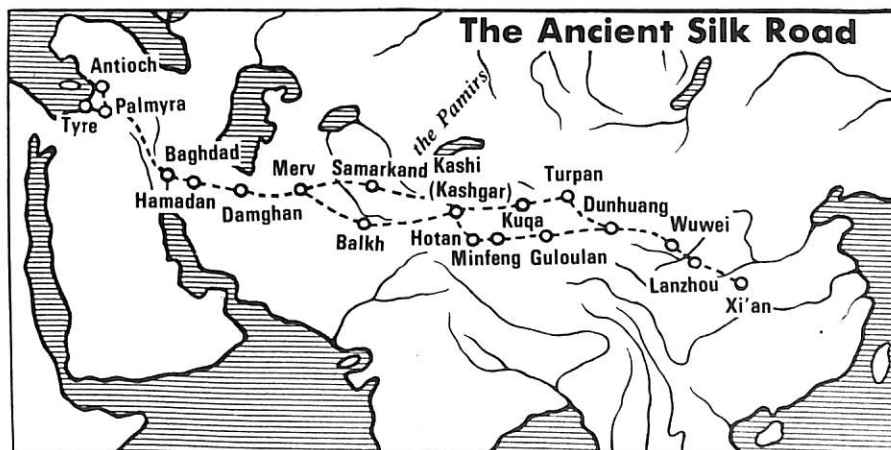


Brocade with a double-bird design from a seventh century tomb.



Seventh century brocade with a bull, lion and elephant design.

eliminate manual labor and improve productivity. Silk factories were also established in Yunnan and Guizhou provinces and in the Xinjiang Uygur and the Inner Mongolian autonomous regions,



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far from the traditional silk centers. In Liaoning province, which produces the most tussur cocoons, spinning mills and printing and dyeing mills were built to produce more pongee silk fabrics. At the same time, old filatures and factories were renovated and expanded. The old Hangzhou Brocade Mill famous since 1922 for its silk woven landscapes and portraits, now has 300 electric looms and employs 2,000 workers. It had only 32 hand-operated looms and 40 or so workers in 1949.

In China's 29 mainland provinces, municipalities and autonomous regions only Ningxia, Qinghai and Tibet do not produce silk. There are now some 600 filatures, silk spinning mills, weaving and printing and dyeing mills, employing a total of 300,000 workers. They turn out high-grade raw silk and first-class silks and satins.

Over the past 30 years the manufacture of machines for the silk industry has developed apace. China today makes large quantities of complete sets of machines and equipment, including automatic reeling machines and looms, for the silk industry. Two institutes of silk technology, a silk research institute and two organizations for collecting and disseminating sericultural data have been established after 1949 to study and develop sericulture and to train technical personnel.

Compared to 1949, last year's total raw silk output was 16 times greater and the output of silk and satin was 13 times higher.

Constant Drive for Perfection

The drive for higher output has gone hand in hand with unrelenting efforts to improve the quality of silk cocoons, raw silk and silk fabrics.

A strict quality control system operates in every factory. Every cocoon and every skein of raw silk is strictly checked before they go on the machines and the products are carefully inspected and then graded according to quality. This system of vigorous quality control guarantees that the goods are up to

the demanding standards set by the state.

The silk factories also pay careful attention to industrial designing. Before a new product goes into large-scale production, it is tested and then detailed production procedures finalized. Improvements are still sought even during production. Recently, printing and dyeing mills have introduced new technologies to get more brilliant color effects and finer details in the designs, and greater smoothness, luster and suppleness in pure dye silk fabrics.

At the 1979 national competitions, the "Blossoms" silk yarn produced by the Chengxian Silk Factory of Zhejiang province and the Yangcheng Silk Factory of Shanxi province, the "Flying Baby" brocade from the Hangzhou Brocade Factory of Zhejiang province and the "Three Golden Cups" pure dye silks (unweighted fabric) from the Shanghai No. 7 Silk Printing and Dyeing Mill were awarded gold medals. Five products of eight other silk factories received silver medals. Each medal was awarded only after an approval was given by regional and then national panels of demanding experts. China's mulberry silk has again earned world renown for its high standards: evenness, small deviation, less exfoliation and low percentage of boil-off.

Rich Brocades

Silk goods are for everyday use and are also works of art. To give people more silk goods of better quality and in greater varieties design research institutes and trial-production units have been set up in all major Chinese silk-producing centers. Several hundred experts are engaged in turning out thousands of new varieties and designs each year.

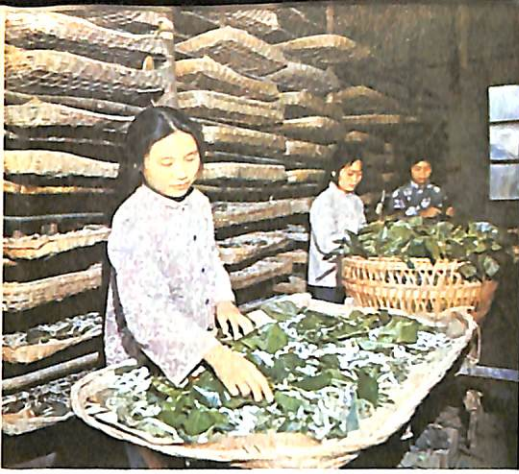
There are four world famous brocades from China: Hangzhou silk tapestry from Zhejiang province, Chengdu (Shu Jin) brocade from Sichuan province, Suzhou (Song Jin) brocade and Nanjing (Yun Jin) brocade, both from Jiangsu province. They are all

woven with colorful warps and woofs, and each has its own distinct characteristics. Hangzhou brocades are luxuriously brilliant, while Chengdu brocades are more colorful and the designs are more classical. They make wonderful material for luxury garments and are also so beautiful that they are often hung as works of art to admire. Suzhou brocades are renowned for their exquisite designs and fineness of workmanship and Nanjing brocades are known for their magnificent designs incorporating gold and silver threads.

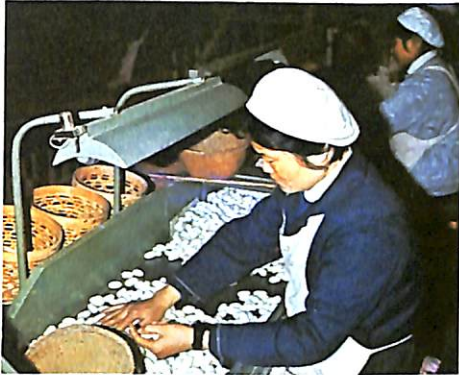
Over the past 30 years the makers of these four fabulous brocades have done much to recapture the best of the past and to improve on them. Workers of the Chengdu Brocade Factory have collected and analysed various traditional designs of Sichuan brocades and on this basis have worked out new designs while retaining all the traditional features. The Hangzhou Brocade Factory not only continues to produce covers for bedding, bedspreads, table cloths and materials for garments of rich brocade, but also weaves silk landscapes and reproduces in silk masterpieces by such famous painters as Xu Beihong and Qi Baishi.

Silk quilt covers are favorites both at home and abroad. Output of silk covers for quilts has increased several-fold and the designs and varieties are greater than in the past. There are seven varieties, including pure dye silk covers, soft silk and brocade covers, and one of artificial silk and cotton, nearly all with lovely designs. Silver and gold threads are now being used in weaving these covers to give them added splendor.

Chinese tussur silk is unlike mulberry silk. The fiber is cream colored, thicker, and has a coarser texture. Designers in Liaoning province have exploited these features of tussur silk to create several new materials for pajamas, coats, dresses and formal attires. Recently, they have developed color-woven, jacquard, and printed tussur products. □



Feeding silkworms.
Wang Hongxun



Sorting cocoons.
Huo Jianying

Skeining.
Huo Jianying

Finishing process.
Huo Jianying





Foreign buyers in China. *Zhou Youma*

Various Chinese brocades.



Land of Silk and Sericulture

LI YIREN

SILK, so smooth, strong, soft and lustrous, has been prized by many nations for clothing for many centuries. The fibers used for manufacturing this coveted material come out from the spinneret on the under lip of the larva of the mulberry silk-moth, which on reaching maturity spins its cocoon of one continuous thread. The chrysalides inside the cocoons are killed and the filaments unwound or "reeled" and made into silk fabricated products most people today still prefer over other fabrics for their sheer elegance. Everybody today knows that silk comes from the silkworm, but when silk from China first reached Rome almost 2,000 years ago, no one there knew exactly how this costly item among the prized products which came from the East was made, or from what. It is said that the first sheet of silkworm eggs from China did not arrive in Constantinople until the 6th century.

Three species of silkworms are reared in China today, the most common is the mulberry silkworm, then the tussur silkworm and thirdly the eria or castor silkworm. The first accounts for most of China's output of cocoons and last year 210,000 tons were harvested. The filaments reeled from the cocoons give a thread and are "thrown" in a yarn, which is termed raw silk and is the commonest used form for industrial yarns making natural silk products. Tussur silkworms give pongee silk, which is almost produced exclusively in China. Some 50,000 tons of tussur cocoons are harvested each year in China,

LI YIREN works at the Sericultural Research Institute under the Chinese Academy of Agricultural Sciences.

which is 90 percent of the world production. The cocoons of the castor silkworm are not reelable and can only be used by spinning the fiber into a special yarn termed spun silk.

Silk's Long History

Rearing silkworms in China goes back almost as far as her history. There is a voluminous ancient literature testifying to the antiquity and importance of sericulture to the Chinese people. According to old records, Lei Zu, wife of the emperor Huang Di (Yellow Emperor, who lived about 2,600 B.C.) is supposed to have taught the people how to rear silkworms and reel silk to make garments. In the old days she was worshipped as the Goddess of Silk. Archeological linguists have identified over 170 ideograms connected with silkworm rearing and reeling on oracle bones and tortoise shells from Yin dynasty ruins. This alone strongly suggested that the people were familiar with sericulture almost 4,000 years ago. Then in 1958, remnants of spun silk pongee and silk thread and ribbons of the late Neolithic Age were found in Qianshanyang, Wuxing county, Zhejiang province. Radiocarbon tests give their date as 3310±135 B.C. So it is very possible that the Chinese people more than 5,000 years ago already knew how to make the silkworm enrich their lives for them.

But for a very long time China was the only country that reared silkworms and it was not until the end of the Yin dynasty that the art of sericulture reached Korea. Japan learned how to raise silkworms only in the 3rd century.

Chinese silk reached Europe overland through Central Asia via

the famous Silk Road. Perhaps it began in 138 B.C. when Zhang Qian was sent by the Han dynasty emperor Wu Di as his envoy to the "Western Regions," which includes Xinjiang and parts of Central Asia. Several centuries later, in the mid-6th century, the Romans started cultivating mulberry trees and raising silkworms. From Persia, the cultivation of silk spread to the Arabian peninsula, Egypt, Spain and Italy. It did not reach France until the 15th century. Today, silkworms are reared in some 40 countries.

The Silk-Bound Economy

In old Chinese histories and in imperial edicts one often comes across references to the "paramountcy of agriculture and sericulture." From this it can be seen that both agriculture and sericulture have played a very important role in the economic life of the country for many centuries. Cocoon production was intimately bound to the fortunes of the country.

The centers of silkworm cultivation shifting over the centuries are fully illustrative of this. Silkworm rearing first flourished in the basin about the lower reaches of the Huanghe River, particularly in today's Shandong and Henan provinces where the Chinese nation first arose. But in the 400 years from the end of the Eastern Han dynasty (25-220) to the early Sui dynasty (581-618) the Huanghe basin was constantly ravaged by wars. This led to the center of China's economy gradually shifting southward, beginning in the Sui dynasty. Later, with the spread of cotton-growing in north China, silk production in the Huanghe basin fell and the industry flour-

ished anew in the middle and lower reaches of the Changjiang River further south.

During the Qing dynasty (1644-1911), for most of the time, only the one port of Guangzhou was opened to foreigners and the export of silk produced about Lake Taihu was severely restricted. This spurred silk production in the south China Zhujiang (Pearl) River delta, which gradually developed into one of China's main silk producing areas.

The silkworm is a delicate economic creature subject to many serious diseases, so it is not very easy to rear. Moreover, it has to be constantly fed with huge quantities of fresh mulberry leaves and carefully tended. The production of silk is a labor-intensive operation and requires great care and skill in breeding, raising, reeling and weaving. To this day, rearers in the south still refer to the silkworms as "precious little darlings."

However, the Chinese peasants learned to successfully deal with all the natural vicissitudes the industry is plagued with and for a time China was preeminent in the art of sericulture. This state of affairs began to change about two centuries ago. Incompetent feudal rulers, complacent conservatism coupled with imperialist plunder caused the silk industry to decline alarmingly. The industry stagnated and fell behind other countries. Even new discoveries which could have arrested the decline were ignored or could not be applied. For instance, hybrid vigor was discovered in China in the mid-16th century as can be seen in Song Yingxing's book *Exploitation of the Works of Nature* written in 1587. In this book he describes ways to obtain stronger and better silkworms by cross-breeding, but it was not until 1922 that China re-learned to breed hybrid eggs from Japan.

After the Opium War of 1840 China gradually slid into the status of a semi-feudal and semi-colonial country. About 1910, Japan surpassed China first in the output of raw silk and then cocoons. For the next 40 years the imperialists,

the warlords and the Kuomintang tore the country apart, putting the land and the people to fire and sword and destroying large tracts of mulberry groves. By 1949 China's cocoon output was a mere 30,000 tons, less than one-seventh of her 1931 output.

Sericulture Re-established

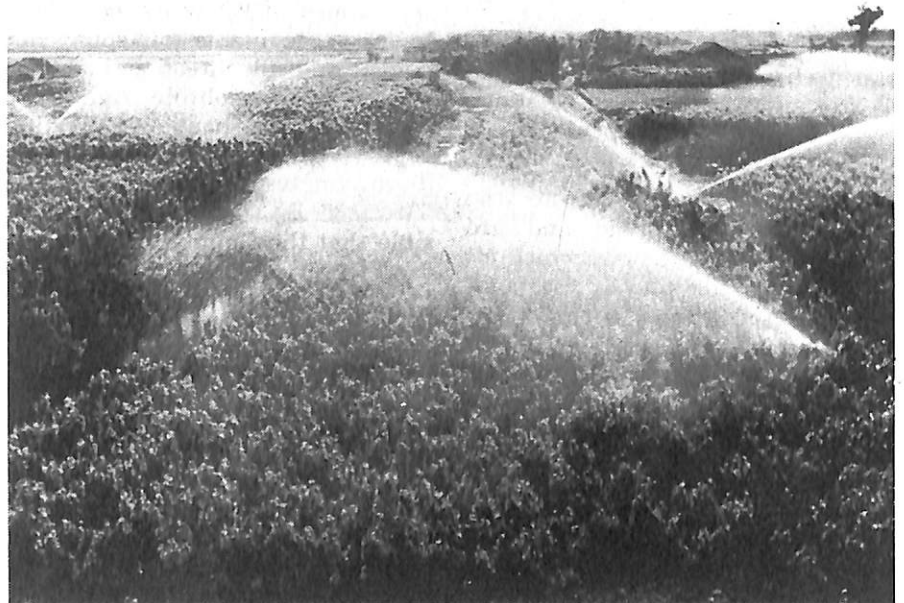
Right after liberation in 1949, the government began putting enormous efforts into restoring and developing the silk industry. Old silkworm rearing areas were encouraged to improve production techniques and enlarge mulberry orchards and new areas were built up. Filature capacities were expanded, the cocoon collection network, too, and energetic efforts were made to find markets for silk yarn and textiles. Purchasing prices of cocoons were raised and rearers were awarded bounties and given material support. Modern methods of preparation were introduced, the study of sericulture was encouraged and modern laboratory equipment installed and courses were held to teach people to raise and feed worms free of disease. A network was established by the state to produce and supply eggs to rearers.

These efforts started almost 30 years ago have been maintained and are paying off. By 1970 China, the original home of silk and still growing some of the best and strongest silk in the world, had again become the biggest cocoon producer in the world.

One measure which has helped achieve this has been the dissemination of improved cultivation methods, including the growing of high-yield mulberry trees, which the voracious silkworm depends on for its food. In Zhejiang province, one of China's main silkworm raising areas, only Tongxiang county and a few other places at one time could produce grafted mulberry saplings which give a large crop of leaves. Today, many places in China are grafting and growing such trees and getting abundant leaves to boost cocoon production.

Rearing methods have also improved. In the 1950s when the rearers slightly raised the temperature in the rearing rooms to get optimum growth, they had to increase feeding times several-fold throughout the day and night as the higher temperature dried the mulberry leaves. It was "fewer leaves more frequently" as the worms would not touch wilted

Mulberry trees at the Yunlong brigade, Zhejiang province.



leaves. This meant feeding the worms every two hours, which added enormously to the labor of the rearers. Then in the 1960s plastic sheets were used to cover the rearing trays, cutting down evaporation, drying of the leaves and the frequency of feeding. In the 70s, rearing room floors were heated by underground flues and water was sprinkled on the floor to maintain the required temperature and humidity. In some areas electric devices are used, which give better results. This cuts the frequency of feeding to only three times a day. In the past, rearers had to stay up all night.

Better breeds of silkworms are being used. The improved breeds are easier to raise and give higher yields. Diseases affecting silkworms and mulberry trees have largely been brought under control.

Silkworm rearing is carried on in all parts on the mainland of China, with the exception of the Tibet and the Ningxia Hui autonomous regions and Qinghai province. Sericulture today is pursued in nearly one half of China's 2,000 counties. Various areas have ingeniously adopted ways to grow successfully mulberry. On the populous Sichuan basin the rearers save land for grain by growing mulberry trees wherever there is room. It is not unusual to see tiny clusters of mulberry growing where it does not compete with grain, yet the province's annual cocoon harvest is generally about 70,000 tons. Jiaxing prefecture in Zhejiang province has only 53,000 hectares of mulberry groves but the average per-hectare yield is 0.75 ton. Down in south China in the Zhujiang River delta the clever people there have developed a fish-mulberry-silkworm-fish cycle. Fish is raised in ponds surrounded by mulberry trees which feed the worms and the worms' excreta is fed to the fish whose excreta in turn manures the soil growing the mulberry trees. Many production brigades and even whole communes in this area "catch half a ton of fish for every 2.5 tons of



Harvesting cocoons.

Photos by Xinhua

mulberry leaves." In the mountainous areas of the Huanghe River valley the mulberry grows on the ridges of the terraced fields.

China now has somewhere about 400,000 hectares of mulberry trees, including the small isolated groves. This averages out at 0.52 ton of cocoons per hectare. In other words, there are two times as many mulberry trees growing today as in 1949 and three times more cocoons a year.

However, sericultural production has not developed evenly or

smoothly. Even now, production techniques and equipment are still rather backward, and yarn yield per kilogram of cocoons is relatively low. Gathering mulberry leaves and rearing silkworms are still mainly done manually. So productivity is still quite low. But this traditional industry is being modernized and one can confidently look forward to more rapid developments in this art of sericulture from the people who first gave the world silk, still the most treasured fabric worn in the world. □

Qinghua University Today

QIAN XUN

QINGHUA (Tsinghua), one of China's oldest universities, is well known at home and abroad. After 1966 when the cultural revolution began, this beautiful school, "the cradle of China's engineers," was thoroughly ravaged — a large number of its professors, teachers and cadres were manhandled and persecuted. Its educational procedures were disrupted. Its laboratories were wrecked, and the quality of its teaching and research plummeted. In the three years since the downfall of the gang of four, with the Party and government giving the lead the faculty, administration and students are making great efforts. Qinghua has again begun to flourish.

Like the springtime after a long winter, buoyant life has returned to the campus with its tall trees thrusting into the sky and its

ever-green old pines and cypresses. An I-shaped structure over 300 years old, antedating the university but forming one of its landmarks, has been redecorated and shines with fresh paint and its original splendor. Above the door hangs a tablet with the characters "Qinghua Garden" inscribed in gold in the calligraphy of the Emperor Xian Feng (1831-1861) of the Qing dynasty. The oldest teaching building, erected early in the present century, has likewise been repaired, along with those of later dates.

Since liberation, the campus has been enlarged to double its original 75 hectares. The number of teaching buildings today is five times what it was in 1949. Gone forever are the disorder and conflict that raged here during the cultural revolution, as described by the American author and friend

of China, William Hinton, in his book *The Hundred Days' War*.

New Spring for Teachers

In the past three years the university had first of all to clear out the forces of Lin Biao and the gang of four, and to restructure its leadership. Then it rehabilitated the professors and teachers whom the gang had victimized, and nullified the framed-up charges against them. Qinghua's achievements in education in the 17 years before the cultural revolution and the progress and positive achievements of its academic personnel, denied for ten years by Lin Biao and the gang, have been reaffirmed.

Now the 3,000 professors and instructors of the university are again respected enthusiastically at work. Professors Zhang Wei, Zhao Fangxiong, Zhang Guangdou and

In the reading room.

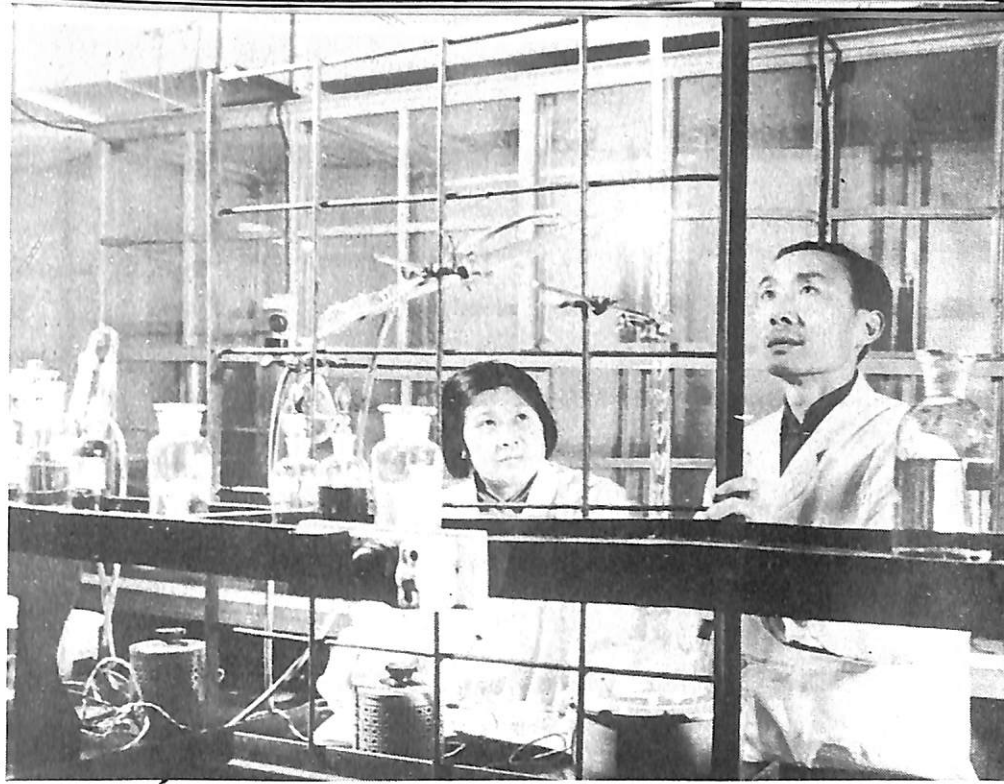


Gao Jingde who had been denounced as "bourgeois-reactionary academic authorities" are now vice-presidents of the university; Prof. Wang Tan, vice-director of the Architectural Department, freed from the false accusations that had been made against him, has been restored to his post and elected a vice-chairman of the university's trade union. Many veteran faculty members are back in their classrooms, training the young teachers and research students.

"I'm old and want to leave all I know to those who will come after me," says Prof. Shi Jiayang, 78. Besides leading his teaching group, he is writing a major textbook *The Comprehensive Utilization of Water Resources*, totalling a million words, which he plans to finish by 1981. He works on this eight hours a day, and also persists in physical exercises to keep fit. The school has assigned assistants to help him in his task.

An academic council has been set up. There professors and experts often meet to discuss scientific research programs and check the conferring of degrees. Eighteen teachers have been promoted to

Zheng Suibing and Lin Qiang



Teachers from the chemistry research group in a laboratory.

Chen Haokai and Zhu Zili



Prof. Qian Ning of the Hydraulic Engineering Department in discussion with his colleagues

Zheng Suibing and Wu Jian

professors and 400 to associate professors in these three years. They are now working hard to train more talents for China's construction.

Quite a few of the teaching personnel have been honored as outstanding workers during the same period. One is Prof. Qian Ning, leader of the silt research section in the Hydraulic Engineering Department. He founded this

section and organized its training class which he teaches himself, despite his poor health. The voluminous teaching materials and several theses he has compiled or written includes "Suggestions for the Taming of the Middle and Lower Reaches of the Huanghe River." Fresh out of hospital where he had undergone surgery, he has begun to collect data for the International Silt



Meeting of the leading body of Qinghua University. Liu Da (fourth right), the president, and vice-presidents, Prof. Gao Jingde (first right), Prof. Zhao Fangxiang (second right), Prof. Zhang Guangdou (third right), He Dongcang (fifth right) and Jing Tian.
Chen Haokai

Conference to be held in Beijing. Also named as a model worker is Prof. Chang Tong of the Department of Automation. He was wrongly condemned in the anti-Rightist movement of 1957. Cleared last year, he became chairman of the academic committee in his department and leader of its information process and model identification research group.

Study for the Four Modernizations

Being the largest science and engineering institute in China, Qinghua trained 28,000 students in 17 years before the cultural revolution, more than a dozen times the total number before liberation, providing the country with numerous advanced engineers and scientists, many of them known not only in China but abroad. Based on its experience in the entire 30 years since the founding of the people's republic, the university has readjusted its system, and newly established are its departments of economic management engineering, heat energy and computer engineering and science. With the older ones — covering hydraulic engineering, architectural engineering, precision instruments, electric power engineering, engineering mechanics, automa-

tion, radio electronics, mechanical engineering, chemical engineering and engineering physics — there are now 13 departments altogether. Laboratories smashed or damaged in the cultural revolution are being repaired and improved. Many new ones are under construction, as are a number of student dormitory buildings.

Since 1977, when the entrance examinations were restored after more than a decade's break, more than 4,000 freshmen have been enrolled. Now Qinghua has over 7,000 students, including post-graduates. They are industrious. In the early mornings they roam all over the campus reading aloud in foreign languages. After breakfast they pour into the classrooms, lecture halls and laboratories. Libraries and labs are fully occupied and their lights shine deep into the night. The reading rooms, nearly empty three years ago, are crowded now and contain over 2,000 magazines in foreign languages. How to accommodate more and more readers has become a problem.

'8 - 1 > 8'

One hour each afternoon is given to physical exercise. Two slogans are now popular among

the students. One, "work for the motherland in good health for 50 years," was put forward by Jiang Nanxiang, who before the cultural revolution was president of the university and is now Minister of Education. The other is "8 - 1 > 8." It means that an hour spent in sports every day makes the work more effective.

University-wide sports and interclass ball games are held regularly. Qinghua's basketball, volleyball, football, table tennis, swimming and track and field teams compete with those of other universities and colleges both inside and outside the capital. In a cross-country race held by the Beijing universities and colleges last winter, the Qinghua men's team got the first prize and women's the third, and the university ranked first overall. Military and traditional instruments bands, dance troupes, literary and other amateur art circles have been set up. There, interested students learn many things outside the curriculum and sometimes meet with famous writers.

Research and International Exchange

Qinghua is growing as a scientific research center. In 1979 it

successfully developed 76 sophisticated products. Some approached or matched international levels in the technologies involved. Among them were a double-frequency laser interferometer with automatic compensation and a QH-5 type non-contact displacement amplitude measuring instrument. Other products filled in hitherto existing technological gaps in China or solved key problems in industry. Among those already put into production are phenyl-cycle=hexane type liquid crystals, TPC-12 mixed liquid crystals, silicon-nitride ceramic tool bits and overflow inclined hole trays. In cooperation with Beijing Computer Factory No. 3 and ten other units the school has developed the DJS-140 type electronic computer, urgently needed in China's scientific computation, digital processing and time control fields. Such achievements won citations for the university from the departments served.

In the past year alone at Qinghua, 260 academic theses have been published or presented to symposiums at home or abroad. Those well received included "Development and Prospect in the Kinetics of Silt," by Prof. Qian Ning of the Hydraulic Engineering Department and "Using Laser Reflection Holographic and Speckle Interferometry to Investigate the Three-Dimension Displacement Field Around a Crack Tip for Centrally Cracked Strip," collectively written by the Department of Engineering Mechanics.

Participation in scientific information exchanges has become more frequent. In the past year 26 noted scholars were invited to come to give lectures at Qinghua, including Prof. C. C. Lin of the Massachusetts Institute of Technology (who has become an honorary professor of Qinghua) and Prof. Rudolf Schulten from the Institute of Atomic Reactors of Julich GmbH Nuclear Research Center. Leading U.S. scholars from the University of California at Berkeley, the Massachusetts Institute of Technology and California Institute of Technology visited Qinghua last year. Exchange rela-

tions have been established with all these institutions. Prof. Zhang Guangdou, Deputy President of Qinghua University made a survey tour of higher educational and research establishments in the United States. During the past year 63 graduates were sent to the United States, Japan and West Germany and ten other countries for advanced study, and 54 faculty members participated in international academic symposiums, survey tours or short-term work programs.

Alumni

Many outstanding scientists have graduated from Qinghua University in the 69 years since its forerunner Qinghua College was founded in 1911 as a preparatory school for students going to the U.S. Among them are the mathematicians Xong Qinglai, Hua Luogeng, Duan Xuefu and Zhao Fangxiong, the physicists Qian Xuesen, Qian Sanqiang, Zhou Peiyuan and Wu Zhonghua, the chemist Zhang Zigao, the architects Liang Sicheng and Yang Tingbao, the noted professors Zhang Guangdou and Shi Jiayang, and the popular science writer and biologist Gao Shiqi. The famous U.S. scientists of Chinese origin Tsung-dao Lee, Chen-ning Yang, both winners of the Nobel prize for physics, and C. C. Lin are also Qinghua graduates.

Last year when Qinghua University resumed its anniversary celebrations it sent out invitations to its alumni. Those who were abroad and could not attend sent in congratulatory telegrams. No less than 1,015 alumni gathered for the event. The oldest were ten pre-1920 graduates. Chemist Yuan Hanqing, suffering from paralysis, arrived in a wheelchair. When these veterans saw 87-year-old Han Yonghua, wife of Qinghua's former president Mei Yiqi, they greeted her with deep feeling. Reminiscing, the alumni called each other by the nickname in their student days. Miss Xu Xuan, now on a visit from Australia, once a member of the school's art and literature society stepped onto the old stage on which she once performed and posed for a picture to revive past memories.

In front of the cottage No. 3 on the campus stands a lofty pine tree carved with the figures "1929," the year when the Qinghua College became Qinghua University. A dozen of that year's graduates, now living in Beijing brought their families to the meeting. One said, "Now the tree has grown up and so has our school which has braved many changes of political weather."

In 1979, fifty years after that notable day, the alumni planted another pine to mark its commemoration. □

Alumni meet at the 68th anniversary in 1979 of the founding of Qinghua University. The second from left is Han Yonghua, widow of Mei Yiqi, former president of the university.
Wu Jian



Atlas of China's Malignant Tumors to Aid Research

LI JUNYAO

THE largest-scale survey, in terms of the number of people covered, undertaken anywhere in the world in this field, lies at the basis of the *Atlas of Cancer Mortality in the People's Republic of China*, now ready for the press at the China Cartographic Publishing House. A nationwide epidemiological study carried out during the past few years has furnished essential data on the distribution and mortality of various types of cancer among China's population, nearly a quarter of that of the entire earth. It makes clear the epidemiological characteristics of different cancers among this great mass of people.

The research for this compendious 200-page work, to be available in both Chinese and English, was sponsored by the National Office for Cancer Control under China's Ministry of Health and the Geography Research Institute of the Chinese Academy of Sciences at Nanjing. Related departments in a number of medical colleges and scientific research institutes in various provinces and cities assembled the data and took part in preparations. Fifty-eight maps and scores of charts, printed in seven colors, graphically depict the distribution and mortality of nine types of cancer frequent in China (cancers of the stomach, esophagus, liver, cervix, lung, colon, rectum, breast and nasopharynx, and leukemia) as well as of five less frequent cancers in the country's 2,392 counties and county-level administrative areas. The study will be useful to scientists and medical personnel working in the field of cancer control research.

A Major Problem

The work is coming out at a time when cancer has become one

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of the main causes of death in China. This fact, in itself, is largely a result of China's success in controlling many formerly infectious diseases and epidemics in the three decades since liberation in 1949, as manifested in the increase of average life expectancy from 30 years in 1949 to the present 64 years for males and 66 for females. It is because other causes of death have reduced that cancer, from which an estimated 700,000 people die in China each year, has emerged as a main problem of national public health.

For tackling this problem, a clear picture of the incidence and death rates from various malignant tumors in different areas is essential. Developed countries have been systematically collecting such statistics for several decades. China, a country with a vast territory and a large population, has a relatively short history of cancer control research, and of the accumulation of statistics on cancer morbidity and mortality. It was only in the 70s that the National Cancer Control Office organized medical workers and epidemiologists to undertake a survey of cancer mortality in all China's provinces, municipalities and autonomous regions except Taiwan with the active participation of the masses of people and of local health departments at various levels.

Progress of the Survey

The work of the survey was begun in 1973, finished in 1978, and covered over 2,000 counties with a population of 850 million, omitting only some sparsely inhabited and hard-to-reach areas. Before this large-scale investigation a pilot survey was begun in 1971 in Linxian county, Henan province, which has a high incidence of cancer of the esophagus. Mobile teams of clinical and laboratory research workers were sent there by the Cancer Institute

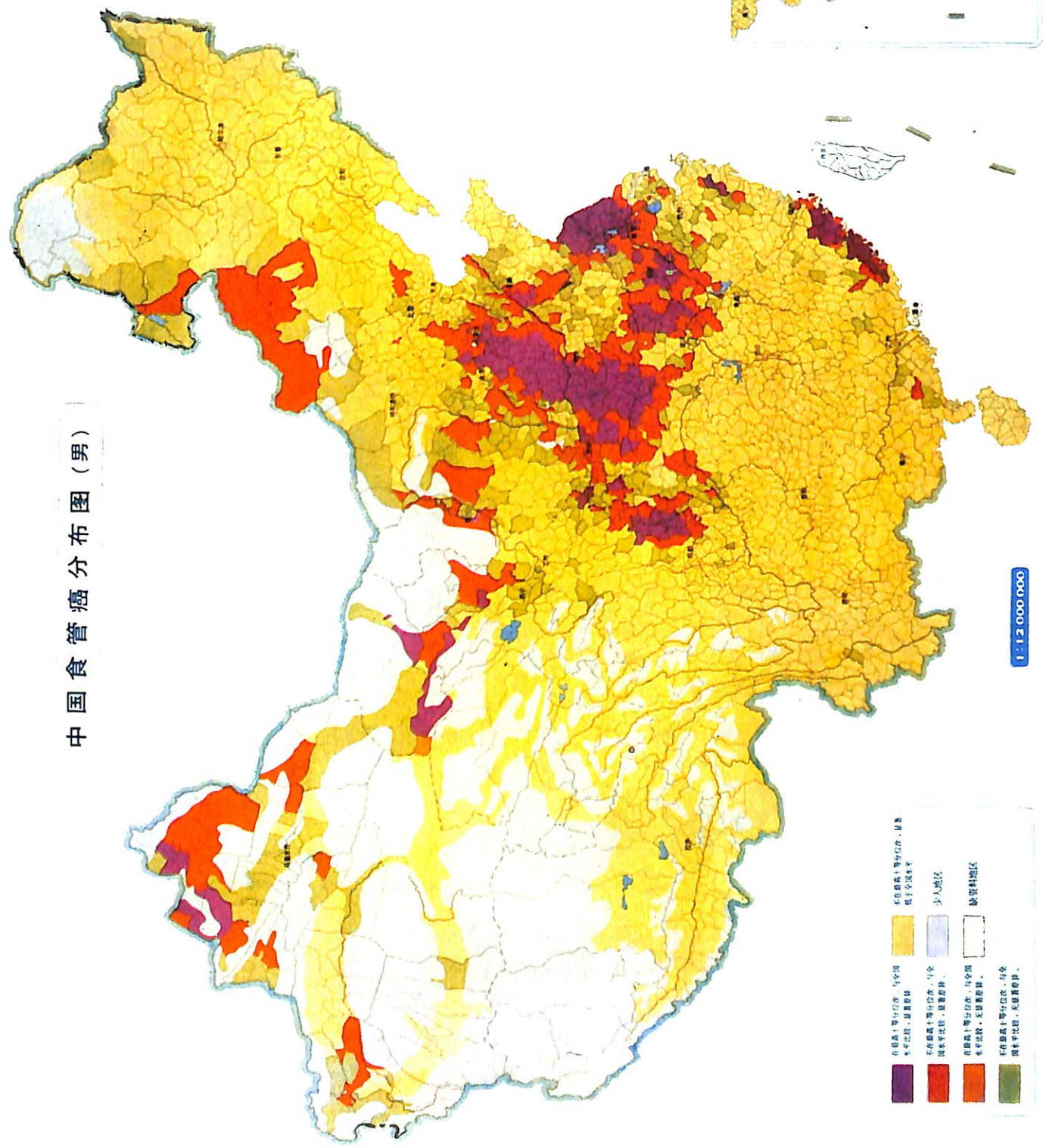
of the Chinese Academy of Medical Sciences to make house-to-house enquiries in the county's production brigades. The teams also held meetings to get the opinions of the barefoot doctors, old peasants and grass-roots medical workers in order to collect as much information as possible on mortality from this condition. Finally the cause of each such death was determined on the basis of symptoms, diagnosis and treatment while the patients still lived. Within a short time the basic epidemiological characteristics of cancer of the esophagus in this county were perceived and a set of methods was devised for further surveys in Anyang prefecture of Henan province, with 6 million people, and in the areas where Henan, Hebei and Shanxi provinces meet, including Beijing municipality, with a combined population of 50 million. Experience showed that these methods were effective. Eventually in 1975 they were applied in the nationwide survey for the causes of deaths. In order to effectively carry out this task which was conducted under the guidance of specialists, training courses were organized for the local medical and health personnel and barefoot doctors. Now basic data has been acquired on the mortality distribution of the common malignant tumors in China in 1973-1975.

Geographical Distribution

The resulting Atlas shows that the distribution of the malignant tumors in China's population has distinct epidemiological

On the two maps from the Atlas reprinted opposite and overleaf, colors purple, red and orange indicate areas with higher mortality than the national average with purple showing the highest. Green shows areas with national-average mortality while yellow indicates a lower rate. Gray denotes sparsely populated areas, and white signifies areas for which data is lacking.

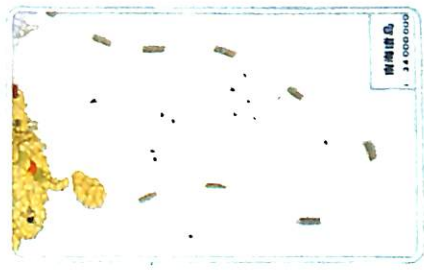
中国食管癌分布图 (男)



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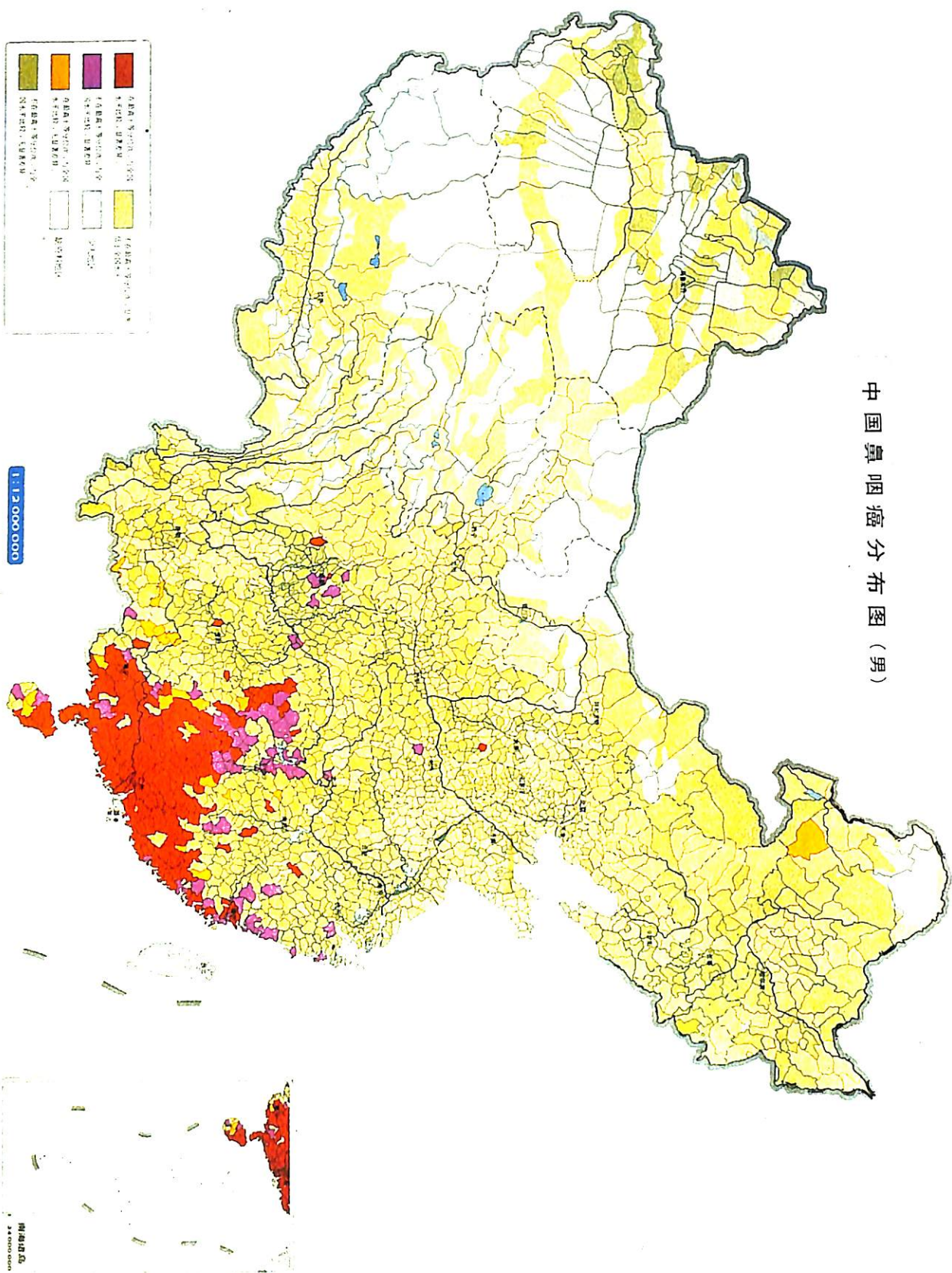
少数民族地区
 人口地区
 缺资料地区

1:12 000 000



The distribution of esophageal cancer (men) in China.

中国鼻咽癌分布图 (男)



The distribution of nasal-pharyngeal cancer (men) in China.

The Macaques on Hainan Island

Scenic Nanwan peninsula on Hainan Island is one of China's wildlife sanctuaries, also known as "Monkey Island" on account of the 1,000 macaques living there.

The macaque, a social animal, feeds on wild fruit and spends most of its time in trees. Mating in winter, a female macaque gives birth to one young a year, or two in three years. Macaques are listed in China as an animal to be protected.



Macaques foraging for food.



Macaques at rest.

Photos by Li Yanming

characteristics. It reveals that while some cancers commonly occur throughout China, many others display substantial variations of rate. Esophageal cancer, as previously ascertained, has a high incidence in the border regions of Henan, Hebei and Shanxi provinces. New areas with a high mortality of this disease have been discovered in the northern Sichuan and northern Jiangsu provinces and in the communities of the Kazak nationality in the Xinjiang Uygur Autonomous Region and some other places.

The areas of high mortality from carcinoma of the stomach are in China's northwestern and coastal provinces. Carcinoma of the nasopharynx occurs mainly in south China with mortality decreasing from south to north. Lung cancer has the highest mortality in Beijing, Tianjin and Shanghai municipalities, in the three northeastern provinces and along the coast.

The Atlas also shows that among the various causes of death for males, malignant tumors rank second, only next to the respiratory diseases. For females they occupy third place after respiratory and cardiovascular diseases. Among males, cancer of the stomach has the highest mortality followed by cancer of the esophagus, liver, lung and colon/rectum, while for females the highest mortality is also of stomach cancer, followed by cervix, esophagus, liver and lung cancers.

Dimensions of the Threat

In some areas the mortality of malignant tumors now ranks first among deaths from all causes. Such areas for males are in Jiangsu, Fujian and Zhejiang provinces, and Shanghai, while for females, Jiangsu ranks first. Malignant tumors have different effects in different age-groups. Thus the cancer mortality of children from 0-14 years of age accounts for

only 0.80 percent, taking 11th place in deaths from all causes; for the age-group 15-34 years (7.88 percent), they rank fourth, and for the age-group 35-55 years (21.58 percent), they rank first. This shows that cancer takes a heavy toll of lives among the young people and those in the prime of life.

The Atlas, besides its general scientific value, should prove to be a useful guide to cancer control practice. Its statistics on mortality are important for determining priorities in the cancer control program and for more rational allocation of human and material resources. Discovery of the new high-mortality areas has guided the setting up of field stations for the early detection, diagnosis and treatment of the disease. The knowledge on the distribution of high-cancer-risk areas and population characteristics provides valuable etiological clues for the study of causative factors and is of help for the testing of hypotheses. □

Agnes Smedley

—An American Who Loved China

LI LING

A GREAT American."

Thus the late Premier Zhou Enlai described the progressive American writer and correspondent Agnes Smedley (1890-1950).

She lived and worked in China for twelve years. From the day she first set foot in this country in 1929 to her death a decade after she left it, she was tireless in effort for the Chinese revolution and for friendship between the Chinese and American peoples. The hardships and perils of the guerrilla fronts, persistent ill-health, persecution by the reactionaries — none of these could shake her determination. In article after article, and book after book, written with deep feeling and insight, she brought to the outside world the truth about the Chinese people's cause.

Agnes Smedley, like Edgar Snow and Anna Louise Strong, was an American who grippingly chronicled from first-hand observation and involvement several decades of China's struggle for liberation, and who perceived so well its significance for her own people and for all peoples. She will certainly be read for generations to come.

Smedley's first work on the Chinese revolution was a volume of eloquent sketches from life written in 1933, *China's Destinies*. The next was *China's Red Army Marches* (1934) based on the accounts of direct participants who made their way secretly into Kuomintang-held Shanghai. Still later, during the war against Japanese invasion, came two books of Smedley's own frontline reportage, *China Fights Back* in 1938 and the broader-canvassed

Battle Hymn of China in 1943. Last and most outstanding was her posthumously published *The Great Road*. It describes against rich historical background, mainly from the words of the subject himself, the life and times (up to his 60th year) of the Chinese people's beloved military leader Zhu De. It was first published in Japanese translation in 1955, then in the original English in 1956. Altogether it has appeared in nine languages.

Today, as the friendship between the Chinese and American people is making fresh advances, we cherish all the more the memory of Agnes Smedley.

Born in an agricultural laborer's family in the state of Missouri, brought up in the western mining state of Colorado, herself partially of American Indian descent, Agnes Smedley knew oppression and exploitation from her earliest childhood. At various times she sold newspapers, worked in a tobacco factory, and peddled books from door to door for a living. Eager for learning, she toiled and fought for an education — finally becoming a primary school teacher. From her 20s, she began to write. Never losing contact with the working people at the base of society and viewing life from their standpoint, she wrote articles exposing many abuses and evils. Her largely autobiographical novel, *Daughter of Earth*, which evoked the poverty and tenacious struggles of her early years, was published in 1928. She had by then begun to work as a journalist, and toward the end of that year traveled to China where she was a



Agnes Smedley in Yan'an in 1937.

special correspondent of the German *Frankfurter Zeitung* and later of the British *Manchester Guardian*.

Friendship with Lu Xun

In September, 1930, while living in Shanghai, Agnes Smedley rented a large room in a Dutch restaurant in the city's French concession on behalf of a group of young followers of the great Chinese revolutionary writer Lu Xun, for a clandestine gathering to celebrate his fiftieth birthday. Among those attending were writers, actors, journalists and teachers.

Lu Xun was there with his wife Xu Guangping and their one-year-old son Haiying. "My roots are in the countryside and among the peasants," he said in words that Agnes Smedley never forgot. "I don't believe China's young intellectuals can produce proletarian literature if they haven't experienced the life, the hopes and the woes of the workers and peasants." "I hope all of you will live

among the workers and peasants and draw nourishment from their life!" And he predicted, "A great era is about to begin."

Lu Xun became one of the main influences of Agnes Smedley's life. She admired his courage and his writings. She was a witness of how fearlessly he spoke and wrote against the Kuomintang terror rampant at the time, especially after the barbarous killing of five young writers — Rou Shi, Li Weisen, Yin Fu, Hu Yeping and Feng Keng — in 1931. With him, she drafted an appeal to intellectuals abroad which called forth a worldwide protest against this atrocity. In his house she met, for the first time, a participant in the famous Long March of the Chinese Red Army. With Lu Xun and the famous novelist Mao Dun, she arranged an exhibition in Shanghai of the works of the famous German woodcut artist Kaethe Kollwitz. This had a tremendous effect in making the woodcut a medium and weapon of Chinese revolutionary artists as well.

In 1936, Lu Xun's health deteriorated rapidly. Informed of this in a phone call from Mao Dun, Agnes Smedley at once took an American lung specialist to Lu Xun's house. When she learned that four-fifths of his lungs had already been eaten away by tuberculosis, she burst into uncontrollable tears.

Lu Xun passed away on the 19th of October. Agnes Smedley, with other revolutionaries in China and the world, mourned the loss of this great fighter.

With the Chinese Red Army

In January 1937, Agnes Smedley crossed the Changjiang and Huanghe rivers to arrive in Yan'an, carrying out her long-cherished desire to see for herself the Chinese Red Army and the base areas of the Chinese Communist Party. The Party headquarters had recently moved to Yan'an, which thereafter became the center and symbol of the Chinese revolution. Agnes Smedley fell in love with the plains of northern Shaanxi with their clear, crisp climate and invig-

orating atmosphere of a truly new China in the making. She was enchanted with the high-pitched clear-ringing folk songs of the region. Most of all she loved the frank and hardworking Chinese peasants and the enthusiastic, battle-hardened fighters of the Red Army, soon to be renamed the Eighth Route Army.

Ever since Agnes Smedley had realized that China's war of national liberation was in effect a revolutionary peasant war, she had made up her mind to write the life story of the peasant-born commander-in-chief of this people's army — Comrade Zhu De. Her hopes materialized in Yan'an. At her earnest request, the busy

(Left to right) Agnes Smedley, George Bernard Shaw, Soong Ching-ling, Cai Yuanpei and Lu Xun in Shanghai, 1933.



With Commander-in-Chief Zhu De (center) and Chairman Mao Zedong (left), in Yan'an, 1937.



military leader took off two or three evenings a week to talk with her. She amassed a wealth of data and raw material for her projected book, *The Great Road*. When she became better acquainted with the Eighth Route armymen she was often among them, sitting in the sunshine, drinking tea, eating peanuts, singing songs and telling tales. Sometimes she would teach them American folk dances.

In the War of Resistance

When the anti-Japanese war began in the summer of 1937, Commander Zhu De went to the front. Agnes Smedley asked to go too, and not long afterwards arrived at the front-line headquarters of the Eighth Route Army (actually a resistance headquarters behind the enemy lines) in the Wutai Mountains in Shanxi province. For more than a year she continued to observe Zhu De, in battle, at work, and on the basketball court in moments of relaxation. She met other famous Red Army generals, many of whom figured in the galaxy of heroes in her later books. She shared the joys and sorrows of the rank-and-file fighters, breathing with them the smoke and dust of the battlefield and undergoing the hardships of war. As she remarked later: "I always forgot I was not a Chinese myself."

In the Dabie Mountains

In January 1938, Agnes Smedley left the Northern Shanxi front for Wuhan, where the Kuomintang government had moved after the fall of its capital, Nanjing, to the Japanese. Zhou Enlai, Vice-Chairman of the Communist Party, frequently met her and other foreign friends at the Wuhan office of the Eighth Route Army, situated there to promote the anti-Japanese united front. He would explain to them the policies of the Party in the anti-Japanese war and tell them about the exploits of the Eighth Route Army and the New Fourth Army in the enemy's rear. Agnes Smedley drew constant inspiration from these talks. In this period she visited battlefronts in central and north China, and wrote

a series of articles on the war situation, with stress on the close bonds between the army and people in the anti-Japanese base areas.

Personal Memories

In the spring of 1939, she made a visit to Jinzhai—an old Red Army base in the Dabie Mountains of Anhui province. I was then a young reporter on the staff of the *Dabieshan Daily*, a newspaper led by one of our underground party organizations, and had the honor of interviewing her.

What struck me most were her eyes—blue-gray, thoughtful, intelligent and alert. Her movements were brisk and agile, her speech open and forthright. Were it not for streaks of gray in her short hair and the deep furrow between her brows, one would hardly have guessed that she was going on fifty.

In the white-washed straw-thatched cottage where our interview took place she replied sincerely and directly to my questions. "The Chinese people are a great and staunch nation," she said to me. "They will never be enslaved. So long as they act on the proposals of the Chinese Communist Party and Chairman Mao Zedong, unite as one, oppose capitulationism and concentrate their efforts to resist Japan's imperialist aggression, they are bound to win in the end."

She expressed her conviction that, for the Chinese people's victory to be certain, certain things had to be done. These were: mobilization of the broad masses of workers and peasants, reliance on the firm organization of the laboring people, full use of the nation's manpower and material resources and strengthening of the organization and leadership of the anti-Japanese democratic united front.

As I shook hands with her in farewell, I opened my notebook to a fresh page and shyly asked her to put something on it to remember her by. She smiled, then wrote in a swift and forceful hand, "You, the young people of China, should fight to the end for your country's liberation."

The next day, progressive cultural workers in the Dabie moun-

tain region, and boys and girls enrolled in the frontline service corps, youth drama troupes and the young pioneers' organization gathered in a large straw-thatched shed used as an assembly hall.

Agnes Smedley delivered an impassioned speech. Her closing words, "The Chinese people are sure to win in the war against Japanese aggression!", were greeted with a tumultuous ovation.

With the New Fourth Army

Early in 1940, Agnes Smedley arrived at the headquarters of the New Fourth Army in Jingxian county, Anhui province, after a circuitous and peril-laden journey. The army's commander, Comrade Ye Ting wanted to keep her at headquarters as an honored guest. But she insisted on working with the medical staff of the military hospital at Nanbao village. With her bobbed hair, new gray army uniform, leather belt and military cap she looked just like one of our own women fighters. Though busy day and night in her capacity of a fieldworker for the Chinese Red Cross Medical Corps, she would get up early every morning to pick wild flowers. These she placed in bamboo containers next to the beds of the wounded soldiers. The money earned by her writing was spent on meat and eggs for the patients. Often she would be seen spooning broth into the mouths of the severely wounded.

In one ward lay a Japanese prisoner of war who had been shot in both arms and had to be fed by the nurses. Indoctrinated with the militarist Bushido code he was surly and insolent to patients and hospital staff. Once he started to rave and curse simply because he wanted a drink of water. Agnes Smedley, however, went personally to tend to him and even emptied his bedpan. The prisoner, Hamada, was moved to tears. Gradually, his whole attitude changed. When he could use his arms again he would reach out to clasp the hands of wounded Chinese soldiers in friendship. Once he and they gathered around Agnes Smedley to sing the Internationale.



(Right to Left) Agnes Smedley, Commander Su Yu, the American journalist and author Jack Belden, Commander Chen Yi and the German revolutionary Hans Shippe at the headquarters of the New 4th Army in southern Anhui, spring, 1939.

Restored to health, Hamada joined the Anti-war League organized by captured Japanese army men who had come to realize the criminal nature of the aggression into which they had been misled, and did propaganda among the enemy for the New Fourth Army.

In intervals of her nursing work, Agnes Smedley continued to write. She appealed to the world's people to give all possible assistance to the New Fourth Army fighters whose allowance averaged only 25 cents per month.

"My Greatest Hopes Realized"

In September 1940, Agnes Smedley left for Hongkong for reasons of health. Then, shortly before the Japanese attack on Pearl Harbor precipitated the Pacific War, she went to the United States for medical treatment. Never for a day did she stop her support for the Chinese people's war of resistance through articles, public speaking and fund-raising. She also began work on her book *The Great Road*.

In 1949 in the period of post-war reaction in the United States, she came under McCarthy-type attack and persecution. Absurd charges

were hurled at her, including that of being a "Soviet spy". So it became impossible for her to stay in the United States. Already ill, she left for England in the autumn of that year.

In London, she stayed with an old friend. Short of money and weakened by gastric ulcers, she

Agnes Smedley (fourth from right) with members of a local women's committee in Hubei province, December 1939.



nevertheless labored tirelessly on *The Great Road*.

That book, 400,000 words long and eight years in the writing, was near completion when her illness took a sudden turn for the worse. She was in great pain when she wrote the final chapter. She had planned the book as the first volume of Zhu De's biography, hoping to return to China to get material for the second. But that was not to be, for she died on the 6th of May, 1950.

When the great news of the birth of the People's Republic of China on October 1, 1949 reached Agnes Smedley, she had written to Zhu De in a letter from her sickbed, which was to be her last: "I have lived to see my greatest hopes realized, and few people can say that. That is enough for one lifetime. What I have failed to do others will accomplish. I wish you and Mao were thirty years of age, but I know you still have years ahead of you. If I ever reach China again I shall kiss its earth."

Thus this valiant daughter of the American earth, with her bone-deep sense of the common interests of the common people of all countries, greeted the advent of the new China, whose significance in world history she understood so well. □

China's Smallest Nationality

LIU ZHONGPO

THE HEZHEN people number only 854 souls by recent count. They live in China's far north-eastern Sanjiang (three rivers) Plain where the Heilong, Wusuli and Songhua rivers merge, with most of them concentrated in Tongjiang county's Bacha and Jiejinkou villages and in Sipai village in Raohe county. The thick forests here, interspersed with rivers and lakes, are so rich in wild life that one can almost — as the Hezhens say — “knock down river deer with sticks, scoop up fish with ladles and wait for pheasants to fly right into your cooking pot.”

New Fishing Village

Jiejinkou is located on the east bank of the Heilong River near the confluence of the Heilong and Songhua rivers. A fishing village of about 100 households in Tongjiang county, it is hidden among tall poplars, and has four streets lined by stores, a clinic, a club, schools, a machine repair plant, cottages as well as a marten farm and a deer farm.

Outside the village one can see members of a farming team busy transporting fertilizer with trucks and tractors and sowing seed on large tracts of deep-plowed land. The Hezhen people, who first learned to grow a few vegetables around their houses only during the last hundred years, have now mastered new farming techniques. Last year, the Jiejinkou production brigade had a bumper harvest of corn, beans and wheat.

Motorized boats and wooden skiffs line the wharf along the river where members of the fishing team repair their vessels in

readiness for the coming fishing season. Women in colorful gowns and embroidered scarfs weave nets on the river banks. One would hardly believe that these people had just begun to emerge from a primitive form of society some 30 years ago.

The Hezhen, a branch of the ancient Tungus people, were known as “Sushen” in the Western Zhou period (11th century-771 B.C.). It was only in 1663 during the Qing dynasty (1644-1911) that they got their present name. Their society was then based on the patriarchal clan system. The Hezhens in some places had developed a feudal society early this century, others were making the transition from primitive to class society. Most Hezhens lived in compact clan-communities, each clan in a separate village, containing from five or six up to 70 or 80 households. Their houses were crude adobe structures with thatched roofs. A family of several or even a dozen people lived in a single room.

When the Japanese imperialists invaded northeast China in the late 1930s, they drove the riverside Hezhens into “settlements” in the forests and marshes, separated them into three groups, and prohibited fishing, hunting or farming. Starvation and epidemics ensued. The Hezhens, known to have numbered around 3,000 in 1911, had dwindled to 300 by 1945 and were on the verge of extinction.

After the founding of new China in 1949, the Hezhen people moved back to their original stamping grounds and rebuilt their homes. With government help they went

back to fishing and hunting, with better equipment and bigger catches. And as they gradually learned modern farming methods, they entered a new era of prosperity.

Fishermen and Hunters

Fishing and hunting have been the Hezhen people's chief means of livelihood since ancient times. Fishing was done in light birch-bark canoes. Called “bark shoes” because of their shape, these canoes were easily carried by one man. Hezhen men used to pride themselves on the speed at which they could travel across land and water with these “bark shoes”.

Although the Hezhens have now taken up farming and not a few have been trained to be doctors and technicians, most of them still engage in their traditional occupations. They are most busy during the spring and autumn fishing seasons, especially when salmon are in season.

Salmon begin to swim in from the Tartar Strait at the end of September to spawn in the Heilong River and its tributaries. A month later they return to the sea. Toward the end of August, Hezhen fisherfolk begin to ready their boats, nets, hooks and forks. And when the salmon arrive, the fishing fleets set out, two or three men in each boat, and fish night and day. The fishermen make their own equipment which they use in various ingenious ways, sometimes catching fish weighing as much as 300 kilograms. With generations of experience to draw upon, seasoned fishermen are able to tell the size and type of fish simply by looking at the ripples on the water.

In winter, when the Sanjiang area becomes a world of snow and ice, some Hezhens catch fish by chopping holes in the ice and drawing nets between two holes. But more go hunting in the mountains, traveling in small groups on sleds drawn by five to eight dogs.

The dogs also help in the hunting, holding large animals at bay until the hunters close in for the kill.

In fact, dogs are so useful to the Hezhens that every family raises four or five of them. And a good hunting dog is so highly valued that its owner will often refuse to part with it, even in exchange for a good horse. Many local folk tales deal with hunters and their dogs.

Daily Food

Before the Hezhen people learned to raise farm crops their diet consisted almost exclusively of fish and meat and their clothing of fish and animal skins. The women preserved fish by cutting them into strips which were dried in the sun. Roes were made into caviare and stored away. Dried fish served as rations on long journeys and, during the Qing dynasty, as tribute to the emperors.

Now that the Hezhens' mode of existence is more diversified, their staple food has come to include wheat which they grow themselves, and rice from other areas. But it is evident from their everyday lives that they are fundamentally still a fishing people. When working, for instance, they wear water-resistant footgear made of fish skins. And their daily fare consists large-

ly of fish prepared in many different ways.

If you happen to be the guest of a Hezhen family, you will most likely be treated to home-made fruit wine, spirits and a traditional delicacy called *shashengyu*. This last is made of boned and shredded carp mixed with potato shreds, bean sprouts and pea-starch vermicelli, and seasoned with oil in which chili peppers have been fried, soya sauce, vinegar and salt. This is a special dish for wedding banquets and honored guests.

Taking part in a Hezhen drinking party is an interesting experience. Hosts and guests sit in a circle on a *kang*—the heated brick bed which occupies a chief position in the houses of north China. In the center stands a short-legged table with a wine pot and a single cup. One guest fills the cup and drains it, and then passes it to his neighbor who does the same. After the cup has gone once around the table, the second "round" begins.

Hezhen Culture

The Hezhen language belongs to the Altay linguistic family. In the course of history the Hezhen people

mingled and intermarried with Manchus, Hans and Koreans, establishing close relationships with these peoples in politics, culture and religious beliefs as well as language. Nevertheless, they have their own culture. Long ago, they invented a calendrical system based on the wax and wane of the moon, and made a wooden device for calculating the day and the month which was still used by Hezhens in remote mountain areas at the time of liberation.

Decorative designs are very popular among the Hezhen people. They are seen in the ornamental patterns engraved in relief or intaglio on wooden furniture and daily utensils. Floral designs are embroidered on the hats, scarfs and garments of men and women as well as on such things as tobacco pouches and cushions.

Hezhen literature exists in the form of folk tales, ballads and *yimakan*, a traditional form of Hezhen ballad in which singing is interspersed with narrative. In rhymed verses, these ballads deal with such subjects as legendary and historic events, heroic exploits and love. The Hezhens are good singers, and many are able to improvise verses as they go along. □



Hezhen commune members and PLA men go hunting together.
Photos by Xinhua

Hezhen fishermen in winter.

In the Cultural Palace of the Nationalities

ZENG SHUZH I

AT the western end of West Changan Avenue in Beijing stands the Cultural Palace of the Nationalities designed in traditional Chinese style and built in 1959. It is one of the ten architectural landmarks, including the Great Hall of the People, Beijing Railway Station, Museums of Chinese History and the Chinese Revolution, the Military Museum and others, erected in 1959 to commemorate the tenth anniversary of the founding of the people's republic.

The building consists of a central tower and two three-storey wings. The tower, 67 meters high with 13 storeys, was in its time one of Beijing's tallest structures. Fronting it is a fountain designed in the form of lotus flowers. With its peacock-blue glazed roof-tiles and white glazed wall-tiles, the entire building gives a feeling of magnificence and elegance.

The central tower houses 18 exhibition halls and a library. The two wings are devoted to en-

tertainment and recreation, housing an auditorium, a club and a dance-dinner hall.

Every day a thousand or so people, both members of China's many nationalities and foreign tourists come here to visit. Currently their attention centers on an exhibition on the achievements made by China's minorities. Guides at the exhibitions themselves come from more than 50 of these nationalities. Aside from exhibitions, cultural exchanges and meetings on nationalities work are frequently held here.

The library on the ground floor of the central tower has 300,000 volumes and is mainly used for research. Included in its collection are Marxist-Leninist classical works on the national question, books on policies and decrees concerning the nationalities and periodicals in their different languages. It also contains rare and ancient books such as Buddhist sutras in Sanskrit inscribed on palm leaves, Buddhist scriptures in Tibetan, and local chronicles.

The auditorium in the east wing, which seats 1,100, is equipped with

the first Chinese-made installation for ultrasonic simultaneous interpretation. When the auditorium was being fitted up in 1959, the late Premier Zhou Enlai came to look it over. At his suggestion, an extra row of seats was added in the wide middle corridor so as to increase the capacity. It is now Row No. 18.

The section for entertainment and recreation in the west wing has a dance-dinner hall on the second floor and a restaurant in the Moslem style on the third, which serves dishes in the various cuisines of the national minorities — including mutton ribs, roast leg of lamb and boiled mutton in the Mongolian style, pilaf and shashlik from Xinjiang and instant-boiled mutton developed in Beijing. The meat is from fine breeds of sheep specially supplied from Xinjiang and Inner Mongolia. Leading functionaries of the state and Party often entertain foreign friends here.

The club in the basement floor under the dance-dinner hall has a bowling alley, billiard room, table tennis room, shooting gallery, indoor archery chamber and rooms for *weiqi*, Chinese chess, mahjong, card games and other pastimes. A bar and snack counters serve the guests.

With the development of China's tourism and the increased relations with foreign countries, 20 well-furnished suites on the third floor have recently been opened for residence by tourists. They can hold banquets, cocktail parties and tea parties in the dance-dinner hall. Tourists can come to dance from 9 p.m. to 2 a.m. on Wednesdays, Fridays and Sundays. The club is open from 9 p.m. to 2 a.m. on Tuesdays, Thursdays and Saturdays.

Foreign business visitors and residents also come here for talks with their Chinese opposite members. So this Cultural Palace is not only a place for promoting friendship and cultural exchange among China's nationalities. It also helps to strengthen the ties of friendship between the Chinese people and those of many other countries. □

ZENG SHUZH I is a staff reporter for China Reconstructs.





Snacks between dances.

Wang Hongxun



Ballroom of the Nationalities Palace.

Huo Jianying

Drinks served over the bar.

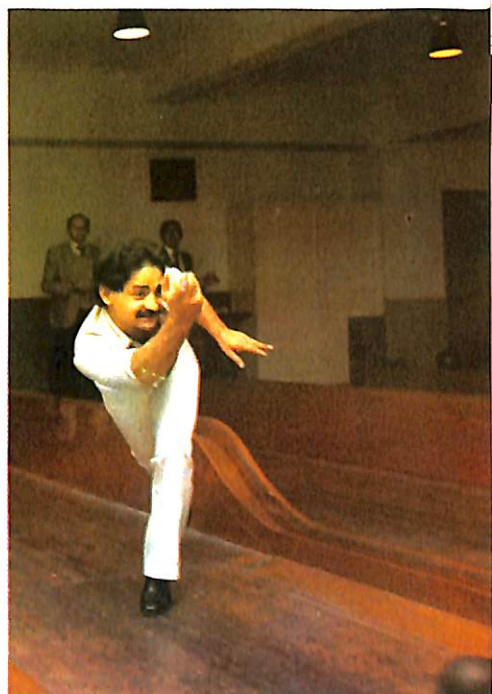
Huo Jianying



Billiards.
Huo Jianying



Indoor archery. *Huo Jianying*



On the bowling alley. *Huo Jianying*

Floor show. *Huo Jianying*

China's Religions

ZHAO KUANGWEI

CHINA is historically a country of many religions. Today her constitution stipulates that the people have freedom to believe or not to believe in religion, and freedom to propagate atheism. People's congresses (organs of the state power) at various levels include representatives from different religious groups. Followers of different religions have their own national organizations: the Chinese Buddhist Association, Chinese Taoist Association, Chinese Islamic Association, Chinese Patriotic Catholic Association and the Three-Self Patriotic Movement Committee of the Protestant Churches of China.

BUDDHISM was once the most influential religion in China. Historical records show that it was widespread in northwestern China as early as the 3rd century B.C. In the first century A.D. Kasyapamatansa and Dharmaraksa, monks from ancient India came through the "Western Regions" (today's Xinjiang Uygur Autonomous Region) to Luoyang which was China's capital under the Eastern Han dynasty (25-220 A.D.). There they built the White Horse Monastery, the first in the whole country. From then on, Buddhism began to penetrate into China's interior provinces.

Buddhists of the Han nationality (China's majority) tended to Mahayana which lays stress on the release of the individual from worldly cares as well as the deliverance of all living beings. The Mahayana doctrines were brought from Nepal into China's Tibetan-inhabited regions and there mixed with the old Tibetan religion, Bon — a form of Shamanism — to give

rise in the 8th century to Lamaism which later spread eastward into areas inhabited by the Mongolians and became the dominant form in both Chinese regions.

Hinayana Buddhism, stressing only self-release from worldly cares, began to spread in the area of southwest China inhabited by the Dai nationality in the 13th century, becoming the main belief among these people.

TAOISM, a religion peculiar to the Han nationality, was institutionalized in the second century A.D. by Zhang Daoling. But its origin can be traced much farther back to the animistic worship of nature and of various spirits by the ancient Hans. By the 14th century, it had divided into many sects. From the 14th century it developed into two main trends: *Quanzhen Dao*, emphasizing self-cultivation to attain immortality and *Zhengyi Dao*, involving belief in charms and spells.

Many of the Hans used to worship not only the Buddha but also the Taoist gods. So, among the ordinary Han people, it was not easy to distinguish the Taoists from the Buddhists. It is estimated that there were about 500,000 Buddhist monks and nuns and 8,000 Taoist priests and nuns in China at the time of liberation.

Both Buddhism and Taoism had a deep effect on the development of ideas, culture and popular customs in ancient China. Many famed Buddhist buildings are today protected by the people's government as treasures of China's culture and art. Among these are the White Horse Monastery (68 A.D.) and Longmen

(Dragon Gate) Grottoes (6th and succeeding centuries) in Luoyang, Henan province, the Yungang Grottoes in Datong, Shanxi province (5th century), the Potala Palace in Lhasa, Tibet (first built in the 7th century and reconstructed in the 17th century), the Guang Ji Temple (1115-1234) and Stupa (built for the Tooth-Relic) in Beijing, the Ling Yin Temple in Hangzhou, Zhejiang province (13th century) and the Dunhuang Grottoes in Gansu province.

ISLAM was brought to China in the 7th century by merchants from Arabia and Persia. In 651 during the Tang dynasty, an envoy from Arabia familiarized the emperor Gao Zong in detail with the Islamic doctrines and the customs of the Arabs. Hence Chinese historians count it as the year in which Islam was introduced. The Islamic faith was adopted mainly by ten of China's nationalities — the Huis, Uygurs, Kazaks, Uzbeks, Tajiks, Tartars, Kergezs, Dongxiangs, Salas and Baoans. Together they number nearly 10 million.

CHRISTIANITY, according to records, came to China through missionaries in several periods of history.

The first was in the 8th century and the faith they then brought was Nestorian Christianity, called the *Jing* religion in China where it existed for 300 years before dying out.

The second occasion was in 1294 when Giovanni di Montecorvino, a member of the Italian Franciscan Order came to Khanbaligh (Beijing), capital of the Yuan dynasty, to spread Roman Catholicism. At

Young Forester Hercules

the end of the 16th century, Catholicism was brought to China again by the Jesuits Matteo Ricci of Italy and Johann Adam Schaall von Bell of Germany. They came to Beijing and built a church near its Xuanwu Gate which is one of the oldest Catholic churches in China.

Protestantism was propagated by British, American and other missionaries from the early 19th century. It was only then that different Christian congregations mounted in numbers in China.

In the early years after liberation China had about 3 million Catholics and 700,000 Protestants.

In the case of Christianity, whose spread in the 19th century was closely entangled with imperialist efforts to penetrate and rule China, the principle in the past 30 years has been to make the churches national and independent of foreign domination. But, for Christians as for all other faiths, contacts with fellow believers in other countries are encouraged as part of the building of friendship between the people of China and those abroad, and mutual visits and delegations are increasing.

SINCE the liberation, the number of religious believers of all faiths in China has grown less because of the spread of science and the materialist outlook. However, those who hold to their beliefs are protected by the policies of the Party and the state. Though these policies were violated seriously in the period of the influence of the gang of four (1966-76), they are now being vigorously reaffirmed. Places of worship unwarrantedly closed are being reopened. Besides the relevant provision of the constitution, China's new code of criminal law, effective from this year on, includes the stipulation: A state functionary who unlawfully deprives a citizen of his legitimate freedom of religious belief or violates the customs and folkways of a minority nationality to a serious degree shall be sentenced to imprisonment or to detention. □

The 27-year-old Zhang Zhifang, six years ago a young forester, is today China's champion weightlifter in the lightweight (60 kg.) snatch event, with a peak record of 125.5 kg.

His story goes back to a summer day in 1965, when a group of pupils were playing football on the sports ground of a Shanghai amateur athletic school. Among them there was a sturdy boy who attracted the attention of a weightlift coach.

"Like weightlifting?" the coach asked.

"I guess so," though puzzled by the unexpected question Zhifang soon answered. "Dad likes lifting car wheels for practice and he teaches me, too."

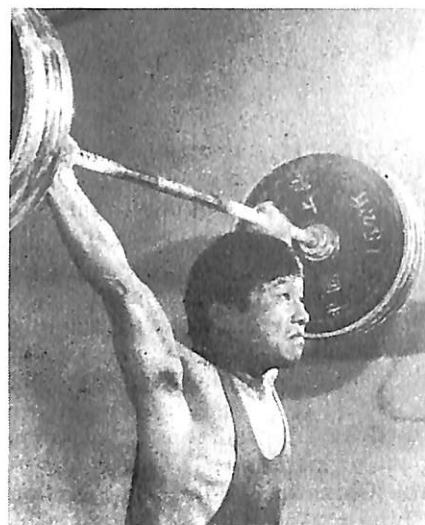
His first try with the barbell drew a smile of satisfaction from the coach.

In three years of special training in the school, Zhifang made immense progress. He produced one of the best scores in junior sports held by the Shanghai municipality. Not long afterwards he was put on the Shanghai Weightlifting Team. The team was disbanded in 1970 during the cultural revolution. Zhang Zhifang, then 17, became a lumberman in Jinshan Forest Farm of the Da Hinggan Ling in China's most northern province, Heilongjiang.

When he was leaving for the forest job, his father told him, "Keep on with your lifting, Son. It'll keep you fit for your work. And there may be a chance to join a team yet."

In the timberlands, Zhifang made a "barbell" out of a gigantic larch and did not let a day pass without practicing. He would often practice the clean and jerk in his dreams, and once hurt his knuckles when they crashed against the wall.

Zhifang became a Hercules as a result of prolonged practice. He



Zhang Zhifang.

Sun Wenchu

could carry over 150 kg. and did two men's work. Once in a county weightlifting match he won the first title.

In 1974 Zhang Zhifang was transferred to the Heilongjiang provincial weightlifting team. In 1975 he snatched the first place in the 60 kg. event with 107.5 kg. and fourth place in total points in a national contest. In September the same year he took part in the Third National Games in Beijing and came first with 110 kg.

After he was taken into the national weightlifting team he made even bigger headway under the direct instruction of China's veteran strongman Huang Qianghui, breaker of several world records.

In April 1976 Zhang Zhifang came first in the 60-kg. snatch with 117.5 kg. in the Asian Championships held in Bangkok, Thailand.

In 1977, he broke China's 11-year record in this event with his 125 kg. (exceeding the best world record of the year by 2.5 kg.).

During winter training in 1977-78, Zhang Zhifang unexpectedly

hurt his knee. As the injury was serious some people thought it would end his weightlifting career. But Zhang Zhifang refused to accept this view. While his leg was being treated he went on doing waist and arm exercises.

Perseverance and practice brought their reward. Only half

a year after his mishap, Zhang Zhifang snatched 120 kg. and won first place in December in the 1978 Asian Games in Bangkok, Thailand. In November 1979 he again reached 125 kg. and won the second spot in the World Weightlifting Championships held in Salonica, Greece.

A 'New Weapon' for Chinese Women's Volleyball

LANG PING bears watching, said observers at the Second Asian Women's Volleyball Championships held last December in Hongkong.

In top form when the Chinese Women's Volleyball Team met their Japanese counterparts in the finals, this up-and-coming youngster paved the way to victory with her unique over-the-block spikes. With the score tied at 13 and then 14 in the opening game, Lang Ping drove home a crucial point with a powerful cross smash. This, followed by an out-of-the-court spike by a Japanese player, clinched the first game. The 96-minute match ended 3:1 as the Chinese team beat the Japanese team—six times champion and six times runner-up in world volleyball championships. Lang Ping alone made 20.5 points of the 60 scored by the Chinese girls. The Chinese team then went on to win the championships after downing the South Koreans 3:0. Lang Ping's attacking power caused a sensation in Asian volleyball circles. Foreign commentators called her the Chinese team's "new weapon."

Born in Beijing, Lang Ping loved outdoor games as a child. She was already a sports enthusiast in primary school, and in middle school joined the school track-and-field team. Once when she was 13 her father took her to a volleyball match between the Beijing Women's Volleyball Team and a team from Peru. Lang Ping was fascinated. She hoped one

day she would be able to play on the same court.

Her wish came true when she was spotted by a volleyball coach of the Beijing Second Amateur Sports School. The school's training program was a stiff one, with the trainees running, tumbling and diving for the ball out of doors under the blazing sun of summer or in mid-winter cold. But Lang Ping stuck it out.

Chosen to play on the Beijing Youth Volleyball Team she began an even tougher regimen. She practiced the grand crouch with 30 kg. barbells on her shoulders, lifting an aggregate weight of 20

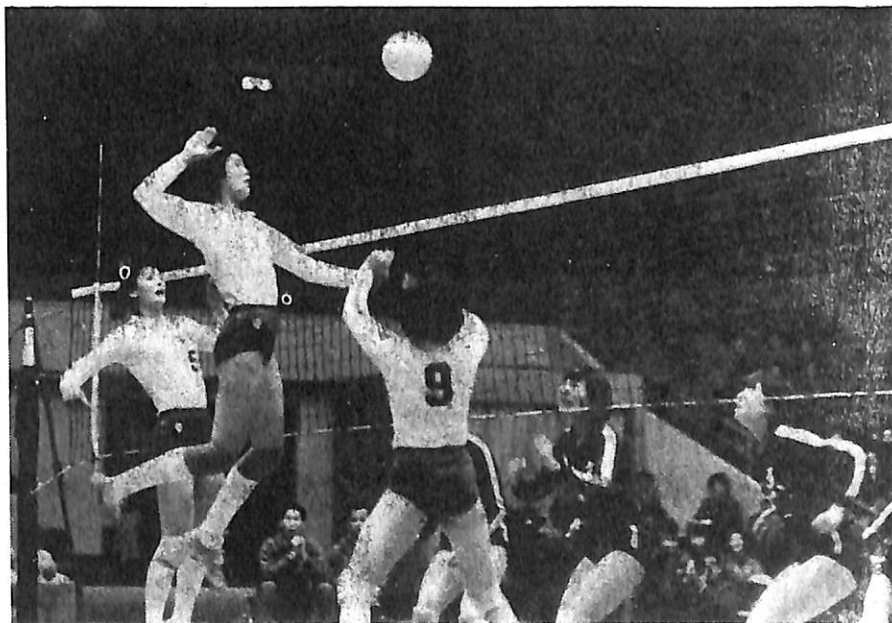
tons at each training session. She was often seen running lap after lap around the 400-meter track to build up her stamina. Practicing smashes, she refused to stop until she had rammed across 100 successful spikes. She set herself a rule—if she muffed one smash she had to jump several times in forfeit. When her coach asked her to correct a faulty technique within two weeks, she did it in one. Soon her over-the-block spikes were honed razor sharp, with an ever higher smashing point and tricky attack angles.

Lang Ping was taken into the Beijing Women's Volleyball Team at the age of 17 and played as a member of the Chinese team both at home and abroad in the following year. When her team visited Japan last June Lang Ping scored 12 points in one of the eight matches played, more than any member of either team.

Lang Ping stands a tall 1.84 m. Cheerful and open-minded, she has an air of naiveté that belies her 19 years. But already a year ago she made her début at the Eighth Asian Games as her team's ace attacker. Today, some international sports analysts hold that Lang Ping shows promise of becoming one of the world's best players. □

Lang Ping leaps for a smash.

Lu Yingliang



How to Climb a High Building with Short Ladders

—The Development of Dalian Rolling Stock Plant

XIA ZHENGQUAN

IN 1972, the Ministry of Railways demanded that Dalian Rolling Stock Plant in northeast China construct 4,000-h.p. diesel *Dong-feng* Model 4 locomotives, instead of the 2,000-h.p. ones it had been manufacturing since 1960. Sceptically, some of the workers remarked, "You can't climb a high building with a short ladder! How can our out-of-date equipment from the twenties produce such a new locomotive?"

In fact obsolete equipment was a real disadvantage. Dalian Rolling Stock Plant had been first established in 1901 by Tsarist Russia. Later it was taken over by Japanese imperialists. The factory's job was to repair and assemble foreign-made locomotives. After the founding of new

China, home-made locomotives ran on the old and newly-laid tracks. From 1954, the plant underwent three major expansions and improved its technology so as to enable it to design and manufacture steam and diesel locomotives and passenger and freight cars of various models.

Because of the ministry's demand, a new technological layout had to be designed, eight percent of the equipment renovated and new machinery introduced. Still the factory had many skilled workers and a strong force of technicians. Using their abilities, the high building could be scaled by linking together the short ladders. So every workshop laid out plans for a technical overhaul.

The workers in the locomotive workshop No. 2, for example, con-

verted a lathe made in the United States in 1912 into a semi-automatic hydraulic transmission lathe with seven cutting tool heads and seventeen tool bits. This raised efficiency six fold. The men in the machine workshop No. 1 turned seven lathes into a production line to replace 31 lathes, thus raising efficiency ten fold. This also released 56 workers for other jobs and saved 700 square meters of floor space.

In the foundry, crankshaft moulds were cast by hand formerly. Weighing 30 kilograms, it required even a strong man 20 minutes to remove one. The slightest carelessness resulted in a damaged sand mould. So the workers got together and devised a machine to remove the mould easily in only half a minute.

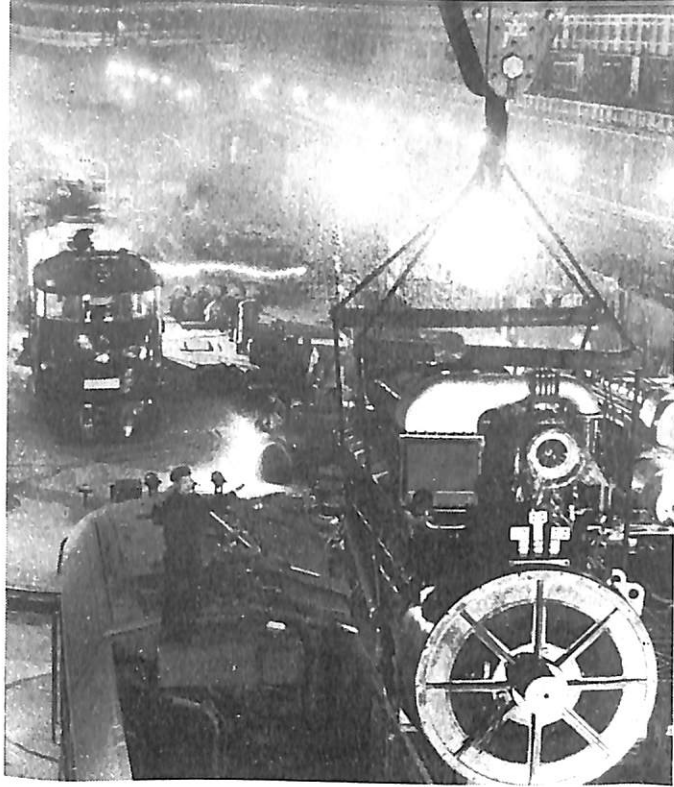
As the shortage of raw materials was also a problem, the workers re-cycled old machine parts and scrap metal. In other countries the crankshafts are made of a nickel alloy on diesel engines. After more than 1,000 experiments, technicians obtained this alloy. Technical improvements naturally freed more manpower for other jobs. Originally the state planned to invest 20 million yuan and bring in 2,000 more people for the project over 4-5 years. Without an additional worker, the plant accomplished its task two years ahead of time, saving 17 million yuan. In the process they increased and trained their professional staff.

Now, eight years later, this eighty-year-old plant has taken on a new look. The foundry shop is no longer shrouded by a thick pall of smoke and dust, 70 percent of the work there has been taken over by machines; newly-adapted silent hydraulic riveting machines

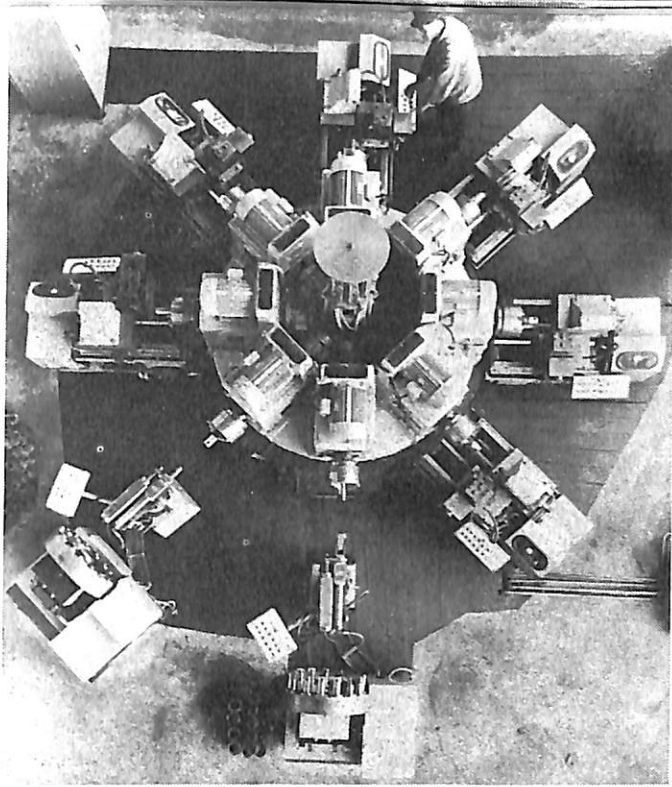
XIA ZHENGQUAN is an engineer of Dalian Rolling Stock Plant.

Engineer Shu Zhengfang (center) and colleagues working on an automatic device for checking silicon parts.





A high-power diesel engine assembly line.



An automatic production line processing tubes in machine workshop No. 3.
Photos by Xinhua

and a new welding device with carbon dioxide protection help the welders, who formerly almost all suffered from the occupational hazard of partial deafness. Now 80 percent of the formerly hand-operated work in the locomotive assembly section is done by machinery.

The Role of Technicians

In 1960, when the 2,000-h.p. diesel locomotives were in trial production, building the engine, four meters long and weighing 5.7 tons, caused a big problem. Aligning the dozens of cylinder holes and piston rods required great accuracy. Abroad, this work was done by a kind of heavy-duty boring machine, but China had no such equipment then. All we had seen was a photograph of a horizontal boring machine in a foreign magazine. At that time I was working in machine workshop No. 1. An old worker and I designed, tested and finally built two boring machines, one for drilling holes in the cylinders and one for drilling them in the engine.

Ordinary lathes can't do the job of processing the ten crankpins for

the shaft, since this operation requires high precision. We also lacked the specialized foreign equipment for this job. So, helped by fellow workers, I designed a device based on the differential gear system. The results have been good.

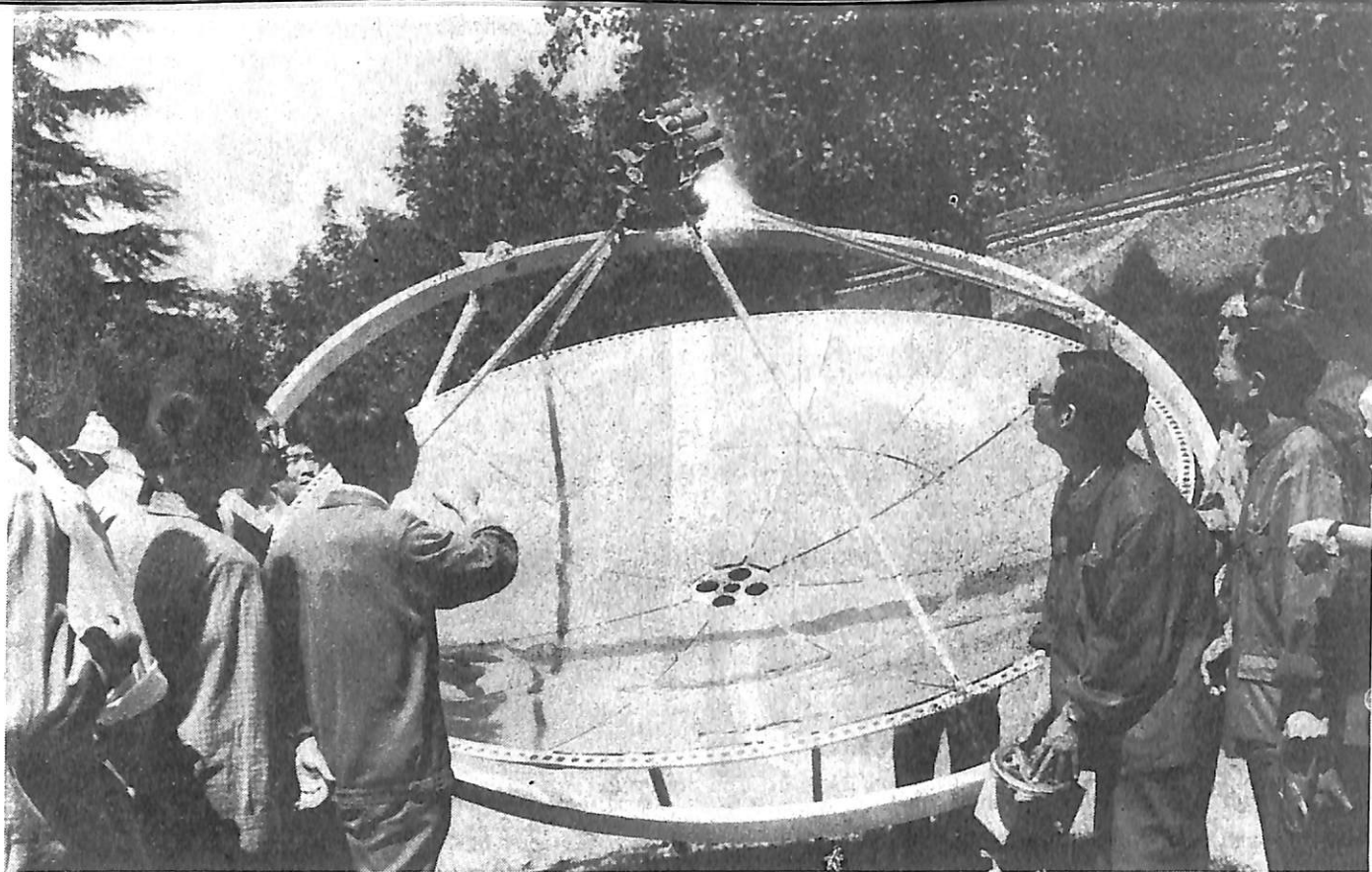
In 1973, when we were working hard to produce the 4,000-h.p. *Dongfeng* Model 4 diesel locomotive, we got stuck over the engine. Weighing 5.7 tons, it needed 700 holes drilled in it. The whole job was an arduous process, as each hole was drilled one by one. Then an old worker, Dong Yansheng, suggested building a machine to drill all the holes simultaneously. Xiang Yiying, an engineer, supported his idea and drew up a design which was immediately passed by the plant managers. Four old workers and four technicians under a workshop leader formed a group with the engineer as the general designer. In three months they made over a thousand blueprints. Twenty-four workshops were involved in the project. Sixteen months later, ahead of schedule, a numerically controlled machine, 25 meters long, weighing 200 tons, was produced, which can

drill 57 holes simultaneously. As a result efficiency has increased seven fold.

Trial Run

The first 3,600-h.p. *Dongfeng* Model 4 diesel locomotive produced by our plant pulled a long train of passenger cars out of Beijing Railway Station one July day in 1976. On its trial run, it sped along some of the most difficult track in north China, up steep mountains, down sudden slopes and round many bends. In some places the track rose 34 meters every kilometer. The engine was made to stop several times to test its efficiency.

Compared with foreign locomotives of the seventies, the *Dongfeng* Model 4 reaches world levels in fuel consumption and its resistance to high or low temperatures. It ran successfully on the route from Dalian to a small station on the Qinghai-Tibet Plateau. In the past three years, the Dalian Rolling Stock Plant has increased its annual output from 150 to 250 diesel locomotives. Now it plans to reach world technological standards in the processing of its main parts by 1985. □



The welding machine invented by the Solar Energy Research Institute in Hai'an county, Jiangsu province.

Yang Limen

Solar Energy in China

GONG JIANYE

AS China does her best to develop oil, coal, hydraulic power and other conventional sources of energy, she is also speeding up the utilization of clean and cheap solar energy. And since about two thirds of her 9,600,000 square kilometers get an average of 2,000 hours of sunshine a year, China has abundant resources of such energy. It is already being used in industry, agriculture, communications, and public health as well as in people's homes.

Solar Stoves

Solar stoves began to be used for cooking in China already in the late 50s. Recently a bride in Yucheng county, Henan province

received a solar stove from her father as a part of her dowry. One of the most popular types produced in this locality, it consisted of an umbrella-shaped mirror reflector, a metal stand and a burner. Other types of solar stoves have been invented by the people there, among them one with a bigger reflector fixed on a cement base. Its focus temperature is high enough to bring three kg. of water to a boil in 12 minutes.

Solar stoves are a big hit with people living in the countryside where firewood is still a major fuel and in some places hard to get. These stoves are helping to solve their problems. For example, the peasants in Shangzhai village in the Gannan Tibetan Autono-

mous Prefecture in Gansu province had always been harrassed by shortage of firewood, until solar energy technicians and skilled local craftsmen designed a simple solar stove in 1978. Small mirrors were pieced together on paper-board to form a cone-shaped reflector on a wooden stand. The stove costs so little to make that anyone can afford it. Now each of the 200 families in the village has one, saving 250 tons of firewood a year.

Solar Heating Systems in Qinghai

In Minqin county on the edge of the Tengger Desert in China's northwestern province of Qinghai stands an unusual house.

The outside of its southern wall is painted pitch black. In front of the wall and at a slight distance a layer of ordinary plate glass is affixed. Solar radiation penetrating the glass heats the air in the intervening space. And as the warm air rises it flows into the room through an air duct in the upper part of the wall, while cold air flows out through another duct lower down. This air circulation keeps the room warm.

The designer of the house is its owner Peng Zhongsheng, a young teacher in a local middle school. He became interested in solar energy while still a student, and made a simple solar stove on his own. He decided to try and build a house with a solar heating system a few years ago, after coming across descriptions of such houses built abroad. His idea was seconded by his wife and supported by local solar energy research departments.

Between 1975 and 1976 Peng Zhongsheng made six different designs and three models for solar-heated houses. By trial and error he gradually got the knack of making solar-heating systems, raising their heating efficiency from 20 to 40 percent.

His successes have opened up broad possibilities. In 1978 a five-story apartment building with the sun providing 80 percent of its heating was completed in Xining, the capital of Qinghai province. Many other solar-heated buildings are being designed.

Two national conferences have been held in China in the last five years, at which participants exchanged experience in studying, experimenting on and popularizing the use of solar energy. At the one held last year, over 300 models serving various purposes were displayed.

Nationwide Applications

Most of the models were of water-heating devices used in pre-heating water in boilers, preventing concrete parts from freezing, raising fish, cultivating seedlings and in fermenting processes. They are also widely used in such service units as barbershops, hotels, bathhouses and hospitals, as well as in schools, offices and factories. Water-heating devices have been installed in 360 units in Beijing. The Huarong Barbershop, for instance, which caters to about 400 customers a day, has a rotating solar device that supplies ten tons of hot water daily — enough for the needs of its customers and for baths for the 24 hairdressers working there. The Wai Wen Building where the *China Reconstructs* editorial department is situated has installed a solar apparatus which heats water for shower baths for six months a year.

The solar energy battery, first employed in man-made earth satellites, has come into use in China's railways and waterborne

transport. In Shanghai, Tianjin and other ports, equipping navigation beacons and light buoys with silicon solar energy batteries has eliminated power failures due to shortcomings in ordinary storage batteries and minimized manual labor needed in replacing batteries. Along China's coastline, navigation beacons with silicon solar energy batteries are visible at a distance of 14 nautical miles for as long as 30 days even in cloudy weather. Thirty sets of train signals powered by solar energy batteries have gone into operation at 20 railway stations in China.

Solar energy batteries have also been used in electrified fences for cattle and sheep in pastoral areas, lamps for rubber-tapping workers and anti-pest black light lamps in paddy fields. Experiments have been carried out on solar power generation, and on making welding machines and steam turbines that use solar energy.

Scientists estimate that the earth gets as much energy from the sun every 15 minutes as the whole world consumes in a year. The energy China gets from the sun per year is equivalent to that furnished by 1,200,000 million tons of coal, almost 2,000 times more than the annual national output of coal. So the utilization of solar energy opens up much broader prospects for the future of mankind than the heavenly fire stolen by Prometheus in the ancient Greek legend. □

The solar energy bathhouse attached to the municipal guest house at Lhasa, Tibet.

Gu Shoukang



The solar stove used by a peasant family in Yucheng county, Henan province.

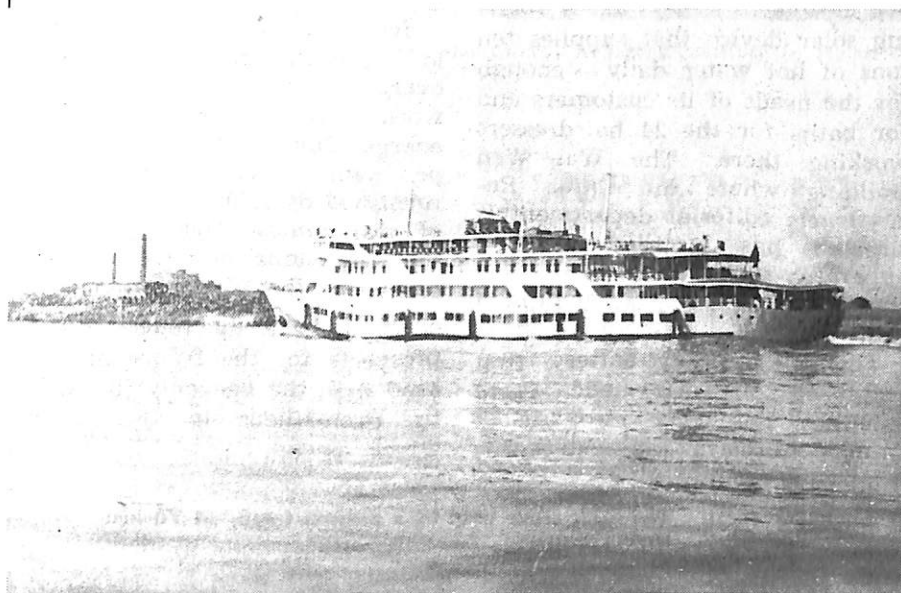
Wang Gangfa



On the Tourist Ship

Kunlun

YOU ZHENGWEN



IN November last year China's first tourist ship, the *Kunlun* made her maiden voyage on a special sight-seeing route along the Changjiang (Yangtze) River. She carried the first group of 35 tourists — Americans, West Germans, Mexicans and Kenyans — on a 1,980-kilometer cruise from Nanjing to Chongqing.

The Changjiang, 6,380 kilometers from source to mouth, is

China's longest river. It plunges down from the perennial snows of the Qinghai-Tibet plateau, known as the "roof of the world", winds in and out among the soaring peaks and deep valleys of the Hengduan range, cuts through the rugged Yunnan-Guizhou plateau, traverses the Sichuan basin and finally, in stately grandeur, flows down to the East China Sea.

The *Kunlun* cast off from Nanjing, the 2,000-year-old city that

was the capital of eight of China's dynasties. Soon she was moving through the famous rice-producing Wuhu region. Then she passed, one after another, the ancient naval warfare sites where hundreds of thousands of sailors and waterborne troops fought pitched battles during the Three Kingdoms period in the 3rd century, and the serene elegance of Mount Lushan. Roughly midway, she reached the industrial city of Wuhan, scene of the uprising by modern Chinese revolutionaries who overthrew China's last feudal dynasty in 1911.

Above Wuhan the vessel negotiated rapids and shoals, entered the narrow canyons famous as the Three Gorges and finally reached its destination Chongqing, the largest city on the upper reaches of the navigable section of the great river. For nine days and nights the passengers were regaled with charming and everchanging scenes along the river, and delighted by the friendship and good cheer that made the trip hard to forget.

Nightmare and Birthday Cake

On the ship's first night out of Nanjing, Mrs. Laurene Berger, an elderly American woman, suddenly got out of bed at 1:30 a.m. half-waking from one of the nightmares to which she was subject. Picking up her bags she came out of her cabin and insisted on going ashore at once. A hastily summoned interpreter explained to her that the ship was in the middle of the Changjiang River and there was no way of landing. Even the head of the tourist group came from his cabin to try to dissuade her.

Just then, Xiao Liu, a young woman crew member noticed that a zipper on one of Mrs. Berger's bags had become unstitched. Slipping away, she came back a minute later with her sewing kit and gestured to show that she wanted to stitch the zipper back in place. As Mrs. Berger watched the Chinese girl working away with nimble fingers, she came to herself



A chat on deck.

You Zhengwen



Retired American lawyer John Pollitt and his wife in their first-class cabin.
You Zhengwen



Skipper Liu Bingchen presents a birthday cake to Mrs. Berger.
You Zhengwen

Watching the scenery from the "Kunlun."

You Zhengwen



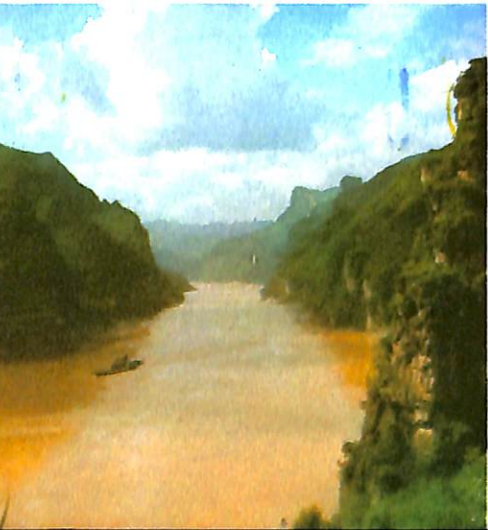
Dawn over the great Chang-
jiang River Bridge at Nanjing.
Wang Guanmin



Two rivers, the Hanshui and the
Changjiang, meet at Wuhan.
Huang Keqin

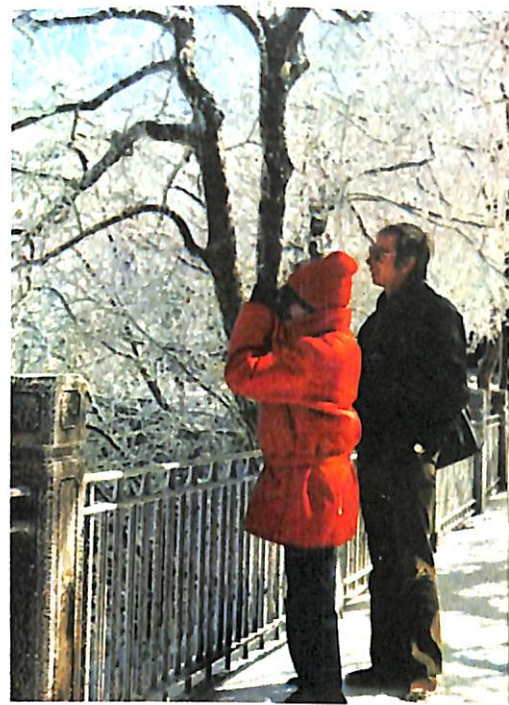
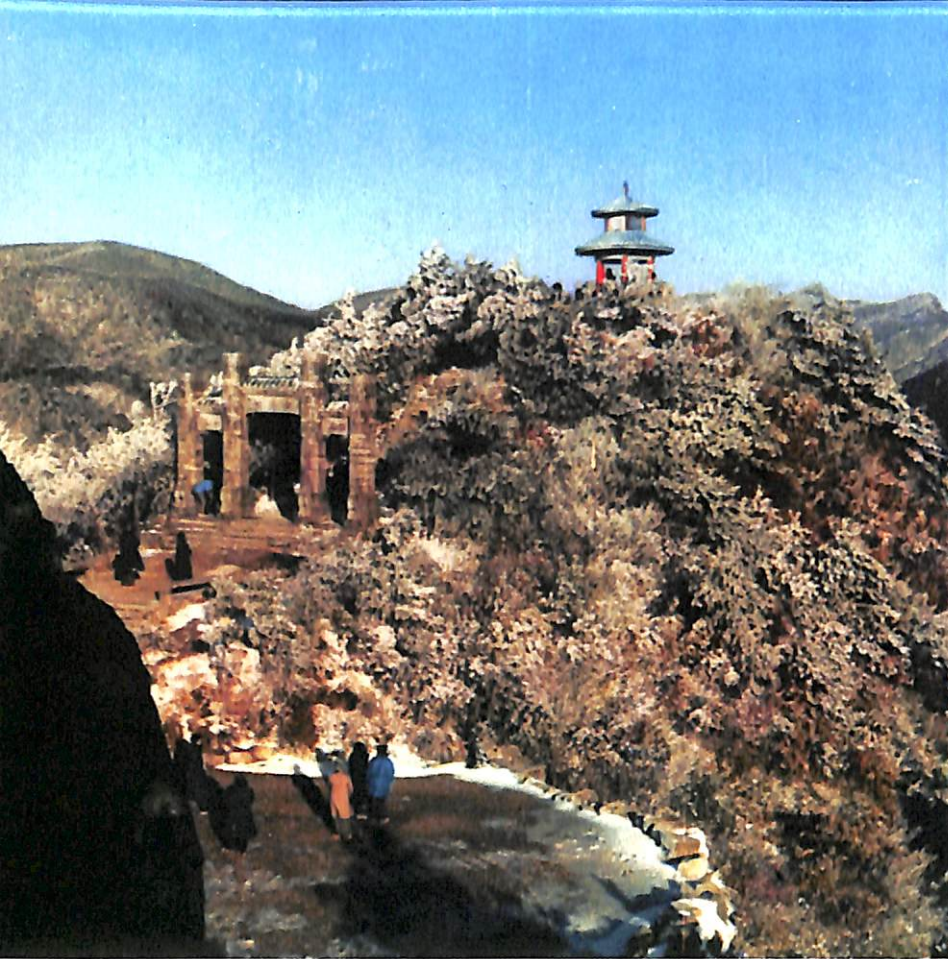


The Xiling Gorge—one of the Three
Gorges of the Changjiang (Yangtze).
Liu Chen



Berthing at night in Chongqing.

Xie Jun



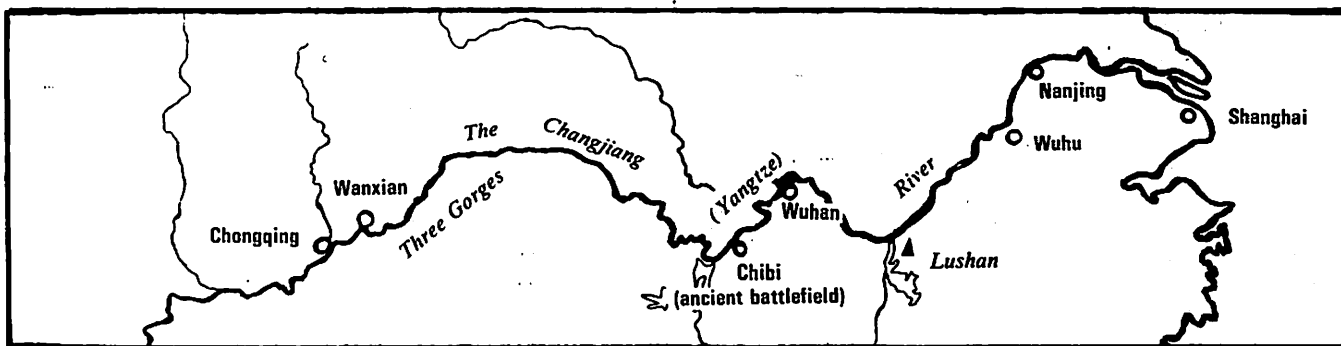
Willim Hurst of Kenya and Adriana
of Mexico at Mount Lushan.
You Zhengwen

Lushan view. *You Zhengwen*

The "Kunlun" stops at Wanxian in Sichuan province.

You Zhengwen





and grew calm. When the job was done she put her arm around Xiao Liu's shoulders, called her a good girl, went back to her cabin and slept well until the next morning.

The day the ship berthed at Wuhan happened to be Mrs. Berger's 70th birthday. And the ship's captain, Liu Bingchen came in person to present her with a cake. Passengers and crew crowded around to toast her and sing "Happy Birthday to You!" In high spirits, Mrs. Berger clinked glasses with her well-wishers and joined some young people in an impromptu dancing party. "Here in China the warm friendliness makes you forget your troubles," said one of her American fellow passengers.

Photos of Children

Joel Meyerowitz from Boston, Massachusetts, kept snapping pictures of Chinese children wherever he saw them: at the foot of Mount Lushan, on the streets of Wuhan, on the docks at Wanxian in Sichuan province.

Mr. Meyerowitz was a professional photographer, so for him taking pictures was more than a hobby. But why this special interest in Chinese children?

The story goes back more than thirty years to his childhood during the Second World War. He used to forget to come back for his meals when he was out playing. Exasperated, his mother once said to him:

"Do you know that in China, kids your age are suffering because of the war, and many of them go hungry because there's nothing to eat? Here you've got all

this food but you don't eat it because you're too busy playing. You don't realize how lucky you are!"

Somehow these words stuck in his mind. Growing older, he continued to have a special sympathy for Chinese children, especially when he remembered the pictures he had seen in magazines about their plight in pre-liberation China.

In November last year his long cherished wish to visit China came true. From the moment he set foot in the country he took special note of the children. Wherever he went he saw them healthy and happy, well-fed and warmly clothed; and waving and smiling in friendship when they saw foreign tourists. Convinced that their miseries were things of the past, Meyerowitz remarked, "I hope they'll never have to go through another war."

Guanyin — Male or Female?

Is there freedom of religion in China? Are there still churches and temples? Are there any young people among the worshipers? These were some of the questions the tourists asked their guides during the cruise, and no doubt had in mind when they visited the Guiyuan Buddhist Monastery in Wuhan.

The Guiyuan Monastery is 300 years old, its ancient buildings with upswept eaves designed in the style of southern Chinese temples. In front of it is a pond, a drum-and-bell tower and a Maitreya hall. Right at the center of the monastery stands the Daxiong Hall containing an image of Sakyamuni a dozen meters high. To the right stands the Gallery of

Lohans (Arhats) with statues of Buddha's 500 disciples, each in different poses and with different expressions. In the Cangjingge (Scripture Repository) on the left of the Daxiong Hall are preserved 7,000 Buddhist texts from different epochs, some in the form of manuscripts from India, Burma and Sri Lanka. Here too, are many priceless Buddhist relics and ancient porcelains and carvings.

The tourists group happened to arrive here on a Sunday, and the monastery was filled with visitors and the smoke of burning incense. Most worshipers were elderly but a young woman in peasant attire and holding a stick of incense stood praying silently before the statue of Guanyin.

"What Buddha is that?" asked a curious tourist. "And what is that woman praying for?"

An interpreter explained that this was Guanyin, and that many women had believed in the past, and a few still did now, that they should pray to Guanyin when they wanted a son.

This aroused lively interest among the tourists, several of whom took snapshots. One, peering through the viewfinder of his camera, suddenly inquired, "Is Guanyin a male or a female?"

The interpreter was nonplussed. Of course Guanyin was a female as the statue plainly showed! But when he relayed the question to an elderly monastery attendant, he received the following reply:

"No. To begin with Guanyin was a male. He turned into a female later on."

This surprising reply brought demands for an explanation.

"Up to the Tang dynasty," continued the elderly man, "all representations of Guanyin were of a man with whiskers. But because his office, according to Buddhist tenets, was to bring children to the people, it was mostly women who came to pray to him. And for a woman to ask a male god for children seemed inappropriate. So by the Song dynasty, Guanyin was being portrayed as a female."

A Hospitable People

One of the ship's stops was at Shibaozhai, a picturesque small town west of Wanxian in Sichuan province. Behind it stands a huge rock, square and with sides so sheer they might have been cut with a giant cleaver. It is called Yu Yin Shan, or Jade Seal Mountain, and built into its sunward side is a twelve story tower. Wooden ladders inside lead to the roof of the tower and the summit of the rock, where an ancient temple

stands. From here one has a view of the Changjiang River blending in the distance with the sky, and of rugged mountains rising above tiers of terraced fields.

Apart from the scenics, the visitors were delighted by the friendliness and hospitality of Shibaozai's people, who had never played host to foreign tourists before. When the *Kunlun* arrived, virtually the entire population turned out on the little wharf and on the streets, their eyes cordial and curious. Gladys Hess, a retired American teacher greeted them with Chinese words she had just learned: "Ni hao, pengyou! (Hello, friends!)" The people understood and applauded. Some young mothers, held up their babies' hands and urged them to say "Ni hao! Huan ying! (Hello! Welcome!)" in response.

When the tourists left Shibaozhai, the inhabitants turned out in a body again, lining the streets all the way to the riverbank. Some

schoolchildren stood in the water, waving and chanting "goodbye!" in English. From the ship's deck the tourists waved handkerchiefs or blew kisses.

Mount Lushan and Straw Sandals

A cold front was descending when *Kunlun* set out on its return trip. Autumn hues colored the countryside around Mount Lushan in Jiangxi province, and the mountain itself was covered with ice and snow. But visitors landing at the nearby port of Jiujiang would not forego the opportunity of ascending the famed scenic peak. As their bus climbed to an altitude of 800 meters above sea level, they came into a world of silver and white.

William Hurst, the Kenyan head of the tourist group, and Adriana Ariza, a Mexican girl, were particularly elated. They were seeing snow for the first time in their lives. Hurst saw some sandals made of rice straw in a general goods store and bought three dozen pairs, one pair for each member of the tourist group. These, laced on outside their own shoes helped to prevent skidding, to everyone's satisfaction.

Undeterred by the snow and the biting cold, the visitors went to see famous scenic spots on Lushan — the Huajing or Flower Path, Xianrendong or Fairy Cave and Tianchi or Heavenly Pool, and climbed a steep slope up to Wangjiangting (River View Pavilion) to enjoy the sight of the Changjiang River winding mist-enshrouded in the distance.

An interpreter mentioned that it was in sandals like these that men of the Workers' and Peasants' Red Army led by the Chinese Communist Party had walked some 12,000 kilometers during their historic Long March 40 years ago. This caused a stir among the visitors. Some made it a point to dry and clean their sandals to take home with them. Anne Nast, an elderly lady from California, said she wanted her grandchildren to see them, as the most meaningful of all the souvenirs she was bringing home from China. □

Taking refreshments outside the Fairy Cave at Mount Lushan.



How Hybrid Rice Was Developed in China

LOU XIZHI and LIU CHENLIE

HYBRID rice developed in the 1970s in China is now grown on some 5 million hectares. Last year, this is estimated to have brought in 3.5 million tons more rice. When Yuan Longping of the Rice Research Institute under the Hunan Academy of Agricultural Sciences spoke about hybrid rice developments in China at the 1979 convention of the International Rice Research Center held in the Philippines, he had the 200 rice experts from other countries listening with avid interest.

The Start

Yuan Longping is one of the earliest in this country to try creating a hybrid rice. In 1953, he was 22 when he graduated from the Southwestern Institute of Agronomy and was assigned to teach seed selection at an agricultural school in Hunan province. Then in the spring of 1961, while he was on a work-study period in a mountain village near the school, Yuan saw to what lengths the peasants would go to bring in a bigger harvest. He saw local peasants carrying grain over a dozen kilometers by shoulder poles to exchange for better rice seeds.

"You teach people how to select seeds and grow crops, Yuan. Can't you help breed a good local strain for us?" asked a peasant one day. The young agronomist felt he should try; he was teach-

Experimental hybrid rice seed-breeding plot in Cili county, Hunan province.



LOU XIZHI is an assistant researcher in the Chinese Academy of Agricultural Sciences. LIU CHENLIE is a staff reporter for China Reconstructs.

ing seed selection in his botany classes. "If better rice strains could be bred, it would help raise rice yields enormously," he thought. "After all, rice accounts for nearly 40 percent of our total annual grain production."

After he got back to school that year he spent his off-hours experimenting to breed a new strain. Hybrid corn and grain sorghum are now giving higher yields per unit area, he said to himself, so why not rice? But rice is a monoecious plant (having male and female organs in the same individual), and to strip away the stamens by hand to cross-pollinate was too laborious to be economically practical. Yuan Longping decided he would try getting a hybrid rice by cultivating rice with degenerated stamen (androecium) and normal pistil (gynoecium) to obtain a male-sterile line and then interplant this with a normal strain and, through natural pollination, get hybridized seeds from the maternal plant. A male-sterile line requires two different strains as male plants. One is called the maintain line which preserves the male-sterility characteristic in the progeny, and the other is called the restorer line which, when cross-bred with male-sterile plants, yields seeds that have normal male function and strong hybrid vigor.

This was Yuan Longping's strategy and it was scientifically feasible. As early as in 1917 male sterility in rice plants had been observed and attempts were started abroad in the fifties to obtain a hybrid rice strain. Yuan Longping at that time did not know what progress was being made, but he decided he would give it a try.

The 14th Day

Yuan set about finding his male-sterile plants. Under the broiling June sun in 1964 Yuan searched the fields. He spent four long hours each day out in the paddy fields when the sun was at its zenith and the rice was flowering,

often knee-deep in mud and water, peering through the magnifying glass at flowering rice, hunting for male-sterile rice. Then on the 14th day he found a stalk of rice with light yellow reduced anthers! This was what he had hoped to find, rice with degenerated stamens, a male-sterile plant. He dug up this plant, took it to the school and planted it in a pot. He sent in a report and his plans. The school authorities told him to go ahead and offered to assign him an assistant.

One day a young man in rough home-spun clothes walked into his laboratory. He was Li Bihu,



Hybrid rice-breeders Yuan Longping (left) and Li Bihu.

one of the students. He said he had volunteered because he was intensely interested in working on the experiment. He was brought up in a peasant family in a poor remote mountain village and had farmed for several years after finishing his junior middle school. He had joined the agricultural school in autumn 1964 to study grain production. Li was just the man Yuan needed, someone equally dedicated and who had practical farming experience and was willing to work long and hard.

They found another five plants with male-sterility after spending almost two years examining several hundred thousand rice plants. They cross-pollinated these with other strains and bred a few offsprings with male-sterile qual-

ities. It was a meager few, but it was encouraging, and in early 1966 Yuan wrote a paper entitled "On Male Sterility of Rice" which was accepted and published by the *Science Bulletin* put out by the Chinese Academy of Sciences. Departments concerned under the State Commission of Sciences instructed the Hunan Provincial Party Committee and Yuan's agricultural school to do whatever they could to further Yuan's work.

Interruptions and Setbacks

Then the cultural revolution broke out. The ultra-Leftist line of Lin Biao and the gang of four was unleashed and the intellectuals of China were hounded and humiliated. Yuan was not spared either. He was accused of selfishly seeking fame and fortune. His experiments were entirely motivated by a bourgeois ideology that was actively pitted against the socialist road, so the charges went. Benighted demagogues incited some young people to smash up all the pots and plants in Yuan's laboratory. Yuan Longping was shocked and angered, but nothing could dissuade him from salvaging what he could and going on with his work.

"We're working to build socialism," he told himself and whoever would listen. "I will not let anyone or anything deter me." With the help of Li Bihu and another student he hid four pots of rice plants that had escaped the destruction of the young hooligans and they secretly began restoring what they could and went on with their work.

It was not the best of time for research during those politically turbulent years, but they did their best. Then one night in May 1968, some misguided people rooted up all the rice plants in the experimental plot while Yuan Longping and Li Bihu were away from the agricultural school. Yuan and his assistant came back some days later. They did not waste time mourning their losses but searched

everywhere to salvage what they could. Luckily, five young rice plants had somehow fallen fortuitously into a well and these they seized and replanted. Later, three of the five proved to be male-sterile. These were invaluable, and together with the notes they had managed to hide, the scientists had reason to congratulate themselves.

From 1964 when Yuan first began on this experiment to 1970, Yuan and his assistant carried out over 3,000 experimental combinations to obtain a hybrid rice strain. They made some headway, but the progeny of cross-pollinating male-sterile plants as maternal plants with other rice strains as male-plants did not retain all the desired characteristics of the maternal plant. Some seeds from the male-sterile plants were not completely sterile. If the sterility rate of the progeny were not raised

substantially, there would be no hybrid rice. This, Yuan could clearly see, but how was he to find the solution? Yuan was temporarily baffled. This was in June 1970.

At this critical moment Yuan Longping went to attend a provincial meeting to exchange views and news about agricultural matters. Comrade Hua Guofeng, in charge of Hunan province, was present at the symposium and he was very taken by the initial results Yuan and his assistant had obtained. Hua spoke encouragingly to Yuan and his colleagues and asked them to seek the help and cooperation of other units throughout the country to speed up research. The conference awarded a citation to these plucky and stubborn scientists. Yuan and his assistant went home with a greater determination to make a success of their work. They went over care-

Linghu commune in Hunan province getting in late hybrid rice crop.



Hybrid rice seeds leaving Hainan Island. Photos by Lin Chengxian

fully all they had done and analyzed problems confronting them. They saw that, genetically, the strains they had been using were too close in parental generation. This could not bring the desired hybrid vigor. They learned that in Hainan Island there were varieties of wild rice and decided to cross them with a cultivated strain. This should produce a good hybrid strain, they reasoned.

Finding Wild Rice

So in September 1970 Yuan Longping and Li Bihu set off for Hainan Island, China's second largest island after Taiwan. Subtropical Hainan Island is a veritable botanical treasure-house. This is the home of wild rice in China, but finding them was not as easy as they had thought. They asked peasants in many villages and hunted for them in the mountains. One hot, muggy evening as Li Bihu was talking to

some state farm workers he told them why he had come, and described the plants he was looking for.

"Ha, I know the very place!" exclaimed one of the workers, and others said they, too, had seen such plants growing not very far away. They offered to take him there the very next day.

Early the next morning, Lao Feng, an agricultural technician of the farm, came to take Li Bihu to where he had seen wild rice growing in a swamp about a kilometer away. They set out in an ox cart after an early breakfast.

When they got to the swamp, Li leaped into the swamp, and waded through the slime to where wild rice was growing. He did not let the water serpents and leeches worry him. His eyes were searching each of the flowering rice plants. Then he saw one which made his heart stop beating. He examined it with a magnifying glass and found that the flowers of this rice plant had a deformed androecium but normal pistils. This could very well be a male-sterile rice, he concluded. The date was October 23, 1970.

Successes in the 1970s

More such rice plants were found, and in early November Yuan Longping and Li Bihu set up an experimental plot of wild rice on the state farm. The florets on a wild rice spikelet do not all open at the same time. There are intervals of many minutes between each. But Li patiently stood in the scorching sun and pollinated each as they burst into flower. It took him four days to pollinate 63 flowers. It was delicate, exacting work, and had to be properly timed.

He tenderly wrapped the fertilized spikelets in plastic sheets to keep them from the birds and built shelters around them to shield them from the wind. He stayed with his nurselings day and night to guard them. All these precautions and love yielded a tiny harvest of seeds, a new strain which they gave the name of

"Yebai." This formed the foundation line.

In spring 1971, Yuan Longping and Li Bihu sent their findings and seeds to some 20 agricultural research units all over the country to study and test. A search began in many localities to find the ideal male plant for a hybrid rice. In the summer of 1972 Yan Long'an, an agricultural technician in Jiangxi province, together with a peasant named Wen Yousan succeeded in creating a hybrid rice with sterile characteristics. The rate of sterility was 100 percent. These have become the maintain line.

Yuan Longping and Li Bihu continued their work, collecting thousands of varieties of rice and working out new combinations. They, too, bred some seeds with sterile characteristics. Then using a variety introduced from abroad as the male plant they crossed it with their "Yebai" strain as the maternal plant and produced the first generation of fertile and true breeding hybrid rice, that is, the progeny could self-pollinate to produce seeds. The viability of these was stronger than the parent plants. Finally, in 1973, after nine years, all three lines, i.e. male-sterile, maintain and restorer lines were obtained.

Then experiments began to produce seeds of this new hybrid strain for large-scale sowing. The first time, Yuan and other workers could only get a yield of 82.5 kilograms from each hectare. It was not a very big reward. It was observed, however, that the maternal male-sterile plants and the male plants that passed on the male function to the offsprings flowered at different times. This, they concluded, was the cause behind the low rate of cross-pollination. They solved this by delaying the sowing time of the male plants several days so as to get them to flower at the same time as the maternal plants. Then in conjunction with other measures, they ultimately managed to harvest a fairly large quantity of hybrid seeds. In the winter of 1975 and the spring of 1976 Yuan

Longping and his team began experimental sowing of this hybrid rice on a big scale in Hainan Island. Seed research units from a dozen provinces sent people to join them. They used the warmer, moister climate to sow early and thus be able to harvest seeds for sowing in Hunan province and elsewhere. They sowed 2,000 hectares with this hybrid rice and obtained a substantial harvest of seeds. The Ministry of Agriculture and the Chinese Academy of Agricultural Sciences called seven nationwide meetings to study and organize further research on this new hybrid strain. Agricultural research institutes and departments of two dozen provinces and municipalities were called in to help step up research into this new rice and to popularize it. Since 1976 the hybrid rice has moved from large-scale experimental plots to grow successfully in the fields.

Hybrid Rice Tastes Better

The merits of this hybrid rice are many. It gives high yields, has a strong root system and continues growth much faster after being transplanted from seed-bed to the field. It puts out many more tillers and one shoot produces as many as 100-200 ears and the ears are bigger with more grains. It stands up better to alkalinity, drought, waterlogging and does not lodge easily. The grain contains more protein and the cooked rice grain is softer and better than other rice. Furthermore, the rate of sowing is only 22.5 kilograms per hectare against 150 kilograms for other rice, yet it yields about 20 percent more. On small-scale planting 10,500 kilograms per hectare have been harvested in many places. The new strain has its shortcomings as well: it takes longer to mature, is less resistant to diseases and more susceptible to temperature changes and needs more field work. Much work remains to be done to obtain an ideal rice to push up rice outputs and Yuan Longping and other agronomical workers are working on this. □

Introducing Three New Stars

WEN BIN



Liu Xiaoqing (right), the real Xiaohua, and Chen Chong (left), the foster sister.
Wang Jingying



On location for "Xiaohua". Liu Xiaoqing (first left), Tang Guoqiang (center).

RECENTLY people have been talking in China about three young film stars, all in their late teens or twenties, who played the main roles in the popular color film "Xiaohua" (Little Flower), produced by Beijing Film Studio last year.

The story of "Xiaohua" was very common in old China. Set in Henan province, it tells of a poor peasant couple, who are forced to sell their baby daughter, Xiaohua, to keep themselves and their only son alive. Out of love for the Red Army, they adopt a baby girl left by a couple, both Red Army soldiers, who withdraw from their village in face of a strong enemy

attack. As their foster daughter is about the same age as their own daughter they also name her Xiaohua. Before long, the mother is drowned in a flood and the father is killed by the Kuomintang. The orphaned brother and foster sister lead a very hard life, depending on each other for survival. A few years later, the brother, Zhao Yongsheng, flees from his village to avoid being conscripted into the Kuomintang army. He then joins the People's Liberation Army (the successor of the Red Army).

In 1947, the PLA arrives at Xiaohua's village. Xiaohua, now 18, anxiously searches for her brother. Meanwhile he is trying

to find his two sisters, the two Xiaohuas. He does not know that the guerrilla team leader, He Cuigu, who saved his life and who was seriously wounded saving his foster sister, is his real sister. At the end of the film Xiaohua, the foster sister, finds her parents, a senior officer and an army doctor in Zhao Yongsheng's unit, while the true Xiaohua is reunited with her brother.

College V. Films?

Nineteen-year-old Chen Chong, who plays the part of the foster sister Xiaohua, is from Shanghai. While still a schoolgirl and only 16, she was chosen by famous director Xie Jin to star in the color film "Youth," and revealed her talents as an actress in her screen debut.

"Xiaohua" is her second film. Xiaohua is a simple and honest country girl from a mountain village, who has matured as a result of her hard life and the war. Nothing could be further from the life and experiences of Chen Chong, born of intellectual parents in new China and raised in the great metropolis of Shanghai. But with the help of the director and by

hard work, Chen Chong soon entered into her part. In the scene where she feels bitterly disappointed at not having found her brother, a tear trickles down her cheek. This moved the audiences. "It isn't easy for a young inexperienced actress to perform so well and naturally," her director praised her. In order to portray Xiaohua well Chen Chong devised some movements and gestures for her character which proved very touching.

Chen Chong is not a professional film actress, however, but a first-year English language student at the Shanghai Institute of Foreign Languages. When asked whether she would like to be an actress or a language student, she winked mischievously and said, "I really don't know. Director Xie Jin says I should act in more films now, but my teachers at the Language Institute say at my age I should study hard." She giggled and then added, "I don't think study and acting are contradictory." So during the breaks in between shooting she reviewed her English lessons. Once while she was on location shooting "Xiaohua", she went back to her school to take an examination and got good marks.

Recently she has been invited by Zhujiang Film Studio to act as a singer, the daughter of an overseas Chinese, in the film "Hearts Loyal to the Motherland." She is now practicing singing, though the famous singer Ye Peiyong's voice will be dubbed on the sound track.

Devoted to the Art

Liu Xiaoqing, who took the part of He Cuigu, the real Xiaohua, in the film, has also been praised by audiences for her natural and moving acting. In 1979 she was in three films, including "Xiaohua."

Now 28 she is from Chengdu, Sichuan province. Since her child-

hood she had loved music and art and dreamed of being an actress. At 11, she entered the middle school attached to the Chengdu Conservatory of Music to study the dulcimer. After graduation she first worked in a factory, then in a commune and finally joined the PLA. In 1974, she was assigned to an army modern drama troupe as an actress. Not long afterwards she was chosen by the army August 1 Film Studio to act the role of Tiannu in the film "A Great Wall on the South China Sea," thus beginning her film career. In the film "Thank You, Comrade!" and "Spring Song" she also played important roles.

In "Xiaohua," "Wedding" and "What a Family!" she took three very different roles—a guerrilla team leader, an intellectual and a shop assistant. It wasn't easy for her to grasp the spirit of each character, but because she is constantly observing different people she gave convincing performances.

All those who know Liu Xiaoqing well, especially her directors, have lauded her for her hard work and determination. Often after a day's shooting, she would spend the evening analysing her acting and trying to think of ways to improve her technique. Sometimes if she hit upon an idea after she had gone to bed, she would get up and go to discuss it with her director or the experienced actors or actresses. Her husband, Wang Li, works in the General Song and Dance Ensemble of the People's Liberation Army. Three days after their wedding, Liu Xiaoqing left him to act in the film "Spring Song".

Liu Xiaoqing says, "Before a camera an actor must not be conscious of his acting, but must immerse himself in the character he is portraying." She is now preparing for another film "My Heartless Beloved."

A Modest Young Man

Tang Guoqiang, a tall, handsome young actor, was born in

Qingdao, Shandong province, twenty-eight years ago. It was pure chance that in 1970 he was chosen to join the Qingdao Modern Drama Troupe as a trainee. After he had appeared on the stage several times, August 1 Film Studio selected him for his first film role. In "Storm on the South China Sea" and "Before the War Breaks Out" he played young PLA commanders. In "Xiaohua" he acted the part of the brother, Zhao Yongsheng, a brave young soldier. He said only by bringing out Zhao Yongsheng's hatred for the enemy could his love for the people and his sisters be fully expressed. So in the film, when he charges into the enemy's headquarters and finds the bandit commander has fled, he is so furious that he tosses the commander's army uniform into the air and fires at it. This may seem a little exaggerated, but it shows clearly the internal feelings of Zhao Yongsheng at that moment.

In the new film "Tonight the Stars Are Bright" Tang Guoqiang also plays the role of a young PLA fighter. However this character is mischievous, subjective, clever, yet lovable.

Tang Guoqiang says that if one is prepared to, one can always learn. He is very strict with himself. To prepare for the film "Storm on the South China Sea," he spent days with sailors at sea, learning how to operate a motorboat and swim under water. For the film "Before the War Breaks Out" he lived in an army camp doing drill in order to act his part well. Once, when riding a horse, he fell off and broke one of his arms.

Tang Guoqiang has many interests. He studies English, paints and writes poems. At present, he is preparing for his part in the film "Peacock Princess" based on a Dai epic poem.

It will be interesting in future to follow the careers of these three dedicated young stars. □



Chen Chong

Liang Ziyong

Tang Guoqiang

Li Duyan



Liu Xiaoqing

Li Duyan





Fou Tsong performing in Beijing last January.

Interviewed by China Reconstructs staff reporter.



Photos by Zhu Yongqing

The Homecoming of Pianist Fou Tsong

TAN AIQING



After a performance in Beijing.

A MIDST loud applause from the packed audience of the Shanghai Conservatory of Music, Fou Tsong, the famous pianist who was born in China, began playing as his fifth encore He Liding's *Buffalo Boy's Flute*. The beautiful melody reminded some of his listeners of a recital Fou Tsong gave 24 years earlier when he returned to Beijing for his summer vacation from Poland where he was studying music. In his early 20s and youthful looking, despite his tail coat and bow tie, he had played the same piece as his encore then. Now he is a virtuoso known all over the world.

Fou Tsong was spending a month and a half teaching in China, and this was his last performance. He retains the passion that marked his playing in his youth, but now his art has matured and reached greater depths. The evening after the performance I went to see him in the Jingan Hotel where he was staying, near the conservatory. He dressed casually; his most

striking features are his broad forehead, thick eyebrows and eyes which seem to speak.

Despite a grueling schedule and a five-hour lecture that afternoon, he seemed tireless, talkative and in high spirits. "When I landed at Beijing airport and heard the local Beijing dialect," he said, smoking his pipe, "the numbness in my heart began to melt. I had a driver who was a Beijing and Hebei local opera fan and he often had the radio on in the car. Hearing the beating of the drums and gongs, my heart beat to their rhythm."

Fou Tsong is the first world-renowned pianist trained in new China. Yet, paradoxically, though he has played in most foreign countries, he has hardly been heard of in China since he left in 1958. He explained why. "Actually I was forced to leave then. In 1957 both my father and I were criticized almost at the same time in the movement against the Rightists. I was recalled from Poland to take part in the movement. I was in Beijing, and my father was in Shanghai." Fu Lei, Fou Tsong's father, was one of

China's most noted translators of French literature.

He continued, "I wrote a self-criticism and was allowed to continue my studies in Poland, but my father's situation went from bad to worse. I heard many rumors about him. In December 1958 I graduated. If I returned to China I knew my situation would be impossible. Both my father and I would have had to expose each other. This was unthinkable. We would never do that. So I was forced to leave. About my leaving I always felt full of regret and anguish. After all, I'm one of millions of intellectuals in China. They all suffered terribly in the cultural revolution, but I escaped this. It seemed so unfair. I felt uneasy, as if I owed something to all my friends.

"I had always thought of China during my years in exile," he added with emotion. "I longed to return and do something for my country. In 1972, when President Nixon visited China, I felt encouraged to ask a friend to convey my desire to visit my motherland. But I received no reply. I guessed perhaps the right time

TAN AIQING is a staff reporter for China Reconstructs.



Coaching Chen Xiao, a pupil in the primary school attached to the Central Conservatory of Music, Beijing.

hadn't come yet. In 1977 I managed to trace my only brother's whereabouts. I had lost touch with him for a dozen years. I told him in a letter that I was very homesick, and that I did not know when I would be able to see again my hometown and be reunited with him, my relatives and friends whom I missed every day.

"At the end of that year, Wu Zuqiang, an old schoolmate of mine and Vice-President of the Central Conservatory of Music in Beijing, led a Chinese art education delegation to visit Britain. I was just leaving for a performance in Switzerland, so I sent a message through a friend of mine in the Society for Anglo-Chinese Understanding that if he wished to see me, he should leave his address for me so that I could contact him on my return.

"When I found Wu's address waiting for me when I got back, I went that same night to see him in his hotel. I had met many people from China in Britain, but I was particularly excited to see Wu, because in agreeing to see me he represented my country officially. The whole delegation attended a concert I gave in the Queen Elizabeth Hall. That night I played as my final encore *Buffalo Boy's Flute*, the Chinese tune I like most, to express my deep

love for China and my Chinese friends.

"After that I wrote to Vice-Premier Deng Xiaoping, saying that I wanted to come back to see my younger brother, the only member of my family left in China. I said that if I was needed, I'd like to do something for my country. So last April, when the false verdict on my father was clarified, I decided to return to China to attend my parents' memorial meeting, which was given by the Shanghai Federation of Literary and Art Circles.

"At the memorial meeting portraits of my parents were hung in the hall in front of the mourners. Immediately after the start of the cultural revolution in 1966, my mother and father were persecuted and kept apart for some days. On September 3, they committed suicide together. Three months earlier I had sent my father a letter enclosing a photo of my son. In his reply, his last letter to me, my father wrote: 'Your mother is always optimistic and believes she will see you again some day. But I have already given up hope and I know I'll never meet you again.' I was informed of their deaths that November by a French friend. I had never expected them to die such tragic deaths.

"When I came for their memorial meeting I stayed in China for ten days. They were the happiest and also the saddest days of my life. All the time there were tears in my eyes. Some foreign countries are advanced both economically and technologically, but the feelings of the people are cooler. Returning to my homeland, I was very warmly treated by relatives and friends. I felt happy for my students who yearned for knowledge, but I was deeply grieved over the deaths of my parents and the bitter experiences my friends had suffered. But what made me saddest was the terrible waste and loss of these last years.

"Before I returned, some of my friends tried to dampen my enthusiasm for China, reminding me that the country was still poor and backward. But I didn't pay any attention to them. It's true that China's economy hadn't advanced much in the two decades I was away. I saw, for instance, that many of my friends lived in crowded, shabby houses with their families. But that was nothing new to me. Some urged that in my position, I should wait until I was invited back. But I disagreed. After all, I had left my country myself. Why should I insist that I return only if I was invited?

"When I went back to England, all of my friends agreed that I looked a different man. I was at peace at last because I was reconciled with my country, because I had been allowed to return there. I was no longer regarded as a traitor. I felt as if a heavy weight had been lifted from my mind.

"Frankly speaking I saw many things during my last visit which rather worried me. I was moved, however, by many people who despite persecution were working again conscientiously. But others were pessimistic about the future and, since China had opened her doors, thought everything from abroad was wonderful. My view is that no one should be disillusioned because the bad days

have passed and now it's time to modernize the country.

"Seven months after my first trip, I came back again. This time I was invited to give some lectures. I've found that China has made some progress in that time and the minds of my musician friends are more emancipated. In Beijing and Shanghai we talked about music without the slightest misgivings, which would have been impossible under the gang of four. Although I was very busy in the month I spent in Beijing, I felt very happy."

WHEN I asked him about his life and work in Britain where he now lives, Fou Tsong replied, "All these years I've followed this principle: Never allow anyone to use me to harm my country and never do anything dishonorable for personal gains. I am determined to live by my art. I think I can say that I have kept the integrity and the purity of my art." He told me how many times people had tried to bribe him. One foreign journalist offered Fou Tsong any amount of money he named, provided his picture could be used on a magazine's front cover in order to discredit China. Fou Tsong flatly refused.

Although he is immersed in his music, he doesn't remain aloof from the world. With a strong sense of justice and a warm, sympathetic heart, Fou Tsong is so active in giving benefit performances that he has been called by his friends "an artist of conscience."

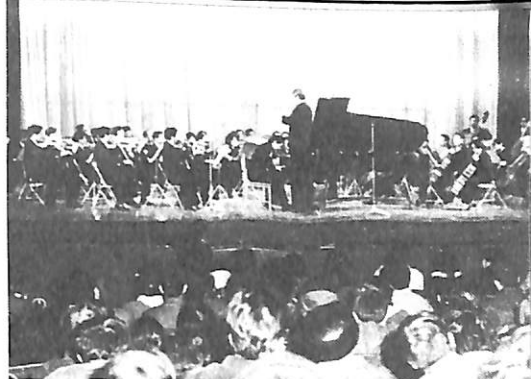
Although he lives in England, Fou Tsong is deeply concerned about the Chinese revolution and the future of his motherland. He subscribes to all kinds of Chinese magazines in order to keep in touch with the latest developments. He and his friends had been depressed about the news from China during the cultural revolution. Would China remain like this forever? But when he heard about the Tian An Men Incident in April 1976, he felt

hopeful, knowing that the Chinese people were prepared to shed their blood to save their country. The poems in memory of Premier Zhou Enlai often moved him to tears.

One day in London in the early spring of 1977, Fou Tsong and his wife were in a car, when they heard over the radio a recorded performance of Beethoven's *Symphony No. 3* played by the Central Philharmonic Orchestra of Beijing. He told me he was deeply moved because this was the first time he had heard the orchestra for 20 years and Beethoven's works, which had been banned by the gang of four during the cultural revolution, were again being performed. Then he broke down, imagining the sufferings of his friends in the orchestra and remembering his own difficult path. With tears in his eyes, he said, "These are tears of sadness for the past and of hope for the future. I feel that life now has a new meaning."

CONCERNING the development of music in China, he was very positive. "China has a lot of gifted musicians, especially the young people who are very imaginative," he said. "Their learning ability is often better than that of many foreign students. Some children have a marvelous feeling for music. It's so exciting. I'm sure that in a few years China will win some international music prizes. Of course, winning prizes doesn't make a successful artist. There is still a long way to go. An artist must have an ideal and not deviate from it either by poverty, fame or wealth. Performing is the real test of an artist.

"Chinese musicians have enormous potential, but unfortunately they were isolated these last years. This isn't a major problem, however. And, of course, what happens abroad isn't always good. In my lectures, I tried not only to help some students, but also to broaden their horizons. I tried to explain as much philosophy and aesthetics to them as possible. I think all artistic forms, whether



Fou Tsong performing with the Central Philharmonic Orchestra in Beijing.



A dinner with old friends. Wu Zuqiang (second left), Fou Tsong (third left) and Zhao Feng (fourth left), President of the Central Conservatory of Music.

Photos by Jiang Ge



At the Shanghai Conservatory of Music. Zhang Fubo

Fou Tsong (center) talking with Liu Gong (left), a member of the editorial board of *China Reconstructs*, and the writer, Tan Aiqing. Zhu Yongqing



Retrospect

TWENTY-THREE years ago, in the April 1957 issue of *China Reconstructs*, we printed an article by Fu Lei, the pianist's father, under the title, "My Son Fou Tsong." It told of the growth of the young musician who, at the age of only 21, had won the third prize in the International Chopin Competition in that year. Below are excerpts from that article:

"Fou Tsong is my eldest boy, born in 1934. From the time he was three or four, his head just level with the top of my desk, he would stand on a little stool and listen intently to western classical music — Bach, Debussy, Beethoven, Wagner — played on the radio or gramophone. So when he was not quite eight, I started him on piano lessons.

"He had the good fortune to be taught for three years by Mario Paci, creator and conductor of the Shanghai Municipal Symphony Orchestra (forerunner of the present Shanghai Symphony Orchestra). Then he had several other teachers, none for very long. All thought he was a rebellious, difficult pupil — a boy of that age, after all, does not find it easy to stick to hours of practice. But Fou Tsong's love for music was so great that I found the severest punishment for slackness was to lock the piano and forbid him to play. He would look at the instrument and cry his eyes out.

"Nevertheless, his lack of diligence and the lack of good teachers made me feel that it was important for him to get a good regular education. After he was nine, I took him away from primary school and engaged private tutors to teach him Chinese, English, mathematics and other subjects. I myself educated him in the Chinese classics and tried to imbue him with the best of our traditional culture.

"Since he was sensitive and easily moved I encouraged him to read poetry mainly pastoral and narrative before he was fourteen. But I found later that he had been a constant prowler among my books, devouring quantities of Chinese romantic literature.

"His days in school and college after liberation were stimulating to Tsong, as they were to the entire youth of China. The vision of a better society was no longer a dream; the work of making it real was beginning. It was in this hopeful atmosphere that he finally decided to make music his career. It is Tsong's great fortune that his formative period as an artist coincided with the liberation of our country. In February 1952, Fou Tsong made his debut with the Shanghai Symphony Orchestra. From that time on he was generally acknowledged as the best young pianist in Shanghai.

"Two months later Fou Tsong was chosen to represent China in the Fourth World Youth Festival in Bucharest and won a third prize. After the festival he joined the Chinese art delegation which toured eastern Europe. There his playing of Chopin attracted the interest of Polish musicians, who suggested to the Polish government that he should be invited to return and take part in the Fifth Chopin Competition.

"Seventy-four pianists took part in the competition. Fou Tsong won the third prize and also the Polish Radio Prize for the best performance of the Mazurkas. Musicians at the Polish Conservatory remarked that my son's interpretation of their great national composer is 'infused with soul of Chopin.' The Yugoslav newspaper *Politika* said, 'Fou Tsong's art as an executant stems quite intelligibly from Chinese artistic tradition. Does not his pianistic poetry stem from one of the specific aspects of the ancient Chinese lyrics? Does not his fine chiseling of detail make us think of Chinese miniature painting?'

"I too think that it is my son's knowledge and understanding of China's philosophy, ethics, poetry and art that has enabled him to appreciate the delicate, ethereal, sometimes agitated, sometimes pensive moods of Chopin. Besides the Chinese people have, through the ages, assimilated the best of whatever foreign influences have touched their culture. This is another reason, I think, why Fou Tsong is so well able to respond not only to Chopin but to the different styles and moods of other western composers.

"He knows that he has taken only the first step in a rich limitless world of artistic opportunity. My hope for him — as I told him before he left for Poland, is this, 'You must first of all be a man, then an artist, then a musician and lastly a pianist.'" □

The memorial meeting for Fou Tsong's parents, Fu Lei and Zhu Meifu.

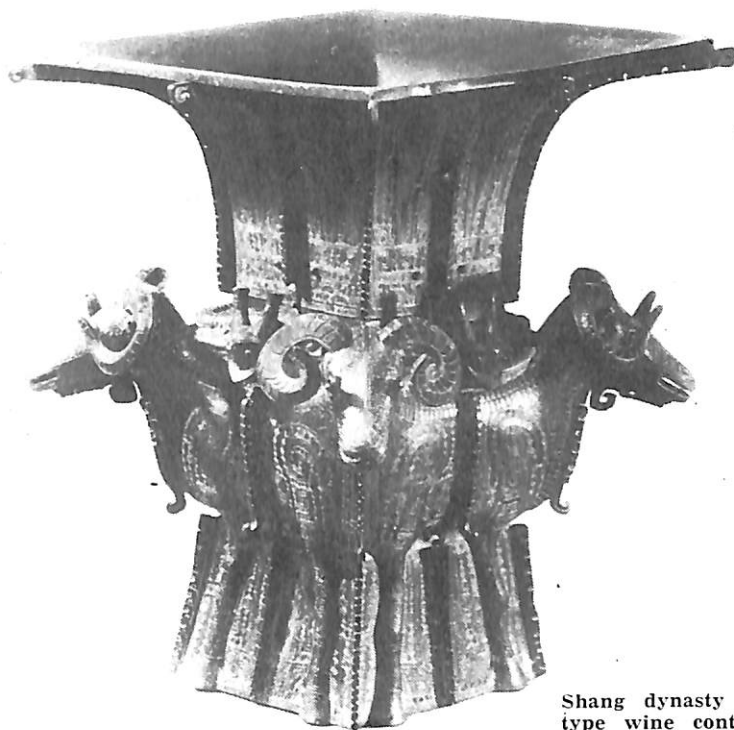


music or singing, strive to express certain artistic conceptions."

When we touched on the question of Chinese compositions for the piano, Fou Tsong explained, "Our composers are talented, but Chinese culture is entirely different from that of the west. Now we are trying to create works on western instruments, and to make foreign things serve China. That means breaking all kinds of traditional conventions. Every country has its own artistic style. So we must consciously study our national traditional opera, with its long history and rich content. I've always admired Mei Lanfang and Gai Jiaotian, the great artists and masters of Beijing Opera. I read books about their lives which helped me very much."

I asked him to explain his views on style and he stressed, "Every pianist must be above all faithful to the intentions of the composer and take every note seriously. Each piece is a development of the composer's mind and emotions. There is a logic to it. A musician must be modest. Each virtuoso has his own style, and this is not imposed on him, but develops naturally as a result of his deep study of a work. Only by being absorbed in research can you gradually evolve your own style. Both Mei Lanfang and Gai Jiaotian studied opera closely and refine it. As a result they enriched the opera art and shaped their own unique styles."

It was already quite late when I bid goodbye to Fou Tsong. "The seeds my musician friends and I sowed together last time I was here have already begun to sprout. The students I helped have already made rapid progress. They play Chopin's *Mazurka* better than before. I hope to see a bumper harvest when I come next time," he said with a hopeful and charming smile. □



Shang dynasty zun-type wine container from Ningxiang county, Hunan province.

China's Bronze Age Exhibition in the U.S.

MA CHENGYUAN

AN EXHIBITION of artifacts from China's great bronze age opened in mid-April in the Metropolitan Museum of Art in New York. It is to go on to Chicago, Boston, Fort Worth and Los Angeles, spending a year and a half in the U.S.A. One of its features is that the 105 treasures displayed are the most typical of those

discovered in the 30 years since the founding of the people's republic, and thus can be said to represent the work on the bronze age done by China's archeologists since liberation. Another is that it includes bronzes and jades of the Erlitou culture which flourished during the Xia dynasty (21st-16th centuries B.C.). These have never been shown abroad before. In fact, until they were excavated it was not even certain if the Xia period was real or legendary. Finally, the exhibits were selected from a broad geographical area with attention to historical continuity. All this, besides their artistic excellence, makes them more valuable for scientific study.

Apart from the unique Xia exhibits, there are bronzes from the periods of Shang (16th-11th centuries B.C.), Western Zhou (11th century-771 B.C.), Spring and Autumn (770-476 B.C.), the Warring States (475-221 B.C.), Qin

MA CHENGYUAN is leader of the working group for the "Exhibition of the Great Bronze Age of China" in the United States and head of the exhibition and research department of the Shanghai Museum.

(221-206 B.C.) and Han (206 B.C.-A.D. 220).

China's bronze age was superseded by her iron age around the 5th century B.C. But bronze craftsmanship continued, and with the advance of social production, was further improved. Since the bronzes of this later era (i.e. from the Warring States period, and Western Han) are well known to scholars in the west, examples of them are exhibited as well.

Attached to this exhibition, at the request of the New York Metropolitan Museum of Art, are also a number of terra-cotta figures, bigger than life-size, whose unearthing in recent years at a site east of the grave of Emperor Qin Shi Huang (259-210 B.C.) at Lintong, Shaanxi province was an archeological sensation. These representations of some 6,000 officers and soldiers, standing in military formation when found, are the most imposing examples of ancient pottery sculpture so far discovered in China.

The exhibition is the fruit of cooperation between the Chinese and American scholars and specialists. A working group led by Dr. Wen Fong, the New York Metropolitan Museum's special consultant for Far Eastern affairs, came to Beijing last year and discussed

the selection and arrangement of its contents, as well as related academic problems with their Chinese counterparts. Together, they compiled a catalog and a collection of articles by Dr. Wen Fong, Dr. Kwang-chih Chang of Harvard University, Robert Thorp, associate professor at Princeton University, and myself.

THE Xia dynasty, to which the earliest exhibits belong, was the first state in Chinese history based on the slave system. Historical records cite many legends about this period, but archeologists thirty years ago had no data. Since then, artifacts have been found in the principal areas inhabited by the Xia people. Among the exhibits of the late Erlitou culture (so named after a typical site at Erlitou village, Yanshi county, Henan province) are a bronze *jue* wine container and jade ritual vessels. Of fairly good workmanship, they show the technical skill already attained at the dawn of China's history.

THE SHANG dynasty, which followed the Xia, exerted a profound influence on later generations. New discoveries of bronzes and other cultural relics of Shang have been made in the last 30 years at Zhengzhou and among

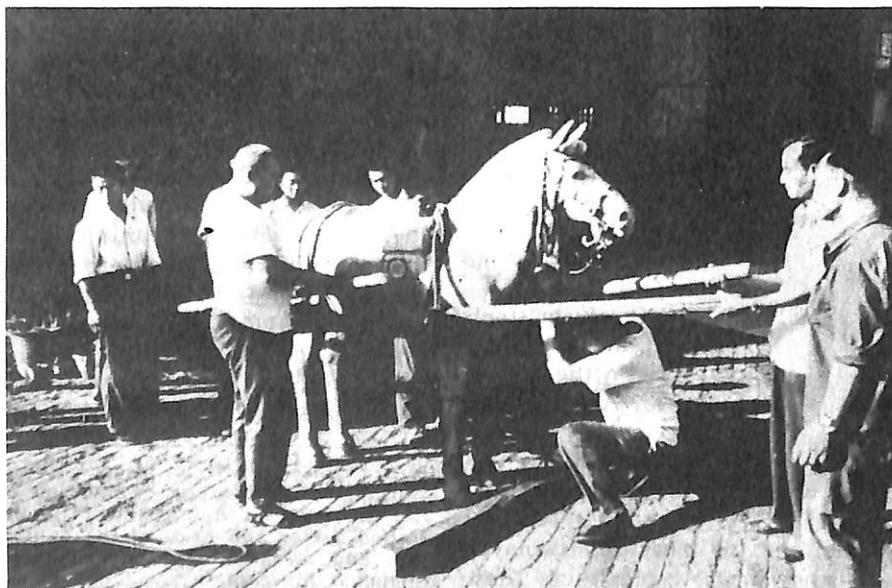
the ruins of Yin at Anyang* in Henan province; at Huangpi in Hubei province; and at many sites in Hunan, Anhui, Jiangxi, Shandong, Hebei, Shanxi and Shaanxi provinces. They have greatly increased our knowledge of Shang culture, which was previously confined to the little we had been able to learn from Yin ruins. On display at the exhibition are many objects belonging to the early Shang or the Erligang culture (Erligang is near present-day Zhengzhou in Henan province) as well as from the ruins of Yin, which belong to the late Shang period.

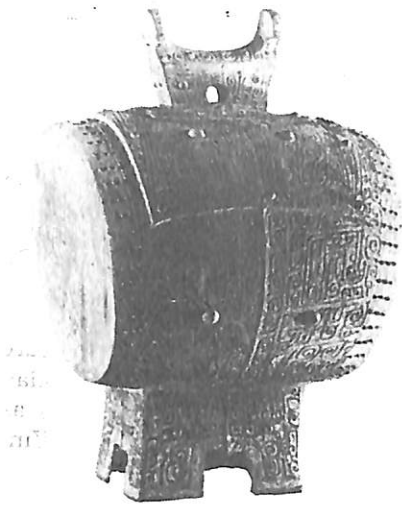
The bronzes made at Anyang, when that city was the Shang capital are shown in one section, and those produced elsewhere during the same period in another. This helps to give the viewer an idea of the distribution and local variations of Shang bronze art. Among the Anyang relics, the highlights are a group of finely-made bronzes and jade ornaments found in 1975 in the tomb of Fu Hao (Lady Hao), a consort of King Wu Ding. Known as Tomb No. 5, it is the best-preserved royal burial place so far discovered among the ruins of Yin. Its magnificent treasures throw light on the system of ritual vessels used in the court.

Among Shang bronzes cast elsewhere are a drum with an animal-mask design unearthed at Chongyang county, Hubei province; a four-ram *zun* (square wine container ornamented with four ram heads) from Ningxiang county, Hunan province; a *jia* wine warming vessel, a *jue* wine vessel and an ancient battle-ax (*yue*) discovered in Henan, Shanxi and Shandong provinces. They demonstrate both the overall stylistic unity and the local variations of Shang bronze art, and its broad and solid foundations.

* Yin was the place to which the Shang rulers moved their capital in the 14th century B.C., whereafter this dynasty itself was also alternatively known as Yin.

Beijing Palace Museum staff members pack one of the life-size terra-cotta horses unearthed at the tomb of Emperor Qin Shi Huang for exhibition in the U.S.





Shang dynasty drum with animal-mask design, from Chongyang county, Hubei province.



"He" zun wine container of the Western Zhou period, from Baoji, Shaanxi province.



Zun wine container found in the tomb of Fu Hao (Lady Hao) in the ruins of Yin, Henan province.

Photos provided by the Organization Committee of Archeological Finds

BRONZE ritual vessels of the Western Zhou period carried on the traditions of Shang. They are remarkable, however, for the inscriptions put on them as a special form of ancestor worship by the nobles of the time. These inscriptions, ranging over many subjects, provide valuable material for historical study. One inscription on the "Li" *gui*, a food vessel on a square pedestal, unearthed at Lintong in Shaanxi province, records the expedition led by King Wu of Zhou against the Shang dynasty, and confirms the descriptions in historical annals. The "He" *zun* wine container unearthed at Baoji in Shaanxi province bears an inscription about how King Wu selected Luoyi (near Luoyang in Henan) and built it up as a political center, and how his son King Cheng further expanded the city — both being strategic steps in the consolidation of Zhou rule. Luoyang subsequently became the capital of many other dynasties. From related exhibits, however, we see that bronze craftsmanship in the powerful ducal states of north China was on a par with that in the central plains.

With the decline of the slavery-based economy, the bronzes of the late Western Zhou and early Spring and Autumn periods chang-

ed in shape and decor. In sharp contrast with the over-elaborate ornate designs of the Shang and early Zhou periods, the style is straightforward and vigorous. It is exemplified by two inscribed wine containers known as the "Zhong Yi Fu" *ling* and "Zeng Zhong You Fu" *hu*.

IN the late Spring and Autumn period the new feudal economy took shape and iron implements appeared. An enormous expansion of social production spurred the development of all handicrafts including those in bronze. This development is illustrated by a wine vessel of the *hu* type, with a design of birds, animals and dragons and the food vessel or *dou* inlaid with hunting scenes, both unearthed at Liyu village near Hunyuan county, Shanxi province. A food vessel of the *yu* type made for the Marquis of Qi and found at Luoyang is the biggest so far discovered. The wide patterned band encircling it, however, shows a conservative tendency in this powerful eastern ducal state at a time when, elsewhere in the country, new techniques were coming to the fore.

WESTERN scholars have shown particular interest in the bronzes of the late Spring and Au-

tumn period, the Warring States period and the Qin and Han dynasties because of their exquisite inlays in gold, silver, copper, turquoise and other precious substances. They are therefore presented in a special section. Among them are the *bian zhong* (chime bells) inlaid with interlaced-snake designs in gold unearthed at Fuling, Sichuan province; the *hu* wine vessel with scenes of feasts and battles on land and in water inlaid in copper, found at Baihuatan near Chengdu, Sichuan; the square *jian* water container with dragon-shaped handles and geometric-design inlays in gold and turquoise discovered at Sanmen Gorge, Henan; and also the *zun* wine vessel in the shape of a rhinoceros with cloud designs inlaid with gold and silver found at Xingping, Shaanxi province. Further testifying to the ancient splendor of the art of bronze-making in China are the *hu* wine vessel covered with "bird script" inlaid in silver and gold, the "Boshan" incense burner inlaid with gold in all-over pattern, and the "Chang Xin" lamp in the shape of a palace servant girl holding a lantern, unearthed from the Western Han tombs of Prince Jing of Zhongshan and his wife, at Mancheng, Hebei province. □

Foreign Dramas on Chinese Stage

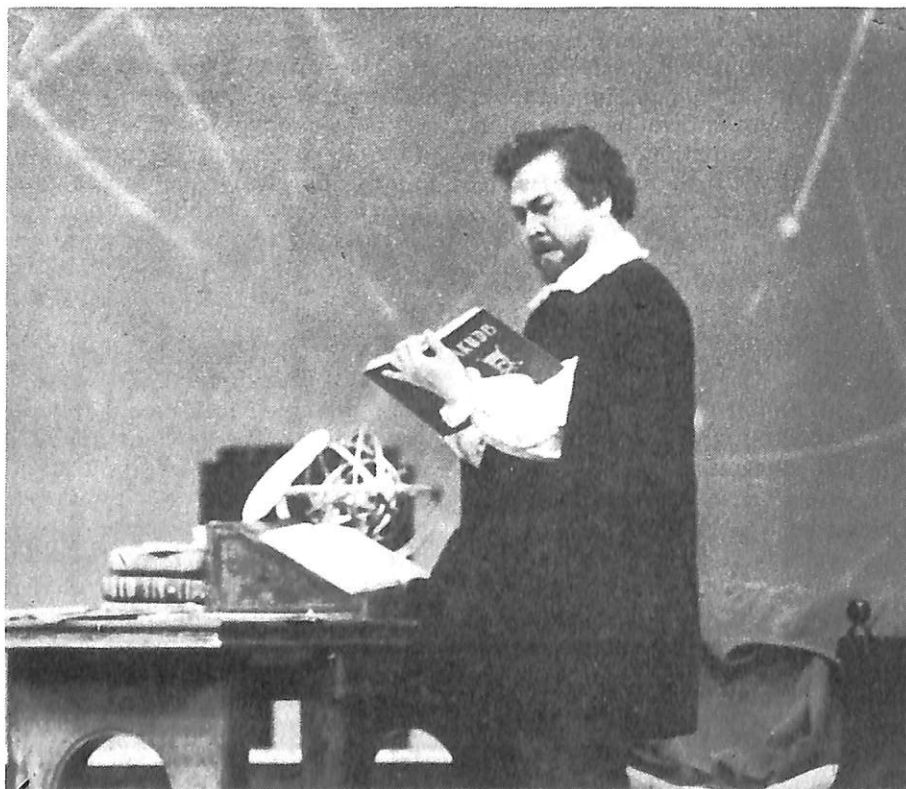
YAN ZHENFEN

A HAPPY event for Chinese theater-goers is the reappearance of foreign dramatic works on the Chinese stage during the last year or so. Banned for 12 years under the cultural autocracy of the gang of four, the staging of foreign plays began again when the China Youth Art Theater in Beijing presented the outstanding progressive German dramatist Bertolt Brecht's *Galileo* in April 1979. Other theaters followed with performances of a number of major works by foreign playwrights.

Chinese audiences are not unfamiliar with Brecht. Before the

YAN ZHENFEN is a member of the China Association of Dramatists and chief editor of the monthly magazine *Drama*.

"Galileo"

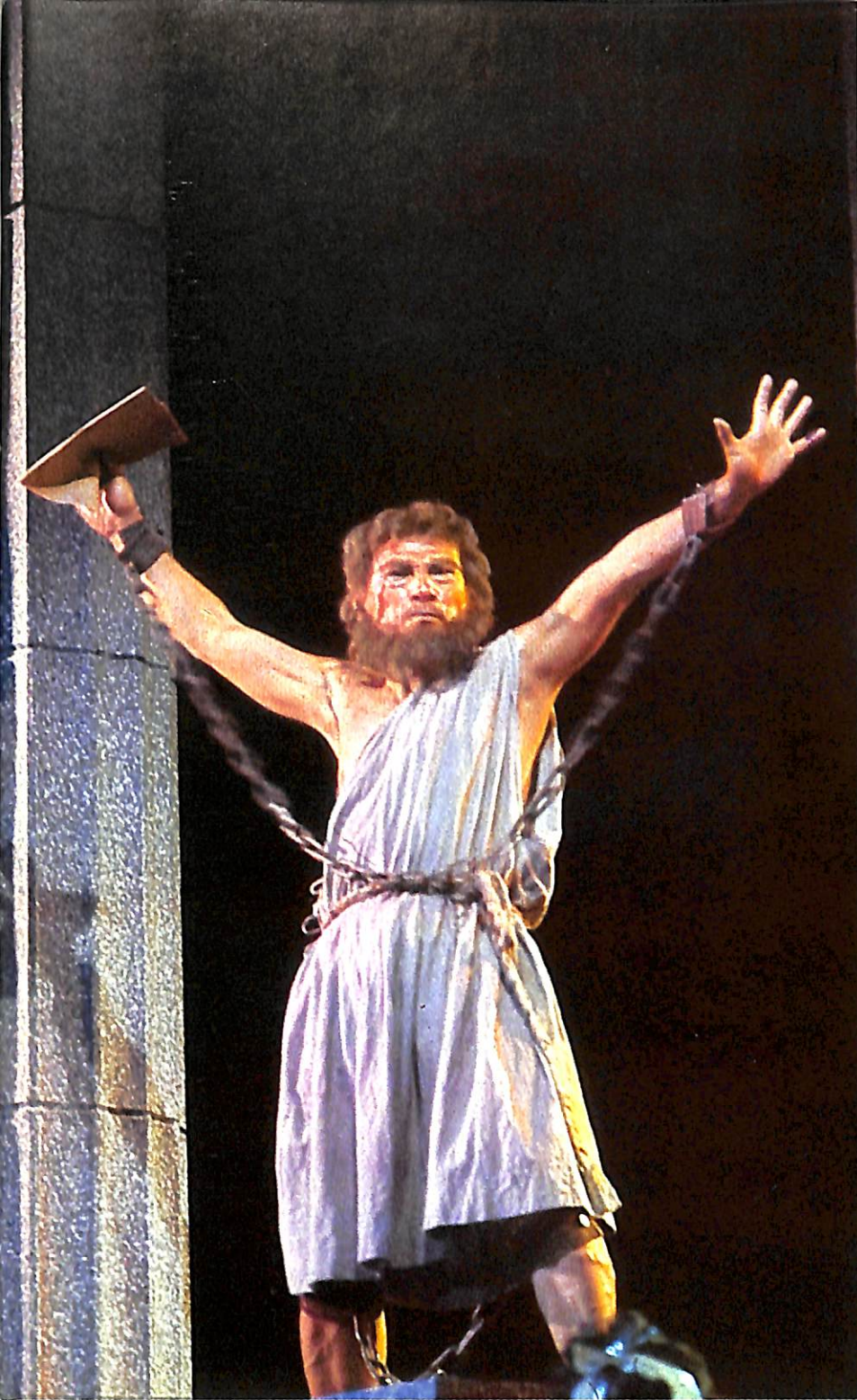


cultural revolution the Shanghai People's Art Theater staged his *Mother Courage* under the direction of Huang Zuolin, who, last year was co-director of the Beijing production of *Galileo* with Chen Yong. Huang Zuolin, now in his 70s, is an old specialist on the Brechtian school of drama while Chen Yong belongs to the younger generation of directors who were trained after the founding of new China in 1949. Their joint effort successfully conveyed Brecht's unique dramatic style and at the same time adapted it to the tastes of Chinese viewers. In Germany the prologue to each act was sung by a children's chorus. The Chinese directors replaced the chorus with a man and a woman singing lyrics linked with the context. The

man and woman are at the same time narrators and actors in the play itself, a feature borrowed from the Chinese stage. The curtain is not rung down between acts. Instead, slides are used to project the prologue on a screen, telling the audience the gist, time and place of the next act.

In this presentation many of the roles were played by young actors and actresses. Lin Lifang, a young Taiwan-born woman, took the part of Galileo's daughter Virginia, successfully portraying her as a girl with conflicting strains in her character, a complicated inner world and bold and unconstrained feelings. Tu Peng, a veteran and accomplished actor gave a masterful rendition of the contradiction-ridden personality and emotions of Galileo, a great scientist hounded by tyranny and obscurantism.

AESOP and his fables, first translated by Lin Qinnan toward the end of the 19th century, are well known in China. In 1959 Chen Yong, then a young director, translated the Brazilian playwright Guilherme Figueriredo's *Aesop (The Fox and the Grapes)* and directed its staging in Beijing. Figueriredo himself saw this performance. Chinese audiences were strongly impressed by the vivid characters and beautiful language expressing the deep philosophy of the drama. Last January, it was staged again by the Beijing People's Art Theater by the original cast, except for the role of Clea, formerly played by Shu Xiuwen, a noted actress who was hounded to death by the gang of four. Aesop was played by Lu Qi, a noted actor of modern Chinese drama. His image of the ungainly slave with a keen intelligence and an unconquerable



Aesop.

Xanthos, master of the household in which Aesop is a slave.

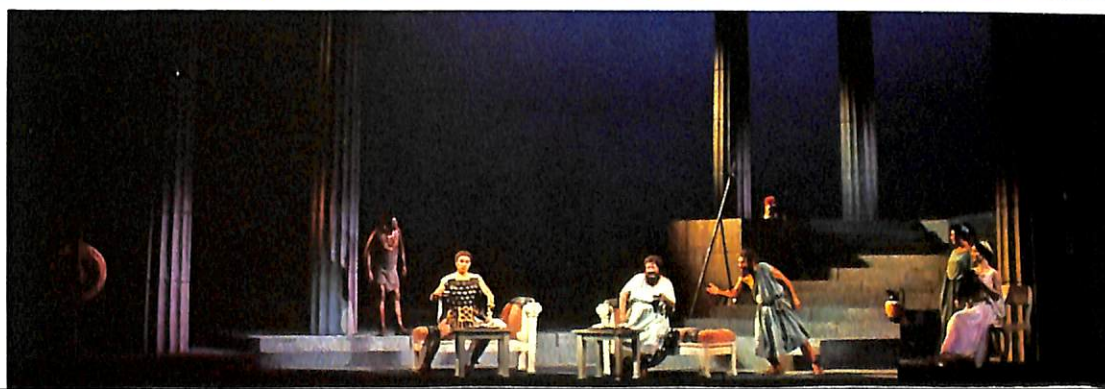


Clea, wife of Xanthos.



Xanthos entertains the head of the guards at home.

Photos by Zhang Shuicheng





Violetta as played by Guan Ziwen.

Photos by Zhang Shuicheng



Violetta meets Alfred before she dies.



Violetta pleads with Alfred (acted by Li Guangxi) not to fight a duel with the baron.

The banquet scene at Violetta's home.



spirit has left a deep mark on all who saw it.

ALSO a success last year was the stage version of American writer William Rose's scenario *Guess Who's Coming to Dinner* performed by the China Youth Art Theater. The story takes place in 1967 in the home of Matt Drayton, a white liberal newspaper publisher in San Francisco. His only daughter, Joey, brings home a black physician John Prentice and the pair announce that they will be married in Geneva a week later. The contradictions between the ideas and aspirations of the lovers and old moral concepts and racial prejudices cause difficulties with the parents of both bride and groom. After several confrontations between the two generations, the parents finally realize that, rather than conform to social prejudices, it is better to stand with the couple, and together face the challenge of society, cast off the mental shackles of racialism and strive for real freedom, equality and brotherhood. The end of the play sees both generations sit down to dinner.

Again directed by Chen Yong, the stage version was written by Wang Bing, a dramatist and experienced actor who plays John Prentice. Song Jie, the 23-year-

old student actress who does a fine job as Joey Drayton, participated in *Galileo* as an extra. Noticing her talent Chen Yong chose her for the heroine's role in the American play. She worked hard under Chen Yong's guidance and turned in a fine performance as the devoted, unsophisticated and passionate American girl. This is the first work by a U.S. writer to be put on the Chinese stage since the normalization of diplomatic relations. It has won generous praise from theater-goers, including Americans in Beijing.

VERDI'S opera *La Traviata*, was first given in China in 1956 by the Opera Troupe of the Central Theater of Opera and Dance Drama and later, more than 200 times, in Tianjin, Xi'an, Chengdu, Chongqing, Guangzhou and other big cities. After a gap of many years the Opera Troupe started to rehearse it again last year. Apart from a sprinkling of veterans such as Zhou Dehua and Li Guangxi in the parts of Violetta and Alfred, most of the singers are young. A creditable performance was given on the occasion of new China's 30th anniversary last October.

THE same troupe staged *Arshin mal-alan*, a comic opera written by the outstanding Soviet Azer-

baijanian playwright and composer W. Gadjiebekov (1885-1948). It describes the courtships and marriage of four pairs of lovers, extolling their struggles for freedom of choice and castigating the old feudal customs and feudal restrictions on marriage in pre-revolutionary Azerbaijan. Lyrical, melodious, and stylistically original the opera is rich in national color. It has also been performed by the Cultural Troupe of Anhui province and the Opera Troupe of Chongqing in Sichuan province.

Also in the last year or so, Shakespeare's *Much Ado About Nothing* was presented by the Shanghai Youth Drama Troupe; Schiller's *Kabale and Liebe* by the Harbin Drama Troupe and Moliere's *Avare* by the Drama Troupe of Shandong province. The China Youth Art Theater will put on *The Merchant of Venice* this year.

With the increase in cultural exchanges, drama troupes from other countries have also been performing in China. The Greek National Theater came to China last year with the classical tragedies *Prometheus Bound* and *Phoenissae*; the English Old Vic Company performed *Hamlet* in Beijing and Japanese artists cooperated with Chinese colleagues in the opera *Yu Zuru*. □

"Much Ado About Nothing"



"Guess Who's Coming to Dinner"



The Yuan Dynasty

1—The Mongol Conquest and Economy

JIAO JIAN

Genghis Khan. (Traditional presentation)



THE MONGOLS originated east of the Ergun River in what is today China's northernmost province, Heilongjiang, and gradually spread over the vast Mongolian steppe. They trace their origin to the Mongoshiwei clan of the Shiwei tribe, a term vaguely referring to the descendants of the Xiongnu (Hsiungnu or Huns).

Many tribes eventually developed among the Mongols. Most of them were nomadic herders, grazing sheep, cattle, horses and camels on the grasslands and living in felt tents. A few tribes in the forests were expert hunters and dead-shot archers at a great distance from the back of a galloping horse.

In the 12th century the herds were tended by slaves, and their byproducts made into leather goods and blankets. Economic ties with neighboring peoples increased steadily. The Mongols bartered horses and furs for silks and iron implements from the Hans and gradually began to make the latter themselves.

There was constant strife among the slaveowners for plunder and wealth. In these wars a tribe along the Onon River (in the northwestern part of the present-day People's Republic of Mongolia) grew strong. Its leader Temujin, a talented military organizer, welded his people and those who came to join him into a strong army with which he conquered all the surrounding tribes, thus bringing all the Mongolians under one rule. In 1206 at a meeting of the tribal leaders at the source of the Onon River he was confirmed as ruler with the title Genghis Khan (Mighty Emperor of the Majority).

Genghis divided the territory among his kinsmen, the nobles and outstanding military leaders. Thus they became feudal lords and the former slaves and freedmen became herdsmen-serfs. They had to raise cattle, pay taxes and perform corvée labor for their lord in peacetime and go to battle under his command with their own horses, weapons and provisions.

Yuan Dynasty Founded

Beginning in 1205 Genghis sought continually to expand his territory. His first campaign was against the Western Xia Kingdom (in today's Ningxia, Gansu and northwestern Shaanxi) which he subdued in 1227.

Meanwhile he also moved south of the Great Wall and attacked the northern part of China controlled by the Jin dynasty, whose rulers were of Nuzhen nationality. Genghis died in 1227 but the campaign was continued by one of his sons. The Jin state was finally overrun in 1234. Meanwhile, other Mongol armies took Tibet and the area inhabited by the Uyghurs in the northwest.

After Jin was defeated, the southern part of China ruled by the Southern Song dynasty was subjected to constant attacks. Kublai, grandson of Genghis led troops southward and occupied Dali (present-day Yunnan and southwestern Sichuan provinces) and threatened Southern Song from the southwest. In 1260 Kublai became Khan of Mongolia and set up his capital at Dadu (today's Beijing). In 1271 he proclaimed the Yuan dynasty (1271-1368). He himself reigned until 1294. Through continuous attacks on Southern Song, Kublai took many areas along the middle and lower reaches of the Changjiang (Yangtze) River.

In 1276 the Mongol troops captured the Southern Song capital Lin'an (today's Hangzhou near China's southeast coast). The people and the Southern Song troops resisted heroically. A famous story in history is that of the Southern Song general Wen Tianxiang (1236-1282). He led his troops through Jiangxi, Fujian and Guangdong provinces to continue the resistance. He was captured in battle and taken to Dadu, where through four years in prison all sorts of means were used to try to force him to surrender. He refused and marched heroically to the execution ground.

In 1279 the Mongol troops destroyed the remnant Southern Song forces in Guangdong province and the whole country came under Mongol rule. Though the Mongol conquest had faced fierce resistance, it did perform the positive function of bringing China, which had been split between north and south, under one administration again.

Benefits of Unification

Unification facilitated the assimilation of the different peoples to create the multinational character

which has been a source of China's strength. The Qidans and Nuzhens who had once been nomadic people in the north had been living in the Huanghe (Yellow) River region for a long time and had intermarried with the Hans so that there was little difference between them. Since the seventh century, and even more in the 13th century, Persian and Arabic traders and religious personages whose religion was Islam had been coming to China. Some had settled down and intermarried with the Hans, Mongols and Uygurs. They and their offspring had become a new nationality called the Hui people.

The Yuan emperors controlled a much larger territory than any previous dynasty. To consolidate their rule, they set up the Central Secretariat Council in the government as the highest organ of political power. They re-divided China into provinces which were much larger than at present. These provincial divisions first delineated the shape of the provinces as they exist today. Under Tongan county in Fujian province they set up the Penghu Inspectorate which governed the Penghu Islands and Taiwan.

The Mongols established a ministry in the central government to deal with Buddhist affairs and the administration of Tibet. There the central government appointed officials, carried out a census, collected taxes and stationed troops. Administrative organs were also set up for the Xinjiang region.

Con and Pro Farming

When the Mongol nobles first came to the Huanghe (Yellow River) region, they looked down on agriculture, seized vast stretches of farmland and converted it to pasture. Some even thought that the Hans should be driven off the land and it should all be used for grazing. Yeluchucai (1190-1244), a Qidan who had received a Han Chinese education and become adviser to Genghis, persuaded the Mongols that it was to their advantage to allow the Hans to continue to work the land, and to collect taxes from them.

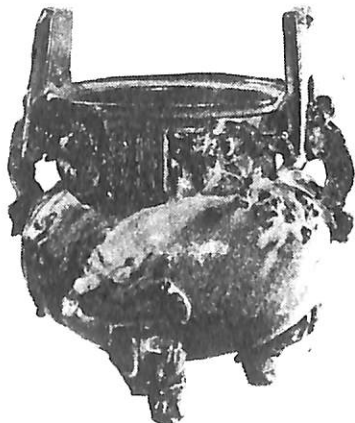
Kublai saw the importance of agriculture. He ordered an agricultural department set up. Its officials often went to investigate farm conditions and their reports became the basis for judging the ability of the local administrators. They brought together all available literature on agriculture and collected information on the actual experience of the peasants. This was compiled into the book *Essentials of Farming and Sericulture*, which was sent to all parts of the empire as a guide.

Agriculture, which had been devastated by the continuous wars, gradually revived and developed further. The area under cotton increased, providing conditions for the expansion of the cotton spinning and weaving industry. Agriculture in the frontier regions, particularly in the southwestern province of Yunnan, also made further development.

Improved Transport

Transportation was markedly improved during the Yuan dynasty. Government revenues and grain for the capital came largely from the lower Changjiang (Yangtze) region. Previously it had been brought via the Grand Canal. But due to the prolonged division of China between north and south, the canal had become silted up in many places and had fallen into disrepair. The silted-up parts were dredged and during the reign of Kublai Khan the Huitong Canal was built between Dongping and Linqing in Shandong province and linked up with the Grand Canal. The northern end of the Grand Canal had been at Tongzhou east of Dadu (Beijing). The Tonghui Canal was built so that grain carried on the Grand Canal could come directly to the capital. Coastal navigation became an important means of grain transport in Yuan times. A route was opened from the mouth of the Changjiang River to Zhigu, present-day Tianjin. With a favorable wind a boat could traverse the course in a little more than ten days. If steadily employed, one of the huge flat-bottomed boats in use then could carry about 300,000 tons of grain a year. □

A Yuan-period incense burner of the Jun kiln unearthed near Hohhot, Inner Mongolian Autonomous Region.



Stone-faced city wall of Shangdu, secondary capital of the Yuan emperors, in the present-day Zhenglan Banner, Inner Mongolian Autonomous Region.



Lesson 17

Sun Yat-sen Mausoleum

(加拿大 访华 旅游团 成员 从
 Jiānádà Fāng Huá lǚyóutuán chéngyuán cóng
 (Canada Visit China Tourist Group members from

上海 来到 南京 参观 中山陵。)

Shànghǎi láidào Nánjīng cānguān Zhōngshān Líng.)

Shanghai arrive Nanjing visit Zhongshan Mausoleum.)

王: 孙 中山 先生 是 中国 革命的

Wáng: Sūn Zhōngshān Xiānsheng shì Zhōngguó géming de

Wang: Sun Zhongshan Mister is China revolution's

先行者, 他 领导了 推翻 清 王朝

xiānxíngzhě, tā lǐngdǎole tuīfān qīng wángcháo

forerunner, he led overthrow-Qing-dynasty's

的 革命, 一 九 二 五 年 春 逝 世

de géming, yī jiǔ èr wǔ nián chūn shìshì

revolution. 1925 year spring die

时 还 不 到 六 十 岁。

shí hái bú dào liúshí suì.

time he yet not reach 60 years old.

史密斯: 他 是 中国 现代 史上 令人

Shímìsī: Tā shì Zhōngguó xiàndàishìshàng lìng rén

Smith: He is Chinese modern history on make people

景 仰 的 伟 大 人 物。

jǐngyǎng de wěidà rénwù.

admire great personage.

王: 中 山 陵 从 一 九 二 六 年

Wáng: Zhōngshān Líng cóng yī jiǔ èr liù nián

Wang: Zhongshan Mausoleum from 1926 year

初 动 工, 一 九 二 九 年 春

chū dònggōng, yī jiǔ èr jiǔ nián chūn

beginning start work, 1929 year spring

建 成, 用 了 三 年 多

jiànchéng, yòngle sān nián duō

construction completed, used three years more

的 时 间。

de shíjiān.

time.

勃朗: 整 个 陵 园 的 面 积 有 多 大?

Bólǎng: Zhènggè língyuán de miànjī yǒu duō dà?

Brown: Whole Mausoleum's area has how big?

王: 陵 园 座 落 在 紫 金 山 山 腰,

Wáng: Língyuán zuòluò zài Zǐjīn Shān shānyāo,

Wāng: Mausoleum (is) situated at Purple Gold Hill hillside,

由 山 脚 到 山 颠 约 有 八 万

yóu shānjiǎo dào shāndiān yuē yǒu bāwàn

from foot to hilltop about have 80,000

多 平 方 米。

duō píngfāngmǐ.

more square meters.

萨克斯: 整 个 陵 园 建 设 看 起 来

Sākèsī: Zhènggè língyuán jiànshè kànqilai

Sachs: Whole Mausoleum construction looks

庄 严、宏 伟。

zhuāngyán, hóngwēi.

solemn (and) grand.

玛利: 陵 园 的 正 门 上 刻 着 什 么 字?

Mǎlì: Língyuán de zhèngménshàng kèzhe shénme zì?

Marie: Mausoleum's front gate on carved what characters?

王: 刻 着 “天 下 为 公” 四 个 字,

Wáng: Kèzhe “Tiān Xià Wéi Gōng” sì ge zì,

Wāng: Carved “Heaven Under For All” four characters,

是 孙 中 山 先 生 的 手 书。

shì Sūn Zhōngshān Xiānsheng de shǒushū.

is Sun Zhongshan Mister's handwriting.

这 是 出 自 中 国 两 千 多 年

Zhè shì chūzì Zhōngguó liǎngqiān duō nián

This is out from China 2,000 more years

前 一 部 古 书 中 的 话, 孙

qián yī bù gǔshūzhōng de huà, Sūn

ago an ancient book's words. Sun

中 山 先 生 很 喜 欢 引 用 这

Zhōngshān Xiānsheng hěn xǐhuan yǐnyòng zhè

Zhongshan Mister very fond of quoting the

几 个 字 来 说 明 自 己 的 理 想。

jǐ ge zì lái shuōmíng zìjǐ de lǐxiǎng.

few words (to) explain own ideal.

(大 家 来 到 碑 亭)

(Dàjiā lái dào bēitīng)

(Everybody come to tombstone pavilion)

玛利: 哦, 亭 子 中 的 这 个 墓 碑 好

Mǎlì: Ò, tíngzǐzhōng de zhè ge mùbēi hǎo

Marie: O, pavilion (in)'s this tombstone really

大 呀!

dà ya!

big!

王: 山 上 那 宏 伟 的 殿 堂 是

Wáng: Shānshàng nà hóngwēi de diàntáng shì

Wāng: Hilltop that magnificent palace building is

陵 园 的 主 体 建 筑, 安 葬 着

língyuán de zhǔtǐ jiànzhù, ānzàngzhe

mausoleum's main structure, peacefully buried

孙 中山 先生的遗体。从
 Sūn Zhōngshān Xiānshēng de yǐtǐ. Cóng
 Sun Zhongshan ,Mister's remains. From
 碑亭 到那里 要 上 三百
 bēitíng dào nàlǐ yào shàng sānbǎi
 tombstone pavilion to there must (go) up 300
 多级台阶呢。
 duō jí táijiē ne.
 more steps.

史密斯：我们 上 吧！
 Shímǐsī: Wǒmēn shàng ba!
 Smith: (let) us (go) up!

(大家 进入 殿堂 大厅)
 (Dàjiā jìnrù diàntáng dàtīng)
 (Everybody enter palace building big hall)

王：这是 孙 中山 先生的 大理石
 Wáng: Zhè shì Sūn Zhōngshān Xiānshēng de dàlǐshí
 Wang: This is Sun Zhongshan Mister's marble
 坐像。
 zuòxiàng.
 seated statue.

勃朗：塑像 底座 周围 的 浮雕 是
 Bólang: Sùxiàng dǐzuò zhōuwéi de fúdiāo shì
 Brown: Statue base surrounding bas-relief is
 什么 内容？
 shénme nèiróng?
 what content?

王：它 记录了 孙 中山 先生的
 Wáng: Tā jìlùle Sūn Zhōngshān Xiānshēng de
 Wang: It records Sun Zhongshan Mister's
 革命 活动。坐像 后面 是 他
 géming huódòng. Zuòxiàng hòumiàn shì tā
 revolution activity. Seated statue behind is his
 的 墓室。
 de mùshì.
 tomb chamber.

Translation

(Members of the Canadian China Tour Group have come from Shanghai to Nanjing to visit the Sun Yat-sen Mausoleum.)

Wang: Sun Yat-sen was a forerunner of the Chinese revolution. He led the revolution that overthrew the Qing dynasty. He died in the spring of 1925 before he had reached 60

Smith: He is an admirable personage in modern Chinese history.

Wang: The construction of the Sun Yat-sen mausoleum was started at the beginning of 1926 and completed in the spring of 1929. It took more than three years.

Brown: What is the area of the whole mausoleum?

Wang: The mausoleum is situated on the slope of Purple Gold Hill. There are about 80,000 square meters from the foot to the top of the hill.

Sachs: The whole structure of the mausoleum looks solemn and impressive.

Marie: What are those characters engraved over the front gate of the mausoleum?

Wang: They are "The World Belongs to Everybody" in Sun Yat-sen's handwriting. This comes from an ancient Chinese book over 2,000 years old. Sun Yat-sen was fond of quoting these words to explain his own ideals. (They reach the tombstone pavilion)

Marie: Oh, the tombstone in this pavilion is really big!

Wang: The magnificent building on the hilltop is the main structure of the mausoleum, in which are buried Sun Yat-sen's remains. One has to climb over 300 steps from the pavilion to get there.

Smith: Let's go up.
 (They enter the big hall of the building)

Wang: This seated marble statue is Sun Yat-sen.

Brown: What are the bas-reliefs around the pedestal of the statue about?

Wang: It records Sun Yat-sen's revolutionary activities. Behind the statue is his tomb chamber.

Notes

1. Sun Yat-sen — Sun Zhongshan. Sun Yat-sen was known by many names. Abroad he is known as Sun Yat-sen, but in China he is widely known as Sun Zhongshan. Though he was a physician and is sometimes referred to as Dr. Sun, in Chinese he is more often referred to by the title "Mister" which is a token of respect.

2. The "same as ..." 跟...一样. Examples: Zhè ge diànshìjī gēn nà ge diànshìjī yíyàng 这个电视机跟那个电视机一样 (This TV-set is the same as the other one); Wǒ yào mǎi yí ge gēn nà ge yíyàng de diànshìjī 我要买一个跟那个一样的电视机 (I want to buy a TV-set the same as the other one).

Sometimes an adjective is put after. Zhè ge diànshìjī gēn nà ge diànshìjī yíyàng dà 这个电视机跟那个电视机一样大 (This TV-set is the same size as the other one). Wǒ yào mǎi yí jiàn gēn nà jiàn yíyàng hǎo de dàyī 我要买一件跟那件一样好的大衣 (I want to buy an overcoat as good as the other one).

In the negative, the word 不 bù can be placed before either gēn or yíyàng. Zhè ge diànshìjī bù gēn nà ge diànshìjī yíyàng 这个电视机不跟那个电视机一样 is the same as Zhè ge diànshìjī gēn nà ge diànshìjī bù yíyàng 这个电视机跟那个电视机不一样.

3. Three pronouns, one sound. The three pronouns 他 (he), 她 (she) and 它 (it) are pronounced the same but written differently.

4. Really big: hǎo dà 好大 or zhēn dà 真大. Zhè ge mùbēi hǎo (zhēn) dà ya! 这个墓碑好(真)大呀! (This tombstone is really big!) The word hǎo can be followed by other adjectives: hǎo piào-liang 好漂亮 (really beautiful); hǎo gāo 好高 (really tall); hǎo qīngchū 好清楚 (really clear); hǎo nán 好难 (really difficult).

Life and Love of a People's Policeman

ZHAO YI

CRIMINALS are not unknown to me. As a policeman I've been in charge of convicts and prisoners. But I never thought I would one day become a "criminal" myself.

My father, a native of Hebei province, was a homeless vagrant from the age of 12 when his parents died. He wandered to Changping county in Beijing's northern suburbs and, when the new China was founded in 1949, settled down there in the village where I grew up.

Although not very well off my family coddled me because I was the youngest child. My life was uneventful up to 1969 when, at the age of 16, I finished junior middle school. My marks were good and I was a class leader. But my hopes of entering an engineering college exploded when all senior middle school courses were stopped during the cultural revolution. So I went home, farmed for the first year, taught in a village primary school in the second, and then was taken on as a policeman in 1971. After training I was assigned to the police station in my commune.

In 1966, when I was only 13, in the fervor and excitement of the first year of the cultural revolution I had become leader of a Red Guard group in our school. I was enthusiastic at first. But then things went to extremes: I saw people killed in factional fighting. I saw how revolutionary cadres, scholars and artists were attacked and humiliated. More and more questions arose in my mind.

AFTER Premier Zhou Enlai died in 1976 the gang of four's persecution of old cadres became even

more flagrant. Nationwide resentment at the gang climaxed in the Tian An Men Incident, the great demonstration in Premier Zhou's memory in April 1976. The day before the incident my brother brought home some poems written by angry demonstrators in Beijing's Tian An Men Square. These inspired me to write a poem of my own. It included these lines, "From slimy sewers,/ Foul smoke clouds rise./ A bunch of clowns/ Stirs evil currents;/ Ridiculous as an insect that tries to stop a chariot/ Their efforts are in vain."

When minions of the gang of four asked me whom I was describing as "clowns," I answered, "Those who deserve it."

This brought me to jail on the charge of being a counterrevolutionary. Interrogated in the day time and tormented by nightmares afterwards, I was so miserable I couldn't eat. Each day seemed like a year. But later, as I got more

used to prison life I spent my time reading Marxist works. Gradually my anxieties left me and I grew calmer. I knew I was not a counterrevolutionary and that I had been right in opposing the gang of four. My sufferings were undeserved, and sooner or later history would prove me innocent.

In December 1976, soon after the downfall of the gang, I was exonerated. Once out of prison I felt as though the air was fresher and the sky higher than they used to be. For the first time in my life I realized the value of freedom. Half a year in the lockup had been an ordeal, but it had given me, at the young age of 23, a clearer and more sober outlook on life.

I was reassigned to the police subbureau in Nankou township, Changping county, and put in charge of residence registration.

SINCE Nankou has 48,000 inhabitants there is a lot of routine work each day, and the local police station is always filled with people asking for addresses, directions, information about missing relatives and the like. Since we are understaffed, I handle all this alone. By the end of the day my head whirls and my throat is dry from answering questions. I once thought of applying for a transfer. But then I remembered

Zhang Jingde

Zhang Zongling and Zhao Yi at the Great Wall at the invitation of our reporter.



ZHAO YI is a policeman of the Nankou branch of the Beijing Security Bureau.

my days in prison and how I had promised myself to do any work, no matter how hard, if only I could be free. So I decided to stay on. Besides, I feel really good when, with my help, some one finds a long-lost relative, or a family that has been separated is brought together again. I've also done my best to alter registration formalities that are illogical or unnecessarily complicated. Last year I worked out a program to improve administrative procedures, which was supported by my superiors. In the fall of 1979 I was elected an advanced worker of the Public Security Bureau of Changping county.

In middle school I used to be interested in mathematics and later in literature, music and calligraphy. In my spare time I write prose articles and poems, and sometimes compose songs or musical pieces.

ONE aspect of my life that's very dear to me is my fiancée. Her name is Zhang Zongling and she's 23 years old. A city girl from Beijing, she now works in the labor union at a state farm in the northern outskirts of Changping township. Incidentally her father is a driver for *China Reconstructs*. Although there's nothing particularly outstanding about her looks, she is forthright, sincere and warm-hearted. I was attracted to her the first time we met.

Soon after we became acquainted, however, I went to prison. I wouldn't have blamed her if she had refused to see me again; we hadn't talked about going steady. But Zongling decided then that she loved me. Against her parents' wishes, she gave up the chance to get a job in the city and settled down in the countryside near my home to wait for me.

In jail I couldn't help thinking about her. But I was a "criminal," and I didn't want to involve anyone else in my troubles. I wouldn't see her any more, I told myself, even after I was released.

But when I stepped out of the prison gate Zongling was there to meet me. Her hands, clasping mine, quivered and her voice was

choked with emotion. All at once I realized how mistaken I had been about her. Before long I asked her to marry me.

We were engaged in April 1978. As local custom requires she had dinner at my home. My parents gave her ten yuan and my two sisters-in-law presented her with a suit of clothes. Zongling and I don't believe in elaborate displays and those are the minimum as far as betrothal gifts go in our village.

SHE lives on the state farm, a dozen kilometers from where I work. We meet only once every two weeks or so. To this day I haven't had an opportunity to take her to a park! And we've only seen a few films together. But we write to each other about our work and studies and life in general. More often than not she is the first to read my literary efforts. I'm hoping we'll both write well enough some day to collaborate on a book or some short stories. We always have so much to talk about when we are together. Although we occasionally disagree or even quarrel, we have the same view on many things. Neither of us thinks much of those young people who care only for material comforts, neglect their work and show disrespect for older people. On our days of rest we either go to the city to help her family with household chores or come to my home to work in the fields.

As both my parents are over 70, we have made it a point to take good care of them. We intend to live with them after we get married. We already have the furniture we need for our home and as far as I'm concerned we could get married any day now. But her parents and mine insist that the wedding ceremony be held on October 1st, China's National Day.

It's the fashion now for young people to get married on holidays, especially on October 1st and May Day. The reason perhaps is that May Day and National Day are the biggest festivals of the year and the weather is at its best in Beijing then. So October 1st will be the happy day. □

Painter of the Snowbound North

BAO WENQING

YU ZHIXUE, a painter from China's northeastern border regions, is now in Beijing preparing an exhibition of his works to be held in Hongkong and abroad.

Forty three years old, stockily-built, unassuming and gregarious, Wu is an art editor at the People's Publishing House of Heilongjiang province. He is as yet not well known in national art circles. I visited him in the room measuring less than 20 square meters, where he lives and works. It was cluttered with painting paraphernalia and the walls were festooned with his recent works.

With a modest smile he showed me around. I was immediately transported into an enchanting world of ice and snow. Not with heavy brushstrokes and striking colors, but in a restrained medium all his own Yu had recreated on rice paper the boundless snow-covered plains of China's northern territories, their silver-clad mountains and the primeval forests decorated with gleaming icicles. His use of color is simple, tranquil and graceful. It evokes the flavor of classical Chinese pastoral poetry.

"Sylvan Symphony" depicts a winter scene in a timber-felling area in the Hinggan Ling (Khingan Mountains). Towing equipment pulls logs over the snow in a forest of firs, and through the snow-covered tips of trees one sees more logs stacked in the distance. Well

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Yu Zhixue at work.
Sun Yunshan

conveyed are the vastness and beauty of China's northern forests and the hardy spirit of lumberjacks working in sub-zero temperatures there. Although no human figures appear in this picture, one can sense as by an echo the cheerful hubbub of a busy worksite.

In "Forest Depths" the painter lovingly limns a winter-clad scene from his home town. The effect is fresh and invigorating. Here, too, no people are shown. But a mother bear, ambling along the edge of the forest with a cub in tow, gives the forest a touch of life and warmth. Most striking is the treatment of snow covering the forest. The painter uses the traditional Chinese ink-splash technique, with blank spaces between the strokes, to capture its grandeur. But in his use of this old medium, he has also achieved some new breakthroughs.

If the two paintings already described can be compared to symphonies, Yu's "Spring Song" is like a lively sonata. On a clear day after a fall of snow several sparrows hop about on trees festooned with icicles melting away in drops that splash in a pool of clear water below. One feels the imminence of spring.

Chinese classical landscape paintings fall into one of the following categories: *Po Mo Shan Shui* (splashed-ink landscapes), *Qian Jiang Shan Shui* (light ink and sepia landscapes), *Zhong Cai Shan Shui* (blue and green landscapes) and *Jin Bi Shan Shui* (landscapes in blue and green with

gold outlines). Yu Zhixue may be said to have added a new type — the *Bing Xue Shan Shui*, or ice and snow landscapes. His pictures are marked by immediacy and local flavor. The winter scenes breathe vitality, and the pristine whites add grandeur and dignity.

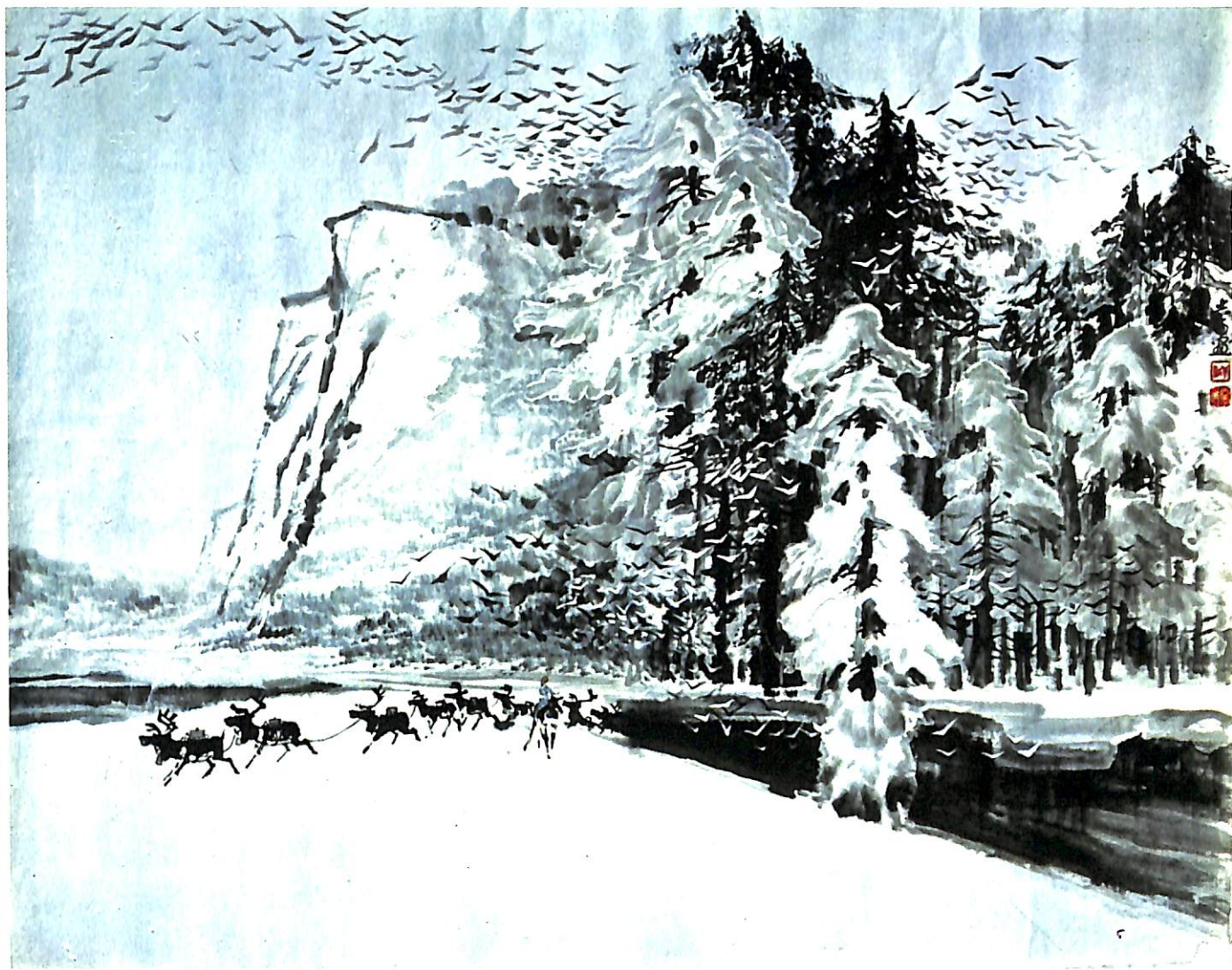
A RELATIVE newcomer in the painting world, Yu Zhixue was born in a village on the plain watered by the Songhua and Nen rivers. He loved his native place and at an early age formed a deep attachment for its natural beauty. Ice and snow and 40-below-zero temperatures exhilarated him. He was a close observer of the changing scene — storm-driven snows, peaceful snow scenes at daybreak, and melting snow in the springtime. In those days few artists came to these bleak, remote regions to paint nature, while local painters went to the warm south to seek lush landscapes. Yu Zhixue resolved to stay and make the local winters his subject matter.

He had started to paint at an early age. When he was 12, just before the liberation, he was already doing pictures of the Kitchen God and the Door God, used as talismans in old China, for his fellow villagers. His progress was more marked after he started studying in middle school, and upon graduating, he was engaged as a teacher in a private art school. In 1960 he became art director for

a magazine published in Haerbin, the administrative seat of Heilongjiang province, and as such had opportunities for broader contacts with life. Since then he has roamed the length and breadth of China's northlands, going most often to the primeval forests of the Hinggan ranges. To uncover the mysteries and moods of the snow, he would climb trees in temperatures of as much as 40 below zero to listen to the crackling of the frozen branches. More than once the branch on which he was perched would snap, dropping him in the snowdrifts below. At other times, he would trudge through deep snow to get a closer view of the wildlife. Gradually he familiarized himself with the laws and beauties of nature in this white northern world.

BEFORE an artist can paint evocatively the landscapes he loves and understands, he has to master and creatively apply the techniques required. Yu Zhixue spent 20 painstaking years to achieve this. He studied traditional depictions of snow by past painters of different schools. But these, he felt, were insufficient to render the snow scenes in his home region. There were, for instance, the methods of flicking pigment from a brush, of leaving unpainted areas on the paper to represent snow. But they were effective in painting the snowscapes further to the south, but not for depicting the huge, feathery snowflakes, snow-mantled trees and glittering icicles of the north. A new method had to be devised, and Yu Zhixue finally did it. Without the use of white pigment, he can paint snow and ice on rice paper as it appears in all its manifold variety on trees, on the ground, on mountains and hillsides, on riverbanks and lake shores.

Yu Zhixue's paintings reach the heart and mind and open new horizons to the viewer. He says, "I've been seeking a key to open the gates of the garden of the north." And he has found it. An art critic aptly called his works "eulogies of ice and snow, and crystal poems". □

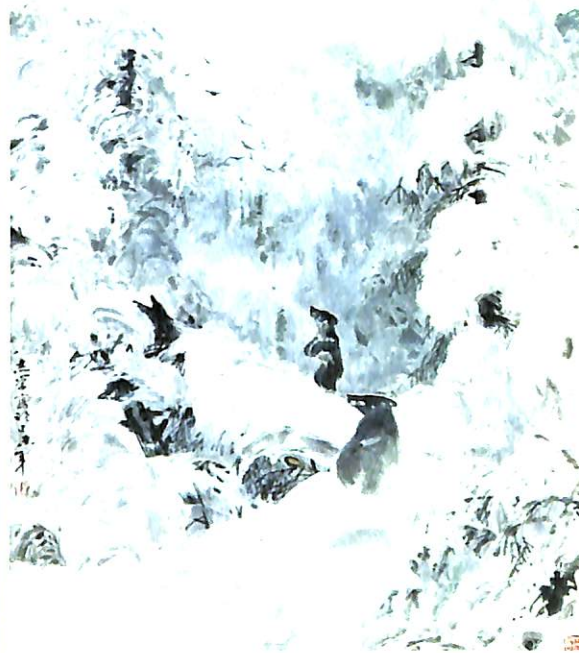


On the Banks of River Beierci

Companions



Forest Depths



李可染
己未年五月
李可染



Birds Flying Through
Icicles



The Painted Faces of Beijing Opera

YUAN SHIHAI

CHINA issued a set of postage stamps featuring the painted faces of Beijing opera last January. This made me very happy. And as an actor specializing in painted-face roles, I would like to say something on this type of make-up and what it denotes.

Actors with painted faces have appeared in Chinese drama for hundreds of years. The earliest evidence we have so far concerns the *chou* (clown or petty villain) face which figured in the musical dramas of the Song dynasty in the 12th and 13th centuries. As in the present Beijing opera, these clowns had a patch of white painted on and around their noses. Facial designs, however, remained fairly simple until the 17th and 18th centuries, when there was a rapid development of the *jing* (painted-face) roles.

THE painted faces of Beijing opera must not be confused with ordinary make-up or with the masks used in some varieties of drama. They are a form of art peculiar to Beijing opera. Several hundred different types are known to exist falling into several categories. The main ones are the white face (*bai lian*), red face (*hong lian*) and black face (*hei lian*). Contrasting colors and bold lines are used to delineate eyebrows, eyes, mouth, nose and forehead with deliberate high exaggeration, according to the type and personality of the role. The colors used are symbols. Red stands for loyalty and courage; white for cunning; yellow for ferocity; black for honesty and integrity. But there are exceptions and variations. For example, Cao-Cao, the shrewd and tyrannical ruler of the state of Wei during the Three Kingdoms period is traditionally presented

with a white face. But the opera *Gathering of Heroes* emphasizes other aspects of his character—his bravery, resourcefulness, tenacity and optimism—so the white in his make-up is tinged with pink, especially between the eyebrows.

PAINTED faces are also classified by design, and distribution of the colors, as in the full-face design (*zheng lian*), fragmentary design (*sui hua lian*) and three-tile design (*sankuaiwa lian*).

The new postage stamps show the facial make-up of eight characters often seen in Beijing opera, all of the type known as "military" role.

ONE presents Li Kui, one of the main characters in the famous classical Chinese novel *Water Margin* (also translated as *All Men Are Brothers* and *Heroes of the Marshes*). Born in poverty, he served as a county jailer in feudal China. Then his sense of justice impelled him to save the life of a man condemned to execution and he escaped to the Liangshan Mountains to join a peasant uprising there. In the opera, his make-up is intended to show him as rough and blunt but upright and kind. A well-balanced full-face design is used instead of the fragmentary pattern denoting ferocity.

Lu Zhishen, a monk in the same novel, also of lowly birth, always took the side of the wronged and oppressed and likewise joined the peasant uprising in the Liangshan Mountains, becoming one of its leaders. In this facial design, his broad-mindedness and bluff good humor are shown by eyebrows painted in the shape of peacocks and crinkles of laughter under his eyes and round his mouth. The lines between his eyebrows denote shrewdness.

Zhang Fei, a general in the Kingdom of Shu Han (221-263) and a warrior of exceptional courage,

wears a face painted in a butterfly design, showing breadth of spirit.

Sun Wukong, the famous Monkey King in the novel *Pilgrimage to the West*, wears a face painted to look like a monkey's, with imaginative high exaggeration.

Meng Liang was a warrior in *The Generals of the Yang Family*, a folk-story dating from the Song dynasty (960-1279). His face, painted in a calabash design with bird-like eyes, is intended to depict uprightness, honesty and optimism. It is a typical example of the "three-tile" (*sankuaiwa*) pattern.

Huang Gai was an old general of the Wu Kingdom during the Three Kingdoms period (220-265). His red face with the broad white eyebrows indicates utter loyalty and advanced age.

In the case of Lian Po, a famous general of the Warring States period (475-221 B.C.), the "three-tile" design frequently employed for commanders and warriors is not used. Instead, his face is delineated in pink and white to show a generous nature, but with frowning, updrawn eyebrows denoting a tendency to take things too much to heart.

Dou Erdun, according to folklore, was a freebooting hero who fought against the rulers of the Qing dynasty (1644-1911). Though brave, he was violent and opinionated, and lacked wisdom and tact. So for him the fragmentary design (*sui hua*) face is used.

PAINTED faces lend color and vividness to the roles of Beijing opera. Of course their exaggerated form and style make them unsuitable for plays or films. Imagine what a film actor or actress would look like in make-up of this sort! But Beijing opera fans would be bewildered if Li Kui, Zhang Fei or Lu Zhisheng came on stage without their traditional painted faces. □

YUAN SHIHAI, now 65 years old, has spent a lifetime on the Beijing opera stage and is one of the most famous exponents of the "painted face" roles.

Exploring the 'Roof of the World'

SUN HONGLIE

OUR team which surveyed the Qinghai-Tibet Plateau is now busily preparing for the May symposium on the plateau and for the study tour there afterwards. Some 70 scientists from 20 other countries have been invited to attend this meeting to discuss how this plateau was formed and its effects.

The Qinghai-Tibet Plateau, better known to the world as the "roof of the world," lies mainly inside China and makes up one quarter of the country's area. The average elevation of the plateau is over 4,000 meters above sea level, which makes it 3,000 to 4,000 meters higher than the surrounding Ganges and Chengdu plains and the Tsaidam and Tarim basins. Despite its high altitude, the plateau happens to be the youngest plateau on earth. The Himalayas are now the highest part of this plateau, but in the early Tertiary period 40 million years ago it was still beneath the sea. What monumental forces pushed it up to its present height? Was the uplift connected with the building of the earth's continents? And how did the upheaval affect the environment and human activity? The plateau first attracted scientists early this century and in recent years interest in the plateau has grown, as it has come to believe that answers to some fundamental

SUN HONGLIE is a leading member of the Qinghai-Tibet Plateau expedition organized by the Chinese Academy of Sciences.

A 100-meter-high waterfall spills over the highway in Nanpo Valley in the Himalayas.
Zhang Mingtao

CHINA RECONSTRUCTS

questions are to be found in this part of the world.

Explorations Begin

The Chinese government organized and dispatched scientists to study the plateau right after the people's republic was founded in 1949, although access to the plateau was extremely difficult and modern instruments and equipment were severely lacking. Later, studies of the plateau were listed high in priority in the national scientific research programs of 1956-67 and 1963-72. Four expeditions were made in the 1950s and 1960s.

Even when I was a student studying soil geography in the 1950s I was fascinated by what I heard about the plateau. At lectures by professors who had been there, I would listen with mounting excitement, dreaming that one day I would have the chance to visit the plateau. That dream came true in 1961 when the Chinese Academy of Sciences organized its second field study of Tibet. I was included in the team as a soil specialist and also to look after the paper work. We concentrated on the Xigaze and Gyangze areas in central-south Tibet, but the next year our work there was discontinued because of lack of funds and we moved to

work in northwest Yunnan and west Sichuan.

In 1972, following Premier Zhou Enlai's instructions to strengthen basic studies the Chinese Academy of Sciences drew up plans for 1973-80 to make an overall and systematic survey of the Qinghai-Tibet Plateau. The survey called for, among many things, the collecting and compiling of various basic data, finding out how the plateau was formed and its subsequent development, and also the provision of scientific information for the rational exploitation and development of the plateau's natural resources to help build up this part of China. A survey team was formed soon after by the academy and I joined the team as a member of the soil group and was also asked to help lead the team.

Numbers Grow Quickly

When our survey started in 1973 we had 70 members. By 1976 our membership had gone up to more than 400 people, who came from 56 research organizations, universities and other units in 14 provinces, municipalities and autonomous regions. The study covered 50 disciplines, including geophysics, geology, geography, biology, agriculture, forestry, animal husbandry, hydrology and apline physiology. Another 35 or-

ganizations joined us in 1977 when we started to work on the material and data we had assembled. Altogether 1,200 people were involved. This was the largest and longest survey ever conducted by China on the Qinghai-Tibet Plateau and it embraced the most disciplines.

Over the years we have visited every corner of Tibet. We have traversed the Himalayas on foot, studied the lower reaches of the Yarlung Zangbo River where the climate is hot and humid with abundant rainfall. We have crossed the freezing wind-swept Qangtang Plateau in north Tibet by horse and yak and have climbed up and down the Hengduan range with its deep valleys and precipitous slopes and we have camped on the desert wastes of the Karakorum. The hardships we ran into and overcame paid handsomely. The more we investigated, the more we learned how rich the plateau is.

Rise of the Plateau

We were divided into many different groups, but all of us were bound by our interest in attaining that goal around which all our work was centered on: How did the plateau come to be formed and how has its formation influenced the natural environment and human activity? Getting to know

Author (center) and two other soil scientists by the Yarlung Zangbo River. Liu Xizhong



Zoologists examining a captured wild yak, Tibet plateau. Li Mingsen





Tropical forest in Medog county, Tibet, on the lower reaches of the Yarlung Zangbo. Zhang Mingtao

the plateau's geological history, its origin and the causes of the upheaval, finding out precisely how the uplift affected the geographical environment and the biological system and distribution and ascertaining the natural conditions and natural resources so as to know how best to use and develop them are of more than academic interest. They are of important practical significance. This goal united a large body of scientists and linked all the different groups together.

The eight soil specialists working with me were from three other organizations but we quickly reached a common plan with the stress on studying soil characteristics and the effects on soil formation caused by the rising of the plateau. The results of our work have been written up in a book *Soils of Tibet*, which we have just completed.

Hard But Rewarding Work

On the "roof of the world," we had to contend with the harsh climate, the rarefied air and the perilous terrain. Every step was an effort, physical and mental. Even our truck drivers had a bad

time. They, too, were overcome by high altitude sickness. Sometimes our drinking water was a ration of a mug or two of muddy brackish water which we called our favorite "Plateau Coffee." Some of our people had to set up camp on glaciers 5,000 to 6,000 meters above sea level and, besides mountain sickness, they had to put up with frequent strong winds and blinding snowstorms as they manned their posts day and night. The hydrologists working in the valleys did not have it much easier. Their work took them to perilous places where a false step could send a man hurtling down to his death. They traversed five big valleys in four years, studying more than 2,000 kilometers of the Yarlung Zangbo and made the first systematic study of the river from its source.

Four years were spent on field work (1973-76) and two more spent on writing up our findings, which we accomplished by the end of 1979. Out of this has come a series of 32 books* on the Qinghai-Tibet Plateau, totalling 15 million words, and an illustrated album in color. These will start reaching the bookshops soon.

Never before has so much material been obtained on the Qinghai-Tibet Plateau. It has been very rewarding. However, we all know that this is merely the first step in uncovering the mystery surrounding this plateau. Greater and more exciting discoveries lie ahead, challenging us. □

* The series of 32 books will include: Geophysical Field and the Structure of the Earth Crust of Tibet, Tibet Stratigraphy, Tibet Palaeontology, Magma Activity and Metamorphism in Tibet, Tibet Granite Geochemistry, Quaternary Geology of Tibet, Terrestrial Heat of Tibet, Geological Structure of Tibet, Physical Geography of Tibet, Climate of Tibet, Topography of Tibet, Glaciers of Tibet, Debris Flow in Tibet, Rivers and Lakes of Tibet, Salt Lakes of Tibet, Soils of Tibet, Tibet Vegetal Cover, Forests of Tibet, Grasslands of Tibet, Crops of Tibet, Wild barley of Tibet, Domesticated Fowls of Tibet, Agricultural Geography of Tibet, Flora of Tibet, Spore Plants of Tibet, Mammals of Tibet, Birds of Tibet, Insects of Tibet, Fish of Tibet, Aquatic Invertebrates of Tibet, Amphibians and Reptiles of Tibet.

STAMPS OF NEW CHINA

Pilgrimage to the West

"PILGRIMAGE to the West" is a famous classical fantasy novel of the 16th century. Through the story of the Tang-dynasty Monk Xuan Zang's journey to India in search of the Buddhist truths it vividly describes the audacious spirit of the Monkey King. A set of eight special stamps depicting scenes from it was issued on December 1, 1979 by the Chinese Ministry of Post and Telecommunications. The first four stamps portray the Monkey King's rebellion in the Heavenly Palace. They are: (1) Waterfall Cave, (2) Fighting Nezha, (3) Mother Queen's Peach Orchard, (4) Furnace of Alchemy. All are of 8 fen denomination.

The others portray how the Monkey King protects the Monk from evil on his pilgrimage; (5) Subduing the White-Bone Demon, (6) Palm-leaf Fan, (7) Cobweb Cave and (8) On the Road to the West.

The face values are 10 fen, 20 fen, 60 fen and 70 fen respectively.

All the stamps measure 30 × 40 mm. Perf. 11. Color photogravured. Serial numbers T. 43 (8-1) to (8-8).

Painted Faces of Beijing Opera

ON January 25 this year, a set of eight stamps was issued featuring a selection of traditional make-up designs from Beijing opera.

Stamp 1, 4 fen. Meng Liang.

Stamp 2, 4 fen. Li Kui.

Stamp 3, 8 fen. Huang Gai.

Stamp 4, 8 fen. The Monkey King.

Stamp 5, 10 fen. Lu Zhishen.

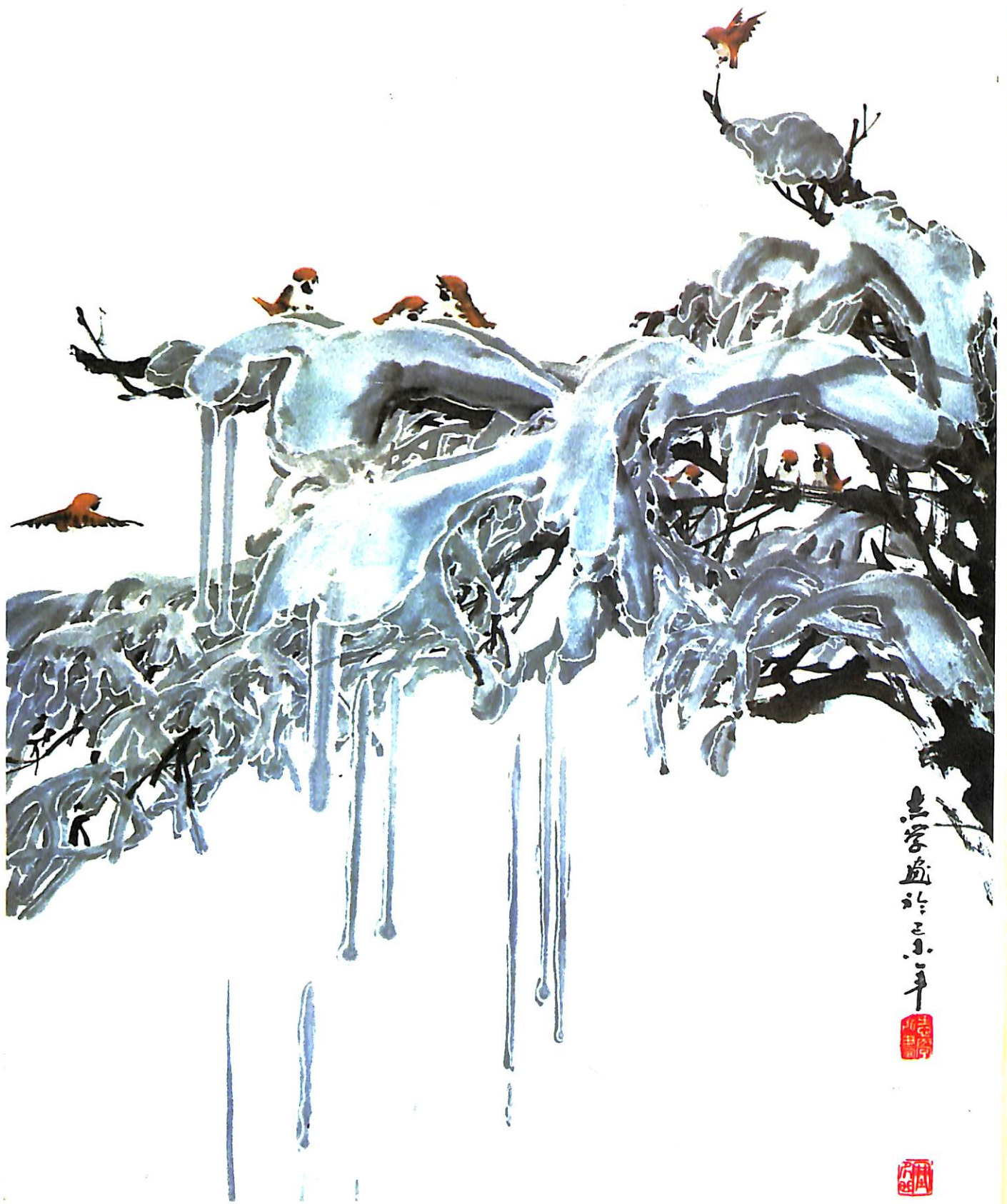
Stamp 6, 20 fen. Lian Po.

Stamp 7, 60 fen. Zhang Fei.

Stamp 8, 70 fen. Dou Erdun.

Color photogravured. Measurements 30 × 40 mm., perf. 11. Serial numbers: T. 45 (8-1) to (8-8).





志学画于己未年

