

China Reconstructs

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- *Liu Shaoqi Cleared*
- *Tenacious Economist*
- *Archeology in Taiwan*
- *A Tibetan Returns*



China Reconstructs

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Liu Shaoqi with Soong Ching Ling (Mme. Sun Yat-sen) and his wife Wang Guangmei in the early 1950s.	

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Articles of the Month

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How the late Chairman of the People's Republic of China was framed, and the Central Committee of the Communist Party corrected the injustice and restored his name to honor.

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Memories of this distinguished American, one of the world's foremost journalists, who reported on China's revolution at key junctures over 40 years in the course of a long life devoted to the people's cause everywhere.

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A Canadian couple teaching at the Beijing Foreign Languages Institute discuss their work, life and impressions.

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Wang Guangmei and Her Children

YAN QING

IN the spring I visited Wang Guangmei, widow of Liu Shaoqi, late Chairman of the People's Republic of China, in the new apartment building where she and her children now live.

Liu Shaoqi, long undeservedly condemned and slandered, was posthumously rehabilitated last February 29 by decision of the Central Committee of the Chinese Communist Party. This frank and

YAN QING is a staff reporter for *China Reconstructs*.

straightforward act deeply stirred the Chinese people, who saw it as an important political event. How is his family getting along? People are likely to be interested.

Sounds of laughter greeted me when Liu Yuanyuan, Wang Guangmei's son opened the door. The family was at supper.

It was 15 years since I had last seen Wang Guangmei, now in her sixtieth year. Physical and mental suffering had left their mark — her forehead was lined, there were crow's feet round her eyes, her hair

was streaked with grey — but her warm and unaffected bearing was unchanged. With her at the table were her and Liu Shaoqi's daughters Aiqin, Pingping and Tingting, and their son Yuanyuan. Their housekeeper, Zhao Shujun who has been with the Lius since before the cultural revolution and who protected the youngest daughter, Xiaoxiao, through the family's darkest days, was also there.

When she learned that I came from *China Reconstructs* Wang

Liu Shaoqi and Wang Guangmei in 1949, a year after their marriage.



Wang Guangmei (seated, left) and her family read the Central Committee communique rehabilitating their husband and father Liu Shaoqi. The children Liu Tingting (seated with her mother) and Liu Aiqin, Liu Pingping and Liu Yuanyuan (standing, left to right).





Liu Shaoqi with youngest daughter Liu Xiaoxiao in 1964.

Guangmei said with a broad smile, "I know your magazine is run by Vice-Chairman Soong Ching Ling. I'm one of your long-time readers."

Last July Wang Guangmei was appointed the director of the foreign affairs bureau of the Chinese Academy of Social Sciences. This keeps her busy, and since the rehabilitation of Liu Shaoqi calls on her time have multiplied. Old friends and well-wishers all want to call on her and many writers and journalists have

pressed her for interviews and articles. She receives innumerable telephone calls.

THE family showed me a room piled high with documents and manuscripts (including clippings of articles from newspapers once published in Kuomintang-controlled areas, written by Liu Shaoqi under several pen-names). Wang Guangmei and her children are now putting these in order. They will provide valuable historical documentation.

In general it is not personal things that Wang Guangmei wants to talk about. That is why she has declined to give interviews. She says the rehabilitation of Liu Shaoqi is not a private matter but one of importance to the Party and the whole country.

On the wall in the simply furnished guestroom a photo of Liu Shaoqi attracted my attention. It was taken by Wang Guangmei in the 50s and shows Liu Shaoqi, hair turning gray, sitting at his desk

deep in his work. Papers, documents, a cut-glass vase of winter jasmine, apple blossoms and a teacup were on the desk. Wang Guangmei cherishes this photo, which is her favorite one.

Wang Guangmei and Liu Shaoqi were married in 1948 and they lived together until forced to separate during the cultural revolution in August 1967. She and her children, along with the general public, were kept in ignorance about Liu Shaoqi's death which occurred on November 12, 1969.

PINGPING is much respected by the family and takes charge of the household. Whenever a problem arises her mother will say, "Go and ask Pingping. She's the 'head' of the family." Pingping is an English translator at the Beijing Foodstuffs Institute. Recently she has been sorting out their father's papers together with her sisters and brother. They often work deep into the night.

Pingping, who was only 17 when she last saw her father, told me how much he loved his family. Though strict, he was seldom known to lose his temper with them. His hope was that they would do something good for the people. In late 50s and early 60s when China was in economic difficulties he urged his two oldest sons and their sister who were living in the Soviet Union in relative comfort, to return to China. The oldest son Yunbin gave up the chance of winning two doctorates and left behind his Russian family; his daughter Aiqin and second son Yunruo did the same with their beloved ones in the Soviet Union and returned to China. Liu Yunbin, the oldest, dedicated his life to China's atomic science. (Liu Shaoqi's sons Liu Yunbin and Liu Yunruo, and daughter Liu Aiqin were born to him by his first wife He Baozhen, who was executed by the Kuomintang in the early 1930s).

In the three years of economic difficulty (1959-61) Liu Shaoqi sent his three youngest children (then

8 to 11 years old) to live in school and not in his house as national chairman. About this, he said, "People don't have enough to eat. We state leaders should take the responsibility for this. Let our children have the same experience as the rest of the people. It will do them good."

I felt the room and people blurring before my eyes as I recalled the ten years of the cultural revolution, that scourge which has left such painful memories with nearly every family. When Red Guard students swept through Beijing and then through the whole country, they also burst into this home. Like other revolutionaries Wang Guangmei and her family had approved the principles of the cultural revolution. It never occurred to the children that Lin Biao, the gang of four and their like would make use of this mass movement and turn it against their father and many of the old generation of revolutionaries in order to seize unjustly accused. They were still wronged when their father was unjustly accused. They were still bewildered when the whole family became involved in the "repudiation."

The writer recalls a "self-criticism of Liu Shaoqi" that was being passed around at the outbreak of the cultural revolution. All it can prove is that Liu Shaoqi, in the interests of the overall situation, had courage enough to shoulder responsibility. He fully trusted the people and the Party.

More than ten years ago when I read Liu Shaoqi's *How to Be a Good Communist* I learned that he was strict towards himself and selflessly devoted to the people. He not only wrote about this but also turned his words into deeds.

Liu Shaoqi and Wang Guangmei could not understand why historical facts were turned upside down. Many old revolutionaries who had gone through so many hard struggles could not understand either. But they were prepared to pass the test with

boundless loyalty to the Party and people, unwavering faith in the communist cause.

The children recall, "As father said, 'If only you work and study hard, the people will be for you.' We have grown up under the kindly care of the people. Living among the people, we also feel the deep love they hold for our father. Toward the final years of the cultural revolution we received many anonymous letters with our father's picture enclosed and anonymous telephone calls in which people said, 'We miss comrade Liu Shaoqi!'"

Prison life hardened Wang Guangmei's will to live. She persisted in doing physical exercises to keep fit. Deep in her heart she remembered the words Liu Shaoqi said to her in their last days together, "History is written by the people." She had confidence that sooner or later, the truth would be reaffirmed.

ON December 12, 1978, two years after the downfall of the gang of four Wang Guangmei returned to her children. They told her what had happened in their years apart: How they had lived and worked in the countryside under the kind concern of the peasants; how their father's old comrades-in-arms had kept a solicitous eye on them. . . . Afterwards they took her to visit these old friends and thank them, and helped her receive guests.

Now Liu Aiqin teaches in Hebei Normal University. Yuanyuan, Tingting and Xiaoxiao are all in college. Pingping doesn't want to go to college, she wants to take care of her mother. She says, "Father has left us. But his spirit will inspire us forever. We shall take our own road to the future."

When I left, Wang Guangmei took my hand and said, "I've received many letters and telegrams from foreign friends to express their sympathy. I take all this as concern for Comrade Liu Shaoqi, I am deeply moved. Please convey my heartfelt thanks through your magazine." This I am now doing. □

October 1, 1949. On the Tian An Men gate tower where the founding of the People's Republic of China was proclaimed. Left to right: Mao Zedong, Zhu De, Zhang Lan, Liu Shaoqi.



March 1960. Liu Shaóqi, Zhou Enlai, Deng Xiaoping, Peng Zhen and Chen Yi receive delegates to the National Working Conference on Workers Welfare called by the All-China Federation of Trade Unions and National Women's Federation.





July 1958. Conversing with passengers on the Tianjin-Jinan train.



September 1958. Inspecting a pit at the Kailuan coal mines with Comrade Zhou Enlai.



October 1959. Liu Shaoqi, with Zhu De, receives members of the presidium of the National Labor Heroes' Congress. He is shaking hands with Shi Chuanxiang, a Beijing sanitation worker.



1951. Doing a job of carpentry when Zhongnanhai, the seat of the Central People's Government was refurbished.
Photos by Xinhua

Liu Shaoqi

—Justice Finally Done

LIU SHAOQI, in the years 1958-66 was Chairman of the People's Republic of China. He was one of the Vice-Chairmen of the Chinese Communist Party, of which he had been a member since 1921 and a major leader for three decades. He headed at different times its trade-union work, and its underground work in the Kuomintang areas. He participated in the world-famous Long March of 1934-35. Throughout the subsequent Anti-Japanese War (1937-45) and War of Liberation (1946-49) he held top-level posts and after the liberation in 1949 was entrusted with even heavier responsibilities. At no time during this entire span of history were his devotion and good faith questioned.

But during the cultural revolution that began in 1966, due to the mistaken estimate of the situation in the Party and country and the abnormal atmosphere that ensued, Liu Shaoqi was wrongly denounced as "head of a bourgeois headquarters in the Party." Worse, he was made the victim of a case that smeared him as a "renegade, traitor and scab" and led first to his expulsion from the Party and all positions, then to the imprisonment during which he died in 1969. This case was cooked up by careerists who at that time had much power — Lin Biao, the gang of four and their like.

In February 1980 Liu Shaoqi was posthumously exonerated by the present (Eleventh) Central Committee of the Party at its Fifth Plenary Session. The 1968 resolution that vilified him was canceled. His name was restored as "a great Marxist and proletarian revolutionary and one of the principal leaders of the Party and the state." The action previously taken against him, and against many functionaries who had been dubbed "his agents," was described as the "biggest frame-up our Party has ever known in its history" which "must be completely overturned."

"The Fifth Plenary Session rehabilitates Comrade Liu Shaoqi not only for his own sake," its Communiqué stated, "but for the purpose of engraving this bitter lesson permanently on the minds of the Party and people so that every effort will be made henceforth to safeguard, consolidate and perfect socialist democracy and the socialist legal system, so

that frame-ups such as befell Comrade Liu Shaoqi and many other comrades inside and outside the Party shall never happen again."

The basis of the decision was "a detailed and accurate report to the Central Committee... following almost a year's time of thorough investigation and study and repeated checking of the materials related to the accusations."

Subsequently, the Xinhua News Agency made public the essential material on which the rehabilitation was based. Since the faked charges against Liu Shaoqi were for years dinned into the heads not only of people in China but also of readers abroad, we give some of the facts below:

June 1924. Liu Shaoqi (standing in middle) with the staff of Workers' School of the Anyuan Railway and Mine Union.



Did Liu Shaoqi ever betray the Party and the workers' movement while under arrest by the reactionaries?

In Shanghai and Changsha, 1925

One accusation was that in 1925, after the historic "May 30 Incident" in Shanghai in which British police fired on student demonstrators protesting against the murder of a strike leader in a Japanese textile mill, Liu showed "fear of struggle," then "fled" to Changsha in Hunan province and sold himself to the feudal warlord Zhao Hengti who arrested him there in return for his life and release.

In fact, Liu Shaoqi, then only 27 and vice-chairman of the All-China Federation of Trade Unions, was an outstanding and militant leader of the May 30th movement. This is attested by many statements published at that time, available in library



In 1925. In Shanghai, as one of the leaders in the "May 30th" movement against the imperialists in that city.

files with which his later slanderers were familiar but which they disregarded and closed to everyone else.

Why did Liu Shaoqi leave Shanghai? Not out of fear but because he was gravely ill with TB as a result of over-exertion. A news sheet published every three days by the Shanghai trade unions stated on October 16, 1925 that although taken ill long before the reactionary crackdown on the Shanghai unions (in September that year), he was "anxiously concerned for the interests of the workers and stayed on the job in disregard of his own health" as well as of danger.

Following Liu's arrest in Changsha, an issue of the *Workers' Road Special*, organ of the committee of the great Guangzhou-Hongkong general strike then taking place, said in his praise, "After the 'May 30' tragedy, Liu worked hard and made great contributions. Ill from overwork, he returned to his home in Hunan for treatment."

In January 1926, a protest telegram was dispatched to his captors from the Second National Congress of the Kuomintang (then still in alliance with the Communist Party). "Comrade Liu", it said, "has devoted himself to the national interest and to service to the workers," demanding his release.

The Party, the Chinese workers' movement and his family and friends tried successfully to enlist social notables to speak out for Liu Shaoqi's release. This was of course, a legitimate effort to broaden the pressure. It was baselessly cited by Liu's slanderers as "evidence" that dubious "backers" had arranged his so-called capitulation.

After Liu Shaoqi was freed, he came straight to the then revolutionary base in Guangzhou (Canton). In February 1926, a meeting of 1,500 persons welcomed him there. Deng Zhongxia, a noted Communist in charge of national trade union work, later a martyr to the revolutionary cause, spoke there and said as reported in the press, "Comrade Liu, Li Lisan and others led the more than 200,000 workers in Shanghai in fierce struggle against imperialism. . . . Then he returned home to be treated for illness and was arrested. . . . In the face of telegraphed demands from the people all over the country, the warlord Zhao realized that he could not defy popular sentiment and so had to release him."

In the same speech, Deng Zhongxia praised Liu Shaoqi as "a most militant and courageous fighter of our working class."

This is the true history of Liu Shaoqi in the year 1925, which no slanders of "cowardice" and "betrayal" leveled at him by Lin Biao, Jiang Qing and others can erase.

In Wuhan in 1927

A second slander concerning events in the industrial city of Wuhan in 1927, alleged that Liu had disarmed the workers there, had defended imperialism, sold out under cover of a pre-arranged false arrest, etc.

Once more, the real facts: In January 1927, workers and other people in Wuhan, after one of their meetings had been attacked by British forces, demonstrated 400,000 strong and took over the then-existing British concession, disarming its police. The British government was compelled to negotiate the return of the concession to China — the first piece of alienated Chinese territory to be recovered from imperialist hands since the Opium War of 1840. Liu Shaoqi, entrusted by the Party with the leadership of the workers' movement in Wuhan, played an important role in this bold and historic mass action.

In April of the same year, Japanese navy men in Wuhan killed a Chinese worker. Liu Shaoqi spoke before a protest meeting and demanded "joint action with the revolutionary people" and "the abrogation of all unequal treaties between China and Japan."

The only "proofs" that Liu had acted as a "protector of the Japanese enemies" was a trade union resolution and proclamations by unions in Wuhan

Summer, 1939. In a cave dwelling at Yan'an revising his "How to Be a Good Communist", which was originally a speech text.



asking members to resist provocations, "not fall into traps laid by reactionaries bought over by imperialists, not break the windows of Japanese houses and not manhandle Japanese residents but wait for negotiations by the (Wuhan, then united front) national government and federation directives. . . ." These points, in fact, were not even decided by Liu Shaoqi but by the then leader of the Communist Party, Chen Duxiu.

Liu was further accused of having "transferred key trade union members from Wuhan" and thus "torn the cadres from the masses." The dispersal of cadres was decided by the Party Central Committee. Secret Party members were left in place. Openly known activists were sent either abroad or to join military units under the revolutionary commanders He Long and Ye Ting. When the faction of the Kuomintang in Wuhan turned against the revolution, in July 1927, many lives were thus saved. He Long's and Ye Ting's troops soon became part of the new Chinese Red Army.

To hold Liu responsible for the disbanding and disarming of the workers' pickets in Wuhan was also unjust. The order to do so was an act of Right opportunism by the Chen Duxiu leadership. Subordinates such as Liu at that time had to carry out Party decisions. Where the blame lay was never questioned until the distorters muddled the issue.

After these events, Liu helped organize and lead the 4th All-China Labor Congress in Wuhan. He then went with Party permission to recuperate from a fresh attack of illness at Lushan. Once well, he sailed, disguised as a seaman, to Shanghai to do perilous underground work. Was this "cowardice" or "capitulation?"

As to the supposed "arrest" of Liu Shaoqi in Wuhan, supposedly in secret connivance with the Kuomintang chiefs Wang Jingwei and Chen Gongbo,

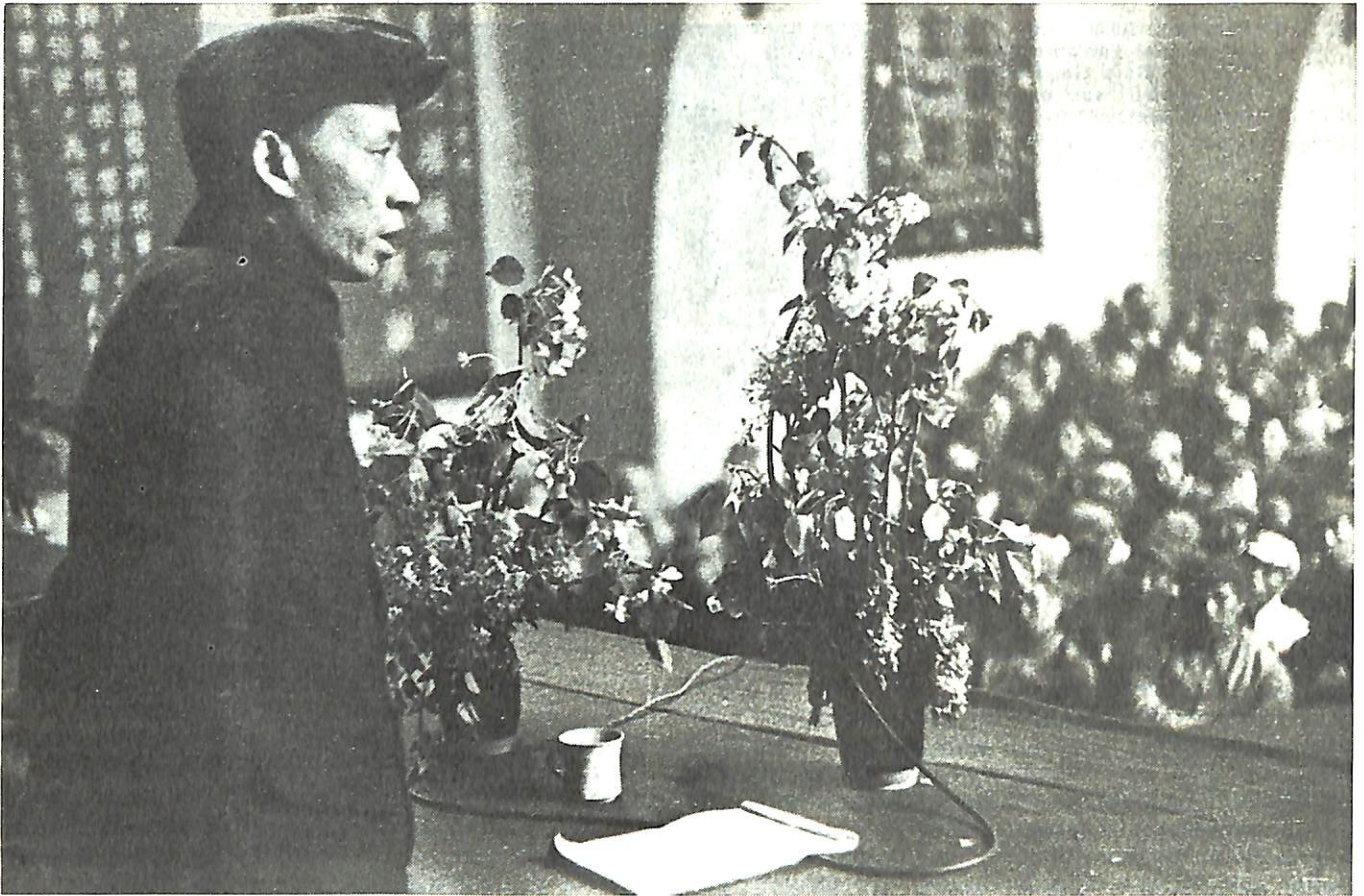
it never took place. Ding Juequn, a one-time union functionary on whose fabricated testimony the charge hung, wrote in jail in November 1967 that, when a Beijing Red Guard group first asked him about it, he said he had never heard of any such event. With regard to other "evidence" against Liu squeezed out of him, he wrote on September 3, 1967, "This document of mine was written outside the framework of real facts." And on October 26, 1967: "I was afraid. . . I would be suspected of shielding Liu. . . if I kept to the truth." Four other persons who had worked at the federation of trade unions in Wuhan in 1927 told investigators Liu was not then arrested. Extant records of the Kuomintang for 1927, dealing with the break-in by their own troops into the trade union headquarters, made it clear that nobody was then arrested. The newspaper *Shen Bao* reported the break-in but no arrests.

Shenyang in 1929

A real arrest of Liu took place, during a textile strike in the city of Shenyang, where he was the underground secretary of the Manchuria (Northeast China) Party committee. His persecutors invented the charge that, to secure his own release, he then "betrayed" its leading members and provided information leading to "the wrecking of many Party organizations with many members arrested and killed."

The facts, as attested by records are: Liu was appointed to his post in June 1929 after serious damage to the Party there through betrayal by a real traitor. He worked effectively to strengthen the shaken Party organization and revive the workers' and peasants' movement in the Northeast.

With another committee functionary, Meng Yongqian, he was picked up during the strike, but only on the charge of "fomenting labor trouble." For lack of



1949. At the 7th National Congress of the Chinese Communist Party Liu Shaoqi presents the Report on Revision of the Party Constitution. Photos by Xinhua

proof, both men were freed on bail. They were not recognized, nor did they reveal themselves, as Communists. The arrest did not lead to the smashing of a single Party organization or the killing of any member.

Repressions in the following year, 1930, consequent on the treason of a renegade named Du Lan-ting, had nothing to do with Liu, who by that time had been transferred to Shanghai, then sent to Moscow for a congress of the Red Trade Union International — which could not have happened if any doubt attached to him.

Liu's framers got hundreds of persons to scour through enemy archives and newspapers in the Northeast. No grounds were found. Hence the first draft of the 1968 indictment against Liu made no such charge. It was added later by Lin Biao, Jiang Qing and company, against the objections of field investigators.

A false "confession," nearly forty years after the event, was forced out of Meng Yongqian, who had been arrested with Liu in 1929. During imprisonment, Meng wrote 20 appeals to retract his forced testimony. Some the persecutors pigeonholed. Others Meng was forced to destroy himself. On March 18, 1969, he wrote in jail, "In the August-October period of last year, why was I asked to copy again and again the confessions which I had fabricated earlier and

with regard for which I had criticized myself for gravely deceiving the Party? And why was that confession turned over to the Party Central Committee? A fabrication is a fabrication. It deserves no credence. Yet it was handed to the Central Committee. . . . Something is seriously wrong with the investigation and the related interrogations." His cry was not allowed to reach outside ears by the falsifiers.

Liu Shaoqi stands cleared. Neither a renegade nor a traitor nor a strike-breaker, he was, in the words of the Communiqué, "loyal to the Party and the people at all times over the past decades, devoted his energy to the revolutionary cause of the proletariat and made indelible contributions to China's new democratic revolution and its socialist revolution and construction."

Summing up, the Communiqué said, "The Fifth Plenary Session solemnly proclaims to the whole Party and the people throughout the country: the action to rehabilitate Comrade Liu Shaoqi demonstrates that the Communist Party of China is a serious, earnest, open and above-board Marxist revolutionary party that seeks truth from facts and corrects its mistakes wherever they are found. It illustrates that the Party's determination to restore the true essence of Mao Zedong Thought is not an empty slogan but an unswerving principled position. . . ." □

Sun Yefang, Indomitable Economist

HE JIANZHANG

SUN YEFANG is a well-known economist in China and he has suffered for economics. Because he maintained that socialist enterprises should run at a gain, he was attacked in 1964 as the biggest revisionist in Chinese economics by those who set themselves up as authorities on theory at that time — Kang Sheng and Chen Boda who were then usurping high Party and government posts. Hence Sun Yefang first was subjected to two criticism campaigns in China's main publications and then jailed.

As his views on the running of socialist economy have had some impact abroad, he has been invited in recent years to Yugoslavia and Romania to give academic lectures, and also to Hungary, England and the U.S.A. where he was unable to go because of poor health. He is to be listed in the next edition of the "International Who's Who." Foreign economists come to China to exchange views with him on subjects of common interest. A number of them have been eager to know not only his views but his life's experience. Some hold that his personal misfortunes over a decade reflect misfortunes to China's socialist economic construction and that his present return to leadership in research is striking proof that the country's economy, once brought to the brink of collapse, is again reviving and developing.

First a Revolutionary, Then an Economist

Son of a minor clerk in a textile mill in Wuxi, Jiangsu province, in 1908, Sun Yefang joined the Chinese Socialist Youth League at the

HE JIANZHANG is Vice-Director of the Institute of Economics under the State Planning Commission.

age of 15 in 1923 when still in primary school. A year later he became an underground Communist and was elected the first Party Branch Secretary of the Wuxi Municipality. At the age of 16 he entered the Wuxi Industrial and Commercial School where he studied economics while taking an active part in the student movement.

In 1925 the Chinese Communist Party sent him to study in the Soviet Union. After graduating from Sun Yat-sen University there, he became an interpreter into Chinese for famous economists such as A. Leontyev in their lectures at the University of the Peoples of the East (as the institution was later called). This helped lay the foundation for later and deeper economic research.

Returning to China in 1930 he plunged into work for resistance to the Japanese invaders (who seized China's northeast in 1931 and attacked Shanghai in 1932) and the mobilization of the people to save the nation. He wrote articles publicizing the Party's program and policies for Shanghai publications including the English language *China Forum*, with which Agnes Smedley and other foreign progressives were associated, and *Chinese Countryside*, sponsored by Xue Muqiao and other Chinese economists. In the course of public polemics with Trotskyites like Yan Lingfeng and Yin Kuan on the nature of Chinese society, he penetratingly investigated and analyzed the then semi-feudal and semi-colonial economy of China. The Chinese Communist Party was leading the masses in carrying out the armed agrarian revolution (the Second Revolutionary Civil War of 1927-36). It held that China's

society was semi-feudal and semi-colonial, so the Chinese revolution was a bourgeois-democratic one under the leadership of the proletariat. The targets of that revolution were imperialism, the feudal-landlord class and the comprador (imperialist-affiliated) section of the bourgeoisie. The Trotskyites by contrast, preached that China was already a capitalist society under the rule of international financial capital, and that hence the Chinese revolution was socialist in nature, with the entire bourgeoisie as enemy.

One of Sun Yefang's articles "The Rule of Financial Capital and Pre-Capitalist Relations of Production" was written during this key debate. In the clash of views he developed his ability in Marxist-Leninist analysis of China's economic problems and became widely known.

Both in the revolutionary wars and after the founding of the People's Republic, Sun Yefang worked mainly in economic research. During the pre-liberation decade he was Vice-Director of the Commodity Administration Bureau of the Jiangsu-Anhui Border Region and Secretary-General of the East China Financial Committee. After the liberation he headed the Institute of Economics of the Chinese Academy of Sciences. He also worked successively in the industrial department of the Eastern China Military and Administrative Committee, the State Statistical Bureau and the Institute of Economics. Through close contact with many practical economic problems he saw defects in current economic management and in the related guidelines and policies. Realization that these problems were closely related with some er-



Sun Yefang

Yao Kai

erroneous theories of the past aroused him to theoretical research. His strong sense of responsibility was the source of his creativeness in this field. After an investigation in the countryside and factories, he wrote many papers in which he raised his doubts about the then prevailing ideas and advanced his own viewpoint.

The system of economic management in China that took shape in the early 1950s imitated that of the Soviet Union. Characterized by highly centralized administration, it had its rationale at the time. It had guaranteed the socialist industrialization in the Soviet Union in the Stalin era, and played an important role in promoting the growth of China's national economy during the period of her First Five-Year Plan (1953-57). But even in that period, the drawbacks of the Soviet management model became increasingly obvious. It dampened the enthusiasm and initiative of enterprises and individual workers, hindered a speedy rise in labor productivity and a rapid increase in economic effect, and discouraged the creation of more ra-

tional and flexible economic links among the various fields and the state enterprises.

Sun Yefang's contention was, and is, that in its planning the socialist state should take account of the law of value, so as to achieve the maximal results with the minimal labor power. There should be equal-value exchange between the industrial and agricultural products, and the growing spread between agricultural and industrial prices known to economists as the "scissors" should not be allowed to develop.

Because the prevailing views of the time largely negated the law of value he explicitly proposed that, on the premise that prices correctly reflect the value of the commodities, the profit of an enterprise should be an indicator of whether it was well or badly managed. Planning and statistics should be based on the law of value.

Furthermore, he was sharp in pointing out the defects in the then system of economic management and proposed its fundamental reform. The rights of enterprises should be expanded. In the course

of simple reproduction, the equilibrium between production, supply and marketing should be maintained by the enterprises themselves by means of contracts. Enterprises at the grass-roots level should have the right to handle the matters concerning the depreciation of the fixed capital and renewal of equipment. The state should attend only to investment, expansion and contradictions between enterprises.

These were the views that led to his being grievously persecuted after the middle 1960s. However, practice is the only criterion of truth. Through the twists and turns of China's economy in the 30 years since liberation, and particularly under the recent ultra-Left line of the gang of four, more and more people came to understand and accept Sun's views. Some economic policies now being tried out in China are in accord with them. Notable results have been achieved in selected factories and mines.

Fearless for the Truth

During the revolutionary wars, Sun Yefang had struggled against the enemy in whatever posts he was assigned to, whether in underground work or in the battle areas. After liberation he contended in the same spirit with the views which he considered erroneous. He appreciates very much, and has taken as his motto the two concluding lines of Karl Marx's *Introduction to the Critique of Political Economy*: with the quotation from Dante, "But at the entrance to science, as to the entrance of hell, the demand must be posted,

Here all mistrust must be abandoned;

And here must perish every craven thought!"

Since the early 1960s, Kang Sheng and Chen Boda, pretending to oppose "profits in the lead" as distinct from "politics in the lead" had hurled attacks at Sun Yefang. Many of his articles and reports were denounced as "poisonous weeds" and himself as "the No. one revisionist in the realm of economics." At the beginning of

the cultural revolution, he was thrown into prison.

But he remained calm. He says, "I had thought of what might happen to me long before. I knew the nature of the disputed issues which had existed for decades. To solve these I was ready to run into danger. Previously, I had expounded my viewpoint openly. In prison I still insisted on it and was not prepared to make a self-criticism. It was not I who could not differentiate between socialism and capitalism, but the others."

To repudiate the prevailing viewpoint that to advocate running China's enterprises at a profit was tantamount to "capitalism" or "revisionism", Sun Yefang pointed out, "The essential difference between the profit of a socialist enterprise and that of a capitalist one lies in its different class nature, aims, methods of production, and the way the profit is obtained. On the above premise, I hold that to encourage the enterprises to be more profitable is to encourage them to improve management and increase production. If this is called 'profit-chasing', I still cannot see any harm in it.

"Whenever average profit and price are mentioned, some people respond with a Pavlovian conditioned reflex and say at once, all that belongs to capitalism! This makes those doing practical work avoid all mention of profit, and even feel criminal at the hint of it. It's as though all profits equal capitalism, and only losses are socialist!"

Sun while under pressure was not even permitted to defend himself. But he did not yield an inch. He had no way to publish at that time an article entitled "An All-round Understanding of Chairman Mao's Comment on the Law of Value," (in 1959 Mao Zedong had called the law of value universal) in which he refuted his opponents tit-for-tat. Only in 1979 was it included in his collected theoretical works.

In the cultural revolution, after Sun had been denounced for two years, one April night in 1968 some uninvited guests rushed into his

house and shackled him. He thought it was natural that a Communist could be arrested or killed at any time by the reactionary governments. He himself had been seized and clapped into handcuffs by the Kuomintang in 1931. What he could not understand was why he should become a prisoner in a country under the proletarian dictatorship, to whose birth and achievements he had made solid contributions in the struggle during the first half of his life.

Locked up alone in a cell, he was permitted no visitors. Without newspapers, books or radio, how could he escape from loneliness and distress?

"I was jailed, but I did not worry about personal safety or reputation," Sun says. "What I could not part with were the economic views which I had come to through a long study. I was determined to live on for the truth I upheld, to write a book giving my stand, leaving it for the people to judge."

Calmed by such thoughts, the very day after his imprisonment he started drafting in his mind the outline of the book which he had wanted to write for a long time *On the Socialist Economy*. He spent a month thinking through its entire content, comprising an introduction and 22 chapters in 183 sections. He repeated this each month, complementing each chapter. During his seven-year incarceration he thought it over 85 times. Upon release, he began writing at once.

Has there ever been another case of a writer composing a book of hundreds of thousands words the way Sun did, with such tenacity under bitter prison conditions? In addition, he used the paper and pen given him to write "confessions" for an article "My Argument with Other Economists", repudiating the demagogic fallacies of Chen Boda and the gang of four. He addressed it to the Party Central Committee and handed it to a warden for forwarding. But to expect it to go to its destination under the then circumstances was illusory. It was locked away in an

iron safe, as a "pernicious weed." Fortunately, it was thus preserved.

In Body Old, But Will Unbroken

In 1975, after seven years' confinement, he was released. It was like awakening from a nightmare. But immediately and without any justification he was asked to write a repentant statement that he would henceforth take a "correct" attitude toward the Party, the masses and himself. Sun Yefang, however, said bluntly to the first person who met him, "I'll never change my ideals, work or viewpoint!" As the gang of four were still in the saddle, many people were worried that he would get into more and deeper trouble for his firmness.

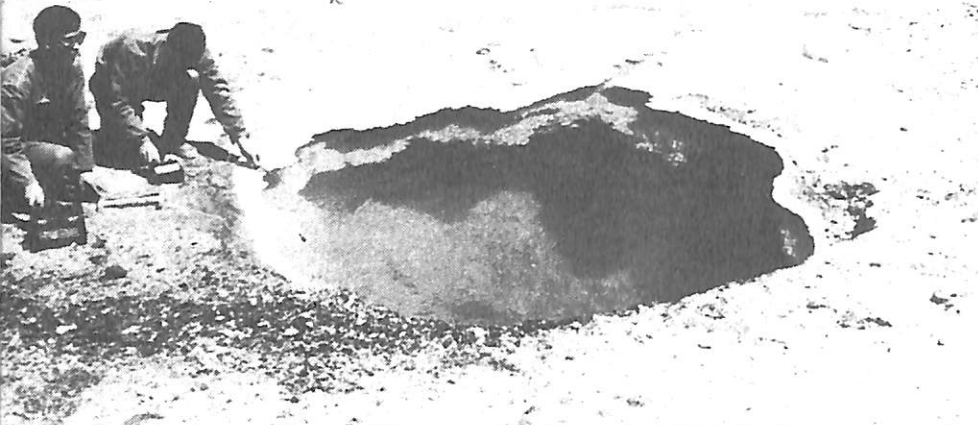
After the gang's fall, the reactionary nature of their ultra-Left line and sham socialism gradually became apparent, as did the soundness of Sun's economic views. Efforts were made to promote public understanding of the important role of socialist profit in China's national economy. This laid a foundation for reforms in economic organization and management. Sun's reputation rose high again. In 1979 he was appointed an adviser of the Academy of Social Sciences, and a member of the Fifth National Committee of the Chinese People's Political Consultative Conference. He has continued writing articles for newspapers and magazines and lecturing in organizations and schools.

His articles include "On Bourgeois Right," "Socialist Profit Should Be Tackled Boldly" and "The Law of Value — the Most Important Law of All." These have helped to eradicate the influence of the gang of four.

In early 1979, as Sun Yefang was busy with writing, an old liver ailment recurred. He was hospitalized and underwent major surgery. As soon as he felt better, he started to plan another book *The Outline of the Socialist Economy* and lead his assistants in writing it. It will consist of 30 chapters, totaling 500,000 Chinese characters and delve comprehensively into the practical and theoretical problems of socialist construction. □

Using Geothermal Resources

FANG JINGEN



Hot water pool edged with siliceous sinter in Comai county in Tibet.

EASTWARD from Lhasa in China's Tibet Autonomous Region, the Sichuan-Tibet highway rises, falls and twists between mountains 4,000 meters and higher, capped with everlasting snow. Here, in the valleys, one sees clear waters from which steam rises.

These are geothermal springs dispersed widely in Tibet. Now more than 100 geothermal fields and areas with indications of such resources have been found on this "roof of the world." Their variety is such that few other parts of the world can match. Besides hot, thermal, boiling and steam springs, not as uncommon as elsewhere, there are intermittent springs, boiling muddy springs and a hot lake about 7,000 square meters in area with a temperature of 50° C.

Not only the high plateau but China as a whole is rich in geothermal resources. So far known are 2,300 thermal water outlets, both natural and drilled. Besides Tibet and Yunnan in the southwest, they are scattered throughout Guangdong, Fujian and Taiwan provinces in southeast China, forming two geothermal belts, whose surface manifestations account for half of the country's total. The southwestern belt is dominated by high-temperature wet steam above

150° C. Sanjiang district in west Yunnan province, where the high-temperature water is most concentrated, has 9 hot springs exceeding boiling point. Its famous Tengchong volcanic sinter spring shoots the water to the height of 15 meters. The southeastern belt is made up of hot waters, the temperature averaging about 100° C except in Taiwan where it is higher.

The provinces of Liaoning in the northeast, Shandong in north China, and Hubei, Jiangxi and Sichuan rank second in geothermal storage, with over 50 exposures in each. And, very conveniently, important cities like Beijing, Tianjin, Fuzhou and Kunming have abundant geothermal resources, although there the water temperature averages only 50 degrees. Tianjin is the best-supplied, with three abnormal heat areas in the eastern, western and southern suburbs covering at least 590 square kilometers, and the terrestrial heat at fairly shallow depths—700-1,800 meters underground. The amount of the water is such that it is self-flowing, with the temperatures of 30-96 degrees. Already sunk there are 190 wells, turning out 27 million tons of hot water every year, a quantity of heat equivalent to that produced by 290,000 tons of coal.

World-wide, the total of geothermal energy is at present

estimated 170 million times the heat energy that could be produced by the burning of all the coal in the earth. Even the hot water prospected at depths of under 3,000 meters, and thus possible to exploit, can supply as much heat as 290 million tons of coal. Clearly, terrestrial heat is as precious an energy resource as coal, oil, natural gas and uranium ore. Today with the energy crisis plaguing the whole world, the tapping and use of geothermal energy acquire all the greater significance.

Li Siguang, a famous Chinese geologist who died in 1971, once pointed out, "The tapping and utilization of geothermal energy is as important an event as the discovery of coal and oil which can burn by human beings." And he quipped, "The geothermal store house is eager to be unlocked, so it can have the honor of serving the people."

TERRESTRIAL heat is widely distributed and, technologically simple to exploit. It is a cheap and clean resource for wide use in industry, agriculture, medicine and everyday life.

A power plant operated by terrestrial heat needs neither fuel nor complex equipment. But the location and the size of such plant is still limited by the necessity of being near a suitable source. China began experimental generation of electricity with terrestrial heat in 1970. Since then seven small-sized geothermal power stations have been set up located respectively in Fengshun county, Guangdong province; Huailai in Hebei province; Ningxiang in Hunan; Yichun in Jiangxi; Zhao-yuan in Shandong; Xiongyue in Liaoning and Yangbajain in Tibet. Installed capacities range from 50 kw. to 1,000 kw. Yangbajain

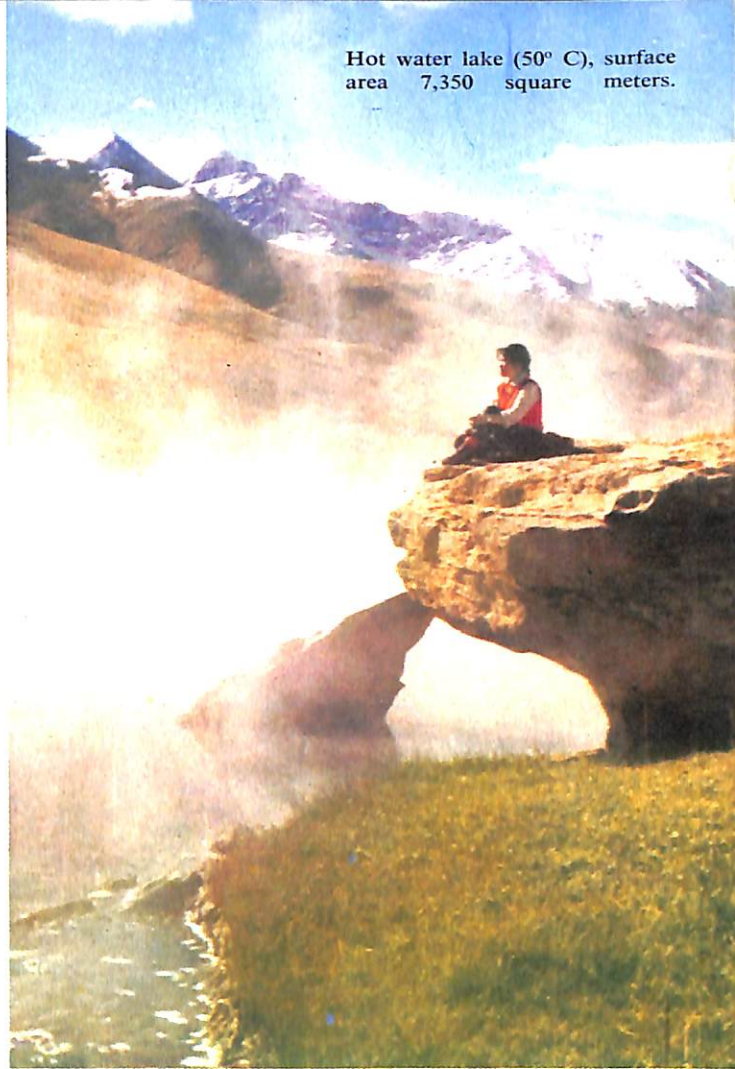
FANG JINGEN is a journalist from Xinhua News Agency.

A 91° C geyser shooting up from a sandbank in the middle of a river.



The Yangbajain Wet Steam Geothermal Field in Tibet

Hot water lake (50° C), surface area 7,350 square meters.



West Boiling Spring (92° C). The boiling point at that altitude is only 86° C.





Hot water flowing out of the steam-water separator.

A newly drilled geothermal well.

The Yangbajain experimental geothermal power plant with an installed generating capacity of 1,000 kilowatts.

Photos by Yang Qilong



has China's first 1,000-kw. experimental wet steam power station, in operation since 1977.

Geothermal, instead of the artificially heated, water can be used in the spinning and weaving, paper-making, wine-making, tanning, pharmaceutical and glue boiling industries. In Tianjin, 50 boilers are using underground hot water. Fourteen of them alone save the city 4,700 tons of coal annually.

Central heating of buildings is another major use of terrestrial heat. Sometimes the underground hot water is pumped directly to the radiators, keeping rooms at spring weather even on the coldest winter days.

Used in medicinal baths, geothermal water has demonstrated curative value for sufferers from dermatosis, rheumatism and arthritis. This it owes to its content of fluorine, uranium, radium, radon, boron and sulphur—all helpful in cases of early-stage damage to heart arteries and respiratory tract. As long as 2,000 years ago, Zhang Heng, a scientist in the Eastern Han dynasty (25-220), wrote in an inscription for a spa, "When you get an ailment, go to a hot spring." Underground hot water supplies almost all the public bathhouses in Fuzhou, capital of Fujian province.

Irrigation with terrestrial warm water to supply moisture to farm land, raise soil temperature, benefit crop growth and prevent cold damage to seedlings is not new in China. Li Daoyuan in the North Wei period (386-543), in his *Commentary on the Waterways*, described how peasants in Hunan province irrigated paddy rice with thermal water in winter and thus got three crops a year. Fruits and melons watered by it ripen earlier. Officials or offices in charge of hot springs were established in the Tang dynasty (618-907).

Now underground heat is being used in China's countryside, to breed seedlings, raise water cabbage and tropical food fish, prevent some plant diseases and insect pests, and heat hot houses and chicken and duck hatcheries. Com-

munes and production brigades in the suburbs of Tianjin produce winter vegetables in greenhouses heated with thermal water, growing fresh tomatoes even in winter.

SCIENTIFIC research on energy resources including terrestrial heat has been organized in China in order to speed its tapping and use. Geological groups specially or partially devoted to such prospect-

ing have been set up in Hubei, Guangdong and Fujian provinces and the municipalities of Beijing and Tianjin. At China's first national conference on geothermal energy held last summer, geologists and hydrologists discussed the practical and theoretical problems involved. They concluded that in the harnessing of this resource, China's prospects are bright. □

First Geothermal Heat in Beijing

XIA DIANQUAN

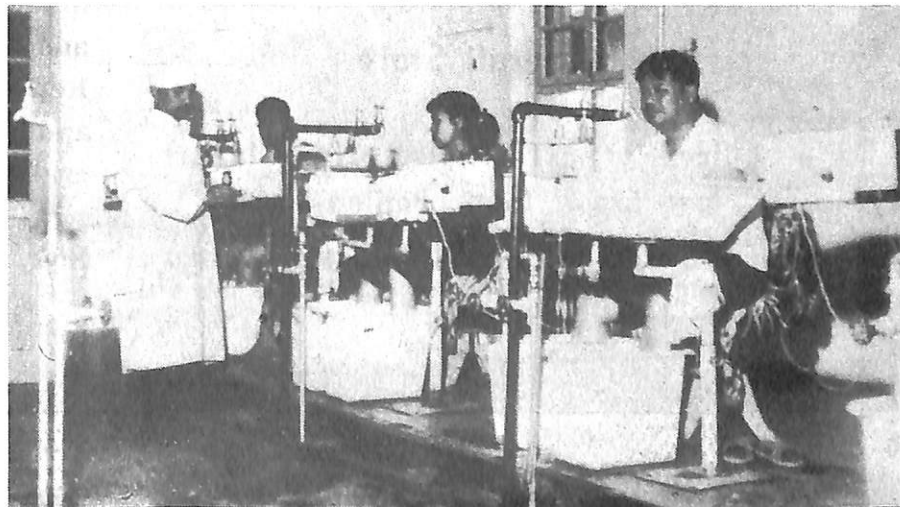
IN mid-January the Changping Fish Breeding Farm in the northern outskirts of Beijing presented a sharp contrast with the city enveloped in ice and snow. It startled visitors by its fishponds where fry of African silver carp were swimming. Sprinklers in rows sent crisscross sprays of hot water into the ponds. This tropical food fish, which can only live in warm water, is now available all year round in the city's markets. The fry used to be brought here from the south by air every spring. Only recently has it been possible to create an environment in which they can spend the win-

ter in Beijing—in geothermal ponds with constant temperature found with the help of geologists.

The natural hot springs in Foyukou, Xiaotangshan and Hot Spring village, all in the municipal area, have been known for a long time. After liberation more were discovered in Liangxiang district and Daxing county. Then, in 1970, hydrogeologists found underground hot water southeast of the city and marked out an abnormal-heat area of 50 square kilometers there. So far it has been tapped by more than 20 wells, with depths ranging from 650 to 2,600 meters and water temperatures of from 38° C to 69° C. Each of them brings up 1,000 tons of hot water every 24

XIA DIANQUAN is on the staff of the Beijing Geological Bureau.

Patients getting treatment with geothermal water in the Xiaotangshan Sanatorium in Beijing. Xinhua



hours. An area of 200 square kilometers north of the city has also been proved rich in this resource.

In the Guanghua Dyeing and Weaving Plant in Beijing, the dyeing section alone consumes scores of tons of hot water per hour. A geothermal well was sunk in the plant area in 1973, yielding over 1,000 tons at 48° C each day. It serves 4 dyeing machines and 2 desizing machines, and brings an economy of 2,500 tons of coal and 150,000 yuan on costs each year. Moreover, it has simplified the technological process and improved the gloss of the cloth.

EVERY winter, for heating purpose, the capital burns 600,000-700,000 tons of coal, which send out 10,000 tons of ash that pollute the air. To save coal and preserve public health, the city government has asked some organizations to convert their heating systems to

using geothermal water. The People's Art Publishing House, a hotel and a library share one such well 1,200 meters deep. Its water, at 59° C goes directly into heating installations for 15,000 square meters of floor space. Even in bitter winter the temperature in rooms so served is kept between 15° C and 20° C. At the Xiaotangshan Sanatorium, all the 25,000 square meters of indoor floor space is now heated with geothermal water. Beijing's present annual output of underground hot water is 2.3 million cubic meters. If coal were used, it would take at least 20,000 tons to heat that much water. Increased use of this underground heat source is planned.

Xiaotangshan has a long history of curing diseases with its hot springs. Today the city has two hot-spring public bathhouses, accepting about 3,000 bathers a day. In addition, 20 enterprises have run their own, serving as many

as 40,000 workers and staff every day.

In the outskirts, geothermal water is beginning to be used for agriculture. It guarantees a suitable temperature and humidity for tropical plants. Its chemical composition, which includes such substances as potassium, silicon dioxide and radioactive elements also helps plant growth. In recent years some agricultural units and production brigades have used more and more geothermal water to irrigate vegetables and grow water cabbage and water hyacinth with good yields resulting.

The construction department of the Beijing municipal government is planning increased utilization of geothermal water for heating residential buildings, watering rare trees and flowers along the main streets, and laying out lawns and neighborhood parks to make the city greener, cleaner and more beautiful. □

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Chinese Athletes at Winter Olympics

CHINA'S five-star red flag was a newcomer among those fluttering over snow-blanketed Lake Placid in New York State, scene of the 13th Winter Olympics held between February 13 and 24. Said friends from many countries as they greeted the first Chinese delegation ever to attend the Winter Olympics, "We've been expecting you!"

For most of the 28 Chinese contenders this was their first trip abroad to an international sports event. China developed skating and skiing as sports only after the people's republic was founded in 1949. The early 60s saw the events at their best, as Chinese speed skaters won a world title and a third place and broke two world records between 1962 and 1964. But they dropped far behind world levels again in the following decade of turmoil in China caused by the gang of four.

It was not until last November, when China got back her rightful place in the Olympic movement, that her athletes began to prepare for the winter games. And their turn-in at Lake Placid was nothing to boast about. Still, most Chinese speed skaters clocked better than they did in the 60s when they ranked with the world's best. Measured by today's standards their general performance in all the skating and skiing events was low, except for men's short-



Veteran American skaters give pointers to a Chinese figure skater. *Xia Daoling*

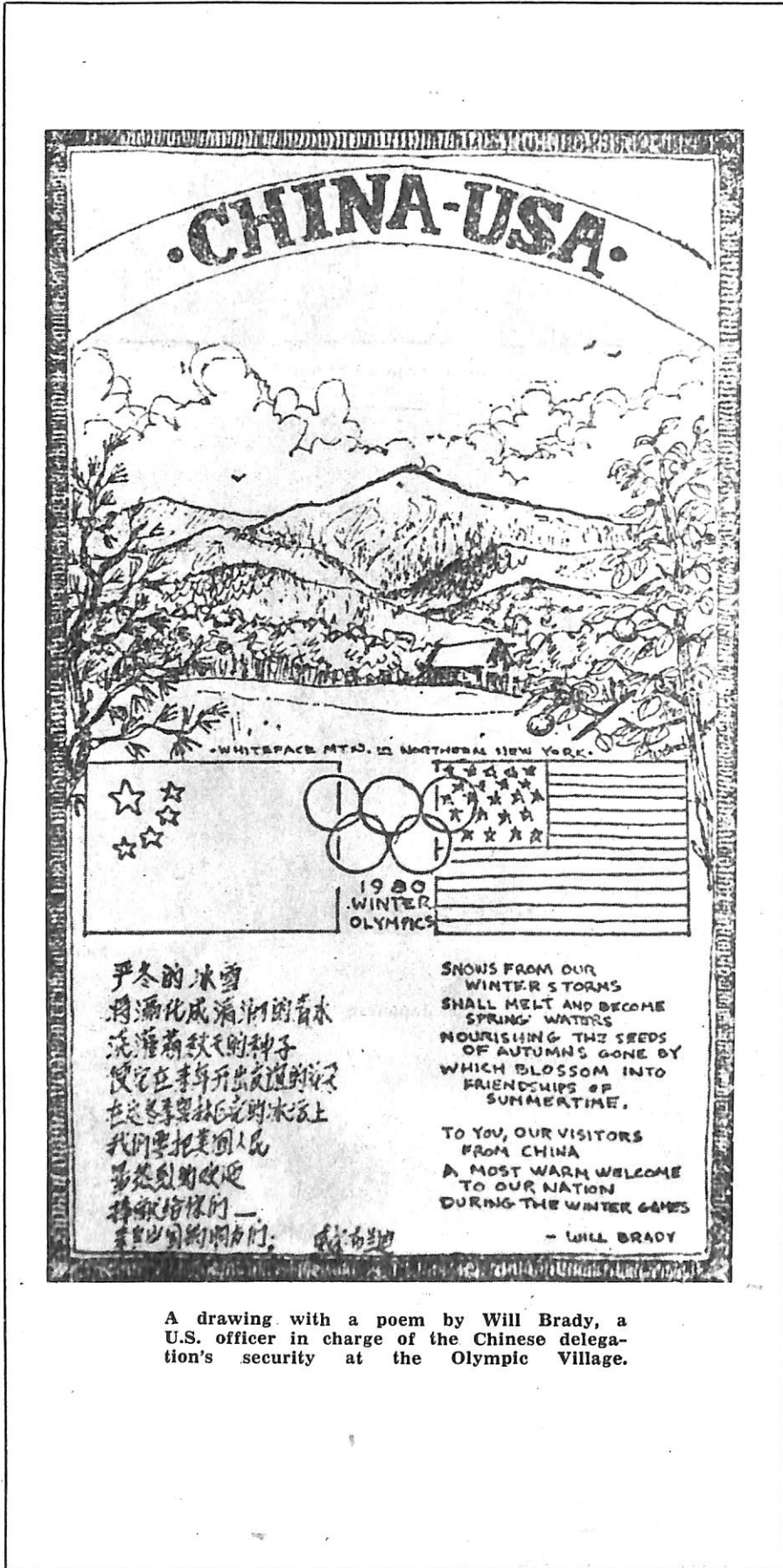


Autographs for American friends.

Feng Yiping

Singing a Japanese folk song for Japanese guests at the Spring Festival get-together. *Xia Daoling*





A drawing with a poem by Will Brady, a U.S. officer in charge of the Chinese delegation's security at the Olympic Village.

distance speed skating which could be rated medium, although here too they were still a good five years behind the world's most powerful teams. Chinese athletes saw this Lake Placid trip as a chance to learn from other teams and lay the groundwork for future successes.

The cold weather at Lake Placid was more than compensated for by the warm welcomes given the Chinese delegation. Phyllis Feinberg, staff member of a cafeteria at the Olympic Village and herself runner-up at a figure skating championships in the eastern part of the U.S. in 1948, made friends with the Chinese women figure skaters. The night before the opening of the 13th Winter Olympics she went with four of them to the ice stadium for a practice session. Though it was a long time since she had worn skates, her movements were still natural and unconstrained. She leaped and pirouetted lightly with the Chinese girls, and occasionally gave them pointers. Her family also came along to watch.

On February 15th, the eve of the Chinese lunar New Year, the Chinese delegation threw a home party. At this get-together were George Howie, leader of the American delegation with his wife and two daughters, and Hitoshi Hoshino, a trainer of the Japanese delegation with eight of its skaters. Katha Didelle, who liaised for the Chinese delegation and jokingly called herself "half a host," invited her parents, brother and sister. The head of the Olympic Village and several of its doctors also joined in, as did guards and drivers just off duty. Toasts were drunk with cups of Chinese "Maotai" wine over the hubbub of animated conversation.

Li Li, a Chinese figure skater, said to American friends that she had been carefully observing skaters of the United States and other countries, and had learned a lot from them. They, in return, expressed the hope that U.S. coaches could be sent to China, or Chinese athletes invited to the U.S. for training with the facilities available there.



The Chinese team at the opening ceremony of the 13th Winter Olympics.

With American sportsmen before the contest.



A warm get-together at the home of a Lake Placid painter.
Photos by Xia Daoling





Piao Dongxi (China) in the alpine giant slalom.



Bao Zhenhua from China.

Lake Placid during the games.



Photos by Xia Daoling



The 90-meter speed jump.



What did the Lady Yang drink?

In the eighth century she was a renowned beauty beloved by the Tang dynasty Emperor Xuan Zong.

Now she is still familiar to millions in China as a character in a famous Beijing opera.

What was the drink offered her in this traditional scene?

Historically, we don't know. It was so long ago.

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China's Wealth of Crop Resources

XU YUNTIAN and CHEN JIAN

WITH her immense territory and long history of farming China abounds in crop resources that have contributed much to world agriculture. A soya bean strain from China, for example, enabled the United States to register a rapid increase in her production of this crop. Japan and the United States introduced China's oranges and tangerines to start their own cultivation. China's disease-resistant rice strains "Lizhijiang" and "Dudao," and her wheat strains, "China's Spring" and "Short-as-a-Thumb," are important materials in international research on seed selection and genetics. The highly nutritious "Monkey Peach" (*actinia chinensis*) is being intensely studied for cultivation and use in New Zealand and Japan. Many other crop species in the country are drawing world attention.

Abundant Resources

Evidence shows that our ancestors took to farming in the early and middle Neolithic period. Stored paddy rice and bone plowshares were found at Hemudu, a primitive village site dating back 7,000 years found in eastern Zhejiang province. Mentioned in the *Book of Songs*, compiled between 1000 B.C. to 500 B.C., are

XU YUNTIAN is deputy director of the Institute of Crop Resources of the Chinese Academy of Agricultural Sciences and CHEN JIAN is a staff member at the academy.

millet, barley, soya beans, hemp, sorghum, mulberry, tea, turnip, the Chinese cabbage, lotus, peach, red plum, orange, lichee and longan.

Natural evolution and human cultivation over a long time have increased the variety of China's farm crops. Take rice for example, the staple food for half of China's population, or more than 450 million. The known strains of it surpass 20,000, and some possess unique features. In southern Fujian province there is a variety called "fragrant rice," which gives off a strong aroma both in the flowering season and in the cooking pot. The "slender-grained rice" in Guangdong province is crystalline white, fluffy and delicately-flavored when cooked.

Another strain from Guangdong is named "the water lily," so called because its stalk can grow to a height of three meters and survive immersion in deep water. Peasants harvest it in boats. Ordinary rice is white, but China has sweet-smelling "red rice", lovely "green rice," and slim-grained, high-protein "purple rice" which grows in Yunnan province. Among her wheat strains there are some that can endure temperatures of -20°C, some with resilient stalks that withstand strong winds and others that survive heavy fogs.

There is an endless array of mulberry, tea, spring onion and leek. Fruit tree species also abound. The pear, peach, red



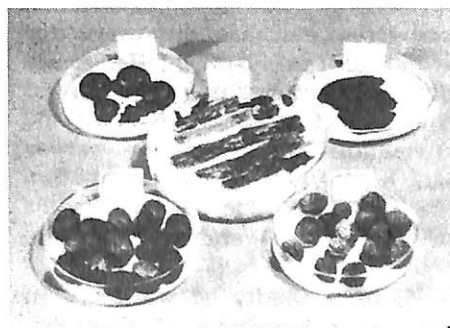
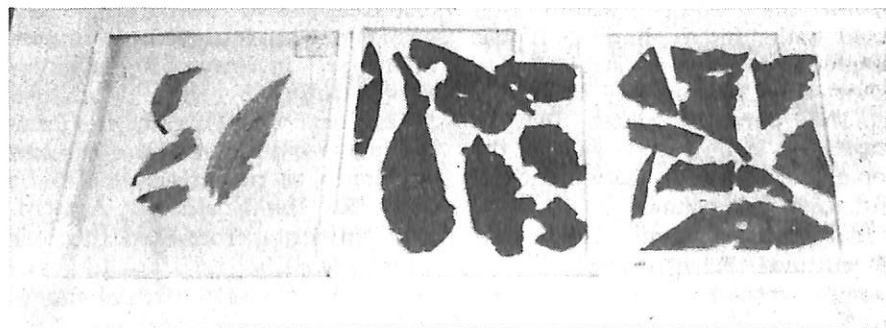
Jin Shanbao, deputy director of the Chinese Institute of Agriculture and noted specialist in wheat seed-selection (right) checks on the growth of wheat in a hothouse.

plum, apricot, Chinese date (jujube), persimmon, orange, lichee, longan and loquat all originated in China.

Extensive Survey

The species resources are the elementary materials for developing better strains. This has been so from the time our ancestors began to domesticate wild plants to the present time when seed-selection has become a science. This is because they have the basic

Plant remains from the Hemudu site: leaves (left) and fruit.





Agro-technicians of the Tibet Institute of Agricultural Science inspect vegetable species brought in from elsewhere in China.

genetic factors needed for seed improvement and biological research. Therefore collection and investigation of these resources is important for agricultural development.

One of the first and largest surveys conducted in this field was in the late 1950s when departments of agricultural science set out to collect crop samples. By 1958 200,000 varieties of 40 kinds of farm crops had been found. Since 1974 nationwide surveys have been organized to study wild resources of rice, wheat, soya beans and cotton. Some provinces and autonomous regions made supplementary collections of local species. For example, in Guizhou, a mountainous province in southwest China, 5,000 specialists aided by local peasants and agricultural leaders by 1975 had found 6,951 species, 2,763 of which were rice strains.

Northeastern Jilin province, one of China's biggest soya bean producers, has wild soya bean resources that are important for seed-selection. In 1978 the Academy of Agricultural Sciences of this province organized about 700 agronomists in a major survey which provided fresh information for raising the soya bean's protein content and resistance to disease.

There is plenty of wild rice in the scenic provinces of Guangxi,

Guangdong and Yunnan. As wild rice strains are the basic starting point for studying the origin, evolution and taxonomy of all rice varieties, scientists here have spent many years collecting them and achieved gratifying results.

Research and Utilization

Back in 1929, the well-known rice expert Ding Ying (1888-1964) cultivated the first hybrid rice with a wild rice heritage, the "Zhongshan No. 1," by natural cross-pollination of wild rice and domesticated rice. It helped to increase yields at the time, and its merits were passed down to later hybrids such as the "Sichuan No. 2" which is extensively grown today in Guangdong and Guangxi provinces. In the early 1950s, local strains with yields of only 1,500 to 3,000 kilograms per hectare accounted for 40 percent of the rice strains in south China. In the late 1950s a joint study by agronomists and peasants found a variation within the "Nante" strain that could withstand typhoons. It was developed into a new strain called "short-stalk Nante," and later used as the parental plant for an improved strain that raised the per-hectare yield to between 3,000 and 4,500 kilograms.

In the 60s and early 70s agricultural scientists in Hunan province cross-bred wild rice found on Hainan Island with other rice

strains and obtained a high-yielding hybrid strain. In recent years it has been grown over an area of 4,660,000 hectares, with yield increases ranging from 750 kilograms to 1,500 kilograms per hectare. Agronomists acclaimed this as a revolution in rice cultivation. Research on other grain crops have also had varying degrees of success.

International Exchanges

Many years of exchanges in plant species between nations have helped to develop the world's agriculture and agricultural science.

Early instances include the one told in the story about the "Wenzhou sweet orange" and linked with the history of friendship between China and Japan. It is said that 500 years ago in the Ming dynasty a Japanese monk came to Mt. Tiantai, a Buddhist holy place in Zhejiang province to pay homage, and took some oranges grown in that area back to Japan. From then on Japan began to grow oranges. This sweet and slightly tart orange, with its delightful shape and color, now makes up 80 percent of Japan's total production of oranges.

More recently, in the 20s of this century the famous Chinese soya beans were brought to the United States. In the 50s soya bean crops in the southern part of the U.S. were threatened by a kind of pest. Looking for a solution, people there discovered that "Beijing" (i.e. Beijing black bean) was highly resistant to this pest. They used it as a parental plant and hybridized a number of varieties that led to a quick recovery in soya bean production.

Similarly, many foreign crop resources have been introduced into China and played an important part in improving China's strains.

The local wheat strains in China mature early, but have a low resistance to rust disease. In the early 50s the Northwest Agricultural Institute cross-bred the U.S. strain "Quality" resistant to stripe rust with China's "Grasshopper" and got a new strain named "Bima

No. 1." The latter has stronger resistance to disease and yields more than the "Grasshopper," and ripens earlier than the "Quality" strain. Planted on 6 million hectares, it has produced good results. Since then other new high-yielding and rust-resistant strains have been developed.

From 1971 to 1977 China provided species to many countries and international organizations, and at the same time imported quantities of seeds and tree saplings. Thirty thousand entries have been registered by the office of the Academy of Agricultural Sciences in charge of importing samples. This work has helped supplement our country's farm species resources, provide material for research and stimulate production. Imported strains include rice from the Philippines and Japan, wheat from Mexico, Romania, Italy, corn from Yugoslavia, the tea-oil tree from Canada, and oranges from Morocco, all of which have proved to be high yielding and disease-resistant. A good cotton strain brought in from the United States proved to be highly adaptable to local conditions and has become the main strain in the cotton belts along the

Huanghe and Huaihe rivers. It has also been cross-bred locally to get better strains.

China is presently stepping up the research on farm crop resources to help the modernization of her agriculture. A nationwide symposium last year discussed and adopted a six-year plan for research on farm crop resources. This plan provides for continued

collection of crop species, especially closely related wild plants, and in-depth exploration of their powers of resistance against diseases, pests, low temperatures and drought. They will be studied from the viewpoints of morphology, taxonomy, ecology, physiology and genetics, with a view to developing new strains and making the best use of extant resources. □

Foreign rice experts inspect rice species in an experimental plot at the Guangdong Academy of Agricultural Science.

Jiang Zhendong and Zeng Yue



Succulent Oysters of Zhuhai

LAI TIANXIAN

ASK for oysters in a Chinese restaurant, and if you're in luck you may get the Zhuhai variety.

Situated at the mouth of the Zhujiang (Pearl) River, Zhuhai city stands close to shallow ocean flats teeming with plankton and ideal for oyster beds. The famous Xiangzhou oysters raised here sell well at home and abroad. Their protein-rich flesh makes excellent eating, as any gourmet will testify. Especially in Cantonese-style cuisine, dried oysters and oyster sauce are indispensable for some of its best dishes.

Oysters are prepared and consumed in China in many toothsome ways. For one, as in many other countries, they are eaten raw. For those who would like to try,

here is a recipe: First shell and rub the oysters with salt. Thoroughly clean in boiled water. Drain and put in a bowl, add minced spring onion and ginger, some pepper powder, a tablespoon of sesame oil, two tablespoons of soy sauce, a teaspoon of rice wine and other optional spices. Mix and serve.

Oysters have long been regarded as a health food in China. The *Ben Cao Gang Mu* (*Compendium of Materia Medica*) compiled by Li Shizhen (1518-1598) describes oyster meat as nontoxic and mild and claims that, if eaten frequently, it clears the skin and cures some ailments. The oyster shell is a medicinal ingredient, although

it is more often made into lime, fertilizer and buttons.

Fisherfolk in Zhuhai began to cultivate oysters artificially on bamboo rafts as early as in the Song dynasty (960-1279). But before the liberation in 1949, oysters for the market were mainly the naturally-growing variety. Since then, the local people's government has helped fishing communes expand their oyster farming. From 130 hectares in the past, the oyster beds in six communes and an oyster farm in Zhuhai has increased to 1,000 hectares today.

New scientific methods are helping to increase production. Last year's record harvest at the Xiangzhou oyster-breeding brigade came to 78 tons of oysters per hectare of sea bottom. And growing time, which is now less than two and a half years, has been halved. □

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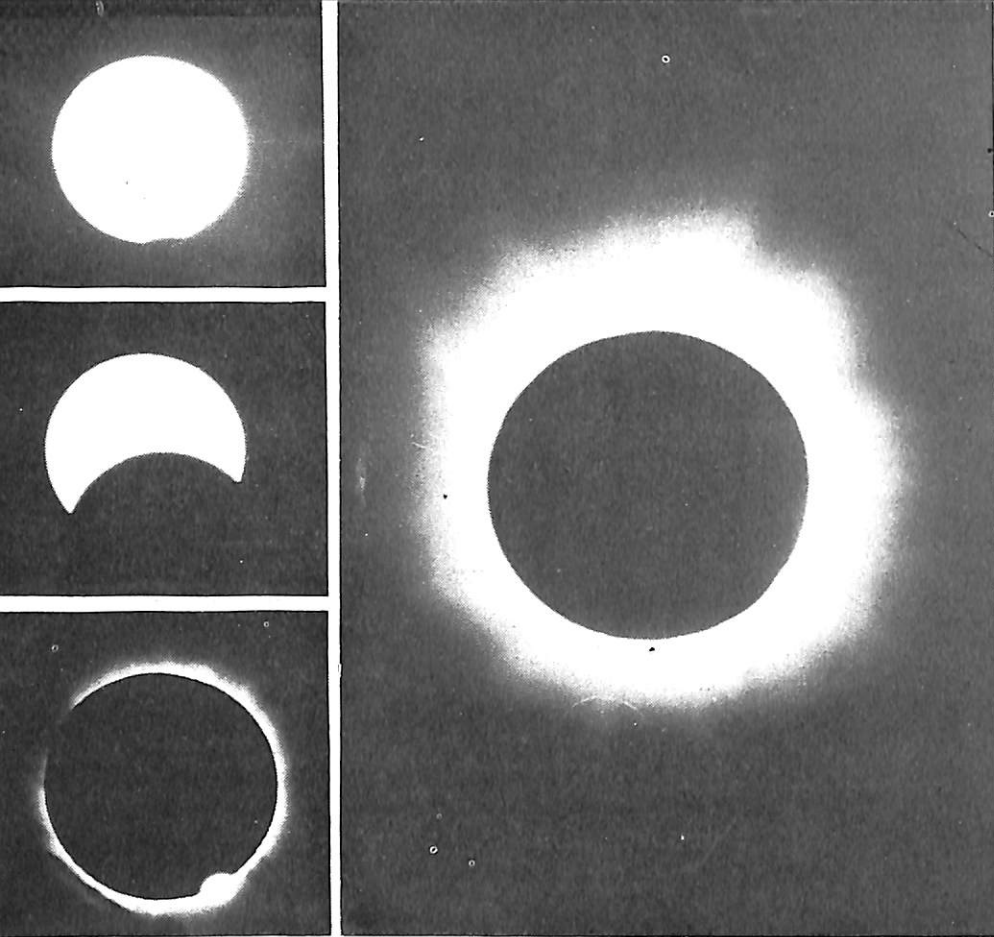
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- Total Eclipse.**
A. The eclipse begins.
B. Partial phase.
C. "Baily's Beads."
D. The sun sets partially eclipsed.

Photos by young Chinese observers

cotta basin filled with sesame oil, a method used in ancient China. She was 14 year-old Jiang Haiyan, a second-year student at Beijing's No. 11 Middle School whom her schoolmates call "stargazer."

Jiang Guoliang, a student at Shanghai's Nanyang Middle School, used a telescope he himself had made under the guidance of Yang Shijie, assistant chief engineer and head of the instruments office at Nanjing's Purple Mountain Observatory, China's largest. Yang believes he has the makings of a good astronomer.

Students from Kunming who observed and took pictures of the sun's corona and chromosphere used six telescopes of different sizes also made by themselves. Zhang Xin and Meng Guoping from Hangzhou, Zhejiang province, made detailed drawings of changes in the sun's umbra and the outline of the moon disc.

Cao Qing, a 15 year-old student from Beijing entrusted with the important job of photographing the corona, took 30 excellent shots. One of them caught the phenomena known as Baily's Beads, the crescent of minute gleaming points of light which appears just before or after totality due to slight irregularities of the moon's outline. Such pictures, which must be made in the brief moment these "beads" appear, are highly valued by astronomers.

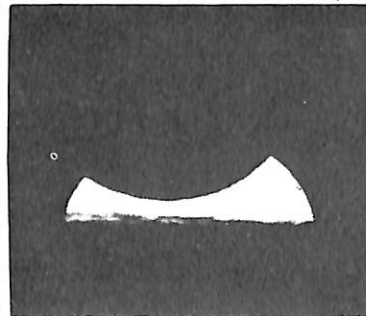
Five students from Guangzhou, whose average age was 13, gathered first-hand data for a paper which they will read at a children's science reports contest to be held in Guangzhou this year.

But children, after all, will be children. When the sun appeared again, they cheered loudly and scampered from group to group, hugging and congratulating each other on a job well done. □

CHILDREN

Teen-agers Help Observe Eclipse

ZHANG JINGMING



A team of teen-age observers brought a lively note to this year's solar eclipse observations in China. Among the many scientists who gathered at Luxi county, Yunnan province on February 16 to watch a total eclipse were a hundred or so young amateur astronomers from several of China's large cities.

Although total eclipses occur several times a year, this spectacular solar phenomenon can only be observed once in every 200-300 years at any one spot on the globe. China will not see another until 2009.

This particular eclipse started in the Atlantic. After passing over Africa and the Indian Ocean it

was seen in southwesternmost China. It being too good an opportunity for the young to miss, the Chinese Scientific Association specially invited astronomy fans from primary and middle schools in Beijing, Shanghai, Hangzhou, Fuzhou, Guangzhou and Kunming to join in the observation work. They were given 30 distinct tasks.

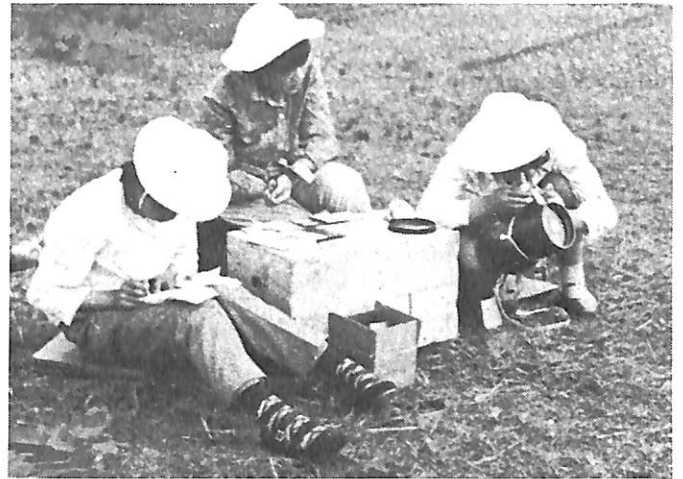
At Luxi, the eclipse started at 17:27 local time. The young astronomers photographed the solar corona, measured geomagnetism and the brightness of the sky and paid close attention to the reactions of animals—chickens, dogs, cows and sheep. A girl in red took notes while watching the reflection of the eclipse in a terra-



Young observers on Height 883 in Luxi county.

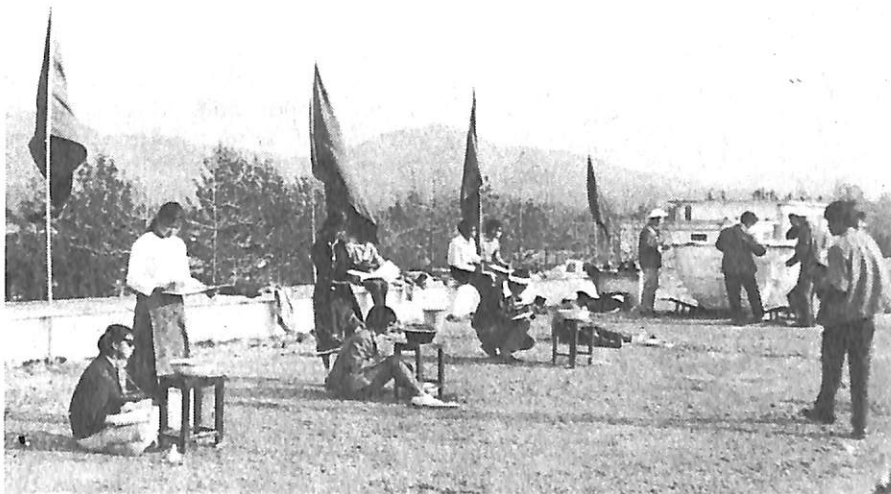


Students of Dai nationality in Yunnan province learn to photograph the solar corona.



Observing with a China-made telescope.

Students from Beijing and Yunnan province watch the eclipse with terra-cotta basins filled with sesame oil and Chinese ink and the instrument Yangyi, to test the effectiveness of methods used in ancient China.



Astronomy fans from Shanghai.
Photos by Liu Tianji



The Year 2000 in Children's Minds

YU FENG

LIFE in the Year 2000 was the theme of 120 children's drawings and paintings recently shown for a month at the National Art Gallery in Beijing. They were selected from the International Children's Drawing Contest held last year in Paris for the International Year of the Child under the auspices of United Nations Educational, Scientific and Cultural Organization, United Nations Children's Fund and Office of the United Nations High Commissioner for Refugees. More than 600,000 children from 89 countries, aged between 4 and 12, sent entries. Artists known all over the world

YU FENG, a woman painter, is a member of the secretariat of the Chinese Artists Association and head of the exhibition section of the National Gallery of Art.

were invited to be the judges. Awarded were 110 citations and ten first prizes.

Children are the masters of the future. How do they imagine the opening year of the 21st century? It's a most interesting question. The answers created by these children, in which naive imagination and artistic talents have come together bring us into a wondrous world. These youngsters have captured colors and images from nature and real life and put them on paper as though playing with clay or building blocks, expressing in their own way their wishes for the year 2000. Some have turned out very fine works. They have obviously grasped such aesthetic rules as harmony, balance, contrast, variation and unity.

Let's see how these masters of the future imagine the year 2000. The majority have envisaged a life made very interesting by the development of science.

M. A. M. Rodriguez, 11, from Mexico, painted a high bridge linking two tall buildings with spiral towers. Very intriguing is the row of rings suspending from the bridge, through which passes a train, not the little dog or a clown so familiar to children through acrobatic performances put on for them.

M. T. Lemos, 9-year-old Portuguese girl, foresees in her drawing that there will be many underground tunnels in the future with cars shuttling back and forth between houses, trees and flowers, as though in the open.

P. Barry, a 12-year-old boy from Ireland, must have been an honor pupil in art in his school. His painting is in fair accord with the rules of perspective and proportion. It shows a seaside street lined with shops selling electronics items, new models of cars driving along it, and huge ships berthed at a wharf.

R. Recio, a boy of 12 from the Dominican Republic presents us with a sophisticated space navigation base linking the earth with other planets. Y. Mghirbi, a girl of 11 from Tunisia, depicts cosy houses built at the bottom of the sea, with schools of fish swimming amid waterplants outside the windows.

Tan Che Ye, 7, a boy from Singapore, won a first prize. In his mind all the cars and buses in the year 2000 will be topped by rotors, so they can take off like helicopters. Tsuyo Shi Ito, a boy from Japan and the youngest participant, is only four. He drew flying human figures and houses with wheels, in simple, strong yet bold touches of black, green, pink and white, though naturally showing little familiarity with science.

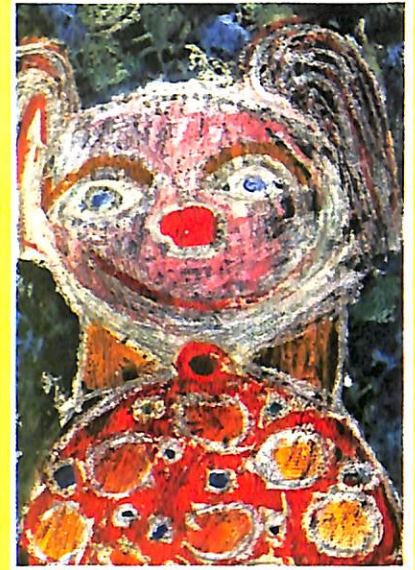
I. Atanassova, Bulgarian girl of 10, provides a home scene of people attending a party in a warm and comfortable sitting-room. They enjoy their cakes and listen to music while a robot serves soft

Horzoala, Afghanistan.





M.A.M. Rodriguez, Mexico.



by a group of handicapped children, the German Democratic Republic.

Nipa Saelim, Thailand.



M.A.A. Picon, Peru.

Tsuyo Shi Ito, Japan.





Hu Xiaozhou, China.

drinks from a flower-decorated tray.

Two paintings by Chinese children were in the top rank. One, a first-prize winner, by six-year-old Hu Xiaozhou, is in the traditional Chinese style. From a bright crescent moon in a star-lit sky hangs a swing on which stands a girl while another stands on the moon. The other picture by Sun Guang, a boy of 11, suggests a rural background. It shows a fat hen which, in the year of 2000 as he imagines, can lay five eggs a day!

Some other exhibits describe the beauty of the future in the young artists' minds.

C. Chesi, a girl of 9 from Austria, won a first prize with a comprehensive composition: a seething city surrounded by fields full of crops, trees and flowers, a round-the-city train running at high speed, and a detailed depiction of a school and a children's playground. Another painting by P. Demitriou, a Cypriot boy of 11, gives us a colorful wedding in a strong national style.

The influence of the traditional arts of their own nations is obvious in many of pictures. Two by H. Salekie, a boy of 12 from Iran and Nipa Saelim, a Thai girl of 11, are in rich oriental colors. The former forms a complete and rhythmic Persian ornamental design. The latter expresses the girl's wish to become a painter some day: She herself is in the picture, with a woman — perhaps her mother, — and her own paintings hanging on a studio wall.

A portrait of a girl attracted many viewers. Done by a group of disabled children from the German Democratic Republic, it is a lovely and humorous image in such plain colors that it resembles a German woodcut. It, too, won a first prize.

However, the wars, aggressions and depressing difficulties that still beset the world have also inevitably influenced the minds of the child-artists. Circumstances compel them to think of problems they are too young to handle. A poster by 10-year-old G. M. Erlendsson, from Iceland, shows

two children who are hugging each other beside broken guns and a tank with a big cross. Below are the words: Peace on Earth. Another first-prize winner by M. A. A. Picon, a Peruvian boy of 11, shows a mind full of worries: people jostle each other in a crowd in front of dark and menacing skyscrapers.

Most saddening is the picture by Horzoala, a boy of 10 from Afghanistan. A naked boy lies prone on the ground. With upturned head, he looks up in panic at a ferocious monster and a phantom-like bird diving at him from the gloomy sky. This is the only exhibit done in black, with no other color. Dear Horzoala, did you have a premonition when you painted this that children in

Afghanistan would face the threats of death? Now the world's media are reporting the invasion of your motherland by the Soviet hegemonist army which is trampling your soil and suppressing your people.

The exhibition will tour many countries. It revives childlike innocence in us, the viewers, and shows the common desire of children throughout the world. It not only demands of us that we should love the children more but also makes us feel our grave responsibility for the 1980s.

How can we allow our children to suffer from war and other man-made disasters again in the future, as so many of their parents have done in the past and present? □

CHINESE COOKERY

Sweet-and-Sour Pork

(GULAO ROU)

½ lb. pork half fat and half lean

For marinating pork:

1 teaspoon salt

1 teaspoon rice wine or sherry

For making coating batter

1 egg

3 tablespoons cornstarch

2 tablespoons flour

2 tablespoons water

For making sweet-and-sour sauce

½ teaspoon salt

2 tablespoons vinegar

4 tablespoons tomato sauce

1 tablespoon catchup (optional)

1 tablespoon sugar

2 teaspoons cornstarch

5 tablespoons stock or water

1 cup oil for deep-frying

2 slices garlic

1 small red pepper minus seeds

½ small carrot

½ small cucumber

½ small bamboo shoot (optional)

Remove skin from pork and make crisscross pattern of gashes

on surface with the upper edge of knife. Cut pork into 3 cm. cubes.

Marinate pork cubes with 1 teaspoon salt and 1 teaspoon rice wine for at least 15 minutes.

Prepare coating batter by mixing 1 egg, 3 tablespoons cornstarch, 2 tablespoons flour and 2 tablespoons water. Add pork and coat with batter.

Heat oil in a skillet over high fire. Add pork when the oil begins to bubble. Deep-fry pork over medium fire. When the pork turns brown, remove skillet from fire for ½ minute and put skillet over fire again. Fry pork until golden brown. Remove pork to a plate. Remove oil and wash skillet.

Dissolve 2 teaspoons cornstarch in 5 tablespoons stock (or water). Heat ½ tablespoon oil in skillet. Add garlic and sliced red pepper, stir-fry one minute. Add salt, vinegar, tomato sauce, catchup and sugar. When the sauce boils add sliced carrot, cucumber and bamboo shoot. Stir-fry one minute. Add cornstarch and stock (or water). Stir the sauce all the time to avoid lumps of starch. Bring to a boil. Add 1 tablespoon heated oil. Stir until sauce becomes quite thick. Pour sauce over pork and serve immediately.

Delving into Taiwan's Past

CHEN YONGPING

TAIWAN, China's island province situated 150 kilometers off the coast of continental Fujian province, was once geographically linked with the Chinese mainland. This conclusion is based on studies by Prof. Lin Chaoqi, a noted geologist in Taiwan.

Geological Links with Mainland

In the millennia of geomorphological history, the drifting of continental plates sometimes caused Taiwan to sink and become an island as it is now, and at other times to rise and link up with the Chinese mainland. This bears out the land-bridge hypothesis advanced by some scholars. Two ancient riverbeds extending toward the mainland can still be seen on the bottom of the Taiwan Strait.

Newspapers in Taiwan reported last January that the land connection between the Penghu Islands and Taiwan had existed until 6,200 years ago, and that up to 5,400

years ago another land connection through the Taiwan Reefs had linked the southern part of the Penghu Islands with Fujian province. These facts were quoted from a thesis written by Ma Tingying, a geologist who died last year in Taiwan.

Recent stratigraphy studies in Taiwan prove that Taiwan and the Chinese mainland belong to the same plate. Fossil ammonites of the Jurassic Period discovered in rock layers several hundred meters under the ground in Taiwan's Yunlin county are of the same type as those found in the mainland. Some of the island's geological strata consist of acidic igneous rocks similar to those in Fujian and Zhejiang provinces.

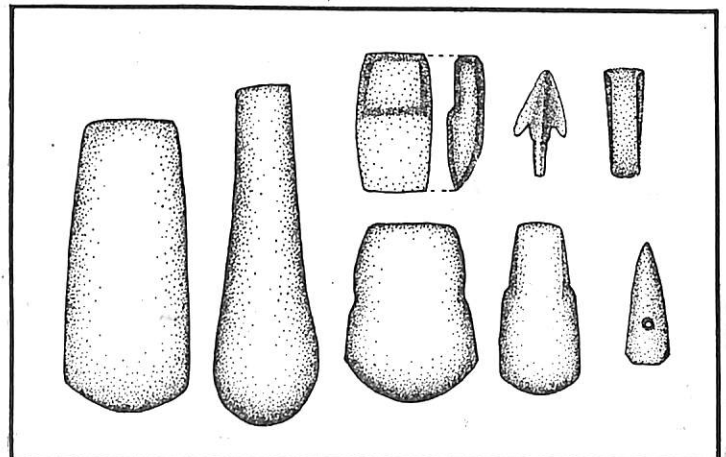
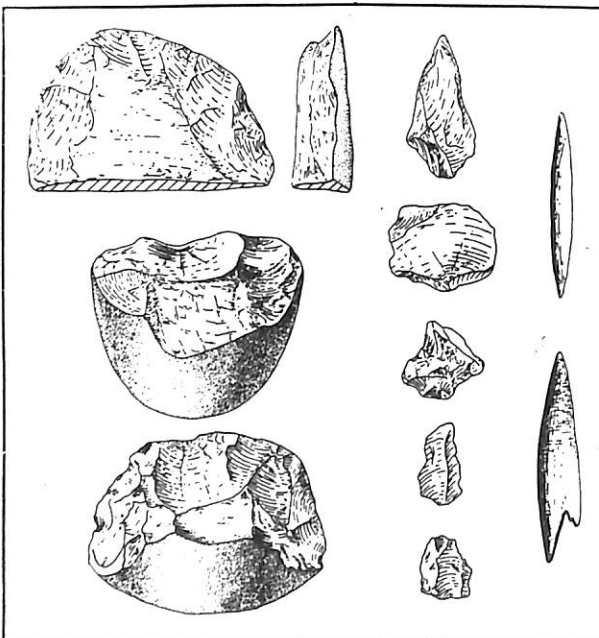
Traces of Early Man

Last January Prof. Huang Dashou of Zhongxing University in Taiwan announced in one of his

papers that a large number of fossils of extinct mammals — elephants, rhinoceroses and deer — have been found in southern and western Taiwan over the past 50-60 years. These fossils belong to the period between the Pliocene epoch of the Tertiary Period and the early Quaternary Period.

Three sites have been found which contain evidence of human activity during the Pleistocene epoch of the Quaternary Period. In the summer of 1970 a grayish red fossil of a human skull said to be that of a young man was discovered at Zuozhen, Tainan county. Fluorine manganese tests by the Japanese professor Nobuo Shimoda showed it to be 30,000 years old.

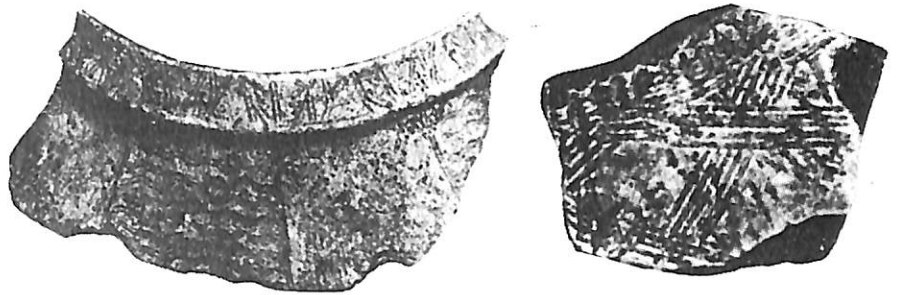
Between March 1968 and early 1969 more than 3,000 paleolithic relics were unearthed at Baxian Cave near Changbin township, Taidong county, by an archeological team from Taiwan University.



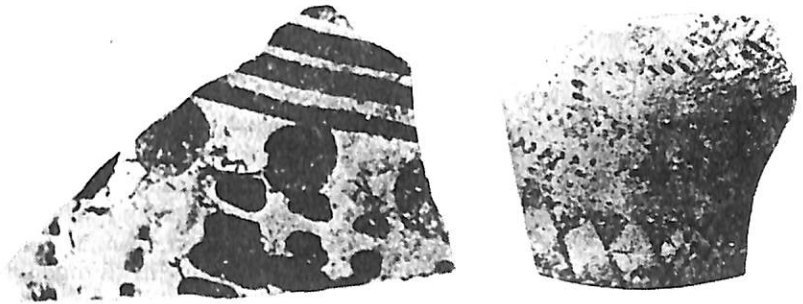
Stone implements and bronze arrowheads, Yuanshan culture.

Stone and bone implements of the paleolithic period found in Baxian Cave.

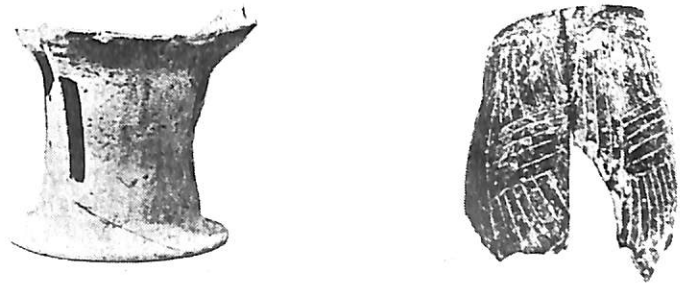
Most of the objects discovered were chipped stone implements including choppers, scrapers and pointed tools. There were also a few bone implements—pointed tools, perforated bone needles and needles sharpened at both ends. Belonging to what has been called the Changbin culture, they are almost the same in shape and manufacture as those unearthed at paleolithic sites in south China. The Baxian Cave choppers closely resemble those found at Daye in Hubei province and Bose in Guangxi. Studies indicate that the culture which produced the Baxian Cave stone implements may have originated in the lower Pleistocene epoch and lasted until the Holocene epoch, to coexist for a while with neolithic culture.



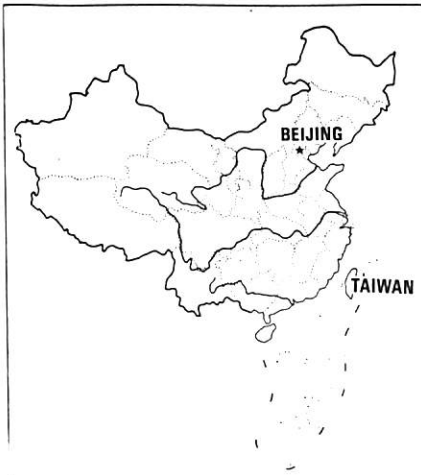
Pottery fragments with cord impressions and slanted-line designs, Dapenkeng culture.



Colored pottery shards, Fengbitou culture.



Red and black pottery fragments, Fengbitou culture.



Between November 1977 and August 1978 Prof. Wei Juxian of Furen University and Prof. Huang Shiqiang of Taiwan University together dug up several thousand Stone Age relics at Bianfu (Bat) Cave in Xinzhu county. Among these were pieces of red and black pottery of the neolithic period and a few stone axes and implements of the paleolithic period.

Primitive Culture Sites

The Dapenkeng culture was so named after one of its sites was discovered in 1964 at Dapenkeng near the township of Bali, Taibei county by teachers and students of Taiwan University. This culture was apparently spread over a large part of Taiwan. More sites have been found along the lower reaches of the Danshui River in the north, and along the northwestern, cen-

tral, southwestern and even eastern coasts.

The relics found so far consist mainly of coarse pottery fragments about five mm. thick made of sandy clay and generally brown or reddish brown in color. Among them are pieces of bowls and jars. Some of the jars were 40-50 cm. tall with wave patterns and slanted-line designs impressed on lip and shoulders, and red patches and bands painted on lip and sides. Cord impressions cover the sides of bowls and jars alike.

The few stone implements of this culture found so far include indented pebbles probably used as fish-net sinkers, small axes of chipped stone and perforated flat stone arrowheads in the shape of elongated triangles. This indicates that hunting, fishing and sea-food collection were being done. The

(Continued on p. 53)

Remembering Anna Louise Strong

ISRAEL EPSTEIN and ELSIE CHOLMELEY

HOW can a brief article do justice to a woman whose eventful life spanned 85 years, who spent 60 of them in progressive journalism covering major historical events on four continents, wrote scores of books and countless articles, and always fought for the new against the old, with youthful energy undiminished by difficulties, defeats or personal misfortunes to the end of her days?



Anna Louise Strong in 1908, when she took her doctorate of philosophy at 23.

Anna Louise Strong was born in the U.S. Midwest in 1885 and died in Beijing in 1970. She came of a family with deep roots in America, and in the progressive tradition.

ISRAEL EPSTEIN and ELSIE CHOLMELEY, husband and wife, were friends and co-workers of Anna Louise Strong's over a number of years. They have been with China Reconstructs since its founding.

Some of her forbears were anti-royalists in England even before crossing the ocean in 1630. Some bore arms in the U.S. War of Independence. Her father and mother were comfortably off and well educated, active in community and church affairs. Unlike Agnes Smedley, that other memorable U.S. woman writer about China's revolution, Anna Louise did not grow up in hunger, illiteracy and the enraging humiliations of the poor and exploited. Yet she found her way forward to similar beliefs, as firmly held.

Formative Years

From childhood, her parents had trained her to certain qualities. One was courageous independence; when she was only seven they would send her off alone in the city of Cincinnati, and from 12 on overnight train journeys. Another was hard, precise mental effort in her studies. A third was public spirit; from her youth she sought to devote her energy and early-appearing talents not to self-advancement but to the general good. These traits she retained through life. Tempered and clarified by the cataclysms and liberating struggles of our century, they helped bring her to the side of revolution. Strong (how well that name suited her!) in body, mind and conviction, this imposing woman, unquestionably one of the world's great journalists, worked loyally, hard and without cease for the cause she chose.

An excellent student she earned her doctorate of philosophy at the University of Chicago when only 23. Seeking fairness and justice but still far from a revolutionary, she plunged into social reform and welfare movements. First she



Tireless at her typewriter in her Beijing study — near the end of her long life.

worked to put an end to the abuse of child labor. In 1915 she was a reform member of the city school board of Seattle. Soon after she came into confrontation with the U.S. government's policies, because she actively opposed its entry into the imperialist World War I. She came into contact with revolutionaries, including Marxists. She plunged into the defense of striking lumber workers, whose attempts to exercise their constitutional right of free speech in the streets of Everett, Washington had been met by police bullets. By 1919 she was editor of the *Union Record*, the newspaper of the Seattle general strike, the general strike in U.S. history. Her trenchant editorials, and her poems signed "Anise," are still remembered. Her first arrest was for writing in favor of "... the interests of the laborers as a class and giving them complete control of all property through the abolition of all classes of society," in the words of the indictment. She had come a long way.

"All your old friends have deserted you," a reformist colleague reproached her. "Is anybody on your side?" She replied,

"Oh, yes... The Boilermakers Union with over 7,000 members, the blacksmiths, the longshoremen, the machinists, the electricians and a lot of others. We really have a chance to win." Not the "liberal conscience," but the action of the masses was to her, from then on, the indispensable engine of change.

The Seattle strike was contemporaneous with the "May 4" Movement in Beijing which ushered in the new-democratic revolution in China. Both events took place in a world situation changed by the 1917 October Socialist Revolution in Russia, which gave a new perspective to working-class and national struggles. In early response, Strong edited in pamphlet form, and wrote the preface to, an English edition of a 1918 speech by Lenin, which circulated in 20,000 copies among workers in the northwestern U.S.A. and adjacent Canada.

In 1921, she herself went to the new Russia. Initially it was as a short-term famine relief worker. She stayed, making the Soviet Union her home for some 30 years. In the second phase of her life she was an involved reporter and interpreter to readers in many countries of events and trends in what was then the world's only socialist land. From those years date many of her books, the best-

known being her autobiographical *I Change Worlds* (1935).

First Four Journeys to China

China was the other great strand in her life. She first came here in 1925, spending time mainly in Guangzhou (Canton), center of the first revolutionary alliance of the Chinese Communist Party and the Kuomintang. From that time dates her book *China's Millions*. And it was then that she met Soong Ching Ling (Mme. Sun Yat-sen) and many other progressives and mass leaders.

In 1927, after visiting and writing of Mexico then in democratic ferment, she came again, to Wuhan and other areas in China. She reported not only the surging workers' and peasants' movements and the civil war against the imperialist-backed warlords, but also the blood-soaked defeat of the revolution through the treason of Chiang Kai-shek and Wang Jingwei. In Book II of *China's Millions* she described the same great rural awakening that Mao Zedong wrote of in his "Report on an Investigation of the Peasant Movement in Hunan," and with the same stress. China's future would come, she wrote, "out of those shattered peasant unions, out of the hopes and experience of those millions of peasants." In *I*

Change Worlds, too, notable chapters are devoted to a China retrospect.

In 1936 she spent months on the battlefield of the Spanish Republic against fascism and intervention, and produced her book *Spain in Arms*. In 1937-38 at the beginning of China's war against Japanese invasion, she came to China for the third time, and wrote *One Fifth of Mankind*. She traveled to the southeast Shanxi headquarters of General Zhu De, commanding the Communist-led Eighth Route Army in its struggle behind the Japanese lines. And she began her long, fast friendship with Zhou Enlai and his wife Deng Yingchao. Of the authors of this article, one knew her first in this period. She and Agnes Smedley stayed in the Wuhan home of Bishop Logan Roots, an American cleric she had known since the 1925-27 revolution, for which he had shown sympathy as he now did for China's unity against Japan. Her impact on her housemates was well portrayed by one of them, the Polish writer Ilona Ralf Sues, in her witty book of reportage *Sharks' Fins and Millet*:

I had not pictured Anna Louise so — solid, massive, authoritative. She combined the rigid intransigence of the "Mayflower" pioneer with the lucidity of a revolutionary historian. Those cold, light-blue eyes in her hard, determined face awed me, and I was not the only one — the whole household seemed to stand at attention. And yet, at moments they were soft and limpid and made one visualize what she had looked like as a girl of twenty. . . .

When she shook her white mane lion-fashion . . . or when she paced angrily up and down in her room overhead and made the candelabra tingle in the parlor, we all trembled. . . . But when she spoke on any subject that interested her — Soviet Russia, China, workers' movements in general — we all listened, fascinated by that

In Wuhan, 1938, with Peng Dehuai, vice-commander of the 8th Route Army, Agnes Smedley (extreme right) and her hosts' Dr. Logan H. Roots and his daughter Frances.





With Zhou Enlai in the cave-city, Yan'an, in 1946.



Chairman Mao Zedong greets her on National Day in the hall of Tien An Men gate tower, 1967.

harsh, matter-of-fact voice, to her reasoning which went right to the core of the most complex problems with merciless logic, amazing clarity, and remarkable vision. Her delivery was like machine-gun fire: impersonal, unemotional, penetrating. Facts and figures that spoke for themselves.

A Historic Service

By late 1940, when she came to China the fourth time, China's War of Resistance was no longer in its vigorous and hopeful first stage but in a grim stalemate. The Japanese aggressors, having occupied most of the major cities, were enticing Chiang Kai-shek to surrender. He, on his part, prepared to destroy the only Chinese forces that still fought on, those led by the Communist Party. In Chongqing, Zhou Enlai briefed Strong, fact upon fact, on the mounting danger of a new split, worse than that of 1927 because now the nation's very existence was imperiled. Returning to the ramshackle, bomb-shaken Press Hostel, she agitatedly told trusted friends about this. Zhou Enlai, she said, wanted nothing published while there was a chance of averting Chiang's planned big attack. But he had asked her to take the material abroad, for world-wide exposure if the worst happened.

In January 1941, when Kuomintang forces ambushed and massacred part of the Communist-led New Fourth Army moving north across the Changjiang (Yangtze), Anna Louise Strong's ship was nearing the U.S. She was able to present to anti-fascist opinion in all lands the whole hard truth. The quick growth of international awareness owed much to the promptness, accuracy, and skill with which she did so. In China the Communist Party's unyielding stand, and in the world the pressure put on Chiang by informed progressive opinion and by some governments, prevented the crisis from becoming total. It was a critical juncture. For if China had then been plunged into general civil war, there might have been a different outcome to the whole of subsequent World War II.

'Paper Tiger' and Mao Zedong Thought

We ourselves met Anna Louise again only after the war, in the U.S. Before long, in June 1946, she left for her fifth China visit. In Yan'an, the headquarters of China's Communists and of all progressive forces in China, she found hope and confidence despite uneven odds as Chiang Kai-shek, in defiance of post-war agreements, again moved for all-out

civil war—this time with U.S. arms and help. It was then that Mao Zedong gave Anna Louise his now world-famed interview on the "paper tiger", his simile for all anti-popular forces—whether foreign imperialists, Chinese reactionaries or the threat of the atom bomb. It was in the people, he said ringingly, the Chinese, the American and all other peoples, that the real strength lay.

Another of her notable interviews in Yan'an was with Liu Shaoqi, who for the first time to any foreigner spoke of Mao Zedong Thought as the combination of the general truth of Marxism-Leninism with the specific tasks of the Chinese revolution. This implied that the people of every country should make for themselves a similar combination, not a carbon-copy of any other.

In 1947 Yan'an was evacuated and occupied by the Kuomintang. In its mountain-girt rural hinterland, Mao and Zhou Enlai conducted the bold, imaginative campaign that changed this "victory" of Chiang Kai-shek's into the beginning of his end. Anna Louise, then already 62, pleaded, indeed stormed, to be allowed to go with the army. Only with difficulty was she persuaded that her notable ability to project and explain the true facts would make

her much more effective in the U.S. Already then, she saw the unfolding Chinese revolution and a new Yan'an-type China of the future, as the desired framework for the rest of her life. "There were no luxuries and few comforts," she wrote later of Yan'an. "There were people with keen minds, deep thoughts and a world view. I felt my own mind developing. . . . Here at last seemed credible history of the difficult advance of man."

In New York during that period, one of us was an editor of the Allied Labor News and Telepress agencies which carried Anna Louise's dispatches, and we both were active, one as writer and consultant and the other as editor for the Committee for a Democratic Far Eastern Policy. This committee opposed Truman's backing for Chiang Kai-shek as bad for both the Chinese and American peoples. Anna Louise, from China, kept bombarding us with letters and telegrams. She wanted the news agencies to arrange immediate regular reception in the U.S. of the English language Morsecast of the Xinhua News Agency in North Shaanxi, no easy matter since it was sent out by a mobile transmitter of tiny power, and the committee to set up a coast-to-coast lecture tour for her return.

All this seemed beyond the available resources of these very small outfits. But with the urgency she imparted, a good deal was done. From speakers' platforms and in print (in "Amerasia" magazine and elsewhere in and outside the U.S.) she made the heartening "paper tiger" concept familiar to friends of progress. The committee put out her book *Tomorrow's China*.

As ever, she was a tornado of energy. And in 1948, she left New York for Moscow on her intended sixth trip to China. On the eve we had a last working meal together in the crowded Toffenetti's restaurant downtown. Forging like a dreadnought through the throng, Anna Louise roared at the floor

captain, "We need a big table! We have books to write!" There, amid heaps of papers, the last brush-up was given to the text of *Tomorrow's China*, and arrangements were agreed on for handling her forthcoming articles.

She was starting for China with joy, for victory was imminent.

Battling Alone

Who would have thought that she would not get there for ten years? In Moscow, she was delayed and then, suddenly and with no details given, arrested and deported as a "U.S. spy." Apparently the "paper tiger" idea was not liked by some in high quarters there, less still the Mao Zedong Thought concept of every Communist Party free to make revolution in its own national terms. The effect of the "spy" charge was to stop the production and dissemination of her books and articles then going to press in progressive media in many countries. Everyone concerned was stunned. But such was the prestige of the Soviet Union among the world's progressives in those days, that most could not bring themselves to believe that the prestige was being misused. The result: with only rare exceptions, she had no forum or hearing on the Left for seven long years.

An exile from the Left, and rejecting every suggestion from the Right that she "repent" and join the anti-Communist chorus, Anna Louise fought on in virtual solitude. After China was liberated, she expanded her book under a new title, *The Chinese Conquer China*. In four forceful words, the insinuations that China had been "conquered" by anyone except, at long last, its own people, were sent reeling. The book refuted them with vivid facts. But she had to arrange its printing and distribution herself, with no publisher.

In 1955 the "espionage" charge was cancelled as false. Anna Louise renewed contacts with friends there, and in China. But the U.S.

government, then still banning passports for progressives, blocked her from traveling. In the interim, Anna Louise wrote *The Stalin Era*. It was a principled assessment in which she refused, despite the injustice that had been done her, to join in with Khrushchev's total negation of Stalin. In 1958, back in Moscow, she was assured of respect, a good apartment, restitution of rouble royalties on which she could live indefinitely. But she wanted first to complete her long interrupted journey to China. If it was still like Yan'an, she thought, there she would stay.

In 1963, Strong returned to Yan'an. Visiting a village with U.S. black activist Robert Williams.



In the People's Republic

And such was her decision. The reasons are given in her initial newsletter from Beijing, "Why I Came to China at the Age of 72." It was the first of 69 such letters, first mimeographed, then printed, and circulated not only in English but in German, Italian and Swedish translations. During her last years in China, the most productive of her whole life, she also wrote six books — among them



On her 78th birthday, with Foreign Minister Chen Yi and Deng Yingchao, wife of Zhou Enlai.



On her 80th birthday, with Premier Zhou Enlai.



Relaxing in Beijing's outskirts with co-workers and friends. Authors of this article are in second row.

The Rise of the People's Commune (1958-1964) and *When Serfs Stood Up in Tibet (1960)* and carried on a world-wide correspondence.

In the new China, Anna Louise was held in high honor. As an old friend and tireless fellow fighter, she was received several times by Chairman Mao Zedong. On each of her birthdays, Premier Zhou Enlai and his wife, Deng Yingchao, Foreign Minister Chen Yi and other leaders she had long known, would come to her home to greet her and converse. We and her other foreign friends and co-workers were usually present. And never did she let these contacts be just social or ceremonial. For her they were occasions to ask questions, float ideas, clarify and argue out points, domestic and international.

Working without cease, she never forgot an early love—nature. There were always flowers in her rooms. Even when very old, leaning heavily on a cane, she would still walk with us around the lake at Beijing's Purple Bamboo Park, delighting in the golden ripples on the water from the setting sun, or on the slopes of Fragrant Hill with its red and golden leaves in the autumn, or in the Taoranting Park when the roses were in bloom. Sometimes, spontaneously, she would break into happy song. Earlier, in her mountain cabin in California it had been her habit to hurry outdoors when storms struck, to glory in

the might of the wind, thunder and lightning.

Tireless Worker, Devoted Fighter

Mountaineering with its call for all-out effort, unslackening will and meticulous care, had been Anna Louise's sport in youth (she was a certified mountain guide). In her middle seventies, she insisted on going to Lhasa, with its 3,600-meter altitude, taxing even to people in their prime, to get the story of Tibet's break with feudalism and into the future. And many times she traveled all over China, from the Daqing oilfield in the frigid north to the subtropical southern isle of Hainan, and once to war-racked Vietnam.

Like a steep ascent was her way of work. All she wrote was typed and retyped over and over, even

when her fingers were already gnarled with arthritis. Six drafts, eight drafts, ten drafts, till far into the night. And, between drafts there was meticulous reconnaissance and planning. She would try out every sentence, every idea on her friends, us among them, and woe to anyone who brought up no points, or who did but could not back them up with good solid reasons. But once these were produced, she would accept them modestly and gladly. In putting out her newsletter, she neglected no detail, not only of content and style but of layout, typography, promotion, circulation.

Of all the many facets of this outstanding woman, the most salient was her unwavering faith,

(Continued on p. 62)

Edgar Snow and his wife Lois at Anna Louise Strong's tomb, in Babaoshan Cemetery for Revolutionaries, 1971.



A South China Tiger Bred in a Zoo

Xiaohua and his veterinarian.



I am 3 1/2 months old now.



Playing with his feeder.

A South China Tiger in the Chongqing Zoo, Sichuan province, gave birth to two cubs after a 102-day pregnancy in December 1978. One survived and was named "Xiaohua" (Little Flower). He weighed 1 kg. at birth and could not open his eyes and stand up. Because his mother was frightened, Xiaohua was bottle-fed. He grew up healthy and was shown to visitors from the age of four months.

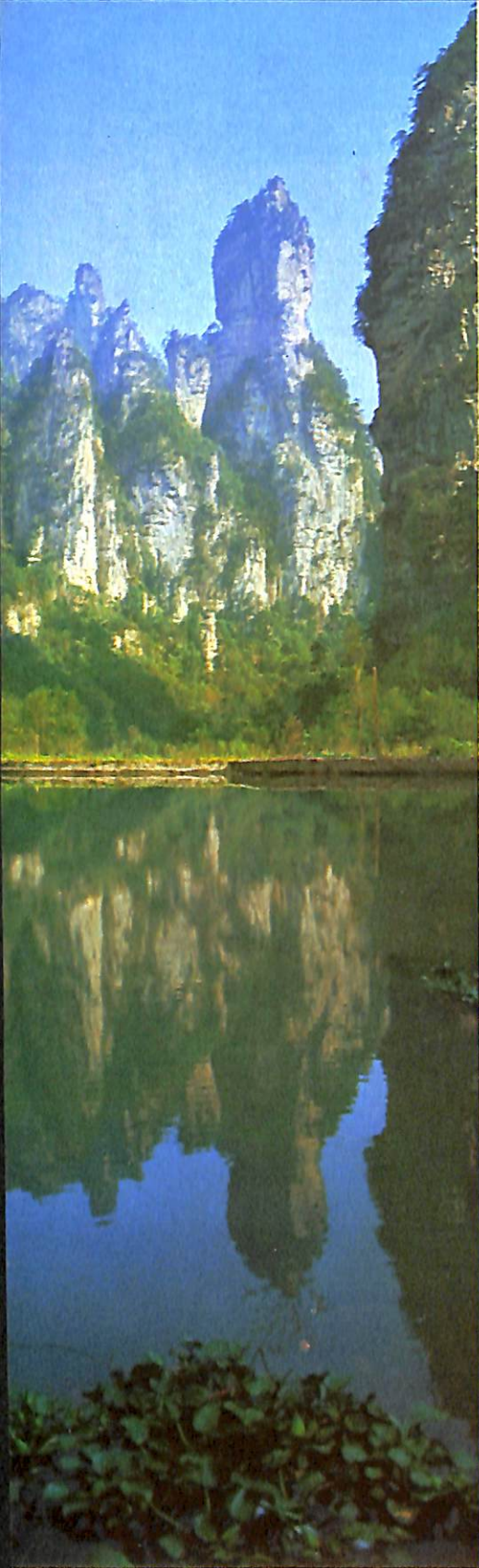
Living in the provinces south of the Changjiang (the Yangtze) valley, the South China Tiger is one of the main animals under national protection.

Photos by Jin Xuqi



The Golden Whip Rocks

ZHANG JIAQI



Imperial-Brush Peak.

Husband-and-Wife Rock, a scenic wonder of Golden Whip Rocks.

Photos by Zhang Jiaqi



P EOPLE who see the Golden Whip Rocks never fail to be amazed by this marvellous spectacle of more than 2,000 towering crags clustered along a 20-kilometer stretch of rushing Jinbian stream. The area, with its fantastic scenery and extraordinary flora and fauna is situated in the northwestern part of Hunan province south of the Changjiang (Yangtze) River in central China.

One such crag is called the Lovers-Meet Rock. At about nine o'clock in the morning when sunshine slants down through a crevice in the rock, the two opposing silhouettes look like a young man and a girl holding hands and gazing at each other with affection. At the center of this forest of crags stands the highest pinnacle, thrusting straight into the sky with sides so sheer they might have been carved out with a huge axe. It glitters like a golden whip in the sunlight, whence its name, Golden Whip Rock.

Legend has it that when the first emperor of the Qin dynasty Shihuangdi (221-210 B.C.) was building the Great Wall, he drove flocks of gigantic rocks northward to the worksite with an enchanted golden whip. When he came to this part of his empire, however, the whip suddenly lost its magic powers and the rocks refused to go on. In a rage the emperor stuck the whip into the ground and left. The whip thereupon turned into this rocky pinnacle.

Modern scientists say the area was originally a deep sea. During the mountain-forming movement of the Himalayas the Wuling Range rose from the sea which then covered the area. Violent crustal movements split the rock strata into numerous promontories which millions of years of weathering eventually sculptured into their present forms.

When glaciers covered the world during Quarternary period, wiping out many forms of life, the unique terrain here preserved many prehistoric plants which might

otherwise have become extinct. A mild climate (averaging 16-17°C), abundant rainfall (1,200-1,600 mm. per year) and fertile topsoil make the area particularly favorable to the growth of vegetation. Here we find over 1,000 hectares of primitive secondary forests, in which ligneous plants alone number 517 species in 93 families. Of the 13 gymnosperm plant families in the world today, six are found here, and include such ancient tree species as the ginkgo, metasequoia, Chinese fir and Japanese yew. Other rare trees are the dovetree, the Chinese torreyia (from which perfume essence is made) and the fine-grained Chinese toon. The area also abounds in valuable Chinese medicinal herbs and exotic animals such as moles, salamanders, white snakes and a peculiar type of pheasant with a sac under its neck for storing water.

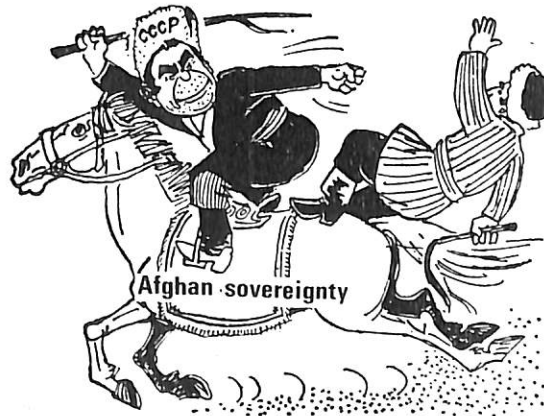
To protect these rare animal and plant species from human deprivations, the region has been turned into a state-protected natural preserve. □

Cartoon



The new savior,

Miao Di



He Wei

A Legal Consultants' Office

ZENG SHUZH

NOT long ago I paid a visit to the Beijing Legal Consultants' Office. It is a collective of lawyers, a working unit of the Beijing Lawyers' Association set up in 1979. A consultant's office that came into existence in the early post-liberation days stopped functioning in 1959. Later, during the years of the gang of four virtual-



Zhou Yuxi.

Wu Chuping

ly the entire legal system was dismantled.

The president of the revived association is Professor Chen Shouyi who heads the Department of Jurisprudence at Beijing University. Its vice-president is Zhou Yuxi, a veteran jurist whose experience goes back to the days before the liberation of the entire country when he worked in the courts of the revolutionary base areas.

Daily Work

Zhou Yuxi, now aged 65, told me about the functions of both the lawyers' association and the consultants' office.

The association, he said, has a staff of 60, including its 41 members of lawyers of whom 15 are women. It received 3,400 inquirers

between December last year and February this year, an average of about 40 per day. Among the requests, 120 concerned legal representation in lawsuits and 147 the drafting of legal documents. Most of the others were for information or advice about the law. In the same period the office handled 2,000 letters from people elsewhere in China.

Last December the office fixed the fees for services rendered. They are low: 50 fen to one yuan for oral advice on a specific matter, about four yuan for drafting a legal document, no more than 30 yuan for legal defense in a criminal case, and 40 yuan for handling civil actions other than property disputes. For clients who cannot afford to pay, these services are free.

Zhou said that among the problems faced and being tackled by the association, the biggest is lack of trained personnel. Most jurists who graduated before 1966 changed their vocations, and after the beginning of the cultural revolution in that year law institutes stopped enrolling students for an entire decade. The graduates since then are a drop in the bucket compared to the needs. So one of the association's tasks is to seek out former judicial workers, who have been transferred to schools, factories or other organizations and bring them back to the profession. Years of disuse have rusted the legal knowledge of many such people. But they know from personal experience the dangers to the people and country when the legal system is impaired, as it was during the cultural revolution years. Their sense of responsibility impels them to brush up their professional skills. The association helps by organizing forums and study meetings.

With the demand for its services growing, the Beijing association

will increase its staff to 100 this year, including qualified people who can work with it as part-time lawyers. More law consultants' offices are to be set up in the city and suburbs.

Inquiries and Legal Advice

In a reception room I saw Hang Hua, a lawyer in his forties, talking with two clients. They wanted advice on the case of their younger brother who had been indicted for theft and would be brought to trial before a district court in a few days. Their brother claimed that there were inaccuracies in the charge, and that some of the things he was accused of stealing had been planted on him by others. Would a lawyer plead their brother's case in court, they wanted to know, and how much would the fee be? Hang Hua told them that for any accused, the right to engage a lawyer in his own defence was guaranteed by law. The attorney who took the case would make an investigation and, on the basis of the facts, represent their brother in court. The fee, within the prescribed limits, would be determined according to the difficulty of the case and amount of work involved. After a brief consultation the brothers filled in a form engaging a lawyer on their brother's behalf.

Hang Hua graduated from the Beijing Institute of Politics and Jurisprudence in 1964. But the actual work assigned him was in a middle school, and he returned to the law only after the reopening of the consultants' office. Lack of experience was one of his main problems, he said. He wasn't always able to answer enquiries to the satisfaction of those who consult him. These problems are often social as well as legal, and he does the best he can, as a lawyer and a responsible member of society.

ZENG SHUZH is a staff reporter for China Reconstructs.

For instance, a few days ago a young railway man came to him for advice on difficulties in his marriage. The young man is posted in Chengde, 200 kilometers from Beijing and comes home only once a week. His wife of a year has been very cool toward him recently. Sometimes she avoids him by going her mother's home. What should he do, he asked Hang Hua. Seek a divorce? Hang Hua suggested that he would not hurry with this. First he could talk to his wife, find the reason for her change of attitude and try to mend their relations. He could also solicit her mother's help, and if that didn't work out, ask the leadership in the wife's work unit to mediate. If all else failed, he could apply for a divorce under the stipulations of the marriage law.

Defense in Court

In another reception room, I struck up a conversation with Liu Shufen, a woman lawyer in her fifties. A law graduate from Chongqing University in 1952, she had been assigned work first in a court of law and later at the Beijing Consultants' Office when it was originally set up in 1956. In 1959 after the office was dissolved, she returned to the law courts. Between 1967 and 1977, like so many other functionaries, she was sent to labor in a cadre school in the countryside.

In 1979 seven new laws were promulgated among them the first Criminal Law and Law of Criminal Procedure to be drafted in the 30 years since the founding of the new China. In the same year the Legal Consultants' Office was revived and Liu Shufen returned to it. She has defended a dozen cases in court since then.

Liu Shufen goes about her work carefully and responsibly. In a case involving two middle school students who had burned down a laboratory building, she agreed to plead on behalf of the accessory to the felony, Wang Heming. After talks with Wang she found that the materials in the case brought against him were not clear as to whether he had voluntarily con-

fessed to his act. This, she felt, had an important bearing on the issue so she went to the school and looked up Wang's teacher. The teacher told her that Wang had been a well-behaved student and good in his studies. He appeared to have been coerced into participating in this crime by the chief culprit Lu Fengming. After the fire, the school's principal had called on the students to report any clues that might lead to the perpetrators, and this teacher had talked with Wang's classmates one by one. In the meantime, on the very next day, the conscience-stricken Wang had come to the teacher and told him the whole story. Shocked at first, the teacher sent someone with him to the police station where he gave himself up.

With this information, Liu Shufen, appearing for Wang in court, explained that the boy had been forced into crime and had voluntarily confessed. She pointed out

that Wang's making a clean breast merited lenient treatment. The chief culprit was sentenced to ten years' imprisonment and Wang to three.

Liu Shufen said that it was her duty as a lawyer to help the court establish the facts objectively and take all factors into account, so as to guarantee proper application of the law and prevent judgments based on incomplete, incorrect or false evidence. Lawyers, in all cases, civil or criminal should protect the legitimate rights and interests of clients by giving legal advice, and drafting legal documents on their behalf — such as complaints, appeals, statements, wills, contracts and so forth.

Liu Shufen feels that a lawyer's work is directly connected with the stability and unity of society and with the speeding of the four modernizations. She feels she is doing important work for the country and people. □

Hang Hua (first right) answers an inquirer at the office.

Wu Chuping



Lawyers of the consultants' office analyze a civil case entrusted to them.

Ku Dehua





The Beijing Intermediate People's Court tries a theft case. Liu Shufen (standing) pleads for the accused.

Wu Chuping

DO YOU KNOW?

China's Law Courts

THE organic law of the People's Courts of the People's Republic of China promulgated on July 1, 1979 stipulates that the judicial authority of the state is exercised by local people's courts, special people's courts and the Supreme People's Court.

Local people's courts include the basic-level, intermediate and higher people's courts. Special people's courts include military, railway-transport, water-transport, forest and other courts. So far as judicial procedure is concerned, China's courts fall into four levels: basic people's courts at district or county level, intermediate people's courts at municipal or prefecture level, higher people's courts at the provincial or autonomous region level and the Supreme People's Court on the national level. Beijing, being a municipality directly under the central government, has 18 basic courts, one intermediate court and one higher people's court.

Whatever its level, each court has a civil division and criminal division. Intermediate and higher courts, and the Supreme Court, have economic divisions. Every court is composed of a president, two or more vice-presidents, one chief and associate judges of divisions and other judges. Court presidents are elected by the people's congresses at the corresponding levels, while other members are appointed and removed by the standing committees of those congresses.

The people's courts administer justice independently, subject only to the law. Cases in the courts of different instances are heard in public unless they involve state secrets, intimate private life or juvenile offenders under the age of 18. The accused, apart from having the right to defend himself, has the right, according to his own will, to entrust a lawyer, relative, or lay advocate recommended by his work unit to plead on his behalf. The court may, when it deems it necessary, appoint an advocate for the accused.

IN local people's courts, cases of the first instance are tried before a collegiate bench consisting of a judge and assessors. The judge of a collegiate bench is appointed by the president of the court or by the chief judge of the division concerned. If the president or the chief judge takes part in the court proceedings, he himself presides at them.

In administering justice the court of second instance is also the court of last instance. A judgment or order handed down by a local people's court as a court of first instance can be appealed to the people's court at the next higher level, in accordance with the procedure prescribed by law. A procuratorate of the same level as a legal supervisory organ of the state may also protest a judgment or order before the court at the next higher level in accordance with prescribed procedure. If the

court of first instance is a higher level court, or the Supreme People's Court, its judgments or orders are final.

Sentence of capital punishment must be pronounced or approved by the Supreme People's Court, or after re-examination by a higher people's court.

PEOPLE'S courts at different levels are required to set up judicial committees whose tasks are to sum up judicial experience and discuss difficult or major cases. Their members are appointed by the standing committees of the people's congresses at corresponding levels, upon the recommendation of the presidents of the local people's courts. Their meetings are presided over by the presidents of the courts. The chief procurators at the corresponding levels have the right to attend as observers. If the president of a people's court finds, in a legally effective judgment or order of his court, some clear error of fact or of law, he must submit the judgment or order to the judicial committee for disposal. If an upper court finds a clear error in a legally effective judgment or order of a lower court, it has the authority to call the detainee for interrogation or direct the lower court to re-try the case. People's courts at different levels are obligated to deal conscientiously with such cases, as well as other appeals against court judgments or orders lodged by defendants. □

The Abacus in the Calculator Age

YIN CHANGSHENG

A SEEMINGLY strange occurrence took place in the 70s: Humanity entered the age of the calculator, but the old and apparently "backward" abacus, far from being rendered obsolete, is not only co-existing with the calculator, but becoming more popular. In fact, more and more educated people in countries with advanced electronic computer industries are advocating the use of the abacus.

Take for example Japan, where the use of calculators is widespread, and where calculator production has been increasing annually and now accounts for 50 percent of total world production. Eighty-three point four percent of the reckoning work there is still done by abacus. Moreover, the number of entrants for examination in the use of the abacus has increased from 900,000 in 1963 when computers were first introduced into Japan to 6,000,000 in 1978.

Although calculators originated in the U.S. and their use there is quite widespread, a training center for the use of the abacus has recently been set up in the country. It has introduced the abacus as if it were a "new technique."

In Brazil the abacus is now being popularized and regular courses on its use have been introduced in many higher institutes and commercial schools. A national abacus contest is held each year.

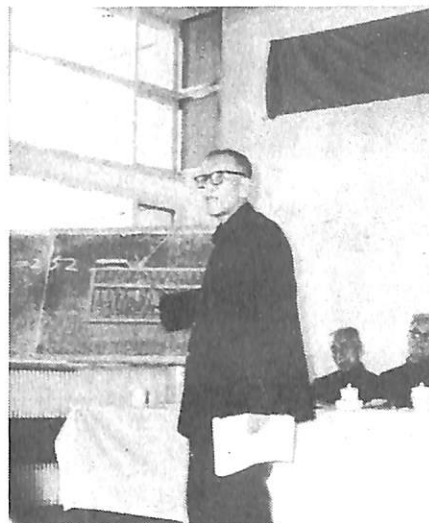
Abacuses are also being popularized in Europe, Latin America and Asia, and even in such a small island country as the Kingdom of Tonga in Oceania. The king of

Tonga went in person to Japan to buy 1,000 abacuses, which were distributed among the people. He himself gives lectures on the abacus.

Advantages

SOME people will say: All you need to do with a calculator is push a few buttons and you get the answer. This is much faster than using an abacus. But not so! Actually this is far from being the case. Generally speaking, for multiplication and division calculators are quicker than abacuses. But for addition and subtraction, especially in the case where these operations are performed on long series of multi-digit numbers, an abacus is much faster than a calculator. This is because when one uses a calculator for such addition or subtraction, one has to push the numerical keys many times, and moreover, the addition key, subtraction key and equal key several times too. However, when using an abacus, one need only move the beads a few times to get the answer.

Take 14 plus 15 for example. With a calculator this would involve pressing keys for addition and equality besides four numerical keys—altogether six operations. But with an abacus, there is no need to register such operations on addition and equality. One can get the answer just by moving some beads. The abacus shows even greater superiority where one digit or more is zero. Take for example the multi-digit number 500,046: only three positions need to be marked on an abacus. No movement is involved for "0" digit. With a calculator, however, the "0" key must be pressed once



The author, Yin Changsheng, speaks on the use of the abacus in other countries at the inauguration of the Chinese Abacus Association, October 1979.

for every zero. This is not only cumbersome, but one may easily press the key once too much or too little. Moreover, accountants and statisticians generally need only keep their eyes on the data, while using the right hand to move the beads required. On most calculators, however, the keys are arranged in four rows, so the user must look at the keys while pushing them with his right hand—this limits the speed. Furthermore, addition and subtraction generally account for over 80 percent of the reckoning work done by accountants and statisticians in stores, banks, corporations and factories. So the abacus is eminently suitable.

From the educator's point of view, the abacus is not merely a tool for calculation but an effective teaching aid. In the course of instruction, it is necessary to use such concrete objects as fingers, small batons and glass balls to familiarize children with the natural numbers, 1,2,3,4, . . . etc. Only later can one proceed from object to concept and instill an abstract notion of numbers. The bars of the abacus are neatly arranged. To add, the beads are moved to the center; to subtract, they are moved to the side. Multiplication is done simply by adding suitable multiples of the multiplicand. Division is the

YIN CHANGSHENG, a famous abacus mathematician, is vice-chairman of the Chinese Abacus Association.



School children have their abacus class at a bookstore, calculating sales volumes.
Photos by Li Shengnan

reverse process of multiplication. One moves the beads and can follow what is going on. It displays the concept of figures in a more concrete way than the calculator.

A bead along the upper section has a value of 5 units; and of beads on neighboring bars, each one on the left is worth ten of the units on the right. A combination of abacus, written and mental calculation will help children to acquire a solid grounding in arithmetic. The abacus remains an ideal teaching aid for children even though humanity enter the age of electronics or atoms.

The calculator can only give the result of a calculation, not show the process. Therefore it cannot be used as a teaching aid. In the 60s, some primary schools in the U.S. introduced functions and probability into their math courses, and tried to cut down the time spent on arithmetic by letting the students use calculators. But after a time, they discovered a general drop in the students' ability for calculation and abstract thought. When they looked into the reason, they found that whereas a calculator gives the result, it cannot reflect the essence of calculation or the concept of numbers nor even the principles of the four fundamental operations of arithmetic. So it could not possibly foster a growth in ability to calculate or capacity for abstract thought.

Some people may think that to use the abacus is, in a way, to revive old customs and that it would retard the development of calculators. Naturally nobody believes that an instrument can exist forever without modification. But the relationship between the abacus and the calculator is like that between nuclear weapons and conventional weapons, each having its special use. No one would use an abacus in place of a calculator to direct production and scientific research; at the same time, no one from a country which has the abacus would use a calculator to do a simple calculation which an abacus can do. The two can complement each other, so both of them should be further developed. Their combination would certainly raise working efficiency.

The Home of the Abacus

The abacuses used in the world today all belong to the class of *suan pan* (abacus) which originated in China. The abacus is also more widely used in China than in any other country.

The abacus was invented in China certainly more than 1,000 years ago. The earliest extant record of the abacus lies in the book *Shu Shu Ji Yi* (Notes on Mathematics). However there is still some dispute as to whether the author was Xu Yue of the Han dynasty (206 B.C.-A.D. 220) or

Zhen Luan of Northern Zhou (557-581). The book *Suan Jing* (The Book of Arithmetic), written early in the Song dynasty (960-1279) by Xie Chawei definitely establishes the abacus as an instrument for calculation. The abacus described in that book had the same basic structure as it does today, and the method of registering numbers is the same. Some abacus beads turned up during excavation carried out in July 1921 on the site of the Song dynasty San Ming Temple in Julu county, Hebei province. The beads are similar in size to those in use in China today. By the Yuan dynasty (1280-1368) the abacus was widespread in China. In the Ming dynasty (1368-1644) a fairly complete exposition on the abacus and its use was contained in the *Suan Fa Tung Xue* (A Standard Compendium of Mathematical Methods) written by Cheng Dawei. Ever since that time, the abacus has been increasing in popularity everywhere in the country.

Abacus was introduced into Japan, Korea, Indochina and the Southeast Asian countries in the Ming dynasty some 600 years ago. Later, in Japan, one of the two beads in the upper section was dropped and the beads themselves became ribbed to the long and narrow short-barred abacus.

After the founding of new China, new work has been done on the abacus. Veteran abacus specialists, researchers in the Chinese Academy of Sciences, professors from various colleges as well as many abacus workers from all over the country have put much time and effort into research on the abacus. They have made achievements in many fields, including: the relationship between quick calculation method, abacus and mathematics; innovation of mathematical aids; the triple combination of written, mental and abacus calculation, as well as the history of the abacus. These achievements have attracted the attention of people in the field of abacuses the world over.

Meanwhile, abacuses are widely used throughout China. Statistics show that 37,000,000 people use the abacus every day. Among them 12,000,000 are in trade and finance; 10,000,000 in factories and mines; 15,000,000 in people's communes. Everywhere in China, accountants in banks, stores, factories, and offices as well as people's communes calculate with the abacus. In China almost all the accounting,

statistics, distribution and budgeting is done with the aid of the abacus. Most adults are able to use an abacus. Even family expenses are frequently calculated by abacus. In primary schools, courses on the abacus are included in the basic programs from the third year through to the sixth year.

The abacus is one of China's cultural heritages. Some foreign scholars put the abacus on a par

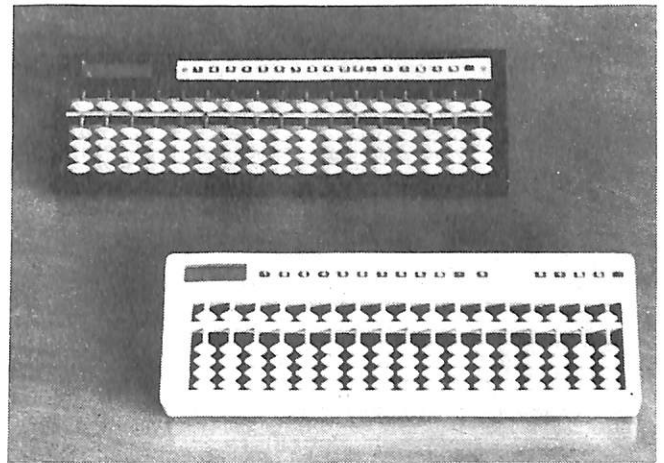
with China's four great inventions — printing, gunpowder, paper-making and the compass. To further develop abacus science, the Chinese Abacus Association was set up in October 1979, the first mass body of its kind in Chinese history. Branches in various provinces, municipalities and autonomous regions have either been set up or are projected. This will open up a new page in the history of the abacus in China. □

“Electronic Abacus”

FOR multiplication and division an electronic calculator is quicker than an abacus. But for addition and subtraction, the abacus is faster. The strong points of both have now been incorporated to produce an electronic abacus.

Completed last March, the new instrument was produced collectively by members of the Chinese Abacus Association. It consists of an integrated micro-circuit in the upper part with an abacus below. Either part can be used independently. This combination has dramatically increased the efficiency of the ancient calculating tool.

Small, light and easy to operate, the electronic abacus is now being mass produced by calculator plants in Beijing and Hangzhou. □



(Continued from p. 39)

Dapenkeng culture is estimated to have existed between 4450 and 4350 B.C., which roughly corresponds to the time of the Yangshao culture in north China.

Around 2500 B.C. two new cultures appeared on the west coast of Taiwan—the Yuanshan and Fengbitou cultures. The former, named after a typical site at Yuanshan in the northern suburbs of Taipei, was centered in the Taipei basin and extended to coastal areas further to the north. Relics of this culture include implements of stone, pottery, jade, bone and horn, and a few bronzes. The latter culture occupied the central and southern coasts and nearby

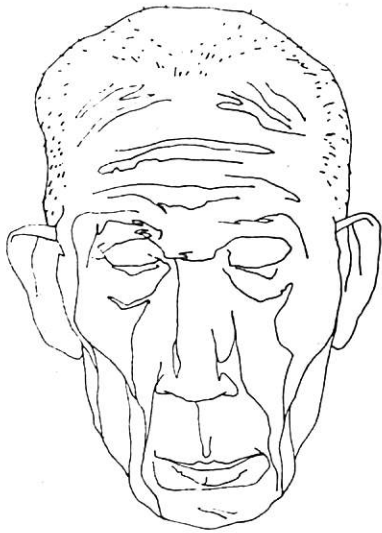
valleys, with a representative site at Fengbitou in Gaoxiong county. It is characterized by the manufacture of red, black and gray-black pottery.

Research on sites and relics has revealed similarities in form and time of origin that point to close connections between the prehistoric cultures in Taiwan and those on the mainland. Excavations, for instance, in Henan, Shanxi, Shaanxi, Gansu and Qinghai provinces on the mainland have produced much colored, gray and red pottery of the period 2500-1500 B.C. And black pottery objects of the period 2000-1000 B.C. have been found in Shandong province and along the coast from

the Liaodong peninsula to Zhejiang province. Both the colored pottery and black pottery are typical of neolithic culture.

Prof. Shi Zhangru of the Central Research Institute in Taiwan has concluded from his studies that all the pottery relics of the early and middle neolithic period in Taiwan originated from the colored and black pottery cultures on the Chinese mainland.

Tadao Shikano, a Japanese scholar, believes that prehistoric cultures in Taiwan were chiefly based on cultural systems existing on the Chinese mainland, and that southeast Asian influences came much later. □



Freight Tricycle Driver.
Zhong Acheng



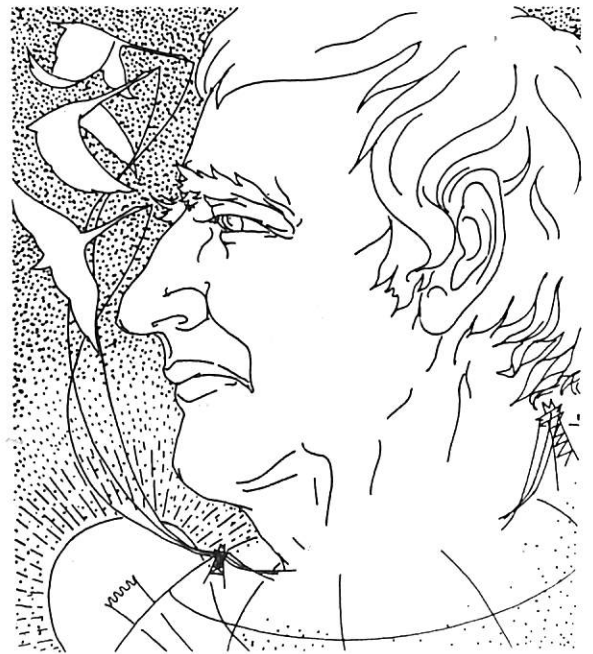
Without a Theme.

Ma Desheng

“Star”

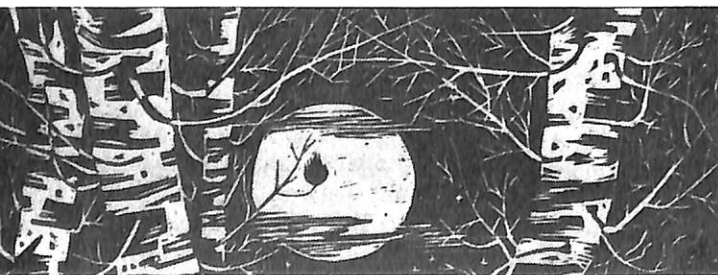
Amateur Art Exhibition

The “Star” Amateur Art Exhibition recently shown in Beijing’s famous Beihai Park featured 163 Chinese traditional paintings, oils, engravings and wood carvings. Most of the 23 artists were young, experimenting boldly with content and form. There were over 33,000 visitors.



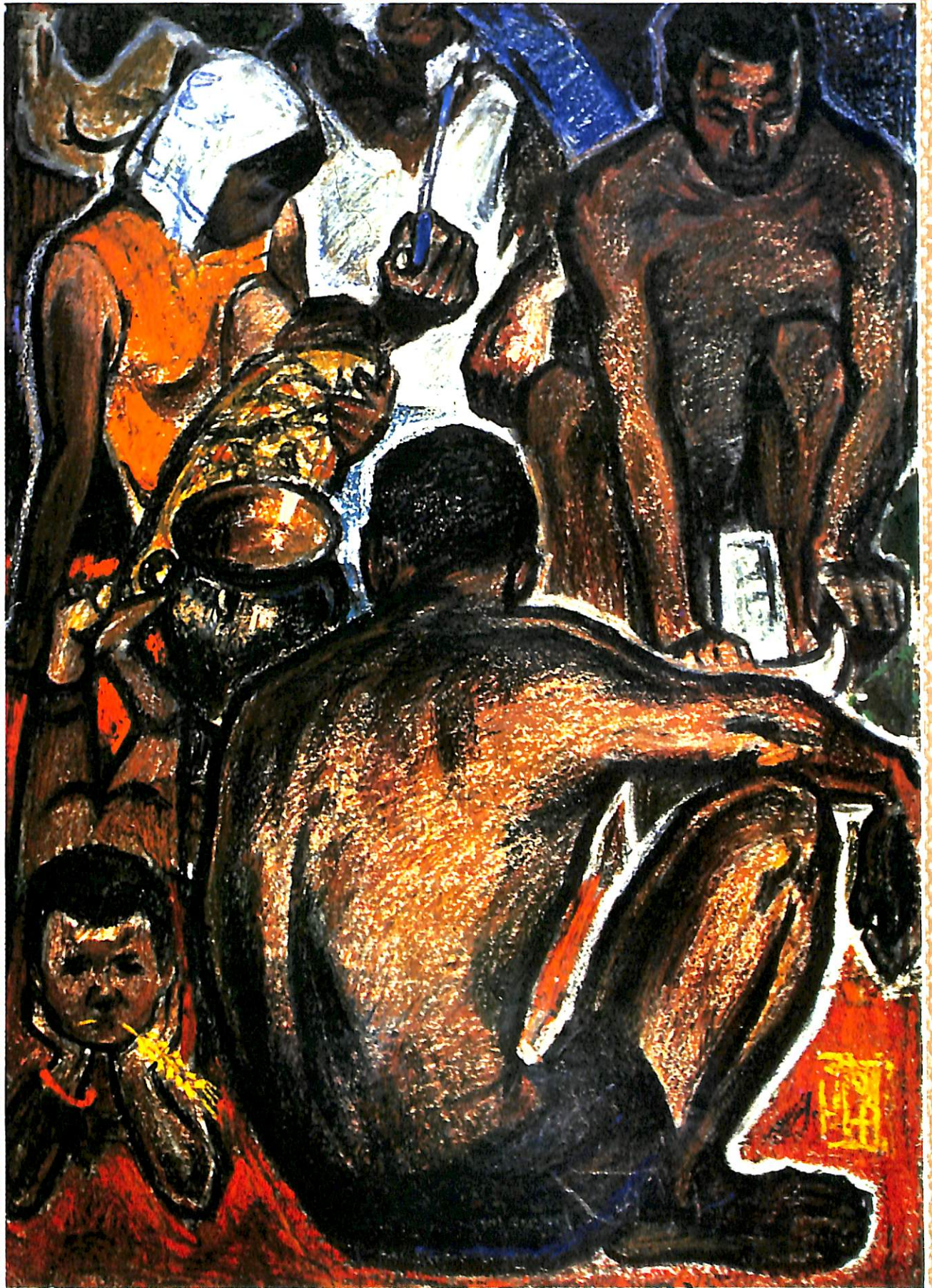
Thomas Alva Edison.

Qu Leilei



Autumn Night.

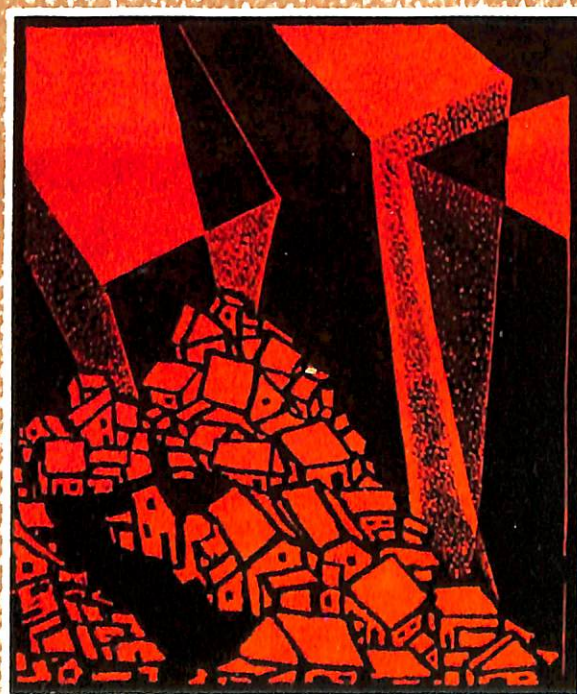
Ma Desheng



Summer Cao Liwei



Yuanmingyuan, ruins of the old
Summer Palace, destroyed by
Anglo-French invaders in 1860.
Huang Rui



Tall Buildings Rise from Here.
Gan Shaocheng



Uygur Mother and Daughter *Shao Fei*



Marriage *Yan Li*



Mathematician *Wang Keping*



Flight

Zhang Shiqi



Similar Customs and Traditions

As an African I thoroughly enjoy the articles you write about the minority nationalities of China. I recently read the one "The Jiuos — China's Newest Nationality." The customs and traditions of the Jiuos are so similar to those of certain tribes in Africa, it makes me wonder if Africa and China were not at one time one continent.

Keep up the beautiful work you are doing. Let us have more articles about various nationalities in China. I would also suggest that you write about the Chinese tradition of *Wushu*. This would be very much appreciated, although I also subscribe to *China's Sports*.

Hodari N. Mqulo
Odenskogsvagen, Sweden

Contributing to Rapprochement

China Reconstructs has well reflected a certain reality unknown to many readers, thus contributing to the rapprochement among the peoples. This, in my opinion, is precisely the foremost aim of a publication.

Despite the great variety of subjects covered in your magazine, certain respects might be omitted. Some topics are too specific to be interesting to all readers. I would like to know more about the following topics:

- Different nationalities in China (their history, etc.)
 - Chinese music (traditional and modern)
 - History (before and after liberation)
- Andreas Schweizer
Geneva, Switzerland

Not Enough News about Young People

There is not enough news about your younger generation in your magazines. We want to read more about young people in China.

Nikhat Akram
Wah Cantt, Pakistan

We plan a series of articles about China's youth, their circumstances and problems in issues during this summer and fall. — Ed.

Helps Enlarge Readership

I wish to tell you through this letter that I have enlisted two new subscribers for your magazine.

To add to their joy, I have paid for them. Enclosed are the orders. Please send the receipts to my address.

Joses Nierer

Vienna, Austria

We greatly appreciate your help to us in broadening our readership. By separate post we have sent you a copy of our booklet *Medicine in China and some folk papercuts which, we hope you will enjoy.* — Ed.

Magazine Is Improving

Congratulations on the good quality of your magazine. I am a subscriber to *China Pictorial*, *China Reconstructs* and *Chinese Literature*. A few years ago I read several issues and gave up because all the articles were political and poorly written. In 1978 I started to read your magazines again and was happy to find, as I had wished, that they were improving with the change of China's policy on internal and external affairs.

I enjoy your articles about history, archeology, the arts and medicine, particularly those about ancient Chinese history, the Silk Road and classical Chinese paintings. The illustrations are beautiful and speak for themselves. I hope you will publish more articles on ancient Chinese paintings, as reported in *Chinese Literature*.

Your journals vary in size, but that of *China Reconstructs* suits it very much.

Rafael Whu Whu

Lima, Peru

Small Maps Wanted

I especially want to point out the articles I enjoyed on the different provinces and autonomous regions of China: "The Fat-Tailed Sheep of Xinjiang" and "The Jiuos — China's Newest Nationality" and "Treasures and Wonders of Wuyi Mountain." These reports are excellent. My only suggestion for improving them: I would like you to add a small map (6 cm. X 4 cm.) of China where the region mentioned is situated, thus making it easier for the readers to locate it.

Herbert Wiederin
Feldkirch, Austria

Supplement about Medicine

"Medical Care for China's Millions" (*China Reconstructs* supplement October 1978) is well written. Various chapters in the book were quite interesting, particularly the ones dealing with treatment of diseases by herbal medicine. The book would have been more com-

plete if the scientific names were given, along with common names of medicinal plants. Some taxonomical description of the plants is essential.

S. Govardhan

Warangal, India

China's Socialist Law

My thanks for an article in the December 1979 issue of *China Reconstructs*. The article is an exclusive interview entitled, "Strengthening China's Socialist Law." It was useful and very informative.

I am a student of the University of Sri Lanka, Colombo, Faculty of Law. As I am doing law, I read the article very carefully. And, I would like to know more about China's law, particularly China's constitutional law, common law, etc.

M. M. Abul Kalam
Kalmunai, Sri Lanka

Birthplace of Confucius

I would like to see an article about the gardens and museum in Shandong province to mark the birthplace of Confucius. The papers here tell us it has recently been opened to the people.

Martha Davison

Montreal, Canada

The article you ask for has in the meantime been published, in our April 1980 issue. — Ed.

Corrections

1. In the article "From Capitalist to Leader in Socialist Trade" in our April 1980 issue, the statement was made that the fixed interest for ten years paid by the government to national capitalists on the money value of their assets was at an annual rate of 0.5 percent. The correct figure is 5 percent.
2. The same article stated that as a private owner of a state-private joint enterprise Liu Jingji was paid a monthly salary of 600 yuan. This should be 670 yuan.
3. Line 3 in the second column of p. 19 should read: "... He was elected Vice-Chairman of the Standing Committee of the Shanghai People's Congress and Chairman of ..."

A Young Tibetan Comes Home

—Dawa Tsering's Own Story

I am a Tibetan born in India in 1953. When I was five, I started to feel I was a foreigner.

My father came to India as a young man 37 years ago. In his further wanderings he met my mother in Yadong near the China-India border, and then the two of them came to India.

He could not find work in India at first and was forced to lead a vagrant life. After a while he got a job building roads, then joined the Indian Army Medical Corps. Since his discharge in 1962, he has been a small trader. He is now 55 and has three sons. In 1960, my younger brother and I entered the Tibetan Children's Village School in Dharamsala to study the Tibetan language. Two years later we were chosen to go to school in Switzerland with 22 other children. We were told that we might be able to serve our fellow-Tibetans abroad and our beloved home, Tibet, in the future. In Switzerland, however, I could not adjust to the way of life and was sent back to my parents in 1965.

In 1967 when I was 14, I was approached by a Tibetan officer

who had followed the Dalai Lama to India. He traveled around to enlist those who "wished to fight for the freedom of Tibet" into guerrilla forces. I volunteered for two reasons. First, like other Tibetan refugees, I hated the "Red Chinese" very much because I believed what I was told that the "Red Chinese" had used guns to drive my poor fellow Tibetans out of our homeland and had "murdered many innocent people." Secondly, my personal unhappiness was a contributing factor. The divorce of my parents was a shock to me, I decided with a heavy heart to leave home and fight for what I then thought was freedom and justice for Tibet. I fell into a deep melancholy. Sometimes I wondered, "Will I ever be able to come out of this? Or will this struggle last until I go to my grave?"

The seven years I spent as a Tibetan guerrilla were quite an eye-opener. I found that most Tibetan refugees abroad were oppressed by foreign exploiting classes and crooked and reactionary Tibetan officials in exile. The refugees were forced to lead poverty-stricken lives and enjoyed no equal human rights. Many were homeless, just wandering the streets in search of work that would enable them to buy bread for a few more days. Their lives were miserable and purposeless.

Everywhere one could see countless half-naked Tibetan children roaming the streets, begging for food or playing or lying by the roadside. What kind of future would they have? Why should they have to suffer so bitterly and face the miseries of exile in India or Nepal when they have their own beloved homeland? Who should be blamed for this? The "Red Chinese," or those selfish former rulers of Tibet now in exile? In recent years these questions constantly troubled me.

But at that time I still thought that the "Red Chinese" should be blamed for the terrible conditions of our refugees abroad. Such thoughts made me very depressed. I did not know what conditions were like in Tibet, but I assumed our refugees abroad, despite their plight, were freer and happier than the Tibetans living under the rule of the "Red Chinese." This strengthened my conviction to dedicate my life to the "freedom" of those in Tibet.

TRYING to understand why my fellow Tibetans had to endure such a bitter existence motivated me to read widely. One day I even picked up a book about communism which I actually found quite interesting. After that, I read books about China's revolution and socialist construction, and classics by Karl Marx and Mao Zedong. I was electrified. For the first time in my life I was able to see clearly that it was not just Tibetan refugees but also working people all over the world who were oppressed. I began to think if this is true, then socialist China may well be a place of freedom with a bright future for working people of all nationalities. And if that is true, then the problems of Tibetans abroad can only be solved within the framework of socialist China.

But I knew far too little about the situation in China then. Many questions still troubled me. To further my understanding I decided to go to see whether the situation there jibed with what Chairman Mao had written. If so, I would certainly devote myself to socialist China. But if the situation was as awful as what I had been told, I would continue to fight in whatever way I could for the freedom and happiness of my people. Even if I should die in the struggle, I would have no regrets as my life in exile was not a happy one.

Dawa Tsering (left) on the Great Wall.
Gao Guorong



On March 14, 1979, though my father could not yet understand me I came back. I spent over a month in Lhasa, then went to my father's hometown in Huangzhong county, Qinghai province, which he had left 37 years earlier. After that, I had the opportunity to tour through other parts of China for 50 days. I first went to Beijing and then traveled in other provinces. Frankly speaking, I had never dreamed that socialist China could be so beautiful. I was also surprised by how far forward Chinese science and technology had moved.

After my return, the government treated me as a friend. I was given an opportunity to study the Han language and work in the National Minorities Institute in Xining, Qinghai. The university officials seem to have confidence in me and the professors often encourage me to study hard.

I have been in China now for about a year. I have found most of the people work not only for themselves, but also for others. People call each other "comrade." The word "comrade" shows that people from all walks of life and of all nationalities are equal and respect one another. It seems to me that people of different nationalities in China belong to one great happy family — very different from what I encountered in capitalist countries. My life is better than ever before, so I hope to marry and settle down here.

I believe that Tibetan refugees living in foreign countries will not always stay in the darkness. With the warm help of the people at home, they will be able to leave their miserable situation.

It is true that China cannot yet compare with the advanced western capitalist countries in modern industry and agriculture. There are still difficulties facing us, but because I see the bright future of our common motherland, I as a Tibetan am determined to do my part. I am sure that Tibetans will make great contributions to the modernization of China, a land of many nationalities, and to mankind. □



Dawa Tsering (center) talks with a lama during the 1979 Jo-nga-cho-ba (Lantern Festival) — One of the largest in China, held at the big Ku-bum (Taer) Lamasery in Qinghai province. *Liu Mingsuo*

Dawa Tsering visits a tin mine in Yunnan province.

Gao Guorong



The "Elm-Leaved Mei Blossom"

Flower of Spring in North China

CHEN ZUNYU

EACH April and May, a mass of beautiful, multi-hued blossoms in gardens and parks in northern China creates scenes as gorgeous as those of the warm south.

The flowers are those of the "elm-leaved mei" or "flowering almond." This popular bush derives its name from the shape of its leaves and blossoms. Actually the bush is neither an elm nor a true Mei flower. As distinct from the latter, botanically classified as *Prunus mume*, it is termed *Prunus triloba* Lindl.

It is a deciduous member of the rose family. Its broad-elliptic to obovate leaves are often 3-lobed at the apex. They grow alternately and burgeon simultaneously with blossoms. The bush is found in a wild state, among other places, on the sunward slopes of Mt. Baihua in the Beijing's outskirts.

The many varieties may be divided into three main categories by the types of their flowers: some bear single flowers with only one layer of petals, others have semi-double flowers with two layers, and still others bear double flowers with several layers of petals.

The single flowered cultivars (fig. 1), small and lightly colored, are less decorative and rarely seen

CHEN JUNYU is a professor in the Department of Landscape Gardening at the Beijing College of Forestry.

in gardens and parks. But since they blossom long before the other cultivars, some gardeners like to plant a few for an early-spring touch of color.

Common in parks are cultivated types of those with semi-double or double flowers (fig. 2). Their colors range from pale pink (fig. 3), red (fig. 4) and rose (fig. 5) to purplish red, or purplish rose. Most popular are the large, all-double purplish blossoms which have been called "phoenixes among the branches."

The "elm-leaved mei" can withstand cold, dry climate and thrive on the poor and alkaline soil of China's north, where it is largely grown. It likes sunshine, but not heat or excessive moisture. That is why, in southern cities like Hangzhou, Nanjing, Shanghai, Wuhan and Guangzhou, it does not do as well as in the north and northwest.

Genetically, the plant is an octoploid, with four times as many chromosomes as diploids of the same genus such as the peach, apricot and the ordinary plum. Hence its bigger and more colorful flowers, thicker leaves and greater variability and adaptability.

In gardens, these flowers are usually planted in large clumps to display their massed beauty. Sometimes the golden yellow forsythia is used to set off their bril-

liant reds and purples (fig. 6). If conifers such as pines and junipers are planted in the background, their somber majesty throws the colors into strikingly sharp relief.

In Beijing, the blossoms are best viewed in three major parks. In the Summer Palace, they make a striking picture against the blue waters of the lake and the white marble balustrades and vermilion pillars of the palace buildings. In the Purple Bamboo Park, interspersed with golden forsythia, they are one of the spring attractions. Zhongshan Park is another good place to see them.

INDOORS, they are decorative in pots or miniature potted landscapes. The flowering period can be advanced. Two or three weeks before the Spring Festival (which often falls around early or mid-February), growers place the potted plants or sprigs in hothouses warmed to around 15°C and sprinkle water on them every day. After a fortnight or more, when their flower buds swell and show color, they are moved to rooms with a temperature 18°C until some buds begin to open. Then they are chilled to postpone inflorescence and, several days before the Spring Festival, brought to public places and residences.

The "elm-leaved mei" is most often propagated by budding bud-shields onto the mountain wild peach (*Prunus davidiana* Franch.) or its own stock. The survival rate is high if it is budded in summer. It can also be grown from seed. After one or two years the new shoots begin to flower in an endless range of new forms and colors. From these new cultivars with multi-layered petals (all double) can be bred. □

(Continued from p. 44)

fed by every victory but unshaken by setbacks, historical or personal, in the future of the people and of socialism.

Would that she were alive today! What joy and challenge to more and better work she would

have seen in the rapid growth of amicable and equal contacts between the Chinese and U.S. peoples, for which she had so long hoped and striven. How greatly her audience would have multiplied!

Of all these things we thought on the tenth anniversary of Anna

Louise's death, when an impressive memorial meeting was held with Soong Ching Ling attending and Deng Yingchao giving the main message, and newspapers, radio and television all over this vast land recalled to China's millions their old, lion-hearted friend. □

Fig. 1



Fig. 3

Fig. 2



Fig. 4

Fig. 5



Fig. 6



A Young Composer's Ups and Downs

TAN AIQING

Shi Guangnan writing music for a new feature film "The Specter" while his mother looks on. Wu Chuping.



AT the beginning of this year, the Central People's Broadcasting Station and the monthly publication "Songbook" jointly held a music poll for the fifteen most popular songs broadcast in the past three years. Within a period of twenty days only, more than 220,000 letters came pouring in from all over the country. The final results showed that the melodious song "A Toast" won the most votes. This song, which describes the joy of the Chinese people celebrating their victory over the gang of four and their wish for a bright future, was chosen as one of four Chinese songs for popularization among the Asian youth at the 6th Experts' Meeting for Co-production of Educational Material on Asian Music held last October by the Asian Cultural Centre for UNESCO in Manila.

Shi Guangnan, the composer of this song, is a 39-year-old musician of the Central Philharmonic Society and member of the Directorate of the Chinese Musicians' Association. Wearing a pair of thick spectacles for nearsightedness, simply dressed and earnest in manner, this man, often mistaken for a technician, is a prolific writer of music. "White Feather Brings Deep Feelings from Afar", another among the fifteen successful songs

TAN AIQING is a staff reporter for China Reconstructs.



Shi Guangnan at the age of five when he composed the rhymes to "Spring Is Here."

was also written by him. Since his graduation from the Tianjin Conservatory in 1964, he has written nearly 800 songs, music for films and dance dramas, and orchestral and instrumental pieces. His works are characterized by their unusual style and other special features. His numerous songs incorporate the different musical styles of as many as 20 of China's minority nationalities.

Shi Guangnan revealed his musical talents back in his childhood days. At the age of five, just after he entered primary school in Chongqing, he wrote the lyrics to a melody that his teacher had taught him. The song goes:

"Spring is here. Spring is here.. Peach trees bloom, little birds sing. Perched on trees, orioles chirp. Merry are they and so are we." Quite beyond his parents' expectation, it won the second prize in a city-wide competition of paintings and songs by children in their second year at school and under. At the prize-giving ceremony he mounted the rostrum, his hand held by his mother, and was awarded a big wooden horse.

SHI Guangnan's family was not rich. His father was unemployed for many years as a result of persecution by the KMT government for his underground work for the Communist Party. The whole family had to live on the meagre wages his mother earned as a railway clerk. Shi Guangnan was therefore unable to develop his musical skill fully until after the founding of new China in 1949.

After he entered Beijing No. 101 Middle School in 1951, he collected a great number of folk songs. He studied their melodies carefully, and at the same time tried to write songs of his own. Wishing to keep secret the fact that these had been composed by himself, he used pen-names, even foreign ones according to the style of the music, and when he showed these songs to his classmates, he would say that he had copied them from elsewhere. His songs became very popular among his classmates and were printed in the school magazine.



Coaching music lovers in Guilin.

Zhang Yaxin

He kept up this "hide and seek" game with his classmates for six years until his graduation from school.

In the summer of 1956, the Youth Chorus of the Central People's Broadcasting Station gave a concert. The following words on the program sheet caught Shi Guangnan's attention: "Lazy Tunia", Estonian folk song, music and words by Achadulia. He could hardly believe his eyes, for this was one of the very titles that he had "copied" for his classmates. He had to find out if it really was his own song. He managed to buy a spare ticket and get a seat at the concert. Inside the concert hall, he was wild with rapture to hear the song he had written at the age of 12. This inspired him to compose more songs. In fact, he was once caught composing one during a math class and was severely reprimanded.

WHEN he graduated from middle school, Shi Guangnan decided to apply for a place at the Tianjin Conservatory. But he had neither a basic knowledge of harmony nor could he play the piano. However, his mother encouraged him and took him to see a piano teacher. To their disappointment, the teacher said, "All my students are five- or six-year-old children. You're beyond the right age and your

fingers are already stiff." But Shi Guangnan would not be deterred. He said to his mother, "Let's go. I'll learn to play the piano myself." He bought a Bayer piano exercise book and a monthly bus pass. Every afternoon he would travel all the way across Beijing for two hours of piano practice at his friend's. During this time, he composed his first piano piece entitled "The Flowing Water." Later, when he took the conservatory's entrance examination, he played it before the panel of teachers. The examiners detected that the young man had great aptitude for music and rich imagination. They accepted him as an exceptional case but advised that he should first attend a preliminary two-year course at the attached middle school before entering the conservatory proper. Shi Guangnan treasured this opportunity dearly and studied hard. Seven years later at the graduation examination, he gave a remarkable performance of Grieg's Piano Concerto in A minor. His grades for composition, harmony, polyphony, orchestration and analysis of musical compositions were excellent.

"Sometimes setbacks in life provide a deeper understanding of life for an artist. And this is naturally shown in his work," Shi

Guangnan often says. For ten years during the turmoil of 1966 to 1976, his talent was suppressed. Whenever he refers to this unhappy period, he invariably mentions Han Wei, the author of the words of "A Toast". Han Wei is four years younger than Shi Guangnan. They had been schoolmates and then became colleagues in the Tianjin Song and Dance Ensemble. Han Wei, formerly a student of the violin, was very fond of literature, and took up literary work in the ensemble. Unlike Shi Guangnan, Han Wei is lively and talkative. But despite their contrasting characters, both have found each other good collaborators in composition work.

In 1972, Shi Guangnan wrote a lively, fresh melody, featuring the music of the Xinjiang minority nationality. He sent it by mail to Han Wei in Tianjin, asking him to write words for it. Han Wei was impressed by the music. After taking a dip in the Haihe, he sat by the riverside and worked out the words for the new melody: "Singing to the rhythm of my tambourine, I climb o'er mountain slopes upon my horse. . ." He mailed it back to Shi Guangnan on his way home. A month later on National Day, this new song was transmitted nationwide on radio.

AT that time, when all music was suffocated, this warm, lyrical song was just like a fountain in a lake of dead water. It was enthusiastically received, for people hadn't heard such a lyrical song in years. "Singing to the Rhythm of My Tambourine", as it was named, was widely sung and broadcast over the country. But not long after, Yu Huiyong, the Minister of Culture and a follower of the gang of four, denounced it as "decadent, saloon-bar music." Shi Guangnan and Han Wei were subsequently sent to do heavy labour in a small village in Hebei province. However, when the peasants discovered that the two were the composers of their favourite song, they asked to be taught how to sing it, and soon, sounds of cheerful singing were heard throughout the remote village.

The two men next worked with a drilling team at the Dagang Oil Field for a couple of months. Once on their way to work, they had to cross over a long oil pipe erected over a torrential river in order to reach the other side. Han Wei walked over the pipe briskly. Shi Guangnan, following behind, suddenly came to a halt. His legs began to give way at the sight of the roaring water down below. Suddenly he heard two workers who were repairing the pipe, singing, "Singing to the rhythm of my tambourine. . . ." His heart immediately warmed. Their voices seemed to give him strength, and he found himself walking across the pipe with great ease. He said to Han Wei excitedly, "Just now I heard the workers singing our song! That big shot in the Ministry of Culture may be suppressing us, but the workers support us."

Thus, instead of yielding to pressure from above, they collaborated with Jia Zuguang, a famous dancer, in creating a Mongolian lyrical dance, "The Eagle Flies High", after returning to Tianjin. This angered Yu Huiyong all the more. But before he found a chance to launch a new attack upon the two young men, the gang of four was exposed.

The downfall of the gang was a historical turning point that set

the whole nation in high spirits. Families everywhere celebrated this great occasion. In Tianjin, all wine and drink was sold out. After attending a gathering with his friends, where he drank to his heart's content, Han Wei wrote the poem entitled "A Toast". Shi Guangnan, although a teetotaler himself, was very excited when he read the verse. A few days later he set the words to music. Thus the most popular song was born.

A new life of artistic creation began. Shi Guangnan was transferred to a new job in the Central Philharmonic Society. His first successful work here was the composition for the famous poem "Where Are You, Premier Zhou?" Deep in the night on New Year's eve, 1977, Shi Guangnan sat at the piano. His manuscript was stained with his tears. Each note that he wrote down was imbued with his deep emotion for the late Premier Zhou Enlai. Seven days later, on the first anniversary of the Premier's death, the Central Philharmonic Society gave a concert. The chorus sang with unrestrained feelings, touching the heart of every person present.

Shi Guangnan is clearly aware of his heavy responsibility as a musician. He has to produce vigorous songs to inspire the nation, to compose delicate and lyrical songs to depict the life and

sentiments of the people and also to provide them with soft, light music for relaxation after a day of intense work.

Last year he plunged himself into composing new works from dawn till dusk. He was so immersed in his work that his absent-mindedness got him into a few scrapes. Once, while riding a bike, he was thinking about a new melody. At the crossroads, he dashed ahead without noticing the red light. The furious traffic police ran after him, shouting to him to stop. But his mind was far away. Finally, when he was caught, he was fined for violating traffic regulations. Another time, his wife asked him to buy rice. On his way home he lost the whole sack of rice without realizing it, for his mind was again occupied with his new composition. In the "vocal works year" he set for himself, he composed nearly a hundred songs and instrumental pieces. He collaborated with Han Wei in writing songs in praise of the friendship between the Chinese people and the peoples of other countries.

Since the beginning of this year, Shi Guangnan has started a new work plan. He hopes to create music for operas, dance dramas and orchestral works. At present, he is busy composing the music for a feature film named "The Specter".

Shi Guangnan and Han Wei (right) at work. Wu Chuping



A TOAST

Han Wei

*Fragrant the wine, songs fill the air.
Friends, let's drink a toast
To October's unforgettable victory,
The spring thunder that sounded in October.
Our cups are filled with the tears of happiness.
Today we drink the wine of victory,
Tomorrow we will stride to our posts, invigorated.*

*For the four modernizations we will give our all.
When the great plan is realized
Let us meet to toast again.
The Party points the way forward,
Dawn illuminates our land.
Looking toward the beautiful future,
Spring bursts forth in the hearts of all.*

(Music Overleaf)

A Toast

Music by Shi Guangnan
Words by Han Wei

Allegro moderato



Moderato



美酒 飘 香 啊 歌 声 飞,
Měi jiǔ piāo xiāng a gē shēng fēi,



朋友啊 请 你 干 一 杯, 请 你 干 一 杯,
péng yǒu a qǐng nǐ gān yī bēi, qǐng nǐ gān yī bēi,



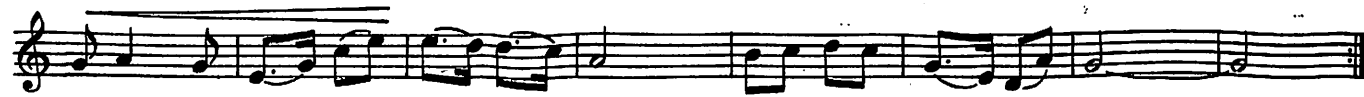
胜 利 的 十 月 永 难 忘, 杯 中 洒 满
shèng lì de shí yuè yǒng nán wàng, bēi zhōng sǎ mǎn



幸 福 泪。 来来来来, 来来来来,
xìng fú lèi. lái lái lái lái, lái lái lái lái,



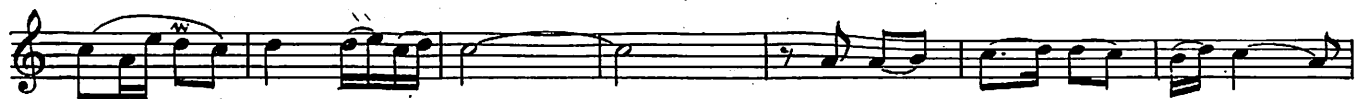
来来来来来来来来来来, 十 月 里, 响 春 雷, 八 亿 神 州 举 金 杯,
lái lái lái lái lái lái lái lái lái lái, shí yuè lì, xiǎng chūn léi, bā yì shén zhōu jǔ jīn bēi,



舒 心 的 酒 啊 浓 又 美, 千 杯 万 盏 也 不 醉。
shū xīn de jiǔ a nóng yòu měi, qiān bēi wàn zhǎn yě bù zuì



今天啊 畅 饮 胜利 酒, 明日啊
 Jīn tiān a chàng yǐn shèng lì jiǔ, míng rì a



上 阵 劲 百 倍, 为 了 四 个 现 代
 shàng zhèn jìn bǎi bèi, wèi liǎo sì gè xiàn dài



化, 愿 洒 热 血 和 汗 水。
 huà, yuàn sǎ rè xuè hé hàn shuǐ.



来来来来, 来来来来, 来来来来来来来来来来, 征 途 上, 战 鼓 擂,
 lái lái lái lái, lái lái lái lái, lái lái lái lái lái lái lái lái lái lái, zhēng tú shàng, zhàn gǔ léi,



条 条 战 线 捷 报 飞, 待 到 理 想 化 宏 图, 咱
 tiáo tiáo zhàn xiàn jié bào fēi, dài dào lǐ xiǎng huà hóng tú, zán



重 摆 美 酒 再 相 会。 来来来来, 来来来来,
 chóng bǎi měi jiǔ zài xiāng huì. lái lái lái lái, lái lái lái lái,



来来来来 来 来来来来, 咱 重 摆 美 酒 啊
 lái lái lái lái lái lái lái lái lái lái, zán chóng bǎi měi jiǔ a



再 相 会。
 zài xiāng huì.

Cycling home from school at the day's end.



About Teaching in China

RUTH and HERB GAMBERG

THE dizzying pace of change in China since the death of Mao Zedong and the official termination of the cultural revolution in 1976 is confusing to many, because it represents a thrust so different from people's earlier understanding of the Chinese revolution. The changes are having repercussions in all spheres of Chinese life, including the educational system. While school routine remains largely the same, and many attitudes of the recent past persist among students and teachers, new tendencies already have begun to appear. We are fortunate to be working at the Beijing Foreign Languages Institute where we can observe both continuities and some of these changes.

Some Contrasts

Our first impressions of the institute when we arrived last August were memorable as striking contrasts with seemingly

RUTH and HERB GAMBERG are teachers at Dalhousie University in Halifax, Canada. Right now they are teachers at the Beijing Foreign Languages Institute.

similar schools at home. In one respect, the institute is like many of ours: it is a total community, or home away from home, not just a place for study. But here the similarity ends, since the communities are so different in organization and operation.

One of the first things we sensed was the intensity and insularity of our institute. Like other schools here, it is a walled campus where students have a program and routine that are much the same for all. Nobody is picking up the odd credit for a degree (there are none); nobody drops in for a course here and there. No student is a mere number—unknown and anonymous.

On admission to the school, each student is assigned to a class with about 15 others on the basis of ability as measured by exams. Like our primary schools at home, students remain in the same classroom throughout the school day, with only the teachers changing for different courses.

The classes themselves become communities within communities not only because students spend several hours a day, six days a

week together in their classrooms. Nor is it simply because they live in the same or nearby dormitory rooms. Rather, each class functions as a unit with its own elected leaders, who are supposed to guide academic, political and recreational activities and watch over and help in the progress of their classmates. This, of course, makes for close-knit groups and cooperation among classmates.

The School Day

Daily routine for our students begins with a simple breakfast, then three or four hours of classes, mostly in English, from 8 until noon. There are ten-minute breaks between classes and a twenty-minute, mid-morning break when the more athletic types descend upon the large playing field in the center of the campus with volleyballs, frisbees and badminton rackets. The edge of the field is lined with others doing exercises to music played over loudspeakers.

At 12 sharp, all activity ceases for lunch. Everyone scurries to cafeterias for simple but large meals of noodles or rice, the ever-

present cabbage in winter, or perhaps another vegetable combined with a few bits of meat. People use their own bowls and spoons which they wash at communal taps and store on shelves near the door. Huge helpings seem to be swallowed whole as everyone rushes back to their rooms to read the newspaper and squeeze in a nap.

Nothing stirs anywhere until activities resume at 2 o'clock. Students have one or two more hours of classes: physical education, political study, or perhaps an elective course. Sometimes there are political meetings. One afternoon a week, students see a film in English. The documentaries are not very popular, but almost every Western feature film—good or bad—is a smashing success. These are highlights that only the most incurable bookworms ever miss.

Late afternoon is free time, usually devoted to study or sports. Supper at 6. Occasionally a speaker in the evening; sometimes a film in Chinese (when the weather is warm, people crowd their stools and benches in front of a huge outdoor screen). But most often it's study until about 10 or 11, and call it a day.

Spartan But Secure

Physically, our school, like virtually all others in China is Spartan. China is self-avowedly a poor country, and even though ours is one of the key language schools in the country, it abundantly

illustrates the point. The stone buildings with cement floors and the single, small, ever-so-slightly warmish radiator in each classroom afford little protection against the cold Beijing winter. Yet, not only do classes continue day after day, but a real warmth is generated in these classrooms. Bundled up in four or five layers of clothes for a two-hour class with a room full of other round, padded, uncomplaining bundles has been a unique educational experience for us.

Perhaps students take this in stride because they realize a university education is a rare opportunity. There are only about 1,020,000 college students in all of China. Also, despite China's relative poverty, students enjoy material security while in school. Almost everything is free, except for food, which costs about 18 to 20 yuan a month (12-14 U.S. dollars), and students who can't afford this can get a government subsidy. No one need worry about next term's tuition or rent.

Students and Teachers

Most of our students, who are nearly all in their early and mid-twenties, are enthusiastic, hard-working and cooperative, qualities which derive from their respect for learning and, among many, some sense of purpose. Rarely do they miss a class, and when they do, they offer apologies and reasons. They seldom daydream in class; generally they come prepared, remain attentive, and are

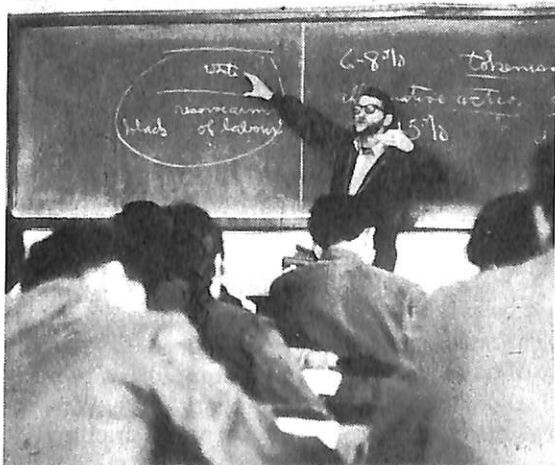
delightfully responsive to even a touch of humor.

Their interest in learning extends beyond the classroom doors. Outside of class, they pry us with thought-provoking questions like: "Why do young people in the United States take drugs?" "Do people in your country really believe in God? How is that possible when they all know so much about science?" "Have you ever heard of Elvis Presley? Why is he so famous?" "Is it true that many old people live alone in the West? Who looks after them?" Many of our students do not know much about the outside world and have exaggerated views of the wonders of Western technology. Once we were asked to settle a debate on how meals are prepared in the United States—by computer or robot!

Students also like to spend leisure time with their teachers. We go on biking picnics together to some of the beautiful parks in and around Beijing. We climb hills and admire the scenery or just wander aimlessly through wooded areas and pavilions, stuff ourselves with food, sing songs and tell jokes. Sometimes our students accompany us as interpreters to plays or films. We also attend their parties, which are much less frequent than student parties at home, but enjoyed perhaps all the more.

Occasionally, there is a dance in the auditorium or the large meeting room in the extensive air-raid

Herb Gamberg lecturing.



English by TV at the Institute.





Authors chat with Chinese colleagues in their office.

tunnel system under the school. It is still under construction, much of the work being done by the students themselves in fulfillment of their physical labor requirement. All students, in rotation, do such work for two weeks a year, a much shorter work stint than used to be required. (Interestingly enough, this underground conference room, temporarily turned dance hall, is the nicest room either on or under the campus.)

These social events are a real break from study. There is no dating in our sense of the word. So these events have very little to do with pairing off or courtship, which generally doesn't begin until the mid-twenties. Then too, courtship is not so frivolous and public a matter as to be conducted at dances or parties.

Cooperativeness and good cheer in their relations with each other, diligence in their study and wholesomeness in their recreation are characteristic of our students — in fact, of student life in post-revolutionary China in general. But we, like many others, detect embryonic symptoms of what could become serious problems in the future.

Possible Problems

Beginning in the late 60s and early 70s all over China (it was

1971 at our school) young people selected to go to university came primarily from the ranks of workers, peasants and soldiers. They were chosen by their workmates, and their revolutionary attitudes were supposed to be a major consideration in the selection process.

That changed in 1977 with the decision that, in the interests of rapid modernization, students should be admitted almost solely on the basis of competitive exams. These naturally favor urban youth, especially children of officials, technicians and intellectuals. Among our own students, for instance, very few have parents who are workers and non parents who are peasants. Admittedly, their English level is generally better than the "worker-peasant-soldier students," the last batch of which will graduate this year. But they seem, on the whole, to have less commitment to collective goals. They know that good jobs, which carry high prestige and maybe even some privileges, await them. This, not unexpectedly, has generated careerist tendencies among some.

Presently, there are only traces of this problem, but they cannot be ignored. The question is: What do they indicate for the future? Many of our students are still

concerned about making a contribution to their country; some see it as their main task in life. One of our students gets up at 5 every morning to study, is always helpful to her classmates, and talks earnestly about seeking more and better ways to serve the people. She is respected and has been elected a leader of her class. However, at the same time, she is looked upon as a bit old-fashioned and naive, not quite "with it."

The new careerist tendency is reinforced by a lack of emphasis on critical thought. Like many of their elders, students all too simplistically attribute China's ills and shortcomings to the gang of four — even problems like bureaucracy and reverence for authority, which have feudal roots and predate the cultural revolution by centuries.

The fault lies partly in their political education, which the students themselves describe as boring, dry and abstract. This, coupled with the country's almost exclusive emphasis on economic development, leads some students to disbelieve anything but the rosiest picture about life in the West. It has prompted some cynicism about China's socialist path.

Our Colleagues

Some of our Chinese colleagues are concerned about these attitudes. Like almost everyone in China, they live frugally. Most earn about 50 to 75 yuan a month (33-50 U.S. dollars), live in one- or two-room flats sharing kitchen and bathroom with neighbors. However, many of them remember the wretched conditions of pre-liberation China. Consequently, they are more patient about China's backwardness than the students, whose historical sense is too limited, making them thirstier for an immediate advance in living standards.

Although few of the teachers have been abroad, most seem to have a more balanced assessment than the students of advanced Western technology and Western culture. They are less inclined to

overestimate the West while debunking all things Chinese. Many see the current rage for the American TV series, "The Man from Atlantis" (along with the sudden appearance of the "cool" young men around town sporting sunglasses like those worn by the hero of the show) as symbolic of a blind romance with the West. Most are rather optimistic, saying that such things are transitory, one of the many "swings" of what they call the "Chinese pendulum."

Our teaching colleagues have a lot of the same good qualities as our students. In fact, many of them are graduates of the school who have stayed on to teach. There is nothing of the publish-or-perish competition that pervades universities at home. Instead, we find ourselves in a pleasantly cooperative atmosphere in which the main concern of most teachers is to be good teachers. And they work hard at it.

The process of providing the most basic reading materials to students often involves the arduous labor, much of which is done by teachers, of typing lessons onto stencils and then running them off. The scarcity of materials was immediately apparent to us when, at the first teachers' meeting, each of us was issued supplies for the term: a small exercise book and a ballpoint pen with an ink tube that often slid out.

Teachers are organized into working groups. We spend much of our time meeting to evaluate how last week's work went, puzzle out how to teach next week's classes, clarify subtle points in the material and debate teaching methods. Many self-criticisms (often stemming from too much modesty) are offered, and even a few gentle criticisms of others. But, while teaching is taken seriously, it is not seen as burdensome or distasteful, so our meetings are punctuated with good-natured bantering and joking. Although we don't always agree with the teaching methods at the school, we feel free to speak our minds.

Warmth and Candor

As with students, life for teachers is not all work. One of our most enjoyable experiences was a *jiaozi* (dumpling) party our colleagues threw at Christmas. Since no one's home is large enough for a party, it was decided to have this event in our office at school. Being what are called "foreign experts," we are treated far too lavishly in our view, so we have an unnecessarily large office with rugs and sofas. The teachers brought a cooking stove, utensils, pots, food and drink, and for several hours we cooked and ate. After the feast, we sang, did a bit of dancing, told jokes and played games around the pot-bellied coal stove which keeps our office warmer than most.

These teachers, serious intellectuals in their own right, convey little of the stuffiness or pretentiousness so common among academics in the West. A party is not a time to compete and display one's brilliance. Perhaps that is why so little alcohol is consumed on these occasions and people simply relax and appreciate each other's company. Perhaps that is why a middle-aged member of the

faculty's Communist Party Committee did not feel it beneath his dignity to dress up in the Santa Claus outfit that we borrowed from an embassy and appear at the students' New Year's dance flinging handfuls of candy in all directions and shouting "Ho, ho, ho" to the screaming delight of the students, who had never seen a Santa Claus before.

A few foreign teachers have told us that the relationships at their schools are not as warm and friendly. But on the whole, our experiences seem to be quite common.

We will be sad when the time comes to leave our new friends. Students who want to learn, teachers who like to teach, an atmosphere of warmth and candor — these are precious things. Is it possible that they will change with time? Many of our fellow teachers think that the current manifestations of cynicism and careerism are temporary. We hope that they are right, that the school will not gradually begin to produce specialists who lack revolutionary goals, bureaucrats who have forgotten their roots among the people. □

Ruth Gamberg with students on playground during recess.

Photos by Wu Chuping



Exploring a Hitherto Unsurveyed Gorge

ZU YUTING and GUAN ZHIHUA

NOT many people know that the Yarlung Zangbo which flows through southern Tibet and finally empties into the Indian Ocean as the Brahmaputra is the highest river in the world. And even fewer people know anything about the 37-kilometer Sangri-Gyaca Gorge in its middle reaches. The only human beings known to have penetrated into this gorge before us were a few intrepid local hunters. Nothing was known about this gorge except that it was supposed to have several spectacular waterfalls and to abound in wildlife. So when the Qinghai-Tibet Plateau Scientific Expedition under the Chinese Academy of Sciences sent a team of scientists, which included hydrologists, geologists, surveyors and photographers, into that area to study the gorge, we were very excited and happy to be included. Our task was to look at the gorge from the angle of later use as a hydroelectric power site.

Getting into the Gorge

In lovely summer weather our team left Lhasa by truck for Zetang in the mountains in the southern part of Tibet. From aerial

photos and according to what maps we had, we identified a couple of waterfalls in the gorge which make it apparently impossible to get into the gorge following the river downstream. Whether it could in fact be done was what we had to find out.

At Oiga commune the highway ended and our real work began. The guides the commune provided us pointed to a snow-capped mountain away to the north, intermittently visible through the clouds, and said that we first had to get over it to Lebujiao and then make our way into the gorge. There was no other way into the gorge, they declared.

Maybe, but we had to prove it for ourselves. Moreover, we were here to study the hydrological, geological and other conditions of this gorge.

We crossed the Yarlung Zangbo in ox-skin rafts and then, on foot along the precipitous path skirting the south bank, we reached the entrance to the gorge, 3,550 meters above sea level. After making the steep descent to the river before that point we trekked downstream for an hour and then, three kilometers inside, ran into an im-

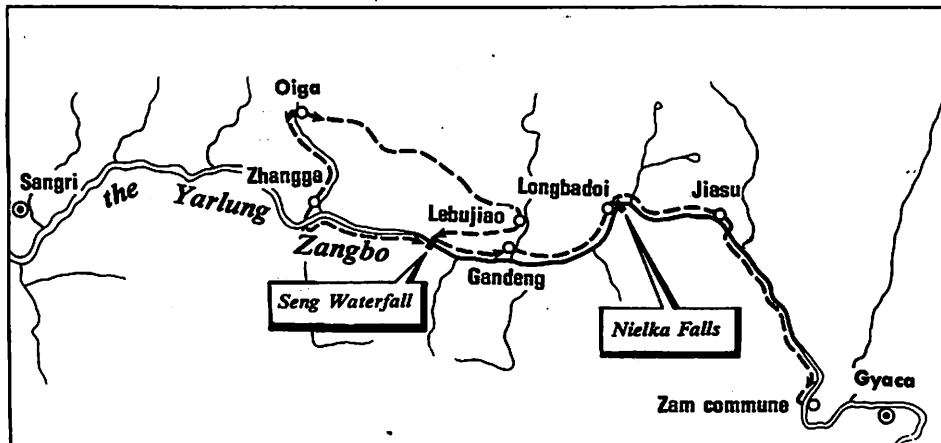
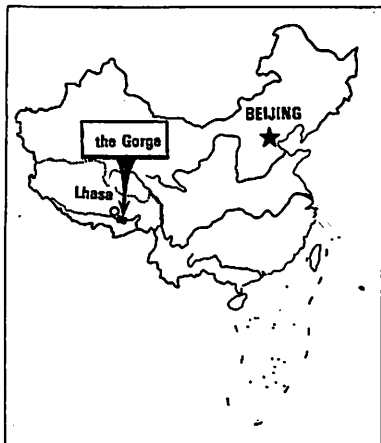
passable wall of stone. There was no way over it or around it. The gorge walls rose straight out of the churning river. We took readings and did some surveying and began to retrace our steps. The guides were right. There was no way of getting further in by following the river.

Later, on another clear morning, we left Oiga commune by horseback for Lebujiao, going over the Odegongshi range through the Qienala pass. At the pass 5,000 meters above sea level we ran into a blinding blizzard. This was not unusual, for the weather on the plateau is notoriously fickle. The wind, the driving snow and the rarefied air made things very difficult. Many of us felt dizzy or sick. Our lips cracked and we had to fight to breathe. Even our sturdy mounts used to the high altitude and climate were unhappy and restive. Some of them neighed and pranced about and showed fright, throwing their riders. We finally fought through the blizzard and over the pass and thankfully began our descent. The wind fell as we moved down and the snow grew lighter. Suddenly the sky cleared and the world was

Surveying the Nielka Falls.



Photos by Zu Yuting



bathed in light again. The reflection from the snow-covered slopes hurt our eyes but the deep green of the trees below was like balm.

We got to Lebujiao 3,800 meters above sea level as night fell. This tiny hamlet of six households stands astride the only path leading down into the gorge. When we were pitching our tents and getting ready to cook supper, an old Tibetan came up to us with 20 fish he had just caught from the river. We bought them and made an excellent dinner.

Seng Waterfall

The next day, after ten tiring hours over very difficult terrain, we arrived at the edge of the gorge. The last two kilometers had been along sheer cliffs, along paths that would make even a goat hesitate. But the view we got of the gorge from where we stood was superb. The river below looked like a smooth silk ribbon. About half way along it was lost in a cloud of vapor—the mist rising from the Seng Waterfall—about two kilometers or down. We began our descent. The slope fell away from our feet at an angle of some 70 degrees. In some places we crawled forward on hands and feet, sometimes holding on to the long nylon ropes fastened to pitons nailed into the rock by the soldiers accompanying us. The Tibetan members of our team unselfishly loaded themselves with our bags and cameras and instruments so that we would have less trouble manoeuvring down the slope.

By dark we were down to the waterfall, seen but never visited by man before. As there was room only for two tiny alpine tents the rest of us slept out in the open in any available space between the cliff and the river.

On the Floor of the Gorge

The next morning the scientists began taking hydrographical readings, photographs and measurements and collecting rock samples. We found that the Seng Waterfall is 65 meters wide and comes down in two streams 4.6 and 4.2 meters high, divided by a huge rock in the middle 33 meters wide. This is the biggest sudden drop in the Yarlung Zangbo. There are six minor falls just above and below this, each a little over a meter.

Upon completing our work we set off downstream to locate the next big fall, the Nielka Falls. The narrow gorge, in some places, was no wider than 30 meters. We had to pick our steps carefully for there was no path to follow. Sometimes we hugged the cliff, inching along, with the river rushing past on one side at terrifying speed. Sometimes we had to scramble over fallen tree trunks with the agility of monkeys. Then when the river widened a little we came back down to its bed and made our way over colluvial deposits and smooth slope washes, leaping from one slippery moss-covered boulder to the next. It was hot and tiring work and at about six in the evening, after three kilometers of this boulder-hopping we arrived totally exhausted at Gandeng, a

wooded mountain slope where no one lived but hunters frequently camped. It was a tremendous relief to get out of that hot, humid passage and its seemingly endless slippery boulders.

The next day we tried to follow the river further to the Nielka Falls, but were forced to give up when we could not find a passage. Luckily our guides knew of a path to Longbadoi, a village near the waterfall, which could thus be reached. One of our guides set off to ask the villagers there to have horses ready for us. We followed a little behind.

A Village of Eight Households

After a three-hour climb we found ourselves among the hospitable Tibetan people of Longbadoi, a production brigade of the Oiga People's Commune in Sangri county. They lived in houses of stone nestling under the cliffs or caves above the reach of the river. On a broad strip of terraced land by the river outside the village, they grew flourishing crops of *qingke* barley and winter wheat, and turnips and rape. The Tibetans here are fairer than those on the highland, probably due to the more clement climate. Most are farmers, but some are also hunters, venturing into the gorge to shoot game and to collect medicinal herbs. We were told that they took the animal skins and furs and medicinal herbs and eggs in spring and autumn downriver to sell to the state purchasing



The Mouth of the Sangri-Gyaca Gorge.

center and, with the money, buy salt and other necessities to bring back. At other seasons the passage is made impassable by floods and snow.

In one hunter's hut we saw a complete skeleton of a leopard, otter skins, musk sacs and bear's paws hung up to dry in the sun. Bear's paws are considered a rare and very delicious dish in other parts of China.

Longbadoi used to be called "Dagu" in Tibetan, which means "Wild Men." But we found nothing wild about the people or the place. The villagers were warm-hearted and generous. They had a small primary school, which was not bad for a village with only eight households.

The Nielka Falls

Nielka Falls, only a kilometer away from Longbadoi, is much grander than the Seng Waterfall

further upriver. The river here tumbles 5.3 meters at a thousand cubic meters per second. Two long cascades send so much spray flying high into the air in all directions that our scientists had to set up their instruments on a big rock a little upwind. In the middle of the waterfall is a huge rock 33 meters wide, which splits the waterfall into two, one 11 meters wide and the other 30 meters wide, before joining at the bottom to form a river 55 meters wide.

Nielka means "fish mouths" in Tibetan and probably got its name because of many fish which leap out of the water as they fight their way upstream at this point. It is quite easy for the local people to catch them with a simple hand net, and we saw some drying in the hot summer sun.

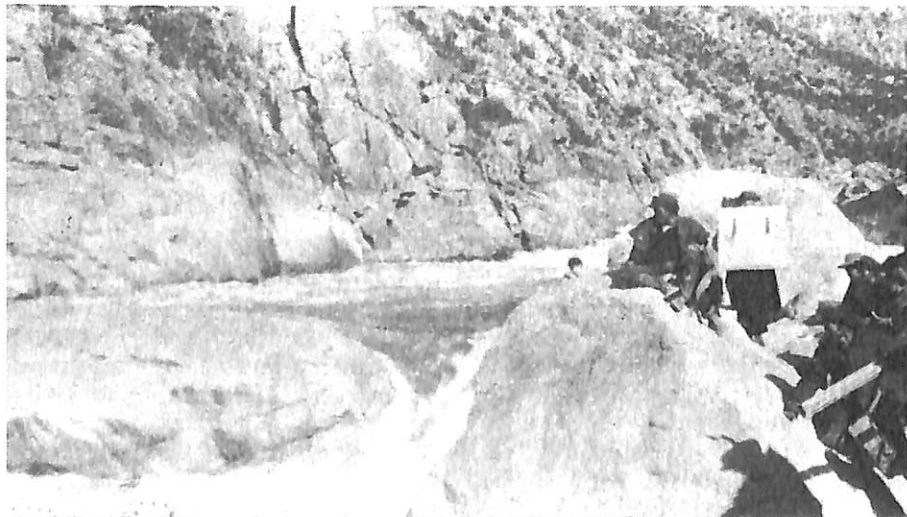
Conclusions on the Gorge

After ten days our scientists had obtained all the data and information they wanted about the waterfalls and the geology and hydrology of this part of the river. The material collected will be used to help draw up plans for harnessing the hydropower of the Yarlung Zangbo.

The Sangri-Gyaca Gorge was formed by a strong crustal uplift and the persistent cutting and eroding action of water. It bears all the characteristics of a young mountain river valley, with steep side walls topped by jagged peaks, many some 5,000 to 6,000 meters above sea level. The depth of the gorge is some 2,000 meters and this accounts for the sharp vertical changes in its natural landscape. Such conditions favor a great diversity of wildlife and flora. On the slopes of the perennial snow-capped mountains we saw fields of azaleas, and forests of birch and poplar. There is also a wealth of valuable medicinal herbs such as the fritillary and caterpillar fungus. Wildlife include leopards, bears, river deers, antelopes, otters and monkeys.

Water, however, is the biggest asset here. This stretch of water has a drop of 270 meters along its length of 37 kilometers and its mean annual velocity is 1,000 cubic meters per second. The banks are solid granite walls, forming the sides of a sharp V in a cross-section of the river. The bottom of the valley is less than 100 meters wide and the river surface is only 50 meters wide. These favor hydropower development. □

Members of the survey team overlook Seng Waterfall.



The Yuan Dynasty

2-Social Contradictions Lead to Fall

JIAO JIAN

THE Yuan rulers and the landlords of various nationalities, in close collusion, oppressed the people of all nationalities in China. The class contradiction between the landlords and peasants was the chief contradiction in Yuan society.

The Yuan rulers imposed very heavy taxes on the peasants. They would go so far as to levy a tax in lieu of corvée, and after collecting it, still insist that the peasants perform the corvée labor. Some aristocrats, officials, landlords and monasteries had holdings so vast that "a crow could not fly across the estate." In Henan province alone, the minister Boyan held over 33,000 hectares awarded him by the emperor. The landlords were forever increasing rents and exacting more corvée from the tenants and their offspring. Some even sold the tenants along with the land as in the *adscriptus glebae* of European feudalism.

The Mongol aristocrats and officials also had at their disposal large numbers of people captured in war. These they treated as their private property, forcing them to do their farm work, perform corvée and pay tribute. They even sold them like cattle.

Official "Crafts Bureaus" were set up by the Yuan government across the land. In these, they gathered together a million artisans and forced them to work. Such persons were separately registered as belonging to "artisan households." They had to labor day and night but received only a little food for their toil. They were frequently beaten. The children of such households were not allowed to change their trades, or break away from control by the crafts bureaus.

The Yuan rulers' policy toward nationalities was oppressive. They divided the population into four categories. The highest were the Mongols; then came the *semu*, colored-eyed people of the Western Regions and the Western Xia; third came the "Hans", a term then used to include the Qidans, Nüzhen and the Hans of the north; and the lowest were the "southerners" who included both Hans and people of other nationalities south of the Changjiang (Yangtze) valley. Han landlords held high offices and owned much land, while poor Mongols could live in destitution and even be enslaved.

Red Turban Uprising

Cruel oppression by the Yuan government provoked strong resistance by the people. Peasant leaders Han Shantong, Liu Futong and others mo-

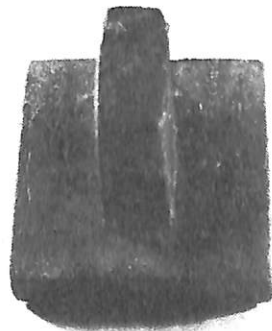
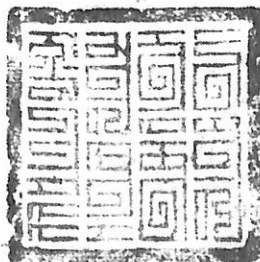
bilized the peasants round the Huaihe River and the lower reaches of the Huanghe (Yellow) River and prepared the ground for a mass revolt. In 1351, Emperor Shun Di (1320-1370) ordered 20,000 troops and 150,000 peasants from Henan and Hebei to work on a Huanghe River control project. The peasants' life had been hard enough before. To be forced to go to the worksites, be kept short of food and be driven by whips seared their hearts with rage.

Han and Liu, in stepping up their agitation, had carved a statue of a one-eyed man out of stone and buried it in the river at Huanglinggang (northeast of present-day Lankao in Henan province), and spread word that "A man of stone with just one eye is stirring all the Huanghe to revolt." This helped mobilize the people for the overthrow of the cruel regime. Local officials, however, discovered the stratagem and arrested and executed Han. This left the leadership to Liu, who formally proclaimed the uprising at Yingzhou (present-day Fuyang in Anhui). The insurgent forces rapidly took the areas around Yingzhou and spread to the southern part of Henan. They carried red banners and wore red turbans, from which their army came to be called the "Red Turbans." Their ranks swelled to more than 100,000.

Many other peasants rose in arms in response. Xu Shouhui and Guo Zixing led rebellions in Anhui. Their followers were also called "Red Turbans."

Red Turban forces won many battles against the Yuan troops. In 1355 Liu Futong set up a peasant government in Bozhou (present-day Boxian county in Anhui). It proclaimed a new "Song" dynasty and

A Yuan-period official seal unearthed in 1977 at Acheng county, Heilongjiang province. Its characters on the left read, "Seal of Daluhuaachi, official in charge of the affairs of the Shuidada nationality households." This shows that the territory along the Songhua, the middle and lower Heilong and the Wusuli rivers inhabited by the hunting and fishing Shuidada people was then under the control of the Yuan government.



Fall of the Yuan Dynasty

crowned Han Shantong's son Han Lin'er as "Junior King of Light" (Xiao Ming Wang). The next year the rebel forces divided into several routes and won many victories. In 1357 Liu sent out three columns to fight their way north. The western column penetrated into Shaanxi, Gansu, Ningxia and Sichuan provinces. The eastern column pushed through Shandong and Hebei and closed in on Dadu the capital. The central column entered Inner Mongolia by way of Shanxi, burned down the palace at the Yuan secondary capital Shangdu (on the northwest of present-day Duolun in Inner Mongolia) and went on to eastern Liaoning. Liu was in personal command of the forces which fought round Anhui and Henan and took present-day Kaifeng in the latter province, which he made his capital. At the same time the rebel forces of the south took much of the area in the middle and lower reaches of the Changjiang (Yangtze). Their ranks swelled to a million.

The peasant rebel forces destroyed the local offices of the government, killed officials and landlords, abolished rent, taxes and corvée, and opened the granaries to the poor. Many poor peasants took back the fields from the landlords. A great many serfs, slaves and members of artisan households regained personal freedom.

The Yuan rulers, finding their army incapable of stemming the rising tide of rebellion, gave official titles to the leaders of militias organized by the landlords, and asked them to join in attacking the peasant forces. They also used offers of rewards and high positions to sow dissension among the latter. Lacking a unified leadership, the peasant revolts were defeated one by one by the enemy. After suffering many reverses, Liu Futong in 1363 was besieged in Anfeng (present-day Shouxian county in Anhui) and lost his life. The Red Turbans under his command had fought hundreds of battles, large and small, over a period of some twelve years.

The Red Turbans under Liu Futong capturing Bianliang (present-day Kaifeng, Henan province).



In 1352, the year after Liu Futong rose against the dynasty, Zhu Yuanzhang, who came from a peasant family, joined a Red Turban force under Guo Zixing. When Guo died Zhu took over the leadership of the army, submitting to Han Lin'er, the "Junior King of Light."

Zhu Yuanzhang led his men across the Changjiang River, and in 1356 took Jiqing (present-day Nanjing), and set up his government in this city which he renamed Yingtianfu (Capital in Response to Heaven). At that time, most of the Yuan army and landlord forces had already suffered serious defeat at the hands of the Red Turbans under Liu.

Zhu took advantage of this situation to develop his own power. He made intellectuals from the landlord class his advisers and gave them official posts. Following the advice of the Confucian scholar Zhu Sheng, to "Build high walls, store abundant grain and postpone assuming the kingship," he vigorously promoted agricultural production and built up his army. After seven years of fighting, he gained control of the lower and middle reaches of the Changjiang.

As he extended his power and became influenced by landlord ideology, Zhu was gradually corrupted into an instrument of landlord-class interests. He sent out proclamations that denounced the Red Turbans as "demons," and promised to "restore the land and property" to the original owners. He also had the "Junior King of Light" assassinated.

Then, in 1367, Zhu Yuanzhang sent an army to seize north China, and announced his aim of "restoring the dignity of the Han officialdom," i.e. the feudal rule of the Han landlord class. In 1368, Zhu established the Ming dynasty and made himself emperor in Yingtian. In that year his army took Dadu and ended the Yuan rule. Zhu's reign, the first of the Ming period, lasted from 1368 to 1398. □

A Yuan-period indenture by which a peasant sold himself to a rich master.



Lesson 18

The Changjiang Bridge at Nanjing

(加拿大访华旅游团 部分)

(Jiānádà fǎng Huá lǚyóutuán bùfen)

(Canada visit China tourist group (a) portion)

成员 来到 江南 岸 长江 大桥
chéngyuán lái dào jiāng nán àn Chángjiāng dàqiáo

members come to river south bank Changjiang big bridge

桥头)
qiáotóu)

王: 这是 桥头 公园。从 这里

Wáng: Zhè shì Qiáotóu Gōngyuán. Cóng zhèlǐ

Wang: This is Bridgehead Park. From here

可以 看到 大桥 的 全貌。

kěyǐ kàndào dàqiáo de quánmào.

can see big bridge's whole view.

史密斯: 好 一 座 雄伟 的 大桥!

Shímǐsī: Hǎo yí zuò xióngwēi de dàqiáo!

Smith: What a magnificent big bridge!

王: 这是 我国 工程 技术

Wáng: Zhè shì wǒ guó gōngchéng jìshù

Wang: This is our country engineering (and) technical

人员 和 工人 自己 设计 和

rényuán hé gōngrén zìjǐ shèjì hé

personnel and workers themselves designed and

建造的。它 分 上 下

jiànzhào de. Tā fēn shàng xià

built. It (is) divided upper (and) lower

两层, 上层 是 公路桥,

liǎng céng, shàngcéng shì gōnglùqiáo,

two levels, upper level is highway bridge,

下层 是 铁路桥。

xiàcéng shì tiělùqiáo.

lower level is railroad bridge.

勃朗: 江 中 的 九 个 桥墩 真 大 啊!

Bólang: Jiāngzhōng de jiǔ ge qiáodūn zhēn dà a!

Brown: River center nine piers really big!

王: 这里 是 长江 下游, 江面

Wáng: Zhèlǐ shì Chángjiāng xiàyóu, jiāngmiàn

Wang: Here is Changjiang lower reach, river surface

宽, 水深 流急, 修 这座

kuān, shuǐ shēn liú jí, xiū zhè zuò

wide, water deep flow rapid, (to) build this

大桥 很 不容易。解放前

dàqiáo hěn bù róngyì. Jiěfàngqián

big bridge very not easy. Liberation before

曾 有 人 计划 过 在 南京 修

céng yǒu rén jìhuàguo zài Nánjīng xiū

once have people planned at Nanjing build

铁桥, 但 都 没有 成功。

tiěqiáo, dàn dōu méi yǒu chénggōng.

iron bridge, but all not have success.

史密斯: 这 座 桥 是 哪 年 修 的?

Shímǐsī: Zhè zuò qiáo shì nǎ nián xiū de?

Smith: This bridge is which year built?

王: 一 九 六 〇 年 开 始 修 建,

Wáng: Yī jiǔ liù líng nián kāishǐ xiūjiàn,

Wang: 1960 year started building.

一 九 六 八 年 比 原

yī jiǔ liù bā nián bǐ yuán

1968 year compare original

计划 提前 半 年 全 部 建 成

jìhuà tíqián bàn nián quánbù jiànchéng

plan ahead half year all completed (and)

通 车。

tōng chē.

open to traffic.

玛利: 可 以 到 桥 上 去 看 看 吗?

Mǎlì: Kěyǐ dào qiáoshàng qu kànkàn ma?

Marie: Can (we) to bridge on go (and) take a look?

王: 可 以, 桥 头 堡 里 有 电 梯。

Wáng: Kěyǐ, qiáotóubǎoli yǒu diàntī.

Wang: Can, bridge tower inside has elevator.

(大 家 来 到 铁 路 桥 上)

(Dàjiā lái dào tiělùqiáoshàng)

(Everybody come to railroad bridge on)

王: 铁 路 桥 全 长 六 千 七 百 多

Wáng: Tiělùqiáo quáncháng liùqiān qībǎi duō

Wang: Railroad bridge total length 6,700 more

米, 铺 的 是 双 轨,

mǐ, pū de shì shuāngguǐ,

meters, (what is) laid is double track,

来 往 的 列 车 可 以 同 时

láiwǎng de lièchē kěyǐ tóngshí

coming (and) going trains may same time

对 开。

duì kāi.

from opposite sides run.

勃朗: 建 桥 以 前, 火 车 怎 样 过 江?

Bólang: Jiàn qiáo yǐqián, huǒchē zěnyàng guò jiāng?

Brown: Building bridge before, trains how cross river?

王: 靠 轮 渡, 很 慢, 一 列 火 车

Wáng: Kào lúndù, hěn màn, yí liè huǒchē

Wang: Depend on ferry, very slow, a string train

要 一 个 多 小 时 才 能

yào yí ge duō xiǎoshí cái néng

need one more hour only (then) can

过完。

guòwán.
pass finish.

(来到 公路桥上)

(Láidào gōnglùqiáoshàng)
(Come to highway bridge on)

王: 这桥面上四辆大卡车

Wáng: Zhè qiáomiàn shàng sì liàng dà kǎchē

Wang: The bridge surface on four big trucks

可以 并行。

kěyǐ bìngxíng.
can side by side go.

勃朗: 公路两边还有人行道。

Bólǎng: Gōnglù liǎng biān hái yǒu rénxíngdào.

Brown: Highway both sides also have sidewalks.

咱们往前走一走吧。

Zánmen wǎng qián zǒuyí zǒu ba.
(Let) us toward forward walk.

王: 每当夜晚, 桥上灯火

Wáng: Měi dāng yèwǎn, qiáoshàng dēnghuǒ

Wang: Every at night, bridge on lamplights

齐 明, 就像 天上的

qí míng, jiù xiàng tiānshàng de
simultaneously bright, just like sky on

银河 落在 长江上。

yínhé luòzài Chángjiāngshàng.
Milky Way fall at Changjiang on.

史密斯: 站在大桥上, 可以清楚地

Shímǐsī: Zhànzài dàqiáoshàng, kěyǐ qīngchū de

Smith: Standing at big bridge on (one) can clearly

看到 长江两岸的风光。

kàndào Chángjiāng liǎng àn de fēngguāng.
see Changjiang two banks scenery.

玛利: 这里的景色真美!

Mǎlì: Zhèlǐ de jǐngsè zhēn měi!

Marie: Here scenery (is) really beautiful!

Translation

(Some members of the Canadian China tour group arrive at the head of the Changjiang bridge on the south bank.)

Wang: This is Bridgehead Park. From here one can view the entire bridge.

Smith: What a magnificent bridge!

Wang: It was designed and built by Chinese engineers and workers themselves. It has two decks, the upper one is a highway bridge and the lower one a railway bridge.

Brown: Those nine piers in the river are really huge!

Wang: Here in its lower reaches the river is wide, the water deep and the current swift. It was not easy to build this bridge. Before liberation there were some who planned to build an iron bridge in Nanjing but none succeeded.

Smith: What year was this bridge built?

Wang: Construction was started in 1960 and it was completed and opened to traffic in 1968 half a year ahead of schedule.

Marie: Can we go on the bridge and take a look?

Wang: Yes. There is an elevator in the bridge tower. (They arrive at the railway bridge)

Wang: The bridge is over 6,700 meters long. The double track enables trains to pass on it.

Brown: How did trains cross the river before the bridge was built?

Wang: They depended on a ferry. It was slow. A train needed more than an hour to cross.

(They arrive on the highway bridge)

Wang: Four big trucks can drive side by side on the bridge.

Brown: There are also sidewalks on both sides of the highway. Let's walk ahead.

Wang: At night when all the lamps on the bridge are lit, it looks as if the Milky Way had fallen from the sky onto the river.

Smith: Standing on the bridge one can see clearly the scenery on both banks.

Marie: The scenery here is really beautiful!

Notes

1. Use **bǐ** 比 to compare two things.

When we want to compare two things, the pattern is: A **bǐ** B plus modifier. For instance,

Tā gēge **bǐ** tā gāo 他哥哥比他高 (His elder brother is taller than he is).

Huǒchē guò qiáo, cóngqián **bǐ** xiànzài màn 火车过桥, 从前比现在慢 (Trains crossed the bridge formerly more slowly than now).

Tā **bǐ** wǒ gèng xǐhuan zhè ge chéngshì 他比我更喜欢这个城市 (He likes this city better than I).

Xiūjiàn Chángjiāng dàqiáo, **bǐ** yuán jìhuà tíqián bàn nián quánbù jiànchéng 修建长江大桥, 比原计划提前半年全部建成 (Construction of the Changjiang bridge was completed half a year ahead of the original plan).

If the difference is slight, we can use **yídiǎn** 一点 or **yíxiē** 一些 (a bit) to qualify the modifier.

Zhè zuò qiáo **bǐ** nà zuò qiáo cháng yídiǎn 这座桥比那座桥长一点 (This bridge is a little longer than the other one).

Tā de zhàoxiàngjī **bǐ** wǒ de hǎo yíxiē 他的照相机比我的好一些。 (His camera is a little better than mine).

In the negative form, **bù** 不 is placed before **bǐ**.

Zhè duì yùzhuó **bù** **bǐ** nà duì hǎo 这对玉镯不比那对好 (This pair of jade bracelets is no better than that pair).

Tā **bù** **bǐ** wǒ gāo 她不比我还高 (She is not taller than I am).

2. **Bàn** 半 (half).

bàn tiān 半天 (half a day); bàn nián 半年 (half a year);

bàn jīn táng 半斤糖 (half a jin of sugar);

yìjīn bàn táng 一斤半糖 (one and a half jin of sugar);

liǎng ge bàn yuè 两个半月 (two and a half months).

When there is no quantity, we use **yí bàn** 一半.

Examples: Zhè zhī qiānbǐ yíbàn shì hóng de, yíbàn shì lán de 这只铅笔一半是红的, 一半是兰的 (This pencil is half red and half blue).

Wǒ bǎ táng fēngěi tā yíbàn 我把糖分给他一半 (I gave half of the sugar to him).

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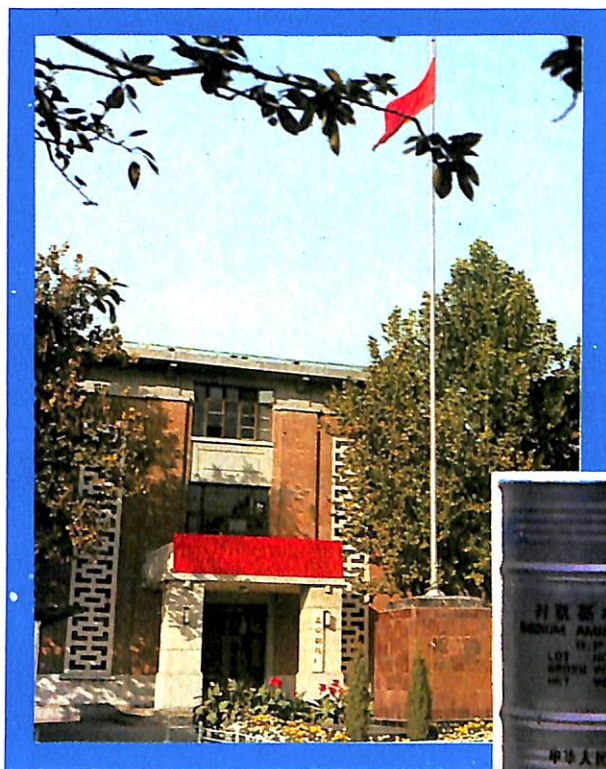
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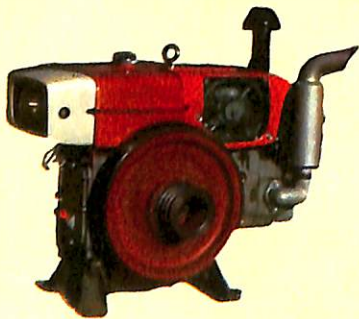
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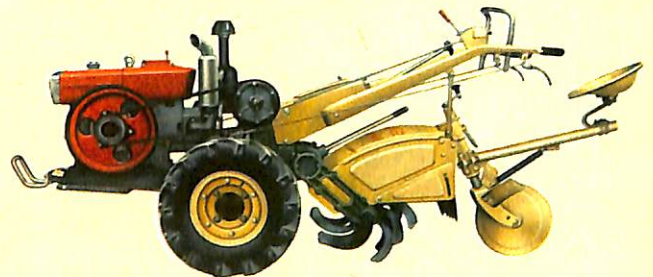
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