

China

Shanghai and
the 'Gang of Four'

Reconstructs

VOL. XXVI NO. 11

NOVEMBER 1977





China Reconstructs

VOL. XXVI NO. 11

NOVEMBER 1977

PUBLISHED MONTHLY IN ENGLISH, FRENCH, SPANISH,
ARABIC AND RUSSIAN BY THE CHINA WELFARE
INSTITUTE (SOONG CHING LING, CHAIRMAN)



CONTENTS

Shanghai and the 'Gang of Four'	2
Shanghai Under the Shadow	
The People Against the Gang	
After the Four Were Out	
Ho Lung's Days with the Red Army <i>Wu Han-wen</i>	12
Chengchow: City on the Central Plain <i>Chai Pao-yi</i>	16
<i>Sports</i> : Peking International Football Tournament	22
'Home Ward' for Fracture Patients	26
<i>Cultural Notes</i> : The Opera 'Sister Chiang'	28
Prospecting Underground Resources <i>Pien Hui</i>	32
China's Eight-Point Charter for Agriculture (4): Better Seed Strains	36
A Model for Mechanizing Fishing	39
How a Commune Builds Factories <i>Chi Yeh-cheng</i>	41
Tibet's Geysers <i>Chang Ming-tao</i>	44
<i>Stamps of New China</i> : Commemoratives on the Inner Mongolia Autonomous Region	46
<i>Language Corner</i> :	47
Lesson 9: First Day at Kindergarten	
For Advanced Students: Lukouchiao	

COVER PICTURES:

Front: Large-caliber corrugated tubing produced by the Shanghai Special-Section Steel Tubing Plant, first of its kind made in China.

Back: A children's race in a herding community of the Yuku nationality in Kansu province.

Inside front: Technicians and workers at the Shanghai Hsinyueh Instrument Factory at work on the cooling device for an infra-red detector.

Inside back: Ski training at the Yuchuan Spare-time Sports School in Heilungkiang province.

Editorial Office: Wai Wen Building, Peking (37), China. Cable: "CHIRECON" Peking. **General Distributor:** GUOZI SHUDIAN, P.O. Box 399, Peking, China.

Shanghai and the 'Gang

The anti-Party clique of Wang Hung-wen, Chang Chun-chiao, Chiang Ching and Yao Wen-yuan spent years extending and consolidating their control over Shanghai, China's biggest industrial city with a population of 10 million, building up a base for eventual seizure of supreme Communist Party and state power. The stories below describe their rise and fall in this city and the changes since their fall.

Shanghai Under the Shadow

AS EARLY AS the 1930s, two members of the "gang of four", Chiang Ching and Chang Chun-chiao, carried on counter-revolutionary activities in Shanghai. In October 1934 Chiang Ching was arrested by Kuomintang special agents in Shanghai. She made a confession, turned renegade and was soon released. After that she maintained very close relations with Kuomintang agents and appeared in reactionary dramas and films.

Chang Chun-chiao was already a Kuomintang special agent when he arrived in Shanghai in May 1935. Following instructions from the Kuomintang secret service, he took part in activities supporting Chiang Kai-shek against the Communist Party and wrote articles attacking the great revolutionary writer Lu Hsun.

Later both Chiang Ching and Chang Chun-chiao, by covering up this part of their past and pretending to be "Leftists", got themselves into the Communist Party.

Leftists or Rightists?

When the cultural revolution began in 1966 Chiang Ching and Chang Chun-chiao saw it as their chance to seize power. Posing as "Leftists", they rose to prominence and enlisted Wang Hung-wen and Yao Wen-yuan. The former, who had become head of a workers' rev-

olutionary rebel organization, was eventually to show himself up as an ambitious careerist and opportunist and to become a newborn bourgeois element; the latter, a literary critic, would finally be found to be an alien class element.

In January 1967 in a movement that became known as the "January storm" the people of Shanghai overthrew the proponents of Liu Shao-chi's revisionist line. The movement had Chairman Mao's firm backing and a new provisional organ of revolutionary power was about to be born in Shanghai. Chang Chun-chiao and Yao Wen-yuan seized on this chance to gain control over the city. Distorting what Chairman Mao had stated as the task of the cultural revolution, Chang and Yao spread the idea that the revolutionaries should "suspect everything" and "overthrow the whole lot of leaders". Chang declared, "The purpose of the cultural revolution is to smash the old machine . . . to change the dynasty." Chiang Ching said in a speech in Peking, "All chiefs and heads must go." Wang, Chang and Yao, eulogizing one another, promoted themselves as "having rendered meritorious service to the cultural revolution" and as "leaders of the January storm" and got themselves appointed to top Party and government posts in Shanghai.

Their next step was to consolidate their control over the city organizationally, ideologically and

politically. With the metropolis firmly in their hands they would use it in their plan to create disorder in the rest of the country in preparation for seizing supreme power.

In appointing people to leading positions, the "gang of four" did not choose them for their political worth and work ability as Chairman Mao had always urged. Instead, they offered new criteria: appointees should be "those whom the leaders know well" and who "had emotional attachment to them". They wanted only this kind, the kind that would be faithful to *them* till death. Thus they built up their own machine in Shanghai.

Wang Hung-wen's cronies, opportunist hoodlums who like him posed as rebels, were admitted into the Party and then placed in leading posts in many important departments. The main criterion for those given posts controlling the media and the cultural and arts organizations was their willingness to sing the praises of the gang, and these persons performed this task energetically. Hoping to receive a share of the spoils, a few of the veteran cadres also went along with the gang, became their confidants and were trusted with important posts.

Although Chairman Mao had said that "we must be confident that over 90 percent of the cadres

of Four'

China Reconstructs Correspondents

are good or comparatively good", the gang made a vast number of leading cadres the target of their criticism and attack. "Line them up," Wang Hung-wen said, "and you'll find that the majority have something wrong with them." Chang Chun-chiao gave the instruction, "Overthrow those where you can make a case. Where you can't, at least put them under fire." As a result, cadres who followed Chairman Mao's revolutionary line were attacked politically and relegated to unimportant jobs. Many cadres were subjected to false charges and removed from their positions, and many more were made to "stand aside" and given no work or sent to the countryside to labor indefinitely. A small number were given posts strictly for show but no real authority.

Reactionary Ideology

The "gang of four" and their followers in Shanghai either distorted Marxism-Leninism-Mao Tsetung Thought or tampered with it to suit their purposes. Chang Chun-chiao was made to appear a theoretician. His ideas were even touted as "Chang Chun-chiao Thought". He held that Mao Tsetung Thought was outdated, and that the basic line Chairman Mao had laid down for the Party "had not solved the question of the changes in class relationships in the socialist period". "I've read through Chairman Mao's four volumes and I still don't understand the status of the different classes today," he said.

Chang Chun-chiao declared that veteran workers and labor models had become "people with vested interests", had lost the urge to make revolution and couldn't be

Demonstrations like this went on for four days (October 20-23, 1976) celebrating the fall of the "gang of four" and involved a total of four million people.



counted on for it. All veteran cadres who had taken part in the democratic revolution were "bourgeois democrats" who "had arrived at their stop and were getting off" — it was inevitable that such people would turn into capitalist roaders, therefore revolution should be made against them. Another such idea was that this was "a time of transition between generations", the older revolutionaries were of no more use and it was time they turned over their jobs. Historically, people were supposed to conclude, the responsibility for leading the Party and the state had fallen on the shoulders of the gang and their followers. The gang's followers gave wide publicity to "Chang Chun-chiao Thought" with this new "discovery" on class relationships in the socialist period as its main tenet.

They got some people to compile a university textbook on the history of the Chinese Communist Party in which they belittled or simply omitted the contribution of certain of the elder proletarian revolutionaries and extolled the four as heroes of the socialist revolution. "Don't mention Premier Chou, Chu Teh, Yeh Chien-ying, Chen Yi and others," the four instructed. "There is no final verdict on the role of some of them. . . . Give plenty of space to Chiang Ching." Her name appeared in the book ten times. Excerpts from it were also used as reading material in primary and middle schools.

Political Offensive

The gang used Shanghai as their mouthpiece in speaking to the rest of the country. Things they dared not say in Peking they said in Shanghai and from there it was disseminated to the rest of the country.

During the Ninth Party Congress in 1969 the "gang of four" in league with Lin Piao made up background material on 14 of the central leaders showing how they had opposed Chairman Mao. And when it came time for the congress to elect members of the Party Central Committee, Wang Hung-wen made it clear to the delegates from

Shanghai that they were not to vote for those particular people.

Before the Tenth Party Congress in 1973 the four again plotted to gain control of the Party Central Committee, this time without the Lin Piao anti-Party clique which had already fallen. In Shanghai Wang Hung-wen instructed his followers many times to nominate candidates for delegates to the congress and for the Party Central Committee who were favorable to them.

Following the Tenth Party Congress, the Fourth National People's Congress was scheduled to be held. It was to make appointments for government posts. Thinking that the time had come for them to seize Party and state leadership, the gang launched a campaign against Premier Chou En-lai. They hoped to get him out of the way so that they could put their own people in top posts. In September 1973 Wang Hung-wen returned to Shanghai and with his aides prepared the list of people. Their propaganda machine began churning out articles against Premier Chou. Leading the attack was the periodical *Study and Criticism* which, while purporting to be an academic journal of a Shanghai university, was actually a mouthpiece for the gang.

During the movement to criticize Lin Piao and Confucius in 1974 the gang's forces, under the pretext of "criticizing Confucian doctrine", turned their attack against "the big present-day Confucian" and "the Confucians in the Party", blatantly implying that this meant Premier Chou and other central leaders. At the order of Yao Wen-yuan *Study and Criticism* carried a piece that started a spate of articles criticizing prime ministers in history but actually attacking Premier Chou by innuendo. Meanwhile, stepping up their efforts to place their own followers in government positions, the gang instructed their people in Shanghai to finalize their list of nominees for the posts of ministers and department heads. In October 1974 the gang sent Wang Hung-wen to Chairman Mao to make false charges against Premier Chou and propose that they (the four) be put

in charge of "organizing the cabinet". Chairman Mao saw through their intentions and put a stop to these attempts.

Despite the gang's efforts Chou En-lai, Chairman Mao's close comrade-in-arms, was reappointed Premier of the State Council by the Fourth National People's Congress in January 1975. But this did not stop the gang from attacking him. Toward the end of the year as Premier Chou became gravely ill, the four, without authorization from Chairman Mao and the Party Central Committee, whipped up a campaign to "ferret out capitalist roaders at every level", an attempt to overthrow a large number of central and local leaders following Chairman Mao's revolutionary line. Against Chairman Mao's instructions they launched a campaign against Teng Hsiao-ping, a Vice-Chairman of the Party Central Committee and senior Vice-Premier, by heaping false charges on him. Their followers in Shanghai took the speeches and conversations of 12 Party vice-chairmen and vice-premiers, selected passages out of context, arranged them under arbitrary headings and distributed them in Shanghai and other provinces and cities as material to be criticized. They spread the word that "only two and a half ministries under the State Council are in reliable hands. . . . The overlords in all the other ministries are not to be trusted. There the soil is such that poisonous mushrooms will spring up when it rains". Wang Hung-wen said to his confidants in Shanghai, "See that you build up a hard core of our people. . . . Train a corps of cadres who dare to go against the tide."

"The situation is developing rapidly," Chang Chun-chiao observed. "Keep abreast of it."

The death of Premier Chou on January 8, 1976 plunged the whole country into deep grief, but the four and their followers were joyous. At their prompting posters appeared in the streets of Shanghai demanding that Chang Chun-chiao be appointed premier. Chairman Mao, however, proposed turning the important job of Premier of the State Council over to Hua Kuo-

feng. Foiled but unreconciled, the gang turned their attacks on Hua. The press in Shanghai came out with articles commenting on how Khrushchov, Chiang Kai-shek and Yuan Shih-kai came to power. "We're getting close to a showdown," said one of the gang's Shanghai clique. Another, at a forum on national planning, attacked Hua and other central leaders by innuendo.

The gang also tried to gain control of other cities and provinces by getting their followers into local leading positions. These people were to maintain direct contact with Shanghai. Through this network material smearing central and local leaders was distributed widely, rumors were spread and the gang's decisions passed on.

In these cities and provinces they enlisted the ambitious "go-against-the-tide people", promised them important posts and got them to attack a large number of local leaders as capitalist roaders, then to "trace the roots" and ferret out these people's "backstage managers", that is, to connect them with certain central leaders.

When Chairman Mao became gravely ill the gang intensified their maneuvers to seize power. Their mouthpieces in Shanghai, preparing the way for Chiang Ching to take over the post of Chairman of the Communist Party, put out articles praising Lu Chih, wife of the second century B.C. emperor Liu Pang. "No one except Empress Lu was able to carry on Liu Pang's unfinished cause," they said. They ordered a feature film made, *The Grand Festival*, in which Chang and Wang were portrayed as heroes of the "January storm". Among the ideas they tried to implant in people's minds were: Shanghai is the bastion of the Leftists headed by Chiang Ching; Chang Chun-chiao should be premier. To have an armed force to back up the gang's planned seizure of power, the four's Shanghai followers distributed arms and ammunition to the militia in that city.

Economic Sabotage

The gang tried to use Shanghai to sabotage socialist construc-

tion and undermined Shanghai's production. Chairman Mao had called on the nation's industries to learn from the Taching oil field, the model for industry, but the gang attacked it as "a model for doing all production and no revolution". When factories enforced necessary regulations for safety and quality, the gang called this "controlling, restricting and suppressing the workers". They said Taching was a prime example of this and forbade industries in Shanghai from publicizing it, visiting it or having campaigns to learn from it. Some factories disregarded the order and strengthened socialist management by adhering to rational rules and regulations as Taching did. These were slandered as "units where the revisionist line is again taking over". These rules and regulations, the gang declared, "tied the masses' hands and feet". Mao Hsin-hsien, a young woman in Shanghai Weaving Mill No. 27 who had created a record of weaving 400,000 meters without a blemish, was forced to make a self-criticism for being "poisoned by revisionism" and "giving attention only to production and not revolution". She was held up as a typical example of this.

In order to have a counter to Taching's experience, Wang Hung-wen told his people to make a comprehensive sum-up of Shanghai's experience. Chang and Yao wanted an example of a factory which had done away with rules and still increased production, so their followers proceeded to give wide publicity to one which they said observed no rules and regulations and where production had risen automatically as a result of its criticism of the idea of all production and no revolution. In fact, since 1974, after every criticism of this so-called all-production-no-revolution idea, the factory's production had dropped lower. Output for 1976 was 14 percent below that for 1973, profit 28 percent less, and both labor productivity and quality much lower.

Any unit that tried to increase production, raise labor productivity through emulation campaigns, improve rules and regulations, make

technical innovations or give its workers a better grasp of technology had the label "all production and no revolution" slapped on it. Such measures stifled the masses' enthusiasm for socialist construction.

It was the same in agriculture. The gang did all they could to prevent the commune members in the countryside around Shanghai from learning from Tachai, the national model farming brigade. "Why do we need to learn from somebody else?" Chang Chun-chiao said. "Let's do it our own way." Whoever in the Shanghai area wanted to visit Tachai had to get Chang Chun-chiao's personal approval — which was the same as not allowing people to go. In 1975 in his sum-up report at the first national learn-from-Tachai conference, Hua Kuo-feng called on commune members to bring the movement to learn from Tachai to a new stage. The "gang of four" attacked his speech as "a revision of Marxism-Leninism". It "advocated all production and no revolution" they said and forbade people in Shanghai to put the call into practice.

The gang cut back on funds for agriculture in the Shanghai area so that mechanization and work on basic improvement to farmland were held back. This went counter to Chairman Mao's general principle for developing the economy, "Take agriculture as the foundation and industry as the leading factor".

The gang also caused dislocations in China's socialist planned economy by forbidding the manufacture of some products needed for economic construction, but ordered other projects not in the plan, calling them the Chang Chun-chiao project or the Wang Hung-wen project to add to their own prestige.

The Last Maneuver

On September 9, 1976 Chairman Mao Tsetung died. The whole country was plunged into sorrow. The gang immediately moved to usurp power. They tried to discredit the Party Central Committee headed by Hua Kuo-feng by implying that they had suppressed what the gang claimed was Chairman Mao's last words which they

put out as "act according to the principles laid down". This was to create the impression that they were the only real defenders and publicizers of Chairman Mao's instructions to prepare the way for taking over themselves.

Chang Chun-chiao sent word to Shanghai, "The question is, who is to command" and issued a mobili-

zation order, "Shanghai will face a severe test. Get ready for war." The October issue of *Study and Criticism* came out at the end of September giving a lot of space to the so-called last words, and said, "the Shanghai people pledged to fight for it". "We will not be overwhelmed but will conquer all enemies," the magazine de-

clared. This was the signal to strike. The enemy, it was clear, was the Party Central Committee headed by Hua Kuo-feng. But Hua Kuo-feng, carrying out Chairman Mao's behest, led the Party and the people to smash the "gang of four" in the nick of time, and saved the Party and the country from falling into their hands.

The People Against the Gang

DURING its ten-year control of Shanghai the "gang of four" pushed a counter-revolutionary ultra-Right line, though they tried their best to disguise it under high-sounding words and seemingly revolutionary actions. But as their maneuverings for power became bolder the people began to see their real motives and more and more started to resist them.

The first major struggle began in 1967 when the gang's ultra-Right features had not yet been fully exposed. In the 1930s a person using the pen name Ti Ke (Dick) had written articles supporting Chiang Kai-shek against the Communist Party and attacking Lu Hsun, China's great proletarian man of letters. In 1967 some university teachers and students, checking through newspapers, periodicals and books from the 1930s, discovered that Ti Ke was none other than Chang Chun-chiao. Connecting the discovery with Chang's behavior in the cultural revolution and his grab for power, the teachers and students began to have their suspicions of him.

On January 20, 1967 they put up slogans and big-character posters in the main streets exposing this fact about Chang's past. The next week at a mass meeting in a university they demanded that a person close to Chang tell all he knew about this phase of his life. It was not long before these teachers and students were being harassed and charged

with "bombarding the proletarian headquarters". They were criticized at meetings and paraded around the city "to counteract their influence". On February 2, close to 2,000 university teachers and students came out in a demonstration to protest such treatment. More people investigated Chang Chun-chiao's past and got ready to make exposures.

On April 12, 1968 slogans denouncing Chang Chun-chiao again appeared, starting another wave of criticism of Chang. As a result, there was more persecution. In May, six faculty members in another university, following a careful investigation, wrote a report to send to the Party Central Committee containing their findings on the counter-revolutionary activities in Chang's past. One of the teachers was to take it to Peking in person. To avoid attention he had planned to travel north by coastwise ship but was seized at the dock, and the report fell into the hands of the "gang of four". The authors of the report were branded as counter-revolutionaries and cruelly persecuted, but none would recant their stand.

The Struggle Expands

In the years that followed the "gang of four" intensified their fascist dictatorship in Shanghai but this only awakened more and more people to their real nature.

On February 25, 1975 a poster-size Letter of Revolutionary Appeal suddenly appeared outside the students' cafeteria at Fudan University which was under the gang's tight control. It read: "Revolutionary Communist Party members, Youth League members, worker-peasant-soldier students, faculty and other staff members: Let's get into action, watch closely how things are developing, unmask the counter-revolutionary revisionist features of Chang Chun-chiao and his like, and defend Chairman Mao's proletarian revolutionary line!" It was signed by a student in the optics department.

The student, then 25, was a member of the Communist Party. She had come to Fudan two years earlier recommended by the Honan province farming brigade where she had gone to work after graduation from middle school. At first she had been puzzled by what she saw of some people in top municipal positions ganging up for their own interests and flattering one another in public. She was especially disconcerted by the way Shanghai newspapers and periodicals maligned certain central leaders. After mulling things over she concluded that Shanghai was an "independent kingdom", a place from which certain people were launching a vicious attack on the proletariat, the Party Central Committee and Chairman Mao. To make sure that her conclusion was



On October 24, 1976 a million people gathered in People's Square in Shanghai for a rally.

correct she checked through more than 20 newspapers published in various provinces and cities and found that in those places most tightly controlled by the gang the attacks were most vociferous.

Something had to be done. Beginning in February 1975 she wrote several letters to Chairman Mao presenting her view, but she wondered whether they would ever reach his eyes. Finally she made up her mind and put up the Letter of Revolutionary Appeal.

She was arrested and jailed almost immediately and subjected to interrogation more than 30 times. Once one of the gang's followers banged on the table and shouted, "Don't you know that opposing central leaders means attacking the proletarian headquarters?" The young woman banged back, "Don't you know that Chang Chun-chiao is not representative of the Party Central Committee? You're not going to make me change my view with jail or even execution!"

The same kind of struggle went on in other places in Shanghai. Ting Chin-kuo, a People's Liberation Army veteran now a clerk at the Shanghai People's Bank, also felt that there were people in high places scheming to take over the Party and government the way Khrushchov had done in the Soviet Union, and doing it behind a façade of Marxism. After the death of Premier Chou he spent a whole week writing a letter to Chairman Mao spelling out his worries. After he mailed it the four's followers

learned what he had done and he was given similar treatment.

Though persecution of those who opposed the gang intensified in the last two years of their rule in Shanghai, opposition only grew stronger. Party members thrown into jail never wavered. Confident that right would win in the end, out of their meager spending money many saved up their monthly membership dues to be given to their Party organizations when they came out. Some young students bit their fingers and wrote with the blood on the jail walls, "Forever loyal to Chairman Mao".

Political Demonstrations

After Premier Chou died the gang's followers in Shanghai issued orders forbidding the people to wear black armbands or hold memorial meetings. In the office building of the municipal Party committee no place was set aside where people could go to pay their respects to the Premier. There were no portrait of him, no funeral music, not even a place for the countless wreaths which people kept bringing. Defying orders, the population put on black armbands, pinned on white paper chrysanthemums denoting mourning and held ceremonies in their factories, offices, schools, neighborhoods and other places of work.

At 9 a.m. on January 15, the day of the memorial meeting in Peking, 500 workers and cadres from the Yangtze River Navigation Administration started out from their

headquarters on the Bund in a demonstration of grief. The procession was led by a car bearing Premier Chou's portrait and loudspeakers playing funeral music. It was followed by orderly rows of men and women carrying wreaths. As the procession moved slowly down the main thoroughfare toward the city center more and more people, including some of the police, joined the march.

At 3 p.m., as the memorial meeting in Peking began, whistles sounded from hundreds of ships and boats on the Whangpoo River in tribute to the Premier and in defiance of the four. Cars, buses, bicycles along and near the waterfront stopped moving, people stood with bowed heads and observed three minutes of silence. The whistles sounded for fully a half hour, a token that at heart the people of Shanghai were with the people of the rest of the country.

Eight months later Chairman Mao was dead. As they grieved the people of Shanghai, like those in the rest of the country, worried over the fate of the Party and the country. They kept up their struggle against the "gang of four" until the Party Central Committee headed by Hua Kuo-feng smashed the four's conspiracy. On that great day people rushed into the streets with wild joy to demonstrate at the fall of the conspirators. The gang's followers were hardly able to put up a fight. Without a single shot or flow of blood, the people of Shanghai had gained a second liberation.

After the Four Were Out

AS SOON AS the national industry-learn-from-Taching conference was over last May, delegates of Shanghai's industry met to discuss what the city could contribute to the goal of modernizing the country before the end of the century.

The misrule of the "gang of four" had set Shanghai's industry back many years, but, they told each other, the city was an old industrial center with great variety of industries and relatively modern ones. In the 12 years of its existence the Taching oil field had increased its production sixfold. Now it had set its sights still higher. What about Shanghai?

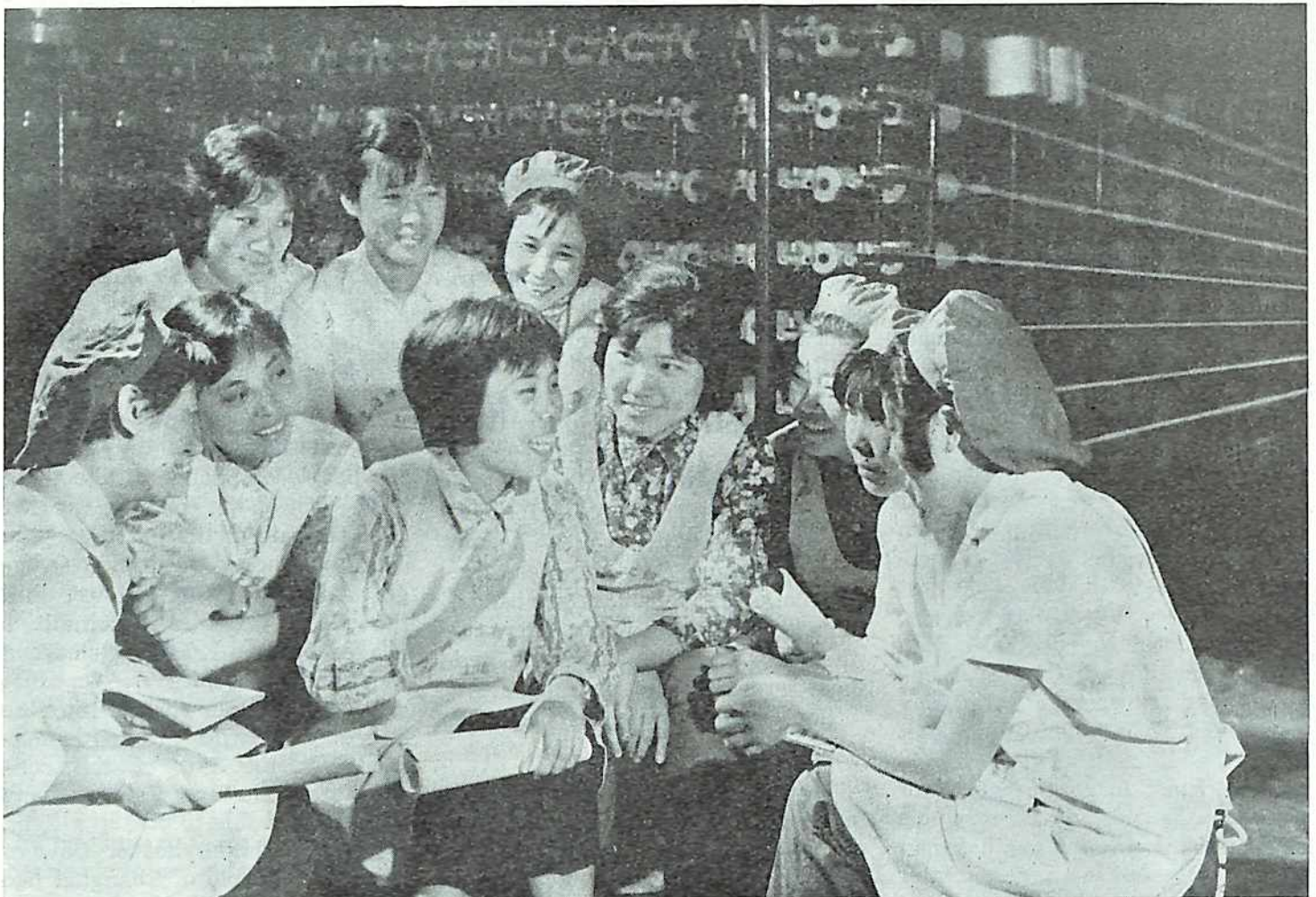
The "gang of four" had made it almost a crime to learn from Taching. Now that the gang was gone, Shanghai was determined to make up for lost time. At Shanghai Weaving Mill No. 27 Mao Hsin-hsien, a young woman weaver, had resisted the pressure of the "gang of four" and created a record of 400,000 meters of cloth without a blemish. After the fall of the gang the weavers in Shanghai, taking Mao Hsin-hsien as an example, launched an emulation campaign in which each strove to weave 10,000 meters of perfect cloth. In one weaving company more than 1,000 weavers out of 1,700 soon exceeded the target. Mao Hsin-

hsien attended the learn-from-Taching conference and returned to tell her co-workers about the high goals being set in different industries. The textile workers couldn't wait to reach still higher ones themselves and make a bigger contribution to socialism.

Criticizing the Four

Soon after the fall of the "gang of four", the Party Central Committee headed by Chairman Hua sent people to Shanghai to take over the work of the municipal Party committee. In the year since, the committee, in line with the strategy of Chairman Hua and the Party Central Committee, or-

Mao Hsin-hsien, record-setting weaver, now no longer a "bad example", discusses how to learn from Taching with co-workers.



ganized the people for further study of the works of Marx, Engels, Lenin and Stalin and Chairman Mao's writings and to apply their tenets to criticizing the four and their Shanghai followers. This soon developed into a mass movement in which the gang's criminal activities were exposed and their revisionist theories examined and criticized in meetings big and small and in thousands of big-character posters.

Leading groups at all levels were overhauled to break up the cliques put together by the four so that leadership was again firmly in the hands of cadres who would carry out Chairman Mao's revolutionary line. Their long-suppressed enthusiasm for socialism released, workers and peasants went all out to push production. The Shanghai Municipal Party Committee quickly channeled the enthusiasm into mass movements to learn from Taching in industry and Tachai in agriculture.

At the end of the first quarter of the year the municipal leading organization issued citations to work units, collectives and individuals who had done well in learning from Taching. It called for socialist labor emulation between industries, factories, shops, teams and individuals and technical innovation on a large scale. Many factories strengthened socialist management with better rules and regulations. They worked out measures to match and smash the highest production records in their plant's history and in their particular industry both in China and abroad.

Catch Up and Overtake

In the converter shop at the Shanghai Steel Works No. 3, the teams operating two converters competed in lengthening the time between relinings, repeatedly overtaking each other. At Steel Works No. 1 the pouring teams emulated to pour "1,000 heats without accident". At the Hutung Shipyard, a production unit receiving honorable mention at the learn-from-Taching conference, the workers launched the 25,000-ton freighter

Liuzhou ahead of schedule. The Shanghai Special-Section Steel Tubing Plant, another Taching-type unit, drew up a plan to put out 650 new products in 1977, an increase of 250 over the previous year. By the end of the first half year they had already developed half again as many products as in the same period last year.

Extending the scope of the emulation campaign, in June Shanghai sent a delegation to Peking made up of representatives from its Steel Works No. 3, General Petrochemical Plant, Public Transport Company and China Department Store No. 1. In July Peking reciprocated with a delegation of people from seven enterprises in corresponding branches of work. Delegates exchanged experience in criticizing the "gang of four" and learning from Taching, and studied each other's strong points in order to overcome their own weak ones.

Value of industrial production for the city as a whole began climbing beginning in the fourth quarter of 1976 and made substantial rises in the first quarter of 1977. The second quarter, which was 23.1 percent over the first, hit an all-time high. Quality improved steadily while per-unit cost continued to drop. New products and processes are being developed. Among them are an 800,000-power electron microscope, an X-ray spectrometer, a device for diagnosing breast cancer, and a superconductive A. C. synchro-generator.

The mass movement to learn from Tachai in agriculture spurred work on irrigation projects and for better field work in the rural communes in the ten counties surrounding Shanghai. The completion of the 46-km. Tingpu Canal, including all its bridges, roads, culverts and sluice gates, will drain 34,000 hectares of low-lying fields and facilitate transport between Shanghai and neighboring Kiangsu and Anhwei provinces.

Going All Out

Earlier this year in the biggest meeting on education in the city's history middle and primary school



Shanghai dockers denounce the "gang of four".

teachers criticized the "gang of four's" sabotage of the revolution in education. Close to 300,000 teacher and student representatives participated listening over radio rediffusion networks.

Determined to put Chairman Mao's principles for revolutionizing education into practice, after the meeting the schools started activities to improve teacher-pupil relations which had been wrecked by the gang's ideas, learn from Lei Feng and strive for the "three goods" — to be good in physical fitness, study and work. Teaching, study and discipline have all improved.

Universities, colleges and research institutes have made plans to strengthen basic theoretical study in both the natural and applied sciences. Researchers at Fudan University have developed a



The story of "The Tachai People vs. Chiang Ching" performed in a rural area by pingtan artist Tang Keng-liang.

new chemical catalyst that compares with the world's advanced. The Iron and Steel Research Institute has completed three projects of advanced world level.

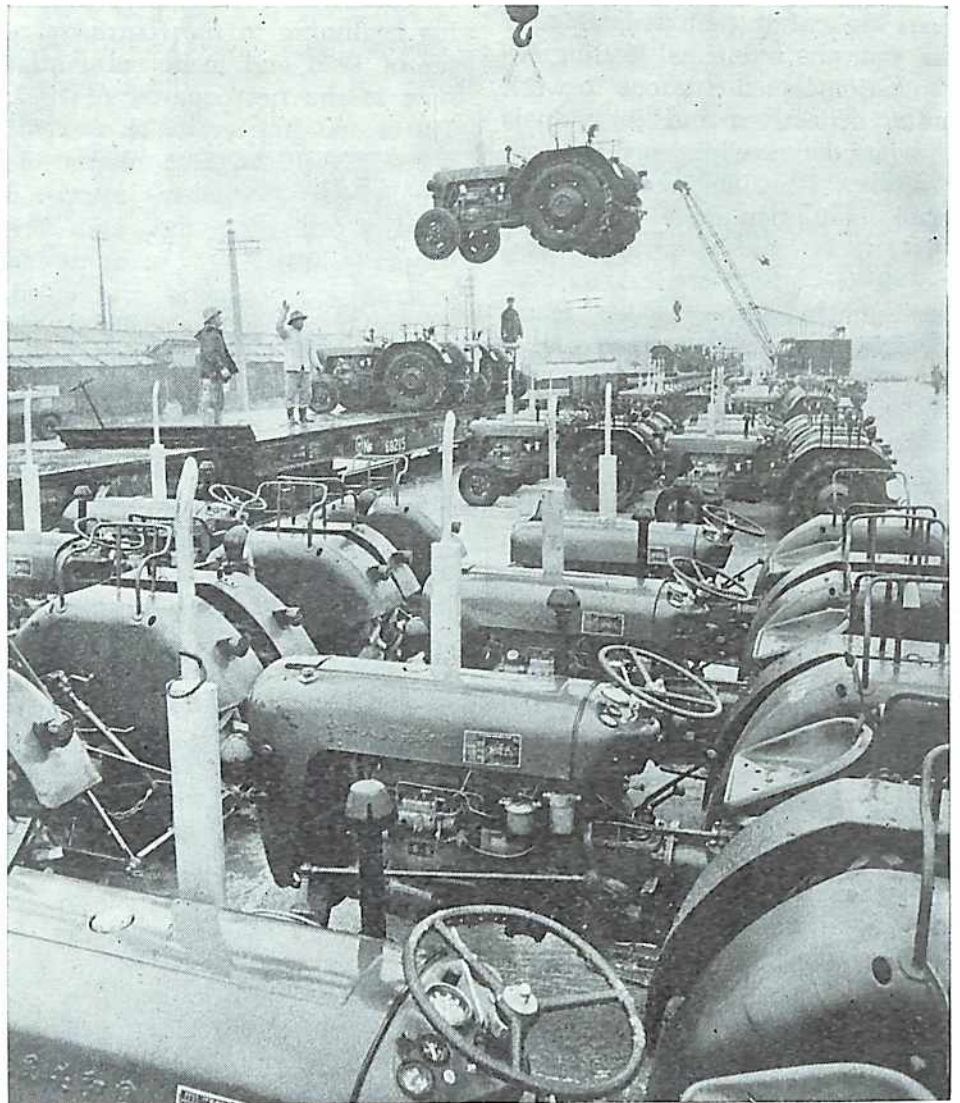
At the meeting commemorating the 35th anniversary of the publication of Chairman Mao's *Talks at the Yen-an Forum on Literature and Art*, 660 representatives from literary and art circles heard the municipal Party leaders' impressions of the spirit of the learn-from-Tachai conference. Afterward they discussed how to make literature and art catch up with the general leap-forward situation.

The well-known writer Pa Chin, now in his seventies, who had been persecuted by the "gang of four" so that he was unable to write, declared, "I will take up my pen and give my all to this great era and the heroic people."

A host of new topical dramas, Peking and local-style operas, music, dance and storytelling numbers are being staged. The Soochow pingtan, a form of storytelling-singing to musical accompaniment, which was slandered as "decadent" by Chiang Ching, has again made its appearance as the "light cavalry" of the performing arts with such new numbers as *Snow Eagles*,

about women oil well attendants, and *The Tachai People vs. Chiang Ching*. Veteran composer Chu Chien-erh has collaborated with amateur composers in the choral number *The Taching Red Flag*. The *huchu* and Shaosing operas, long suppressed by the "gang of four", are regaining their vigor with such new numbers as *White Spindles*, about textile workers, and *Breaking the Waves*, about shipbuilders. The historic contributions of the pioneers of the revolution are dramatized in the Peking opera *The Tatu River*, the modern drama *The August First Storm* and the dance *The Long March*. The real-life drama of the Shanghai people's struggle against the "gang of four" has now become the subject of stage dramas, two of which are *Unforgettable 1976* and *Flames in the Storm*.

Making up for time lost under the "gang of four", Shanghai quickly upped production of tractors for the countryside.

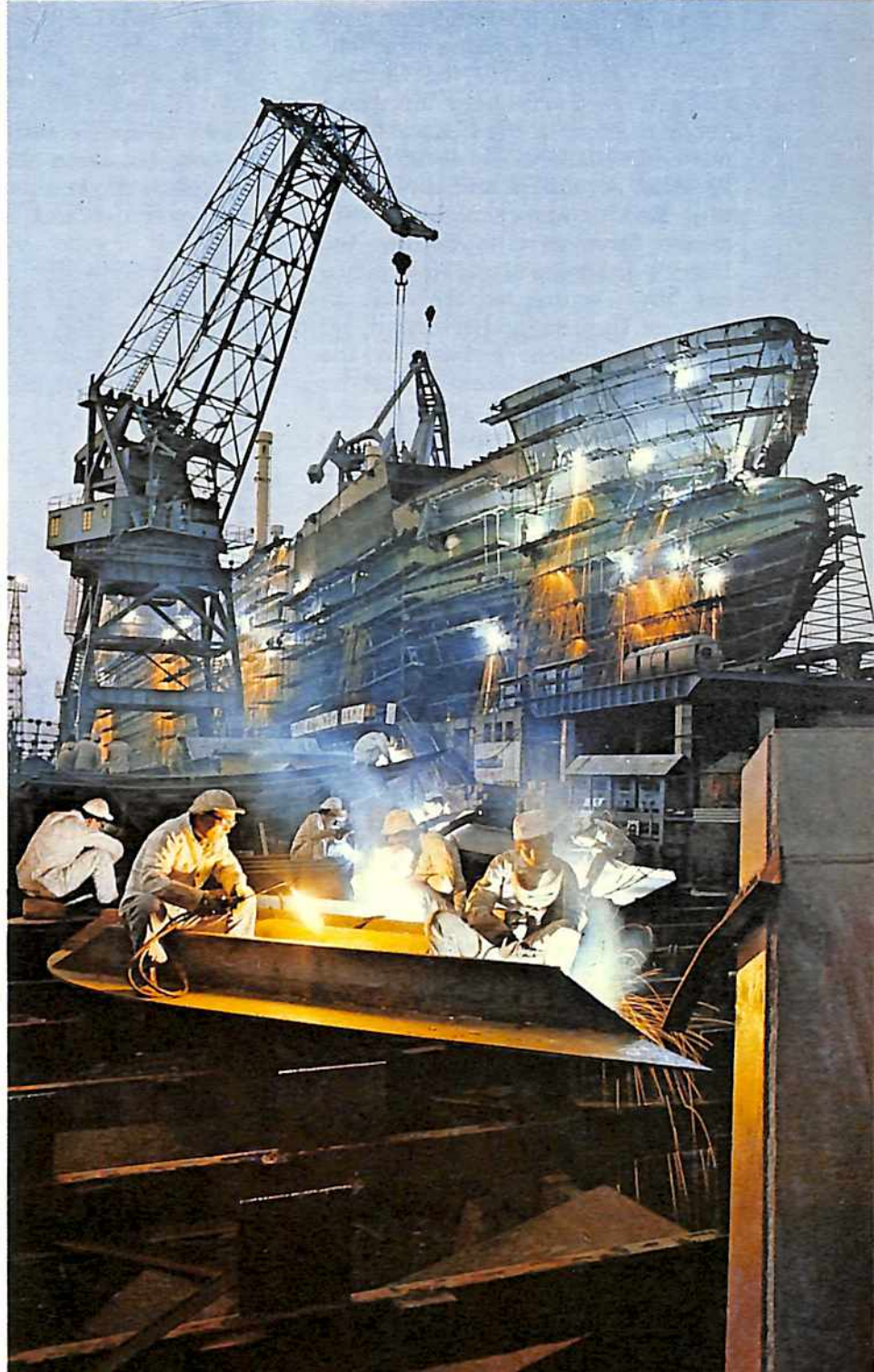




China's first 800,000-power electron microscope developed by the Shanghai Hsinyueh Instrument Factory.

Work goes on round the clock at the Hujung Shipyards as shipbuilders strive to make up for time lost under the "gang of four".

Sheng Li, nationally known model worker at the Shanghai Machine Tool Plant, shows young apprentices how to operate a machine.



HO LUNG'S DAYS WITH THE RED ARMY

WU HAN-WEN

IN 1927 just as the Northern Expedition to overthrow the warlords was sweeping ahead, the Kuomintang reactionaries headed by Chiang Kai-shek and backed by British, United States, Japanese and Italian imperialism launched a counter-revolutionary *coup* in Shanghai and Wuhan in which they massacred Communists and the working people.

On August 1 the Chinese Communist Party led the Nanchang Uprising which fired the first shot against the Kuomintang reactionaries.* On August 7 the Chinese Communist Party held an emergency meeting of the Central Committee in Hankow. It decided that agrarian revolution and countering the Kuomintang slaughter with armed force were to become the Party's general policy. In September Mao Tsetung led the Autumn Harvest Uprising and afterward set up a revolutionary base in the Chingkang Mountains. Thus he pointed the way of going to the rural areas, where the revolution was to build up strength, surround and finally capture the cities.

Ho Lung, the daring, upright and indomitable commander of the 20th Army of the National Revolutionary Army,** though not a member of the Communist Party, took the side of the people. He brought his troops to join the Nanchang Uprising and was made commander-in-chief of the uprising forces. While his troops were marching southward, he joined the Chinese Communist Party at Jui-

chin in Kiangsi province. Later he asked to be sent to the western Hunan and Hupeh provinces where he had grown up to build up his forces. The Party agreed to send him and Chou Yi-chun, a Communist who was formerly the Party representative in his army, to establish a base there, wage armed struggle and carry out the agrarian revolution.

Ho Lung and Chou Yi-chun left Hankow secretly for their new task early in 1928. Each carried a musketoon given them by the Party committee and the problem was to get through the city's heavy sentry guard without being searched. Ho Lung shaved off his black mustache and put on glasses, a fur overcoat and a scarf. He swaggered up to the riverside checkpoint and without waiting for the sentry to speak, flung open his coat and said, "Come on, search me!" Thinking him to be a big shot, the guard let him pass.

Ho Lung boarded the westbound steamer with some twenty men. On the boat he learned from other passengers that in a village in Chienli county ahead was a small group of the landlords' home guard. When the boat docked he got off and sought out the leader of the guards. "I'm Ho Lung," he said. "I want to borrow your guns. I can give you a receipt for them." Ho Lung was well-known in Hupeh province as a great commander in the National Revolutionary Army during the Great Revolution of 1924-27. The guards leader, awestruck at this sudden appearance, did not object as Ho and his party gathered up four rifles and four automatic pistols and left.

In Chienli county they joined forces with local armed revolutionaries and with some 100 rifles started armed struggle against the Kuomintang reactionaries along the Ching River. The Party Front Committee for the Hunan-Hupeh Border Region led by Ho Lung and

Chou Yi-chun brought several local guerrilla units under its unified leadership to form a 400-man force called the Workers' and Peasants' Revolutionary Army. Armed struggles led by the front committee wiped out 2,000 home guards and bandits and captured more weapons in Chienli and Shihshou counties. The revolutionary army grew to over 1,000.

In March 1928 Ho Lung handed his troops over to the Shihshou county Party committee and with a small number of men went to Sangchih in Hunan province to open up new areas for revolutionary activities.

HO LUNG was born in Sangchih in 1896 and there had worked the land with his father. After the 1911 revolution led by Sun Yat-sen overthrew the feudal Ching dynasty, under its influence Ho Lung began to fight against the exorbitant taxes and extortions of the local government. In 1916 he and a few other young people forced the gate of the Salt Bureau (which maintained a heavy tax on salt) with kitchen cleavers, seized some weapons and shot its notorious director. Joining the Army to Defend the Nation, which was against Yuan Shih-kai's restoration of the monarchy, he rose to be regimental and brigade commander and then defense commissioner of Lichow in northern Hunan.

Troubled by the people's poverty and China's weakness, and disgusted at the ignorance and intrigues for power of officialdom, he felt deep sympathy with the rising revolutionary movement. Early in the Great Revolution he had once invited representatives of both the Communist Party and the Kuomintang to a banquet and asked them to tell their view of the current situation and the future of China. Afterward he declared, "I think the ideas of the Communist Party are right."

* See "The Nanchang Uprising, Its Historical Significance" in *China Reconstructs*, August 1977.

** After Sun Yat-sen's death in March 1925, at the suggestion of the Chinese Communist Party, in July his office in Canton was reorganized and proclaimed National Government and all armed forces under it reorganized to become the National Revolutionary Army. As this was a period of Communist-Kuomintang cooperation, in it many of the Kuomintang Party representatives and political directors were actually members of the Communist Party.



Mao Tsetung, Chu Teh and Ho Lung in Yen-an.

Later he did his best to follow Sun Yat-sen's policies of alliance with Russia, alliance with the Communists and assistance to the peasants and workers. He joined the Northern Expedition against imperialism and feudalism and rose to division and then army commander. He won many victories over the northern warlords and became a well-known Left-wing commander in the National Revolutionary Army. During the period of cooperation between the Communist Party and the Kuomintang, he treated the Communists sent to work in his units with great respect and gave them strong support. Real-life struggles convinced him of the truth of communism and he finally dedicated himself to fight for its realization.

NOW, in 1928 in Hunan, when the reactionary Kuomintang troops and landlords' armed gangs learned that he had returned to his birthplace, they declared that they would "destroy Ho Lung's old nest". Meanwhile, in his old nest, Ho Lung set about mobilizing the masses. In private talks and at meetings he told people how Chiang Kai-shek had strangled the revolution. "The Kuomintang says

the Communists are as terrible as wild beasts," he declared, "but the laboring people think of the Communist Party as their savior. I've been looking for the truth and good leaders for a long time. Now I've found them and will follow them all my life." He expressed his determination to obey the Communist Party, carry on the revolution and stand together with the poor people.

With patient hard work he awakened the masses to action and expanded the Workers' and Peasants' Revolutionary Army to 3,000 men. Conditions were harsh along the poverty-stricken Hunan-Hupeh border. Enemy blockade and encirclement forced the army to camp in the mountains. His men often lived on wild roots and passed the winter without winter clothing. The hard life was in a way like a crucible separating gold from cheaper metals. While many genuine proletarian fighters laid down their lives, the vacillating elements deserted and the opportunists showed themselves up by betraying the revolution.

For a while only 91 determined fighters with 72 guns were left of the original 3,000 troops. Through

the most difficult days Ho Lung stayed with his men, wearing the same thin clothing and straw sandals, often having no salt to eat for days on end. Once by hook or crook the cook got a small lump of salt and used it to prepare a dish of hot peppers for Ho Lung. As soon as Ho tasted it he added it to the food for the men in the big kettle. When the cook protested he smiled and said, "We're the Red Army. Officers and men are equal. When there's salt everyone gets some of it."

Through mobilizing the masses, the troops under Ho Lung again grew to over 1,000. This time they had 800 rifles. They captured Hofeng county in Hupeh and Sangchih county in Hunan and set up Soviet power. Then they built up revolutionary bases around Hsuan-en and Wufeng counties in Hupeh province. The troops were reorganized into the Fourth Red Army with Ho Lung as commander.

Chen Chu-chen, the warlord in western Hunan, sent a brigade under Hsiang Tzu-yun to attack Sangchih. Instead of pitting his smaller number of men against Hsiang, Ho Lung withdrew his force to lie in ambush in the moun-

tains outside the city. Thinking the Red Army had fled in fear, Hsiang marched his troops into the city. The Red forces attacked and, taking the enemy by surprise, inflicted heavy casualties. Hsiang Tzu-yun fled on horseback to the Chihhsi River only to find that the ferry boats had been destroyed by the Red Army. He plunged into the water and held on to the tail of his horse. In midstream he was swallowed up by the waves. The Red Army wiped out 2,000 enemy troops and captured over 1,000 guns.

TO EXPAND the revolutionary base areas, in February 1930 Ho Lung led the Second Red Army (reorganized from the Fourth Red Army) eastward and in July joined forces with the Sixth Red Army to form the Second Red Army Group, with Ho Lung as commander and Chou Yi-chun as political commissar. The troops grew to over 10,000 and established the Western Hunan-Hupeh Revolutionary Base Area which embraced 50 counties and towns with Hunghu county as the center. The Party committee for the region had its headquarters at Chuchiawan village nearby.

The Red Army helped the local Red Guard unit, guerrillas and Young Pioneers to form a people's armed force. The area's interlock-

ing bays, harbors and large stretches of water with dense growths of reeds and lotus provided excellent ground for maneuver which the Red Guards took full advantage of. Using the guerrilla tactics of "fleeing when the enemy attacks, returning when the enemy withdraws, disappearing when the enemy are many and striking when the enemy are few," they wiped out many Kuomintang troops.

A reactionary secret society armed band known as the White Apex Society had existed around Hunghu and Mienyang counties since the Ching dynasty. It had joined in the suppression of the Taiping revolution (1851-1864) in Hupeh province. Now affiliated with the Kuomintang it was the armed force of the local landlords and bullies. It evoked superstition to counter the Red Army and killed the revolutionary people. The Red Army struck at the band in the Hunghu area. The band, backed by Kuomintang troops, retaliated with a vengeance and burned 20,000 homes. In August 1930 Ho Lung sent the Red Army unit under Tuan Teh-chang against the White Apex Society. In a battle at Hokou, with assistance from the Red Guards, Young Pioneers and local people, the army broke up the band's fighting force, captured and killed the leader of the band, and with it

out of the way, liberated the neighboring towns from Kuomintang control.

Fearless and skilled on the battlefield, Ho Lung stood firm as a rock against both enemy intimidation and bribery. In December 1933 Chiang Kai-shek sent Hsiung Kung-ching to persuade Ho Lung to go over to the Kuomintang army. First Hsiung sent a representative to sound Ho Lung out. Ho saw through the plot at once and reported it to the western Hunan-Hupeh subcommittee of the Party Central Committee. Hoping to find out more about Chiang's plans to destroy the central Soviet area and the Red Army, the subcommittee instructed Ho to meet with Hsiung. After Hsiung had told him of Chiang's plans, Ho called a mass meeting and at it exposed Hsiung's role in Chiang's campaign against the Soviet power and then had him executed.

IN building up his troops Ho Lung followed Chairman Mao's principles for army building. He set up a political department in the army and a Party branch in each company, and many soldiers from the rank and file were helped to develop politically and admitted into the Party. The company level Party organization was particularly important, Ho felt, because without it his soldiers would be like a fistful of beans that would scatter if not held in a firm grasp.

Stronger Party leadership and political work produced a much more effective combat unit. Wherever his troops traveled the soldiers went among the people publicizing the aims of the Red Army and organizing them to take part in the revolution. They visited the poor and cemented ties with them. The troops put out revolutionary pamphlets and newspapers and performed songs and skits. Revolutionary slogans put up in those days are still preserved today in the villages and towns of Hunghu, Hofeng and Hsuan-en counties.

Ho Lung instituted measures to promote good relations between officers and men. He himself wore a cotton uniform, palm-leaf cape and straw sandals like the rank and

Ho Lung (first right, front row) just after arriving in north Shensi in 1936 after the Long March.



file. When on the march he walked with the soldiers and let his black mule carry wounded soldiers or provisions. Whenever he had time he chatted with the soldiers, asking about their families, helping them with problems, singing songs with them or engaging in boisterous bouts of arm-wrestling. Once he came back from the front and went directly to visit the wounded in the hospital. When he found a young soldier in terrible pain from a suppurating foot and all the medicine used up, he thought of making a poultice of the pulp of a pumpkin. The young man watched with tears of gratitude in his eyes as Ho Lung did up the bandage himself.

Ho Lung's troops developed close relations with the people. As early as 1928 his troops began putting up proclamations wherever they went stating, "The purpose of this army is to defend justice for the people. We observe strict discipline and will not harm the people in the slightest. We pay cash for everything we buy." Strict adherence to this pledge was doubly stressed in the minority nationality areas along the borders of Hunan, Hupeh, Szechuan and Kweichow provinces. Several times as they passed through Chuchiawan village at night, his men slept in the open so as not to disturb the people. This gave rise to a ballad verse:

*At midnight as soldiers
pass by*

*Old Mother sits up and
listens.*

*"Don't be afraid, child,
this is Ho Lung's army.*

*Put a lamp at the door,
daughter-in-law,*

*To light the way for our
comrades."*

Sinking their roots among the people in the base areas, the Red Army organized the peasants to overthrow the tyrant landlords and divide their land, established Soviet power, developed the economy and culture, helped with production and gave relief when needed. In 1931 the biggest flood disaster in decades struck the Ching River area. Ho Lung's troops turned out in force to help repair and raise dykes and helped build 100 kilo-



Leading the 18th Army Group of the People's Liberation Army on its way to southwest China, 1949.

meters of new ones. The Kuomintang troops, trying to encircle and wipe out the Red Army, attempted to breach the dykes and inundate the Soviet area. The army and people fought back and foiled the enemy. The Red Army Dyke, built then by the troops under Ho Lung's command, is still standing today.

IN the struggle over political line in the Party during the Second Revolutionary Civil War (1927-1937) Ho Lung stood firmly on the side of Chairman Mao. In March 1931 Wang Ming's "Left" opportunist line began to dominate in the western Hunan-Hupeh area and both Ho Lung and Chou Yi-chun were censured. Chou was removed from leadership and joined the guerrilla forces around Tungting Lake. He was killed in an enemy ambush. Ho Lung continued to stand firm against Wang Ming's line, which advocated concentrating attacks on the cities, fighting battles in a "regular" way instead of guerrilla warfare and encroaching on the interests of the middle peasants in the land reform. Under this line many persons who were not really counter-revolutionaries were regarded as such.

For a time Wang Ming's line prevailed and it led to defeat in the Kuomintang's fourth "encirclement and suppression" campaign. Ho Lung shifted his troops about in

southern Honan and Shensi, eastern Szechuan and western Hupeh. In the autumn of 1934 the Sixth Red Army Group under Jen Pi-shih joined forces with the Second Red Army in Yinchiang county, Kweichow province to form the Second Front Red Army and set up the Hunan-Hupeh-Szechuan-Kweichow base area. Its Party committee, represented by Ho Lung and Jen Pi-shih, did not continue along the wrong course advocated by Wang Ming.

On November 19, 1935, at the order of the Party Central Committee, the Second Front Red Army started out from Sangchih county in Hupeh province with the aim of joining forces with other Red Army units to fight the Japanese invaders. This trek became part of the Long March. En route Ho Lung fought against Chang Kuo-tao's Rightist line of opposing the Red Army's march northward to fight the Japanese imperialists and his plot to establish another Party central committee with himself as chairman. In October 1936 Ho Lung's group, one of the major contingents of the Red Army, joined forces with the Central Red Army under Chairman Mao in Huining county, Kansu province. Then, under the leadership of Chairman Mao, they marched to the forefront of the battle against Japan in north China.



View of Chengchow.

CHENGCHOW:

City on the Central Plain

CHAI PAO-YI

THROUGH history Chengchow, capital of Honan province, has been located at a strategic place. In ancient times, made easily defensible from the west by Sungshan, one of China's five most famous mountains, it could control the Yellow River, east-west transport artery just to its north. Beyond Chengchow to the northeast stretches the vast North China Plain. In modern times, Chengchow became known as the "heart of the rail system". It is the hub where two trunk lines cross — the Peking-Kwangchow line from the capital in the north to the port Kwangchow in the south, and the Lung-Hai line running from the east coast westward to Kansu province.

In fact, the rise of the city as it is today was directly connected

CHAI PAO-YI is a reporter in Chengchow.

with railways. Honan province is one of China's main producers of high-quality cotton and also of tobacco and wheat. After the two rail lines were opened early in the century Chengchow became a depot through which the rich resources of the central plain were channeled to the outside world — in old semi-colonial China to enrich the pockets of foreign imperialists and domestic bureaucrat-capitalists. Cotton came to the warehouses pushed in handcarts or carried on the bare backs of coolie laborers and then was loaded on trains at Chengchow. At the height of the season 50,000 tons of it a month flowed from the station, but it brought only a very low price. Then the cotton was shipped back as cloth and sold at very high prices. The rail lines were like two enormous straws drawing the sweat and blood of the people out through Chengchow.

As part of the movement against imperialism and the feudal warlords, workers on the Peking-Hankow section of the north-south rail line began to organize. On February 1, 1923 they held a meeting inaugurating a general trade union. It was broken up by the imperialist-backed local warlord, and in protest on February 4, led by the Communist Party, workers on the entire line launched a political strike "for freedom and human rights". On February 7, the warlord countered with a ruthless massacre of the strikers. Telegrams and declarations poured in from revolutionary people throughout China and abroad in support of the railway workers' heroic struggle. In this strike the Chinese working class demonstrated its unity and militant strength and that it had a stubborn fighting will. The strike is a brilliant page in the history of the Chinese workers' movement.

Today, at the place near the center of Chengchow where two strikers were killed a memorial stands—a double pentagonal tower 62 meters high. Its 14 stories house an exhibition of historical materials on the strike. The tower with its glazed tile roofs has become a symbol of the heroic city.

New-type City

Chengchow has changed radically since liberation. At that time it was a small county town covering five square kilometers. Its streets were narrow, crooked, muddy and unlit. There was one exception—a 700-m. stretch of the main street paved at the expense of the people when Chiang Kai-shek was to make an inspection tour. In the town all one found were a few inns, and money changers, wholesalers, wandering beggars, street singers and prostitutes, recalls Tung Yao-jung, head of the city construction bureau and a People's Liberation Army veteran who took part in the fighting to liberate Honan.

North and west of Chengchow lie rich coal and iron deposits, within easy access of the rail hub. After liberation the people's government decided that Chengchow was one of the towns to be built into major industrial cities, and to move the provincial capital there from Kaifeng. From county town Chengchow became a city. This was in accordance with the general national policy of dispersal with local concentration points, and of building more small towns and cities of medium size, according to Tung. "The government decided to make Chengchow into a medium-sized industrial city. In our planning we tried to build a city that would both serve socialist construction and be a city for the working people," he said.

After more than two decades of construction, Chengchow is now this new type of city, covering over 60 sq. km. and with a population of 760,000. Spreading over a quarter of this area on the south side is the Chengchow Railway Division, with its passenger and freight stations, engine section and administration building. In place of the slums where railway workers used

to live now stand apartment buildings of three or four stories.

As the prevailing wind in Chengchow is from the northeast, the industrial district is located on the west side so that it does not pollute the city. Today all along the route of a half-hour's drive westward from the city center, factories line both sides of the road one after another.

The eastern part of the city used to be a stretch of low alkaline wasteland. Now it has become the political, economic and cultural center of Honan province, with multi-storied buildings housing the offices of the provincial capital, its scientific research institute and its museum. The old town of Chengchow on the south side occupies only one-twelfth of the present city. The old houses have been repaired. The earth streets have been widened and asphalted. The shopping street is still the liveliest one here. The old city has developed its handicrafts. Dozens of small neighborhood factories complementing the big industries are putting out products for agriculture and daily use.

Chengchow is made up of several districts, each really a small town in itself with its own shopping center, hospitals, schools, cinemas, cultural palace, stadium and park. Broad roads with underpasses connect the districts, uniting them into one city.

Textile City

The industrial west side is an example of the way the city has grown. In 1953 the old town's little inns suddenly became filled with workers speaking the north China and Shanghai dialects. They had come to make into a reality the government's call to transform the old cotton depot into a textile base for the central plain. As there were no roads to the surrounding countryside, they traveled by donkey through the windblown sand to the sandy wastes west of the town to build the new factories.

Working with a will for socialist construction, in only a little over a year they completed a modern textile mill with 50,000 spindles and 1,500 looms. In the second

year, being more experienced, with only one-tenth the labor force they built a spinning mill twice the size. In each of the next three years a new mill sprang up next to its sister plants. Both sides of a 40-m.-wide avenue are lined with three-story apartment buildings for the workers within ten minutes' walk of the factories, as well as department stores and markets.

Many of today's textile workers first helped build the factories. They have a right to be proud of the bright, airy plants they built, which are equipped entirely with machines made in China.

During the First Five-Year Plan (1953-1957) Chengchow acquired 400,000 spindles and 10,000 looms. As one goes west along the broad street one passes more than 30 factories and offices with the word "textile" on their nameplates. Among them are the Chengchow Textile Machinery Plant (5,000 workers) whose machinery and equipment go all over China and to some foreign lands, a printing and dyeing plant, a textile mill construction and installation company, a technical school and a hospital for textile workers. It is a complete textile base processing 100 tons of cotton a day and turning out 1,000 bales of yarn and a million m. of cloth in the same time. No wonder Chengchow is now called "Textile City".

The textile workers have done a lot in technical innovation and revolution as a result of the criticism of the revisionist line for industry pushed by Liu Shao-chi and Lin Piao, and of the mass movement to learn from the Taching oil field, which, led by Party committees in their mills, they undertook in the cultural revolution. They have made many pieces of new equipment that have increased production and improved working conditions. An example are the shuttleless jet looms which raise output of cotton cloth by 50 percent, eliminate the possibility of shuttle accidents and mitigate noise in the shops.

Chengchow also has a big grinding wheel plant, an electric cable factory and more than 100



The February 7 Memorial Tower in the center of Chengchow.

A shaded boulevard.





Spinning shop in Chengchow Cotton Textile Mill No. 3.



The dykes at Huayuankou on the Yellow River.



The busy Chengchow station.



The Shang dynasty city wall.

machine-building plants, including some producing trucks, tractors and machine tools. A large non-ferrous metals plant and two steel mills were opened during the cultural revolution. The city now makes more than 5,000 kinds of industrial products, with textiles and machinery as the main ones. From 500 at the time of liberation, the number of industrial workers has risen to 210,000.

Rail Hub

For almost half a century the Chengchow railway station was a building of only 30 sq. m. Passengers

had to wait for the trains and line up for their tickets in the open. In 1956 the people's government built one of the biggest passenger stations in the country there, with a ticket-selling hall and waiting rooms totaling 17,000 sq. m. and platforms covering an even larger area. From eight the number of tracks has increased to 20. Fifty thousand travelers a day go through the station. During the height of traffic there is a passenger train every five minutes.

A five-story building across the street from the station is devoted to cooking the great variety of food sold to passengers who do not wish to go to the dining car. Nearby are many restaurants, hotels, bath-houses and shops which are open round the clock. An 18-story hotel and service-and-shopping building has just opened to accommodate people who change trains at Chengchow.

Among the city's nine newly-built or enlarged freight depots, the Chengchow North Station is one of the country's largest marshaling yards. Six automatic signal boxes with China-made equipment were installed there during the cultural revolution. About 10,000 cars a day go through the "hump" where trains are broken up and remade according to the destination of the cars. Operation efficiency has gone up more than 70 percent. The former switchmen, signalmen and freight yard coolies, held in con-

tempt in the old society; are today the operators of the station's automatic equipment.

Within the last few years the followers of the "gang of four" tried to create an obstruction in this "heart of the rail system" and paralyze the nation's main transport lines. After the gang was smashed, this was one of the first places to which Chairman Hua Kuo-feng turned his attention, and the leading group of the Chengchow Railway Division was reorganized. Its 100,000 railway workers rose in indignation to denounce the gang (see *China Reconstructs*, August 1977). In a few months smooth flow of traffic had been restored, and trains were pulling full loads at greater speed, propelling the national economy into a new leap forward.

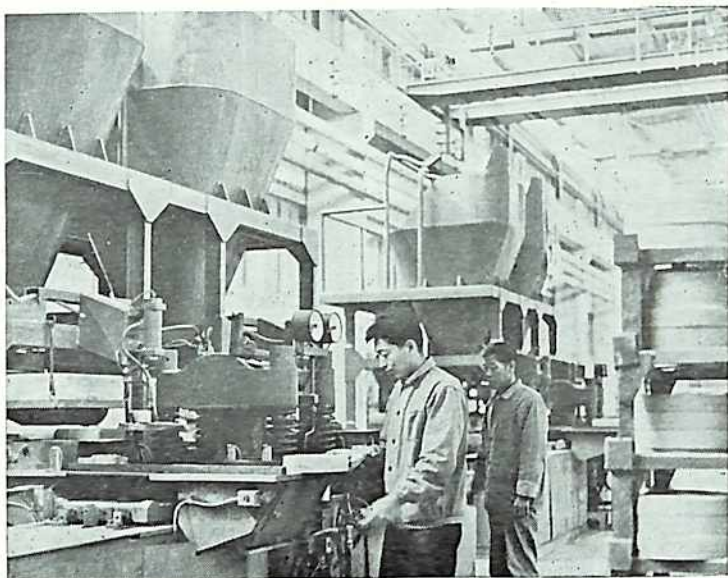
A Buried City

The Yellow River basin, where Chengchow is located, is the cradle of Chinese civilization. In 1955 when a section of the old city wall in the provincial administration district was to be taken down to make room for a new street, archaeologists first went to explore the site as is required by law. This is to guarantee that ancient cultural relics are protected. Inside the wall they found piles of refuse from 3,500 year ago. After a year of exploration in the area they discovered the site of a tamped earth city wall from the Shang

Three old workers who were in the February 7 strike visit the exhibition on its history.



In the Chengchow Grinding Wheel Plant, one of those which has made the city into a major industrial center.





Flooded fields and peasants made homeless beggars after Chiang Kai-shek bombed the dykes at Huayuankou in 1938 (right) and fields at Huayuankou today (above).

dynasty (16th to 11th centuries B.C.). The entire wall had been seven km. in circumference and stood 10 m. high and 20 m. wide. Judging from the amount of earth needed to be dug, transported and tamped and the kind and range of tools that could be made at the time, they calculated it must have taken 10,000 slaves ten years to build it.

This three-sq. km. Shang city is the earliest Chinese city excavated to date. Within the walls were unearthed many sites of house foundations, cellars, ditches and wells and articles of bronze, stone, bone, pottery, jade and porcelain as well as inscribed bones and pottery. A 40,000-sq. m. earthen house foundation was uncovered. The pillar bases had holes in the center. In the foundation were found many jade and copper hairpins and tiny ornamental jade spades. Possibly it is the site of a Shang slave-owner's palace.

In sharp contrast were the foundations of the slaves' semi-dugout dwellings unearthed outside the Shang city wall. In Shang tombs beyond the wall were found a large quantity of cowrie shells and sturgeon bones from the South China Sea, the currency of that time. This shows that the city must have engaged in brisk foreign trade. In fact, the people of the Shang dynasty were so well-known as traders that to this day the Chinese term for "merchant" is made up of the two characters *shang* and *jen*, literally "Shang person".

The Shang city is on the list of major cultural sites to be preserved. In order to protect that part of the

wall above the ground, the government built Tzuchinshan Park around it. The ancient wall is now a hill topped by a pavilion. Below are a willow-lined stream, flower beds and a children's playground. The park provides a quiet spot in the office district and is right next to the Chengchow Hotel which hosts visitors from abroad.

Green Shades

Chengchow is 18 km. from the Yellow River, which of all the world's rivers carries the most silt. In fact, so much of it has been deposited at Chengchow that the riverbed there is three to four m. higher than the city itself. In 1938 when the Japanese imperialist invaders were approaching the city, in a move which is now assessed as showing callous disregard for the lives of the people, Chiang Kai-shek ordered the great dyke at Huayuankou blown up to cover the retreat of his troops. In the ensuing flood 890,000 people died. Vast expanses were turned into sandy wastes. At the time of liberation some 400 sand dunes had grown up northeast of Chengchow and were being pushed toward the city at a rate of five m. per year. The sand-laden wind gave birth to the saying, "In Chengchow you eat at least a brick of sand a year."

When Chairman Mao issued the call, "Cover the country with trees", the people of Chengchow responded with a will. Over two decades they have planted the larger dunes with willows and locust trees and leveled others to create tree nurseries, orchards and stock farms. These now supply the city with large quantities of



meat, eggs and fruit and also saplings for further planting.

The city's 170 main streets are lined with from two to five rows of tall poplars and spreading plane trees, some of which have grown so big that it takes two people with outstretched arms to encircle the trunks. These create a refreshing 40-m. wide shaded boulevard along which the people in the offices walk to and from work. The Chengchow Grinding Wheel Plant is like a park with fresh air and green trees. The tall plane trees and ailanthuses shade like umbrellas and help absorb the dust from pulverizing and burning the raw materials for making grinding wheels. Flower beds along the paths are fragrant with roses, lilacs and cassia blossoms in season.

From the top of the February 7 Strike Memorial Tower this former city of wind and sand appears an undulating sea of trees. After sedimentation, water from the Yellow River is sent to the city for drinking and industrial use by the Mangshan electric pumping station, built during the cultural revolution with volunteer labor of the people. The clear stream of the canal as it passes through the city shines in the sunlight like a silver ribbon through the mass of green.



SPORTS

Peking International Football Tournament

THE 1977 Peking International Friendship Invitational Football Tournament, the first of its kind ever held in China, took place from July 17 to 30. Participating were 12 soccer teams from the Democratic People's Republic of Korea, Ethiopia, Guinea, Hongkong, Iran, Japan, Mexico, Morocco, Zaire and China.

The closing ceremony was held in the 80,000-seat Peking Workers' Stadium on the evening of July 30. Teng Hsiao-ping, Vice-Chairman of the Central Committee of the

Communist Party of China and Vice-Premier, and other Party and state leaders attended and watched the final tournament game between the China Youth Team and the Hongkong Team. When the organizing committee presented friendship cups to all participating delegations and teams, the stadium resounded with applause, underscoring the tournament's role as a gathering to promote friendship and learn from one another.

After preliminaries in Peking and Shanghai the final round of matches was played in Peking. The first three places went to the China Youth Team, the Hongkong Team and the Korean Dae Dong Kang Team. Altogether 28 matches were played in the two-week tournament. Each team had its own style, characteristics and strong points. The fast-moving Koreans impressed the spectators with their vigorous and tenacious play. The well-built athletes from Morocco and Zaire played a fast, spirited game and were outstanding for their cohesive teamwork. The Ethiopian eleven excelled in breaking through defenses. The National Autonomous University of Mexico Team made good use of technique and individual skill. They were good at short passes and switching from defense to attack. The Shiraz Electricity Club Team of Iran was particularly adept at intercepting the passes and showed all-round competence. The Hongkong eleven has gained much experience in international competitions in recent years, which greatly improved their level of play. Their resourcefulness, flexibility and good teamwork were impressive. Their mastery at heading the ball brought the comment from spectators, "Hongkong footballers kick the ball with three 'feet'."

The younger players participating in the tournament played a bold and powerful game. Of the Guinean B Team's 18 players, 15 were young students. The Japan

Selection Team, made up of outstanding young players recently selected throughout the country, showed great potential. The China Youth Team was another newcomer. Its members had an average age of 21 and came from 11 provinces and municipalities. By learning from their opponents and playing with resolution they captured the championship with four wins and one draw.

It happened to be the rainy season in Peking when the tournament was going on. A number of matches were played in heavy rain. The slippery ball and soaked field



Exchange of pennants before the contest between leaders of the China B Team (left) and the Korean Dae Dong Kang Team.

made it difficult for the players to bring their skill into full play. But they won praise from the spectators for their earnestness and tenacity.

The tournament caused a "football fever" among Chinese sports fans. As people gathered in front of TV sets, on buses, in foodshops, everywhere football was the topic of conversation. Every evening, despite the sultry weather or downpours the streets were crowded with bikes and busloads of people making their way to the contest. In Peking a total of 110,000 spectators saw two matches concurrently at its two stadiums. Some fans came by train from Tientsin, 120



The Zaire Team on a boat tour of the Whangpoo River in Shanghai with Chinese athletes.

kilometers away. Many young people working in China's border areas, after watching the game over the TV, wrote the organizing committee congratulating them on the success of the tournament.

The tournament became a link for enhancing friendship and strengthening unity. "Friendship above competition" was the aspiration of participants from all parts of the world. Friendship and

solidarity were very much in evidence throughout the tournament. In the Hongkong vs. Iran match, for example, Hongkong player Cheung Ka Ping was dribbling the ball toward the Iranian goal. Just as he was about to slam the ball into the net, the goalkeeper dived for it. The Hongkong player reacted swiftly. He stayed his kick, leaped over the prostrate Iranian goalie and so let go an excellent chance for scoring. If he had kicked, the goalie in all probability would have been injured. This act of friendship drew a round of applause from the spectators.

The Chinese players learned a lot from the other teams in the tournament, and this will help to raise the standard of play in China.



The coach of the team from Mexico demonstrates a few pointers at the Shanghai Spare-time Sports School.



The Guinea B Team (in white) attacking in front of the Ethiopian goal.



A frantic save by two Hongkong players in the final contest with the China Youth Team.

The China Youth Team goalie foils a Zaire shot.



Spectators in the stands.

The Japan Selection Team vs. the National Autonomous University of Mexico Team.





The goalie of the China B Team makes a retrieve in a contest with the Iranian Team.

The China A Team and the Korean Dae Dong Kang Team players tussle for a heading.

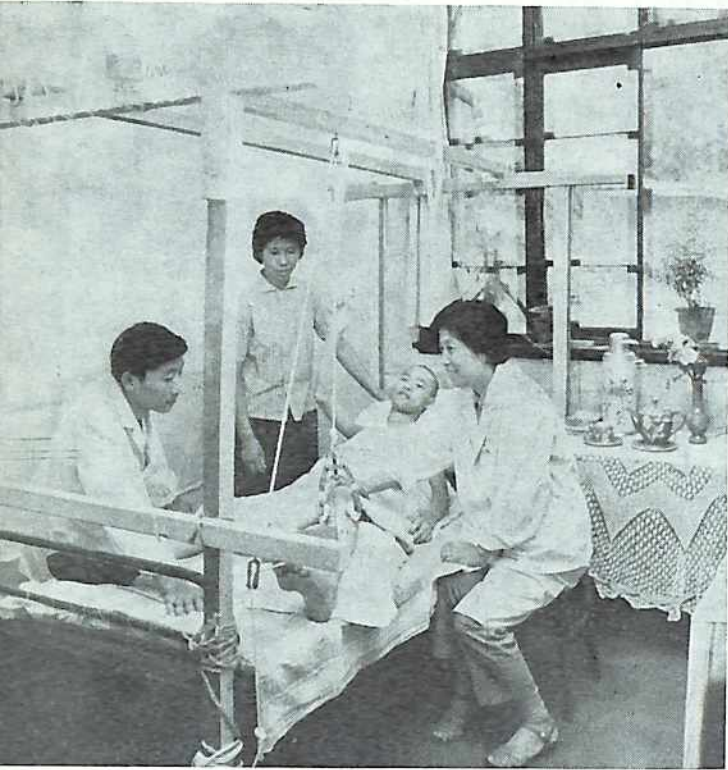


Morocco vs. Iran.

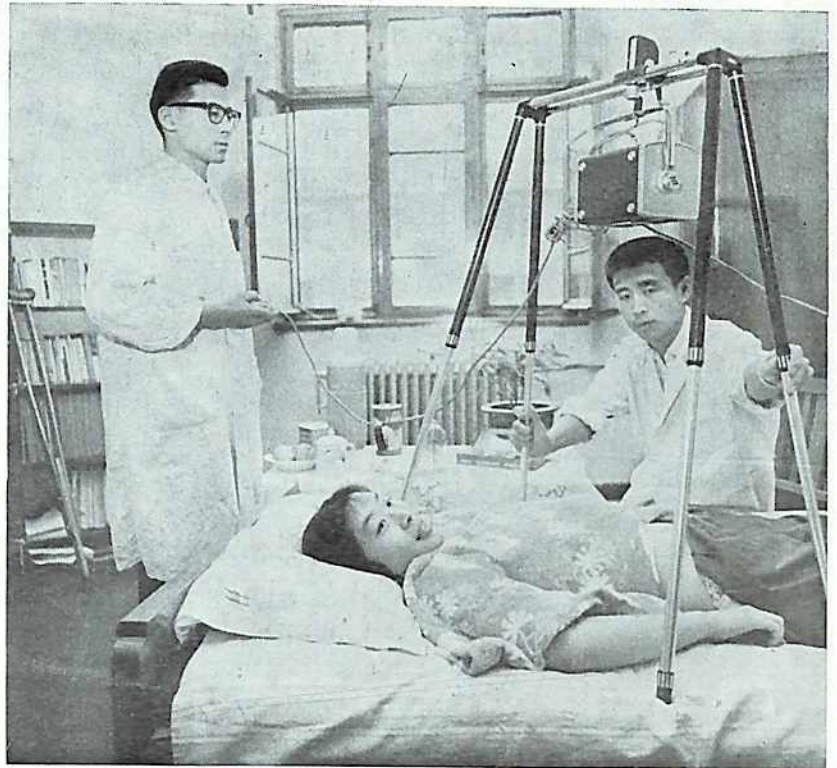


The Dae Dong Kang and Hong-kong teams play in heavy rain.





Skeletal traction at home for a patient with a broken thigh bone.



A portable X-ray machine photographs a fractured vertebra.

'Home Ward' for Fracture Patients

THE well-known orthopedics department at Chishuitan Hospital in Peking has claim on half the hospital's 500 beds, but even these are not enough for all the patients the department can treat. Late in 1974, to better serve the people, the department instituted a "home ward" system. Patients who would ordinarily need a long period of treatment in a hospital can get it at home if their condition is such that it will not worsen away from the hospital. The system has won the approval of the patients and their families.

The orthopedics department has a special home ward team made up of two doctors, one of whom is

department vice-head, and three nurses. Over the last three years it has cared for 700 patients in and around Peking, even one 70 kilometers from the city. No matter where their patients live, the team members make their rounds with a portable X-ray machine in all weather the year round. When necessary they set up fracture beds with skeletal traction. Many of the patients are elderly people with hip or intertrochanteric fractures. Some are children getting over the after-effects of polio.

In addition to the patients' regular case histories and X-ray photo files, for quick reference the

office of the home ward team keeps a card on the wall for every home ward patient with the general facts of the case. The team has 40 patients at present.

The hospital requires a general charge of two yuan (the equivalent of two days in the hospital exclusive of food) for home care, no matter how long the case. For many people this is paid by the free medical care plan. Others not covered by free medical care, in addition to this charge, pay medicine, surgery and other fees at the same rate as in-patients.

YANG YU-CHEN, 78, fell and broke her hip last June 19, necessitating at least eight weeks of hospitalization. Considering that at her age she might not be happy with the food and the strange environment of the hospital, the doctors suggested she receive treatment at home. After X-ray and other examinations she was taken home. A doctor and nurse installed a fracture bed and instructed her family on how to



The doctors teach the patients what to do to help restore function.

care for her. They told them how to prevent the patient from getting bedsores, pneumonia, urinary infections and other complications. At the beginning a doctor and nurse came to visit her every three or four days.

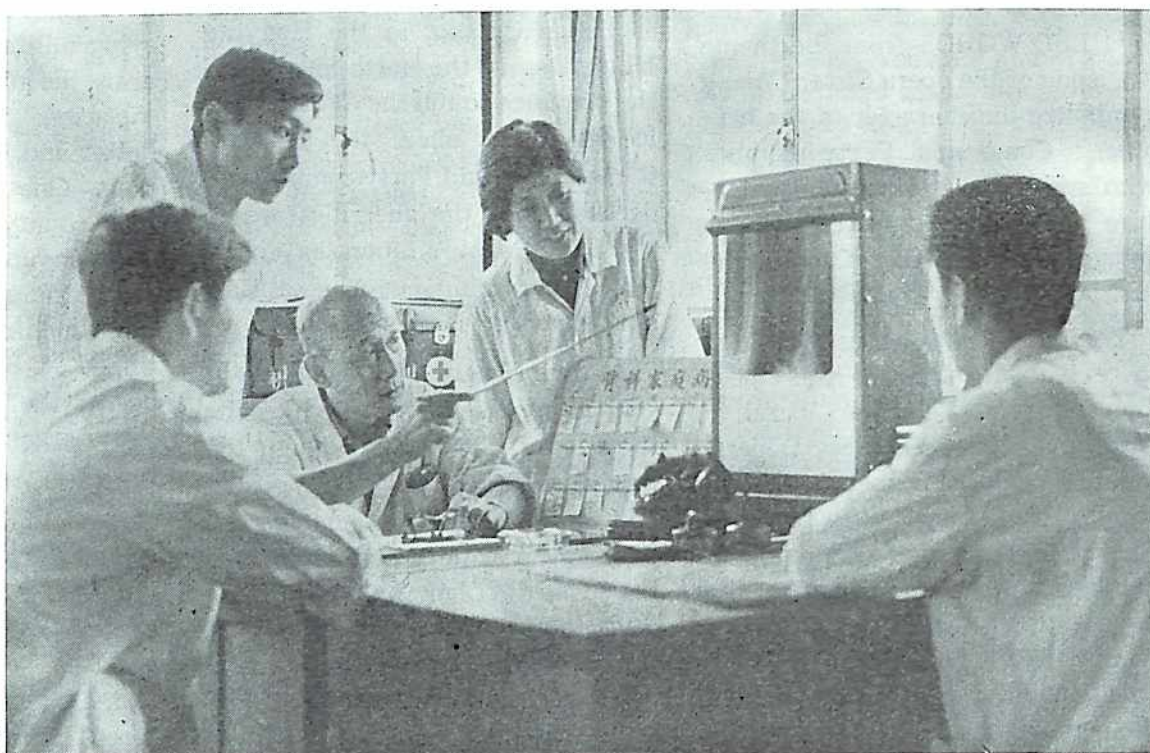
By early August it was seven weeks since Yang Yu-chen's accident. With the doctors' conscientious treatment and her family's good care no complications developed and she was nearing recovery. The old woman expressed her heartfelt thanks to the medical workers. She said that if she had been in the hospital she would miss her daughter and son-in-law and her four granddaughters with whom she lives, and worry about how things were going at home. By getting treatment at home she could still have their company and keep an eye on things too. It also meant considerable saving, as such a long period of hospitalization would have cost her at least 60 yuan, exclusive of food. Now her total expenses were only 12 yuan — ten for the X-ray, surgery and other treatment plus the two-yuan general home ward charge.

A NOTHER patient is 57-year-old Sung Shu-hsien, who works in the office of a company under the Ministry of Petroleum and Chemical Industries. Last April 22 she slipped and fractured her right ankle. At Chishuitan the doctor

reduced her fracture, fixed it in a plaster cast and asked her to come back in three days for a checkup.

Sung Shu-hsien lives on the third floor. This would mean someone would have to carry her downstairs, and she felt embarrassed, for she is rather heavy. The doctor decided to put her on the home ward list. A doctor visited her at home on the third day and after that once a week during the seven weeks her ankle was in the cast. After the cast was removed a doctor and nurse paid her more than one visit to teach her exercises to help restore the functioning of her ankle. Now she is entirely well.

"I think the home ward system is very good," said Sung Shu-hsien. "The doctors and nurses try to think of everything for the patient." She was particularly impressed by the doctors' willingness to go to the trouble of coming to her home rather than cause her any inconvenience. "They're really trying to follow Chairman Mao's revolutionary line in medical work and to be doctors in the spirit of Dr. Norman Bethune," she said.



Discussion of a case in the home ward team's office.



The Opera 'Sister Chiang'

Guerrilla leader, "the two-gun old lady", urges Sister Chiang to turn her grief into strength.

*Plum blossoms flower on
the red crag*

*Defying midwinter's
piercing cold.*

*Despite a thousand leagues
of frost on either side*

*Their red hearts open to-
ward the sun.*

THESE WORDS from the theme song of the opera *Sister Chiang* symbolize the character of the heroine, a Communist Party member who remains steadfast under torture and carries on a courageous struggle against the Kuomintang just before liberation.

The opera, now being presented in revival in Peking by the Opera Troupe of the People's Liberation Army Air Force Political Department, is based on the novel *Red Crag*. The story takes place in Chungking and the mountains of northern Szechuan province between the spring of 1948 and winter 1949. The War of Liberation is advancing swiftly and most of the country has been liberated. The

Kuomintang reactionaries headed by Chiang Kai-shek are making a last-ditch stand in Chungking. Chairman Mao has called on the people to "overthrow Chiang Kai-shek and liberate all China". The Communist Party underground organization in eastern Szechuan sends Chiang Hsueh-chin, known as Sister Chiang, to the Huaying Mountains in the northern part of the province to tell the Communist-led guerrillas about the call and the underground Party committee's decision that the guerrillas are to assist the People's Liberation Army (PLA) in wiping out Chiang Kai-shek's troops.

At the closely guarded dock in Chungking Sister Chiang outwits the enemy, then slips through the blockades and finally reaches the foot of the mountains. As she approaches a county town she sees the head of her husband, Peng Sung-tao, on the town gate. Peng, political director of the Huaying guerrillas, has just been murdered by the Kuomintang. She continues

on to the guerrilla base, burying her grief and fury in even fiercer struggle with the enemy.

The guerrillas, under Sister Chiang and their leader, "the two-gun old lady", mobilize the masses to resist conscription into the Kuomintang army and to refuse to deliver grain to it. Raiding trucks carrying military supplies and seizing arms, the guerrillas steadily expand the armed struggle and make things hotter and hotter for the Kuomintang. One day as Sister Chiang is in a county town making contact with an underground liaison man from Chungking, she is seized by the Kuomintang. They had been tipped off by Fu Chih-kao, a member of the Chungking Communist Party organization who has turned traitor.

She is thrown into the "coal pit", a concentration camp run by the Sino-American Cooperation Organization (SACO), notorious for persecution of revolutionaries by U.S.-Chiang special agents. Tortured, threatened, tempted with

bribes, Sister Chiang never yields but carries on a tit-for-tat struggle with Shen Yang-chai, one of the heads of the Kuomintang secret service.

In October 1949 Sister Chiang and the other prisoners learn from a secret message that on October 1 Chairman Mao announced the establishment of the People's Republic of China from atop Tien An Men in Peking. Sister Chiang brings out the red flag she has hidden left to her by her husband and with her fellow-prisoners embroider five stars onto it as a release for their emotion at the momentous news—the birth of a new China under the leadership of the Chinese Communist Party!

The PLA forces surround Chungking. Guerrilla units take the SACO camp and rescue Sister Chiang and the others. Chungking is liberated, Shen Yang-chai and his secret service are smashed, and the traitor Fu Chih-kao meets with the end he deserves.

THE opera presents a successful characterization of Sister Chiang as a proletarian revolutionary, indomitable, cool-headed and optimistic. She lives up to her ideals as expressed in the words of one song, "I live for the motherland and the revolution, I dedicate my youth to the communist cause." She shows her resolve with the words, "Threats subdue me not, poverty frightens me not, my will is firm as the rock."

The secret service head Shen Yang-chai is also vividly portrayed. In the scene where he interrogates Sister Chiang his pious phrases on "peace", "happiness", "human feeling", and "brotherly love" only go to point up more sharply his hypocrisy, cunning and ruthlessness.

By drawing on some of the finest elements of the music and singing style of local-style operas from Szechuan, Chekiang, Shanghai and Hangchow the composer has creat-

ed a modern national-style opera with wide appeal.

The opera was first produced in the early sixties by the same troupe giving today's performance. At the time Chairman Mao, Premier Chou, Chairman Chu Teh and Vice-Chairman Yeh Chien-ying attended performances and made important suggestions which were a great encouragement to the writers and cast. But Chiang Ching, perhaps because of the reflection it casts on

her own behavior as a renegade who betrayed the revolution in prison, hated this opera. She claimed that "the political background of the novel *Red Crag* is dubious so there are many things wrong with the opera *Sister Chiang*." She used her power to keep the opera off the stage for over ten years. It was only after the fall of the "gang of four" that the air force troupe was able to revise the opera according to Chairman Mao's earlier instructions and restage it.

As the liaison site is surrounded Sister Chiang realizes Fu Chih-kao is a traitor and denounces him.



Rescued from the concentration camp Sister Chiang and her comrades take up the struggle again.





Sister Chiang outwits Kuomintang agents and gets away without being searched.



She sees the head of her husband, murdered by the enemy, on the town gate.

A raid on an enemy train carrying military supplies.





Sister Chiang receives the red flag left to her by her husband.

She denounces the traitor and Kuomintang secret service men.



PROSPECTING UNDERGROUND RESOURCES

PIEN HUI



GEOLOGICAL work has made vigorous progress in the 28 years since the founding of the new China. It has provided us with enormous quantities of mineral resources and geological data for building up the country. What is now the Taching oil field was prospected and discovered on the basis of a unique theory developed in China.

China is still in the early stage of her industrialization and geologists have a big task to locate more mineral resources to help her achieve her aim of a modern agriculture, industry, national defense and science and technology by the end of the century. Fortunately China's vast territory is rich in underground treasures.

Profound Change

As far back as 3,500 years ago China's laboring people were using minerals and casting bronze. Many geological phenomena were recorded and expounded in ancient Chinese documents: the motion of celestial bodies, changes in the earth's surface, earthquakes, volcanoes, meteorites, subsurface water, fossils and minerals. They also recorded the physical properties and occurrence of many minerals and rocks. But this early simple geological scientific approach was unable to develop as it should have because of the long ages of feudal rule.

With imperialist aggression beginning in the latter half of the 19th century some foreigners in the guise of "tourists" or "missionaries" or engaging in "academic activities" scouted for minerals to

open a way for imperialist plunder of China's mineral resources. As a cover-up they spread the story that China was poor in minerals.

The reactionary Kuomintang government did everything at the beck and call of its imperialist masters. For instance, during the War of Resistance Against Japan (1937-45), the Kuomintang government imported copper by air from the United States despite the fact that the well-known copper mines at Tungchuan in Yunnan province remained in their hands.

On the eve of liberation in 1949, there were only some 200 professional geologists in China. She had only 14 sets of core drills and in more than 40 years had drilled only 170,000 meters. The few existing geological institutes carried out a geological survey within a very limited area, involving only a few aspects of geological science. They prospected about a dozen minerals but got little or no information on reserves suitable for industry. Geological maps of only a dozen localities in the scale of 1:1,000,000 had been published. A 1:3,000,000 geological map of the country was made on the eve of liberation but it was very incomplete and left large spaces blank.

After the founding of the new China in 1949, Chairman Mao gave great attention to developing China's own geological work. In the early days after liberation he called on the people to open up mines and said that geological work had to be five or ten years ahead of other aspects of national economic development and that

China had to locate and confirm enough of her own mineral resources for national economic construction. He pointed out that if geological work were not done well it would hinder the advance of other sectors of the economy. Premier Chou also stressed that if China did not open up, such resources, industrialization would be impossible. He even gave geological work priority over railways.

Good results have been attained in the last 28 years.

1. The geological force has grown from some 200 people and 14 core drills to a coordinated force of hundreds of thousands with thousands of core drills.

2. Reserves of 132 kinds of minerals have been ascertained, among them 17, including coal, iron, copper and petroleum, are in the world front ranks.

3. Hydrogeology has given great service to agriculture. Sub-surface water resources for irrigation have been located in Hopei, Shantung and Honan provinces. Sources of drinking water for people and livestock have been found in some extremely dry areas where people had suffered from lack of water for generations. Hydrogeologists have provided the data for work on control of the Yellow River, the Huai, the Haiho and the Yangtze rivers, and for building 1,000 large and medium-sized reservoirs. Water resources have been found for over 100 big and medium-sized cities. Control of land subsidence in Shanghai has in the main been achieved. (See



A bore-hole seismic logging team at work in the wilds seeks new reserves of the Shengli oil field.

"Shanghai Stops Sinking", May 1973 *China Reconstructs*.)

4. Marked results have been obtained in geological reconnaissance and in prospecting for petroleum. After the Taching, Takang and Shengli oil fields were found, reconnaissance surveys were made over a million square kilometers of sedimentary basins, and a large number of oil traps have been found. Oil has been struck in many places where future oil bases can be built.

5. Progress has been made in marine geological work. Initial surveys have been made of the continental shelf off China's coast and of areas in the Yellow Sea, the East China Sea and the South China Sea. Large sedimentary basins of promising oil and gas reserves have been found for future exploitation.

6. Prospecting techniques have been improved. Chinese geologists can now do aerial, ocean and underground as well as surface prospecting and employ practically all the principal current prospecting methods.

7. Geological research has developed steadily. The theory of geomechanics* of the late Li Sze-kuang (Prof. J. S. Lee), China's outstanding geologist, has proved valuable in guiding geothermal study, searching for metallic and non-metallic ores, prognosticating

* Geomechanics applies the principles of mechanics to the study of the mechanism, development and origin of the deformation of the earth's crust.

oil and coal fields and forecasting earthquakes. For the first time, in 1976, at the International Geological Congress three geological maps compiled in China were exhibited — the 1:4,000,000 Geological Map of China, the Map of Tectonic Systems of the People's Republic of China in the scale of 1:4,000,000, and the 1:5,000,000 Geological Map of Asia.

China's Own Path

As a socialist country which is still developing, China definitely cannot build up her economy as

imperialist or social-imperialist countries do by plundering the resources of other lands. Neither can she depend on importing raw materials. Experience taught us that, after winning national liberation and political independence, a developing country must also be economically independent. She must be vigilant and oppose control and plunder by the superpowers in the guise of "aid". China learned this lesson the hard way.

In the early sixties when China suffered from three consecutive years of natural disasters, the social-imperialist country, which had been aiding China, unilaterally tore up contracts, canceled agreements and withdrew its specialists. This served to propel China along the path of maintaining independence, keeping the initiative in her own hands and relying on her own efforts.

For a long time "authorities" serving the imperialists had spread the theory that sediments of continental facies were poor in oil and that therefore China had little of it. They arbitrarily pronounced China's geologic structures unfavorable for forming or accumulating oil, giving the impression that

Commune members in Huichang county, Kiangsi province, reporting their finds to a provincial geological team.



China could survive only by getting oil from abroad.

"The history of human knowledge tells us that the truth of many theories is incomplete and that this incompleteness is remedied through the test of practice. Many theories are erroneous and it is through the test of practice that their errors are corrected," Chinese geologists learned when they studied Chairman Mao's articles *On Practice* and *On Contradiction*.

Inspired by this teaching, the geologists concluded that the fact that petroleum had been formed in sediments of marine facies during a certain geological period does not necessarily mean that it could not be formed in sediments of continental facies.

Starting from the actual conditions in China, the geologists applied the theory and methods of geomechanics and analyzed the characteristic features of geologic structures in China. They came to recognize that it is the tectonic conditions prevailing over a definite geologic period and not whether sediments are of marine or continental facies that determine the generation, migration, accumulation and preservation of oil. They felt sure that good geological conditions and broad prospects for oil exist in the three Neocathaysian subsidence zones in eastern China.

Thus in 1955 Chinese geological teams began a strategic reconnaissance on the Sungliao Plain and the North China Plain — both in the second subsidence zone of the Neocathaysian tectonic system. Over these vast plains rock outcrops were scarce and no indications of oil or gas could be seen. After hard work at geological, physical and drilling exploration, the workers finally sank a well which tapped an oil pool suitable for industrial use on the eve of October 1 (National Day) 1959. On this basis exploration and exploitation of the Taching oil field were begun. Soon the Shengli, Takang and other oil fields were discovered.

The geological workers kept to the principle of putting practice

first. They started from the actual geological circumstances of China, summed up the experience of the masses and gradually came to see that the key to finding mineral resources is correct understanding of the laws of geologic structure and crustal movement.

The tungsten mines of Kiangsi province have long been famous. But there was a time when some people mechanically took over foreign theories on locating mineral resources. When the old tungsten mines were mined out they assumed the reserve was exhausted.

However, members of the No. 908 geological prospecting team working there applied the theory and methods of geomechanics and studied the relationship between the tungsten mineralization and the tectonic system. This led to the discovery of a large blind deposit of tungsten, as well as a new type of rare earth occurrence and other deposits.

Since very large copper deposits of the skarn type had rarely, if ever, been found abroad, some foreign geologists believed that no large reserves existed. Chinese geologists, guided by dialectical materialism, did away with blind faith in authorities and freed themselves of old ideas. They searched and found some large skarn-type copper deposits of high grade, first in the middle and lower reaches of the Yangtze River and later in many other areas as well.

Both Specialists and Masses

In building up her economy China takes her own path of maintaining independence and keeping the initiative in her own hands and relying on her own efforts. This does not rule out learning from and assimilating good experience from abroad according to the principle of "making foreign things serve China". Foreign experience has to be analyzed and integrated with the actual conditions in China.

Living and working in a place generation after generation, the laboring people are best acquainted with the mountains, rivers, trees,

rocks, soil and the changes in them. In the course of production they have accumulated much experience in recognizing geological phenomena and various mineral ores. Mobilizing and relying on the masses to look for and report mineral deposits provided geological workers with many leads and much valuable firsthand material.

One geological prospecting team looking for iron deposits with a magnetometer found no signs of any in a certain locality. Later a peasant in his seventies led the team to a place where his grandfather had said that people had mined iron a hundred years before. The team dug a dozen meters down and found a rich seam of iron ore 10 m. thick.

Another geological team, while exploring an old mine, consulted veteran miners who knew much about the stratigraphy and trends of the veins in the mine. They led the team to sites they thought should be explored and provided much important information. With the help of the miners in only one year the team learned that the mine had double the quantity of reserves as had been known before.

The government encouraged the people to report on mineral deposits during the First Five-Year Plan (1953-57). This became an enthusiastic mass movement in 1958 during the big leap forward in industry and agriculture under the guidance of the general line — "Go all out, aim high and achieve greater, faster, better and more economical results in building socialism." Millions of peasants went into the mountains to look for mineral ores and within one year some 100,000 places had been reported as having signs of deposits, three and a half times as many as reported during the First Five-Year Plan period.

During the cultural revolution mass participation in geological work became a regular thing. Muling county in Heilungkiang province which set up its own geological team in 1970 has found over 60 sites for mining iron, gold, coal, graphite, perlite and white clay. Six of these sites were

handed over to the government for further prospecting and the rest are now being exploited by the county, communes and production brigades. The county has opened 12 small factories and mines, and in four years has increased its industrial output value by four times. Professional hydrogeologists searching for water for irrigation go to the communes, brigades and teams to spread knowledge of hydrogeology, train spare-time geological workers and help the peasants find water resources and sink wells. Their efforts are much appreciated.

In extremely dry Mihsien county, Honan province, three members of the hydrogeological team applied the theory and methods of geomechanics to finding the distribution of subsurface water. As a result, they found profuse water resources which solved the problem of water shortage in everyday life for the county's 150,000 people and increased its irrigated area to four and a half times that before the cultural revolution.

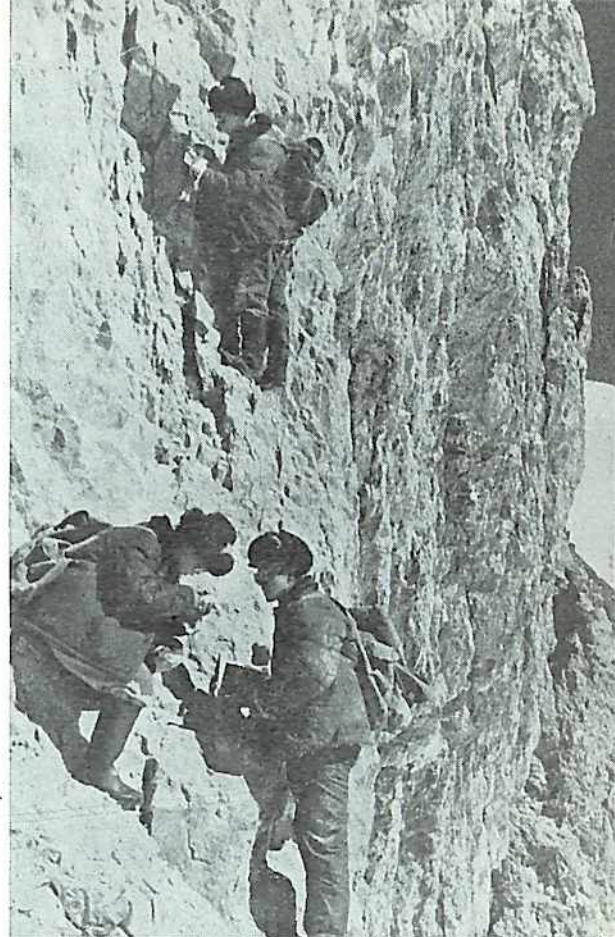
Favorable Situation

At this year's National Conference on Learning from Taching

in Industry, Chairman Hua pointed out: "As of now, we have only 23 years left before the end of the century. To greatly increase the speed of development of our national economy is a task which brooks no delay." In response, the geological workers have said they will work harder to locate natural resources for socialist construction.

A socialist emulation campaign has begun among geological workers for more, quicker, better and more economical results. Competitions between geological bureaus of different provinces, between prospecting teams, geological equipment factories and individuals have pushed production forward.

The weather was extremely cold at the beginning of this year. Snow fell over a wide area south of the Yangtze River and for a long period the ground was frozen. The geological workers in the wilds kept going in spite of wind and snow and most of the teams in the north started out ahead of schedule. When women of the March 8 drilling platform of the Heilungkiang province geological team No. 4 began drilling in February it was -30°C .



Members of Chinghai province geological team No. 15 collect rock samples from a precipice.



A Szechuan province hydrogeological team investigating an underground solution cavity in search of water sources for irrigation.

On-the-spot examination of samples by Yunnan province geological team No. 9.



In the first five months of this year the geological departments submitted 125 reports of different kinds to the government. Promising sites of iron, coal, copper, sulphur, petroleum or gas reserves have been discovered in Anhwei, Shantung, Kwangtung, Kiangsi, Szechuan, Fukien, Hupeh, Heilungkiang and Liaoning provinces, the Kwangsi Chuang Autonomous Region and Sinkiang Uighur Autonomous Region.

Better Seed Strains

The Eight-Point Charter for Agriculture covers soil, fertilizer, water conservation, seed selection, rational close planting, plant protection, reform of tools and field management. Formulated by Chairman Mao in 1958 to promote the development of agriculture, it summed up the rich experience of the Chinese peasants and laid down these cardinal principles for scientific farming. In August 1976 and June and July this year, *China Reconstructs* carried articles on the first three points of the charter.

Commune members in the Lunglin multi-national autonomous county in Kwangsi select good ears of wheat for seed.



DEVELOPING new seed strains, multiplying the seed, reselecting true and better types of the strains, and studying the characteristics of crop varieties are not the exclusive business of a few experts but the joint undertaking of millions of commune members, rural cadres and scientists in China today.

Seed improvement, point four in China's Eight-Point Charter for Agriculture is one of the pivotal items, since land improvement, fertilizer, irrigation, rational close planting, field management and other factors become operative only through the seed itself. Seed improvement is an effective and economical way of increasing crop yields.

Before liberation in 1949, farmers working individually used seed of strains traditionally grown in their locale, some of which were good. But capacity for increasing yields was limited because the strains were mixed and had many weaknesses. Now collective agriculture and improved soil, fertilizer, irrigation and cultivation have created a demand for improved seed. Chinese peasants and scientists have developed new varieties that give high yields, ripen early, resist natural adversities,

stand much water or fertilizer and are adaptable to new techniques of cultivation.

Seed strains for main crops like rice, wheat, maize and cotton have undergone at least three replacements since liberation throughout the country as a whole. Shortly after liberation in China's main rice-producing region, south of the Yangtze River, low-yielding rice varieties were replaced with high-yielding ones. In 1958 two peasants in Kwangtung province developed China's first dwarf variety of rice resistant to lodging. In the early 1960s agricultural scientists developed and popularized a number of new dwarf varieties which give higher yields.

High-yielding, rust-resistant varieties of wheat have been gradually introduced throughout the wheat-producing regions in the north. China's leading wheat producer, Honan province, which has four million hectares of wheat fields, has had four large-scale seed replacements which have played an important role in raising output.

Such advanced crop breeding techniques as monoploid and polyploid breeding and X-ray irradiation are now used in China's countryside. With the aid of these, dozens of high-yielding varieties of rice, wheat, cotton and other crops have been developed in recent years. Scientists have also developed triticale, a hybrid of wheat and rye, which has the advantages of longer ears, more grains per ear, higher protein content and resistance to diseases and pests. Now it is being introduced in mountainous regions.

Success in developing hybrid rice opened a new way to increased rice production and provided more information on the theory and practice of plant-breeding. Research on this was begun by Yuan Lung-ping, a teacher at the Chienyang Agricultural School in Hunan province, and others in 1964. In 1972 a nationwide coordinated research network was formed and soon breeding materials and

results of research from one place or unit became available to all. Differences in climate over China's vast territory are a help. For example, rice breeders in the north have been able to speed up their work by going to the south and



Researchers from the Shantung Agricultural Science Institute making an experiment for a better wheat hybrid.



Members of a commune brigade agricultural science experimental group in Huajung county, Hunan province, examine a new rice strain.

raising several generations of hybrid rice per year. The period for breeding and testing a new variety has thus been shortened. The area under hybrid rice has grown from 130,000 hectares in 1976 to 2,000,000 hectares in 1977.

IN China work on seed study and breeding is broadly based among the masses. In addition to central, provincial and prefectural agricultural research institutes, almost every county, commune, production brigade and team in the major agricultural areas has an experimental group. In Huajung

county, Hunan province, for example, 20,000 people take part in scientific farming activities. They have selected and developed 30 new crop varieties suited to their local conditions. Now the county can not only meet its own needs for improved seed but also supplies other areas with 20,000 tons a year.

The agricultural research institutes at all levels and the rural experimental groups work in close cooperation and constantly exchange seed and information. The experimental groups help the research institutes gather information on the properties of new varieties that are being tested.

After a new variety is developed, localities are urged to become their own suppliers of seed, take measures to maintain its purity, select seed from plants that grow best in their locality, and cross-breed with strains grown elsewhere to create seed most suited to their local conditions. There is a government seed farm in almost every county and most of the communes and production brigades have collective seed plots.

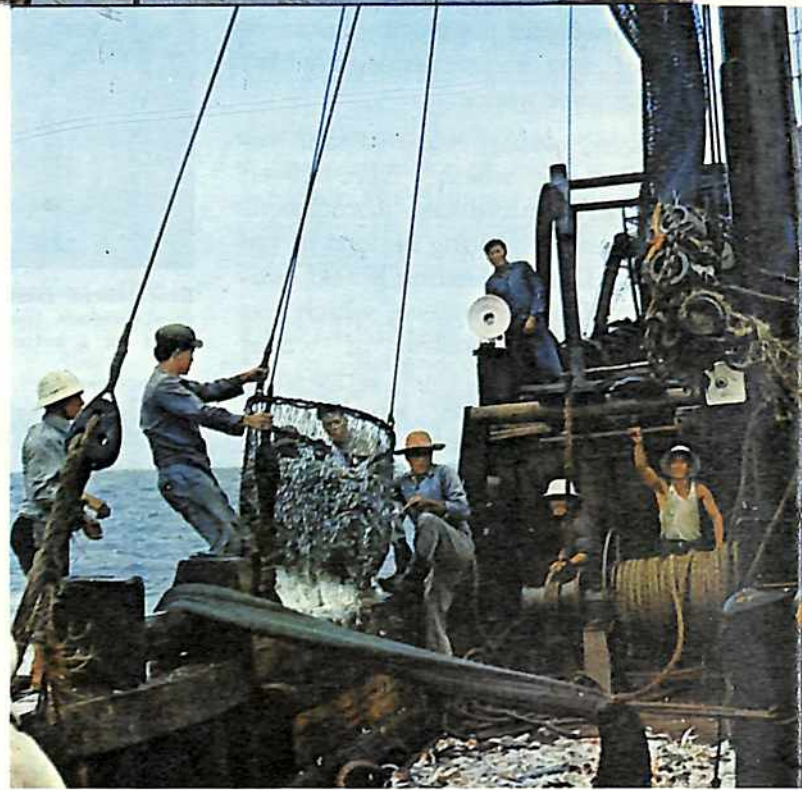
Each production team also has its own plots for breeding and experimenting with different varieties. The team's scientific research group, made up of experienced peasants, cadres and agro-technicians, makes a comparative study of the different varieties to find out the method of cultivation most suited to each. They study how best to treat the early, middle and late crops according to local farming conditions and the labor force. These comparative studies are used as a basis for the selection, increase and purification of good varieties.

Teng Yen-tang, 43, head of the peasants' crop breeding research station in Hsinhui county, Kwangtung province, has developed more than a dozen improved varieties of rice. "Before liberation, I never got enough to eat," he says, "liberation made it possible for us peasants to do scientific research and go into crop breeding and do our part for socialism."



Harbor at the Waisha commune, Kwangtung province.

Drying fish.



Fishing at sea.



Breeding minks is a side occupation for the fishermen.

A Model for Mechanizing Fishing

Staff Reporter

THE Waisha People's Commune on Bac Bo Gulf on the south China coast is known for the way it has mechanized its fishing since 1964. Mechanization has tripled the catch and markedly improved the standard of living.

The commune, with a population of 8,000, is made up of four fishing brigades and one fishing team operated directly by the commune. In 1964 only ten of its 170 junks were engine-propelled. Their total horsepower was 1,200. Now this figure has risen to 11,776 h.p. The commune has 89 boats with engines, and only two without. The commune and its brigades have three yards for building and repairing boats and 24 shops and small factories for processing or producing things like rope, nets and fertilizer made from marine products.

It all began after the people took up Chairman Mao's call in 1964 to learn from Tachai, a Shansi province brigade which is a national model for agriculture. "The Tachai people improved their conditions for production by 'rearranging their rivers and mountains,'" a leader of the commune told me. "For us, changing our conditions for production meant mechanizing our boats."

"Those old sail boats were awful," a veteran fisherman recalls. "When there was no wind we couldn't move, and when there was too much wind we'd get buffeted about."

The commune leaders decided to mechanize, but a lot of things cropped up along the way to hinder them. First, the raft bringing back the first four diesel engines bought by the Waisha brigade was damaged by a counter-revolutionary and the engines were ruined by the

salt water. The outraged people denounced him at a public meeting and after that there was no more open sabotage.

Then there was the thinking of Liu Shao-chi, who from his position in the central government, promoted a series of measures designed to lead agriculture and its concomitants like fishing back down the capitalist road. One of these was the free market. Another was fixing output quotas according to the individual household instead of previously according to the collective team or brigade. Following this line, some teams that fished in shallow waters set a collective quota not according to the team but the boat, and set it very low. This meant that every boat, after it had met its quota, could catch fish on its own, sell them and split the proceeds among the individual fishermen. This led the interests of the fishing people into other channels and mechanization of collective fishing was pushed aside.

Self-Reliance

When the cultural revolution began the commune organized meetings to criticize Liu Shao-chi's revisionist line — in the villages, on the boats when they were at sea. This again opened the way for mechanization. Those who had been for fixing quotas according to the boat came to see that this was really in opposition to socialist revolution and going backward to capitalism. The people became eager to strengthen collective fishing. Production went up and the collective funds for mechanization grew.

The Waisha commune brigades began by buying diesel engines to install in their old junks. Later they built new wooden boats es-

pecially designed for engines. Recently they began to buy their own steel boats. All this has been done self-reliantly.

Lu Ah-pao, Communist Party secretary of Waisha brigade, a fisherman in his forties, told me how at great hardship they had installed engines in two junks in 1964. But they didn't know enough about operation and maintenance, so the engines broke down and became unusable. Some people began to doubt their ability to mechanize. It was safer to go back to the old way, they thought.

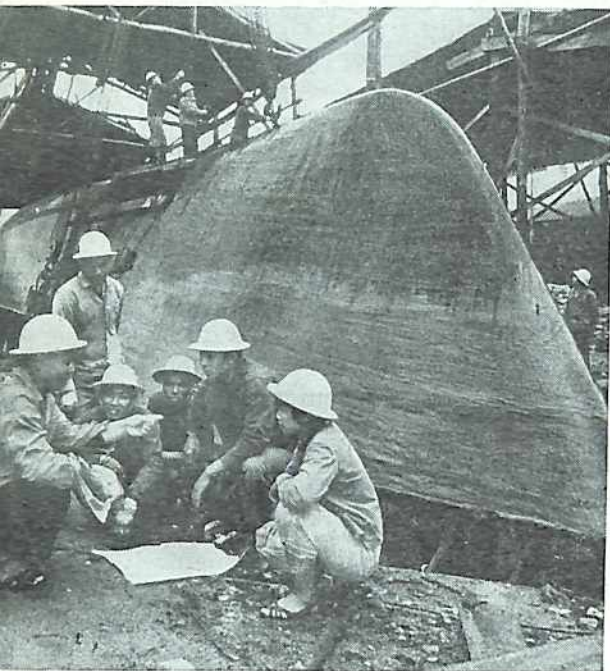
Lu had urged them to have faith in their own strength. "Chairman Mao said, 'the fundamental way out for agriculture lies in mechanization' and that's true for fishing too." The brigade sent 60 members to other units to learn to operate and maintain the equipment. In 1965 the first group of motorized junks went to sea.

Other brigades did the same thing. The Kaoteh brigade wanted to, but didn't have enough money. Its Party branch led the members into setting up a simple fertilizer plant. They collected shells from the shore, burned them and mixed the ashes with fish heads, rotten fish and water. After fermentation this became excellent fertilizer. The brigade had no bellows for burning the shells, so the members made a wooden pedal-operated one. Small as it was, the plant brought in at least 50,000 yuan a year, and one year as much as 80,000. The women brought in another 20,000 by making fireworks, a traditional local craft.

As more engines were bought out of the collective fund the problem of maintenance and repair became greater. The commune and brigades set up three boat building and repair yards. Since



Mending nets.



In the repair and boat-building yard of the Waisha brigade.

the one at Waisha brigade began operation in 1970 it has fitted nine junks with engines ranging from 80 to 250 h.p., and done all the repair and maintenance of the brigade's boats. It also checks and repairs the radios, boat-to-shore intercoms and fish detectors, and produces a great quantity of net hoists, propellers, diesel engine parts and other boat equipment.

New Fishing Village

I walked along the sea wall to New Fishermen's Village, one of the four bigger villages built since the commune began learning from Tachai. Against the blue of sky and sea the cream-colored brick walls of its double row of two-

storied balconied houses stand out in bright contrast. One of the amenities it boasts is that every household has a loudspeaker for the radio rediffusion service. Along the street the primary school, kindergarten and library were busy places.

There I met Second Brother Lin, 58, who operates the light on the boat *Hongji* No. 11. His family of six has six rooms on two floors. "In the old society," he said, "this place was a desolate bit of coast. We fishermen had a song:

*My back aches from work
and my stomach from
hunger,*

*My family's all scattered
fleeing from famine,*

*Bailing our leaking boat we
roam*

*The four seas never to have
a home.*

"That was our life before. I was a child laborer for a boat owner when I was 12. I worked like a slave but still was beaten regular-

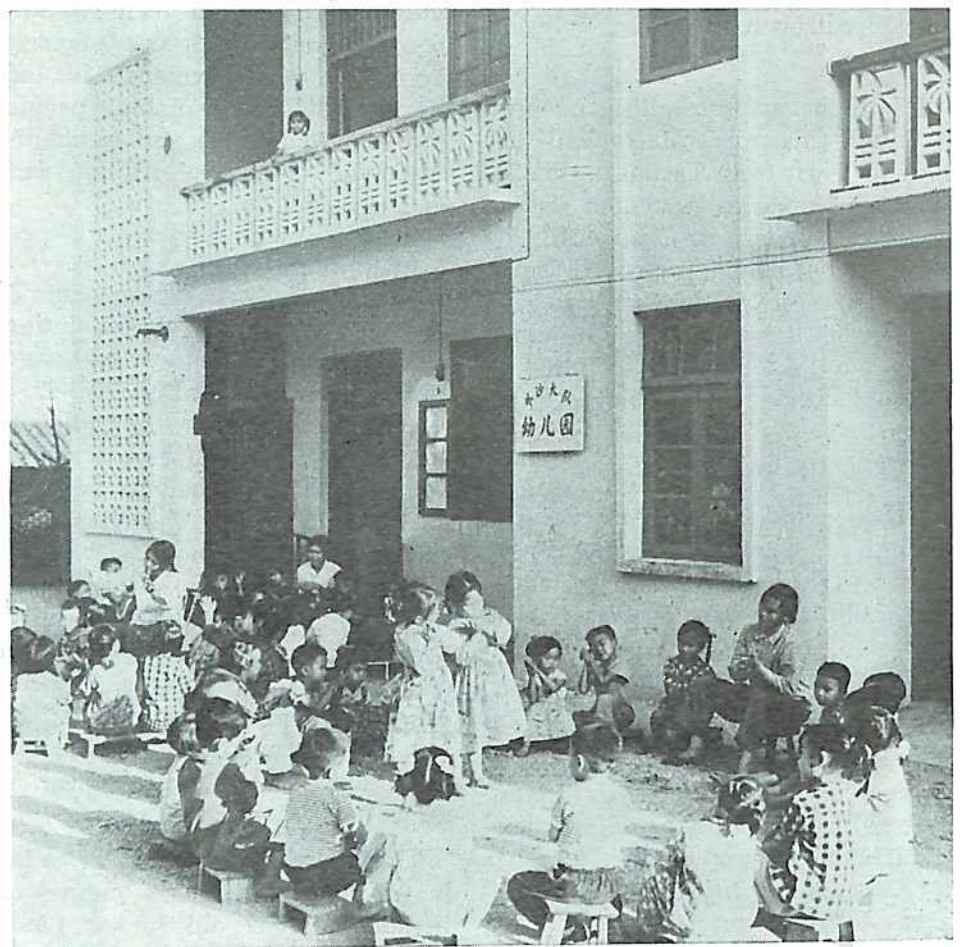
ly. When I got older I became a deck hand, but the owner would sack me in the slack season so I was often out of work."

While we were talking his 15-year-old daughter came back from middle school. "How happy they are," Lin said, "going through primary and middle school free of charge. And when we get ill the cooperative medical service pays the bill. In two more years I'll be 60, and can retire with a pension."

By then his elder son and daughter had come back. The son is assistant helmsman on a 600-h.p. steel boat the brigade bought recently. The daughter works in the brigade's rope factory. Now only the younger son, 23, was absent. He is a radio operator on the *Hongji* No. 28, and was at sea. With four people in the family working, their total annual income is 1,920 yuan.

"Learning from Tachai has changed our country's mountain villages, and our fishing village too," the old man said.

The kindergarten.



How a Commune Builds Factories

CHI YEH-CHENG

IT became harder and harder for the Huikuochen People's Commune in Kunghsien county in western Honan province to do without mechanization after it started learning from the national agricultural model Tachai in the cultural revolution. Its members had criticized Liu Shao-chi's revisionist line and both leaders and rank-and-file commune members were all fired up to make basic improvements on their farmland and build water conservation projects in a big way.

Chuchiachuang brigade sank a well but couldn't get a pump so they couldn't use the well and covered it with a huge iron pot. People digging channels on the hills had to stop because they couldn't get dynamite for blowing out the rocks. One of Tungmiao brigade's electric pump motors broke down in the midst of a drought. The commune was not able to repair it and if they sent it out for repairs they wouldn't get it back in time to be of any use. So they just had to do without it. The commune members worked all day on the water projects, and when they came home in the evenings they had to push the millstones to grind their flour. How they wished the commune had its own flour mill!

Doing It Themselves

Contradictions such as these propelled the commune on to a campaign to build industry which would enable it to mechanize. The commune now has 17 factories — a foundry, a plant to build and repair farm machinery and those making chemical fertilizers (including one for phosphate fertilizer), chemicals, cement and electrical equipment. The 21 brigades under the commune have a total of 83 factories. Each brigade on the average makes four or more kinds of products. The commune's schools, stores and other enterprises have their own small factories. All these have been built self-reliantly.

Total value of industrial production was 20.6 million yuan. It accounted for 63.2 percent of the total

industrial and agricultural production of the commune, its brigades and teams. The way the products of this industry has speeded up agricultural work is reflected in the commune's 1976 grain yield of 8.4 tons per hectare. Before liberation it was only 750 kilograms.

Where to Get the Money?

The commune members wanted to mechanize, but at first they were stopped by some problems — where to get the money to buy the things needed. And, in fact, where could all those things be bought? The commune was not rich. Before liberation this place was poor and backward. The alluvial valleys that make up its northern half perennially suffered from waterlogging, and the loess foothills in the south, from drought. In the drought and famine year of 1942, 13,700 people from the region's 3,500 households had to leave their homes and go begging in other places. Starvation took the lives of 1,028 persons, and 340 families sold their children, hoping that in this way at least they would be fed.

After liberation land reform freed the peasants from feudal exploitation, and collective farming improved their lot. The people's commune, set up in 1958 with 3,933 hectares of land and 59,000 people, enabled them to dig channels in the valley, sink wells on the hills, build banks along the river and plant trees along the roads. Agriculture, forestry, livestock breeding, sideline production and fishing thrived. They had even set up a few small factories but these were closed down in 1959-61 (when the country faced economic difficulties caused by natural calamities and other factors) by Liu Shao-chi who from his high position of authority was carrying out a revisionist line.

In the cultural revolution both leaders and rank-and-file commune members studied Chairman Mao's teachings. While peasants in the communes should mainly engage in agricultural production, when conditions permit, they should collec-

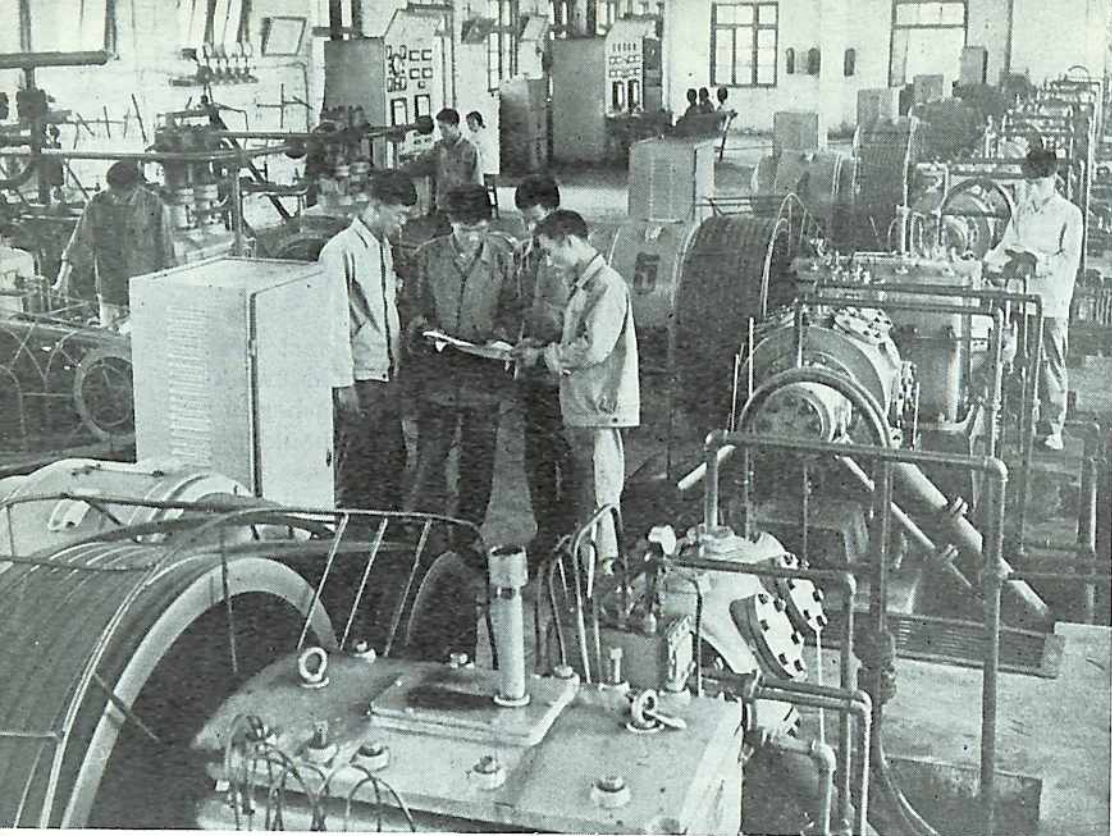
tively run some small factories, he had said. China should "walk on two legs" in developing her industry, that is, industry should be set up by local as well as central authorities, and there should be collectively-owned enterprises as well as state ones, medium-to-small ones as well as large ones, and industries which use mainly home-style methods as well as highly mechanized ones.

They also realized that though the state had been providing most urgently needed industrial products for purchase, it was impossible to satisfy the huge demand all at once. If everybody waited for the state to supply everything, the whole country's agricultural mechanization would not move ahead as fast. Then they understood that the communes must rely on their own strength to build industry.

Up from a Smithy

The commune began with a factory to make and repair farm machinery. Today's plant with modern machine tools in high, well-lighted shops started from a forge set up in a dilapidated temple. To head it, the commune leadership assigned Wei Hung-pin, a Communist Party member, who had apprenticed for three years in a blacksmith's shop before liberation. He and two other blacksmiths, two assistants and two young men just out of school were the factory's initial hands. At first they could only make small farm tools like hoes and sickles. Gradually they learned to repair waterwheels, motors and diesel engines. They went around the villages pulling a cart buying scrap iron for raw material. They made a simple lathe on the frame of an old tobacco cutter with a millstone as grinding wheel. When they decided to produce parts that frequently needed replacement on farm machinery, they would take the machines apart and spend hours copying them.

Transformers were needed to electrify more of the commune's irrigation, so the workers decided to make them. They went to a



A shop in one of the commune's chemical fertilizer plants.

design three times, increasing their annual output of synthetic ammonia from 2,000 to 5,000 tons.

In the same spirit of self-reliance that built the first factories belonging to the commune, its brigades began to set up their own factories. Some, such as those producing machinery, cement and cement pipes, serve agricultural mechanization and water conservation works. Some, such as mills making paper from straw, brick and tile kilns and oil presses, use local resources or process local produce. There are also some serving the bigger factories, mainly small foundries and shops processing parts. Others, like shoe factories and flour mills, serve commune members' daily needs.

Electric insect traps made in a commune factory.



transformer plant in Chengchow, the provincial capital, where they filled their notebooks with data and drawings. They bought an old transformer which they took apart and studied till they understood the basic principles. The biggest obstacle was lack of a machine to bend the tubes. It took more than an hour to bend a red-hot tube by pressing it with a wooden pole. Yet, with such methods and hard work they made their first transformer. Soon they were making transformers of 50, then 100 and then 750 kilovoltamperes.

As the factory's production and income grew it improved equipment and raised productivity. The workers made 70 percent of their own equipment by ingenious methods such as processing big parts with small machines. They bought some necessary standard equipment with funds they accumulated themselves.

Today the factory, with more than 100 workers, produces over 30 kinds of small and medium-sized farm machinery, as well as equipment for repairing them. It has provided every brigade with a set of equipment for repair work, including small table drills and electric welders. The factory also trained maintenance personnel for the brigades so that the latter have been able to set up their own repair shops. The farm tools plant

enabled the commune to set up a foundry, transformer plant and tractor station. The commune has produced enough machines to enable irrigation and drainage, cultivation, threshing and processing of agricultural and sideline products to be partly or wholly mechanized.

First Fertilizer Plant

In 1972 the commune had sufficient technical ability and economic strength to build a chemical fertilizer plant. The brigades sent their best young people to be its workers and used their best machines to make equipment for it. The commune assigned a man who had led an agricultural cooperative to head it. Someone supposedly knowledgeable in the matter said they wouldn't be able to build it. The commune members decided to try anyway, using both modern and home-style methods. Since they lacked the necessary machines, they cut several centimeter-thick steel plates with small hand saws. They had no punch press so they hammered sheets of red-hot steel into the shapes needed over pits dug for the purpose.

In 16 months of hard work they made 70 percent of the equipment and bought only what they were unable. Since the factory went into production four years ago, the workers have improved on the

Commune and brigade-run factories now have 4,300 workers, which make up 17 percent of the commune's total labor force. These workers spend part of each year working in agriculture, those in commune-run factories 60 days a year, those in brigade-run ones, 90 days. This helps keep a difference between workers and peasants from developing and keeps the workers in touch with farm needs.

One such worker, Wei An-fu, has been a model since his first year as a stoker at the commune foundry. Once a tractor driver, he stays in close touch with farm production. He frequently gets up before daybreak and loads up and

pushes a cartload or two of manure to the fields before going on his regular shift, and also helps out on some evenings. Whenever he sees a tractor having trouble he helps repair it. "Just the kind of man we need," the commune members say. "He is both worker and farmer."

Tsao Tieh-chui, cook at commune Chemical Plant No. 2, had once been a potter, and had liked to make and sell his wares to the detriment of his work for the collective. After he started working at the factory, the workers' selfless devotion to the collective made a big impression on him. He stopped thinking about what he might do privately and worked hard to prepare the best food possible for them. Once the factory's calcinator could not be got to the required heat. Tsao offered to see what he could do. He thought that his experience in firing a potter's kiln might prove useful. By smashing the coal into smaller lumps of roughly equal size, feeding the fire often and evenly and cleaning out the ashes frequently he raised the temperature from 800° to 1,300° C. Happy that this former small-producer was now doing his best for the collective, the workers named him a labor model and pinned a big red flower on his chest.

The Picture Today

In the commune there are now a total of 21 trucks, 233 tractors of various sizes, 1,796 motors, 510 machines for processing agricultural and sideline products, 37 generator sets and many harvesters, rice transplanters, seeders and other machines. Its motive power totals more than 30,000 horsepower, an average of 10 h.p. per hectare of farmland. Small repairs on agricultural machinery can be done in the production teams, and minor overhauls in the brigades, so machinery need only be sent to the commune factory for major overhauls.

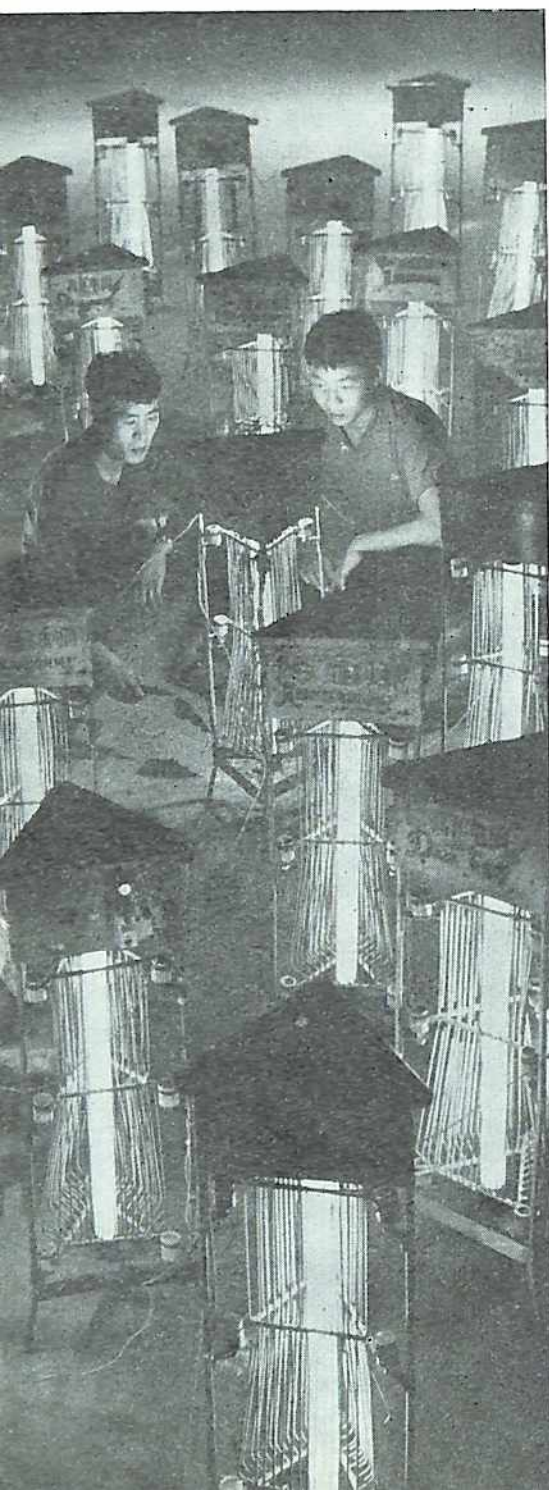
Mechanization has brought a big change. The commune's 1976 grain production was ten times that before liberation. Every one of the 180 production teams has grain reserves and every household has its own store of surplus grain. The output of vegetables, cotton and rapeseed is continually rising.



These young women are threshing on a machine made in their commune.

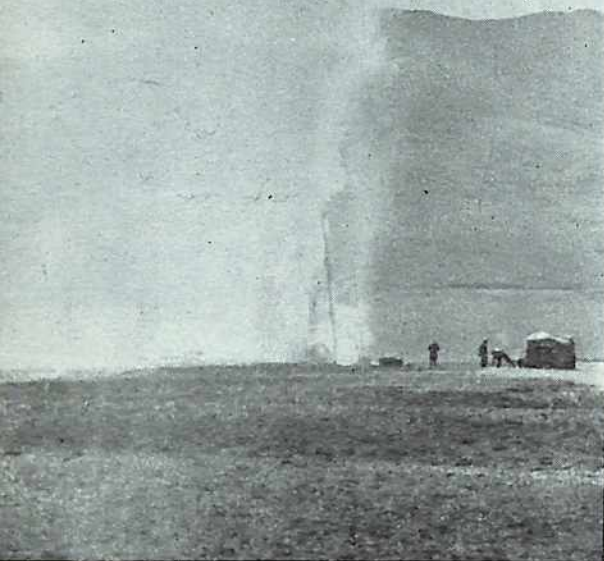
Seventy percent of the families have savings in the bank. All commune members are able to afford membership in the cooperative medical service, and to put their children through middle school as well as the primary grades. The increase in collective income has provided funds for some bright, spacious new community-built homes, and for equipment so that every brigade can have a basketball team and cultural troupe, and most, a film projector and television set.

In the total of all public accumulation funds (drawn from both industry and agriculture) in the commune, its brigades and teams, 48 percent comes from projects owned at the commune level, 29 percent from those at the brigade level and 23 percent from those of the production teams under the brigades. The relatively large proportion coming from the commune level indicates that the growth of commune-owned industry is strengthening the higher-level collective ownership.



TIBET'S GEYSERS

CHANG MING-TAO



A geothermal field near Lhasa where a geothermal generator plant will be built.



Members of the investigating team cross the Ragatsangpo River.

THE Tibetan plateau presents a varied natural panorama of ice and snow, fields of waving wheat and fragrant fruit orchards. Less well-known are the marvelous geothermal phenomena to be found in almost every county of the region.

High, big and new — that's the Tibetan plateau. It rose late in the Cenozoic era, which makes it new in geological terms. Complex geological processes are still going on within the earth's crust. Structural movement and magmatic activity give rise to unusual geological phenomena, the most entrancing of which are the geothermal ones, which have complex modes of expression. In areas with powerful subterranean heat sources — mainly magma, molten rock — high-temperature geothermal fluids — mainly underground water — give rise to vigorous hydrothermal activity on the surface.

Our group surveyed thermal resources in the Tibet region from 1973 to 1976, covering thousands of kilometers across snow-covered mountains, glaciers and cliffs, sometimes sliding from

CHANG MING-TAO is a member of a Chinese Academy of Sciences group investigating geothermal resources.

one to another on cables. We investigated hundreds of areas with hydrothermal activity, observing and studying over 20 modes of expression — practically all those known to the world. We saw warm and hot springs, boiling springs with a temperature above the boiling point at that altitude, hot lakes fed by underground hot water, steam jets spurting natural steam, and geysers and hydrothermal explosions, prized natural phenomena rare in the world.

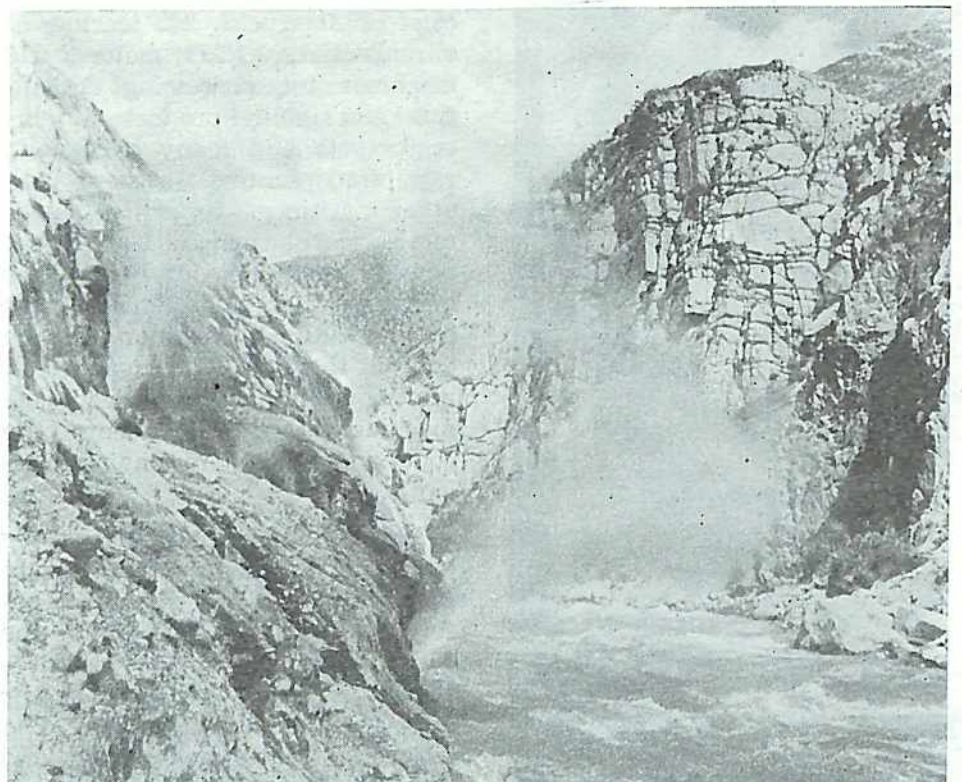
Below is an account of our investigation of the Dagejia geysers, China's largest, in Ngamring county among the southern foothills of the Kangkar Tesi Mountains in southern Tibet.

Herdsmen Guide

It was late in July 1975 when we arrived at the summer pasture of the Raga commune, along the upper reaches of the Ragatsangpo River (a branch in the middle reaches of the Yalutsangpo), on our way to Dagejia. It was the busy season. The fat cattle and sheep on the broad plateau were a sight to gladden the eyes.

As he treated us to milk and buttered tea, the commune Party secretary told us about the Dagejia

The Bijiulong high-temperature geyser zone in Namling county.



geysers. He assigned the most experienced herdsman to be our guide.

The next morning we mounted our horses and set out before sunrise. July and August are the plateau's rainy season. Our guide was worried that rain and snow a few days before had made the Ragatsangpo uncrossable. After traversing a stretch of low hills, we saw the river up ahead. Its waves whipped up whirlpools as it roared along. Our horses, who knew all about the problems of plateau travel, halted at the river's edge, pawing the ground and snorting.

Our guide searched till he found a stretch where the river split into several streamlets, so that we could cross them one by one. In these the icy water was shallow and the flow slow, but it came up over our knees in the main one. We pressed our legs tightly against our mounts and were prepared to grab their manes and swim across in case we couldn't stay in the saddle.

Safely across the river at last, we spurred our horses forward. The deep blue sky was exceptionally clear, with only a few thin white clouds at the horizon. Suddenly a thick cloud of white mist rose in the distance. "That's a Dagejia eruption," the guide said. With great excitement we whipped our steeds toward the source of the mist.

The Dagejia hydrothermal zone is bisected by the Ragatsangpo River as it meanders south from the west side of its broad, gentle valley. At the north end of the zone a ten-meter-high terminal moraine cuts across the valley to form a lake. To the east is a shallow, flat marsh, to the west a snowcapped peak reaching over 6,000 m. The zone's four geysers are on a large 15-30-m.-high sinter tableland deposited by the evaporation of mineral water.

The largest geyser on the slightly sloping tabletop is on the south bank of the riverbed. Its vent, less than 40 centimeters in diameter, is connected by a fissure with a two-m.-diameter hot-water pool to the east. We had been told the geyser erupted four times a day

and were surprised to find that its activity was more frequent and irregular, with no fixed periods of eruption and rest. All we could do was establish periods of relative activity and inactivity.

The height of each eruption varies from one or two m. to over ten m., and they last from an instant to over ten minutes. Before a large eruption the water level in the shaft below the vent and the neighboring pool rise gradually and then the eruption starts. The column of water slowly rises and then drops, sometimes going through several ups and downs before reaching its peak. The column of steam and water achieves a height of about ten m., holds it for a while, then drops and rises again. The process repeats itself until the column finally recedes into the vent.

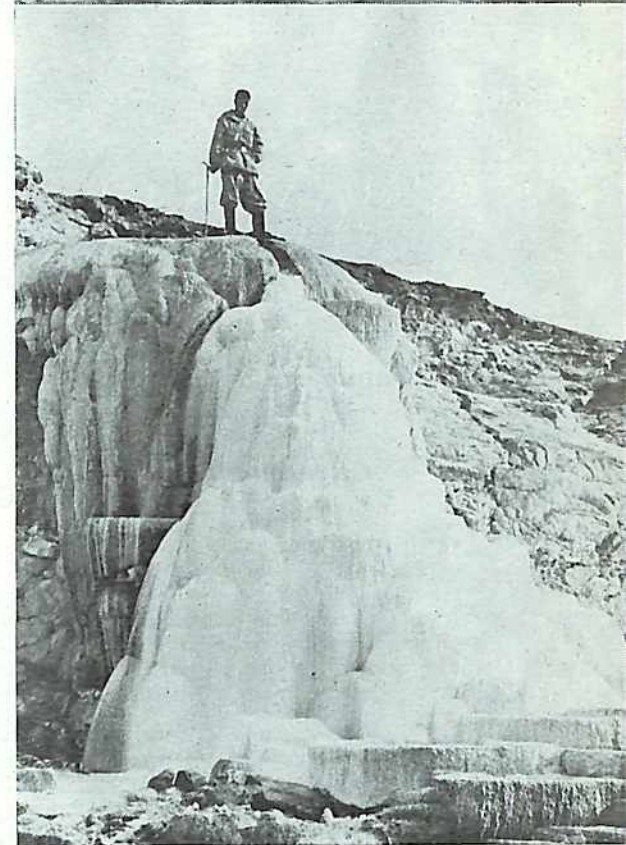
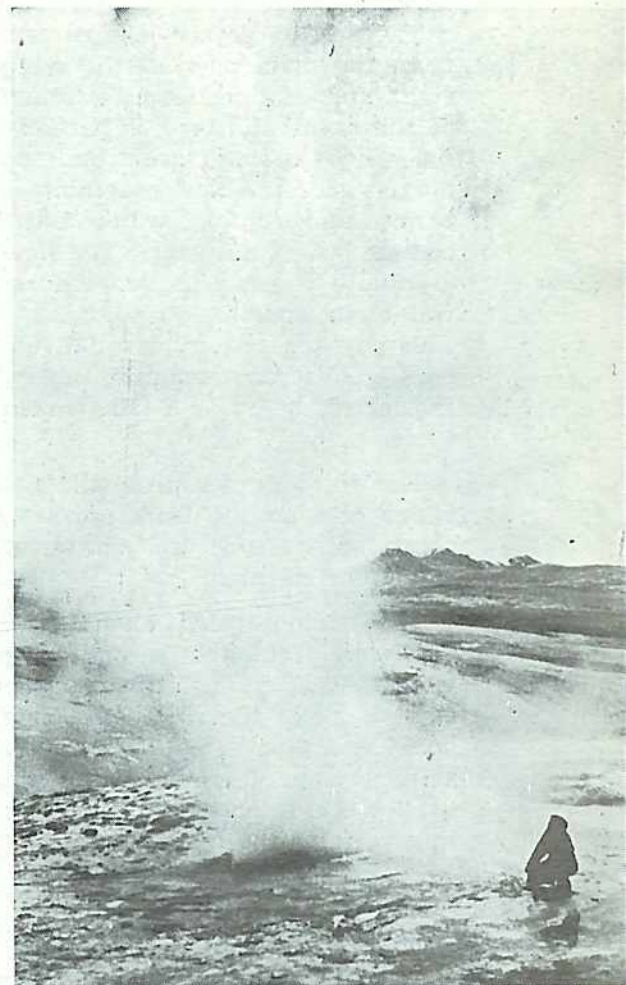
This unusual behavior also mystified our guide. "There are more eruptions than in past years, and higher ones," he said. "When I was 20, the geyser's mouth wasn't where it is now, but in the pool. The eruptions were even higher in those days."

A Big Eruption

Not long after 3:00 that afternoon we witnessed an unforgettable large eruption. After a series of short eruptions, a stream of hot steam and water burst from the vent of the geyser with a roar and expanded into a column over two m. in diameter and about 20 m. high. The cloud of billowing steam atop the column made an impressive sight against the blue sky.

We rushed to the vent to take measurements and samples and were met with a blast of hot air and a hot rain of steam and boiling water from the top of the column. Though we had on boots and wrapped our raincoats tightly around us, the heat was still hard to take. The steam turned our hands and faces red and clouded the dials of our instruments. Our temperature probe was thrown into the air several times by the powerful stream of steam and water. In spite of it all we stuck

The Dagejia geysers in Ngamring county.



A white cone of calcium carbonate deposited by water from the main vent atop a calcareous sinter tableland in the Chhulung hot springs zone in Zamda county.

to our jobs and got valuable firsthand data.

The second geyser is upstream from the main one, on the steep right bank of a north-south section of the river. Its vent is partially blocked by a sinter crust built up on one side. About ten minutes before an eruption water starts coming out of the vent. The flow gradually increases until steam and water start spurting out to the side. This geyser's activity is relatively regular, with an eruption every five or six hours in a fairly fixed cycle.

The third geyser, a small hot-water pool on the bank opposite, occasionally sends up sprays of water one m. high.

The fourth geyser is about 30 m. upstream from the second. Its vent is set at an angle in the steep right bank of the riverbed. This one seems "lazy". "It's generally active around dusk", our guide told us, "or else the next morning." Its interval must be over a day.

In addition to the four geysers, there are about a hundred boiling springs, hot springs, hot pools and steam jets scattered across the sinter tableland on both sides of

the river. As we stood on the slope west of the hydrothermal zone watching the columns of steam and water shoot into the sky and the boiling of the springs and listening to the roar of the geysers and the burble of the springs, it seemed to us that this must be the place where the earth breathed, drank and spat.

We waited beside the vent of the fourth geyser till dusk so as not to miss its infrequent activity. Nothing happened, so we pitched our tents, started a fire and cooked our meal.

The Silver Bridge

When we woke up at dawn for some reason our mountain tent was on the verge of collapse. On opening the tent our eyes met an incredible sight. Though it was midsummer, one night's snow had turned the mountains and plains outside the hydrothermal zone into a world carved out of silver. The big, fluffy snowflakes continued to drift down and the vapor in the zone was denser than on a clear day. Near some of the springs the snowflakes melted before they could reach the ground. In the dim dawn light we could barely

make out the eruptions of the geysers, as their clouds of steam practically merged with the low-lying clouds to form a sea of mist and cloud.

We returned through the snow to the neighborhood of the fourth geyser, and kept a careful watch on its vent. After an hour a small, placid hot-water pool on the sinter tableland above suddenly started boiling violently and running over. "The geyser below is about to erupt," our guide said.

Sure enough, at 11:25 came a low rumbling from the geyser, followed by a gradually increasing flow of water. Finally a giant column of steam and gas was released with a roar, shooting out upstream across the riverbed at an angle of about 45° and almost reaching the opposite bank, like a silver bridge flying across the river. The eruption lasted 25 minutes before gradually dying down.

The weather on the plateau changes unpredictably. Suddenly the sun broke through the clouds. "The snow's going to melt," our guide warned, "and the Ragatsangpo will rise." We reluctantly packed our things and left.

STAMPS OF NEW CHINA

Commemoratives on the Inner Mongolia Autonomous Region

THE 30th anniversary (1947-1977) of the founding of the Inner Mongolia Autonomous Region was the occasion for festive celebrations on August 1 and also on that day the issue of a set of three commemorative stamps by the Ministry of Posts and Telecommunications.

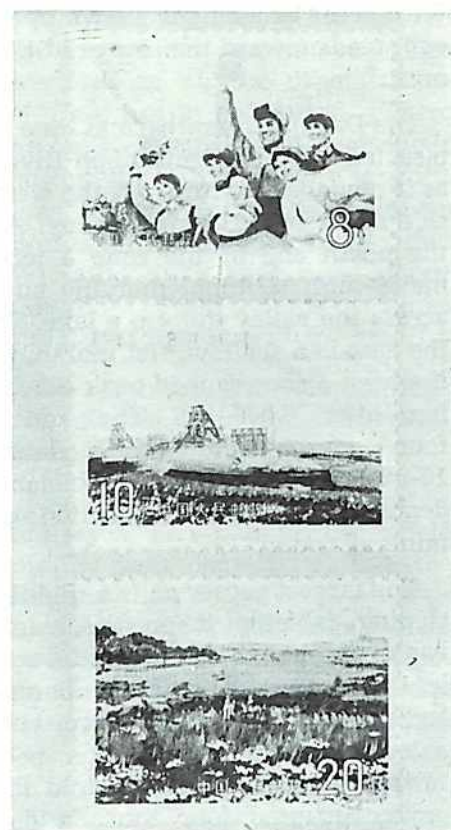
Stamp 1, 8 fen. A steel worker, a peasant with a bundle of wheat, a herds-woman with a lamb, a soldier and a girl waving a bouquet of flowers celebrating the event. Two streamers at the upper right bear words in Han and Mongolian reading: "Warmly Celebrate the 30th Anniversary of the Founding of the Inner Mongolia Autonomous Region!" and "Thoroughly Expose and Repudiate the 'Gang of Four'!". Vermilion, salmon,

carmine-red, yellow-green, turquoise-green, mauve, white and yellow-orange.

Stamp 2, 10 fen. A train speeding across the grassland with a steel plant in the background represents the idea that the workers of Inner Mongolia, taking the Taching oil field as their model, are working hard to contribute more to socialist construction. The words in Han and Mongolian at the top read: "The 30th Anniversary of the Founding of the Inner Mongolia Autonomous Region" (1947-1977). Greenish yellow, apple-green, mauve, blue and grey.

Stamp 3, 20 fen. Herdsmen grazing horses on the grassland with a settlement, power-lines and a bus in the background. The picture shows the new grassland being built by learning from the model farm brigade Tachai. The words on top read: "The 30th Anniversary of the Founding of the Inner Mongolia Autonomous Region" (1947-1977). Yellow-green, dull green, chestnut, orange-red, mauve and light blue.

All stamps measure 40 × 30 mm. Perf. 11. Color photogravured. Serial numbers: J. 16 (3-1 to 3-3).



Lesson 9

First Day at Kindergarten

我的女儿小华五岁了，
 Wǒ de nǚér Xiǎohuá wǔ suì le,
 My daughter Xiao Hua (is) five years (old).

今天第一天去幼儿园。早上
 jīntiān dìyī tiān qù yòuéryuán. Zǎoshang
 Today (was) first day (to) go kindergarten. Morning at

五点她就起床了，刷
 wǔ diǎn tā jiù qǐ chuáng le, shuā
 five o'clock, she got up (from) bed. (After she) brushed

牙、洗脸、吃了早饭，我送她到
 yá, xǐ liǎn, chī le zǎofàn, wǒ sòng tā dào
 teeth, washed face (and) ate breakfast, I took her to

幼儿园。
 yòuéryuán.
 kindergarten.

下午我下班以后去接
 Xiàwǔ wǒ xià bān yǐhòu qù jiē
 In the afternoon I go off shift after went (to) get

她。老师告诉我，孩子们上午九
 tā. Lǎoshī gàosu wǒ, háizimen shàngwǔ jiǔ
 her. (The) teacher told me children morning nine

点到十点半学习，学画图画
 diǎn dào shí diǎn bàn xuéxí, xué huà túhuà
 o'clock to ten o'clock half study, learn (to) draw pictures

和数数，十一点四十五分吃
 hé shù shù, shí yī diǎn sishí wǔ fēn chī
 and count numbers, (at) eleven o'clock forty five minutes eat

午饭。午睡以后，三点开始唱
 wǔfàn. Wǔshuì yǐhòu, sān diǎn kāishǐ chàng
 lunch. Nap after, three o'clock (they) begin (to) sing

歌、做游戏，六点吃晚饭。
 gē, zuò yóuxì, liù diǎn chī wǎnfàn.
 songs (and) do games. Six o'clock (they) eat supper.

小华说小朋友都很欢迎
 Xiǎohuá shuō xiǎo péngyou dōu hěn huānyíng
 Xiao Hua said (the) little friends all very much welcomed

她，有的给她玩具，有的给她画报，
 tā, yǒude gěi tā wánjù, yǒude gěi tā huàbào,
 her. Some gave her toys, some gave her pictorials.

她喜欢幼儿园。
 tā xǐhuan yòuéryuán.
 She likes (the) kindergarten.

My daughter Xiao Hua is five years old. Today was her first day at kindergarten. She got up at five o'clock this morning. After she had brushed her teeth, washed her face and eaten her breakfast, I took her to the kindergarten.

After work in the afternoon I went to bring her home. The teacher told me that from nine to half past ten in the morning the children study. They learn to draw pictures and count. At 11:45 they have lunch. After noonday nap, at three o'clock they begin to sing songs and play games. They have supper at six o'clock.

Xiao Hua said that all the children welcomed her warmly. Some gave her toys, some gave her pictorials. She likes the kindergarten.

Notes

1. Word Order

The subject — verb — object word order in Chinese sentences is the same as in English. For example, **Tā shuā yá** 她刷牙 (She brushes teeth) and **Tā xǐhuan yòuéryuán** (She likes the kindergarten). The direct object precedes the indirect object: **Xiǎo Míng gěi tā yí ge wánjù** 小明给她一个玩具 (Xiao Ming gave her a toy). In English another construction is sometimes used: Xiao Ming gave a toy to her. There is no Chinese equivalent. We cannot say **Xiǎo Míng gěi yí ge wánjù tā** 小明给一个玩具她。

2. The Time:

5:00 五点(钟)

wǔ diǎn (zhōng)

6:05 六点五分

liù diǎn wǔ fēn

六点过五分

liù diǎn guò wǔ fēn

7:15 七点十五(分)

qī diǎn shí wǔ (fēn)

	七点一刻	qī diǎn yí kè (一刻 yí kè = a quarter of an hour)
8:30	八点三十(分)	bā diǎn sānshí (fēn)
	八点半	bā diǎn bàn
9:45	九点四十五(分)	jiǔ diǎn sishí wǔ (fēn)
	九点三刻	jiǔ diǎn sān kè
	差一刻十点	chà yí kè shí diǎn (差 chà = minus)
	十点差一刻	shí diǎn chà yí kè

Words indicating time as adverbial modifiers can be put either before the verb or at the beginning of a sentence. **Tāmen shí yī diǎn sishí wǔ fēn chī wǔfàn** 她们十一点四十五分吃午饭。(They have lunch at 11:45). **Wǔ diǎn tā jiù qǐ chuáng le** 五点她就起床了。(At five o'clock she got up). In Chinese there is usually no preposition before the words indicating time.

For Advanced Students:

芦沟桥

北京的西南部，有一座著名的白石桥，建于十二世纪 **shìjì** (century)，叫芦沟桥 **Lúgōuqiáo** (Reed Valley Bridge).

大桥全长二百五十米 **mǐ** (meter)，有十一个桥孔 **qiáokǒng** (bridge arch)，桥面宽阔 **kuānkuò** (wide)。桥头有一块石碑 **shíbēi** (stone tablet)，上面刻 **kè** (engraved) 着“芦沟晓月” **Lú Gōu Xiǎo Yuè** (Reed Valley Daybreak Moon) 四个大字。从前 **cóngqián** (in the past) 到北京来的人，为了赶 **gǎn** (catch) 在早晨进城，大都是拂晓 **fúxiǎo** (daybreak) 经过芦沟桥。站在桥上，只见桥下滚滚 **gǔngǔn** (rolling) 流水，明月高挂 **guà** (hang) 天空。所以这里的景致 **jǐngzhì** (scene) 就被称为“芦沟晓月”。

桥面两侧 **cè** (side) 的栏杆 **lángān** (railing) 各有一百四十根石柱 **zhù** (pillar; here, baluster)。每根柱子上都刻着一只蹲 **dūn** (squat) 着的狮子 **shīzi** (lion)，样子 **yàngzi** (shape) 各不相同 **xiāngtóng** (alike)。有的狮子身边还有小狮子。小狮子大的十余 **yú** (more) 厘米 **lími**

(centimeter)，小的只有几厘米。有的趴 **pā** (lie prone) 在大狮子身上，有的蹲在大狮子背上或头上，有的在它怀 **huái** (breast, chest) 里，有的在它脚下，有的只露 **lù** (reveal) 出半个头，有的只露着一张嘴。千变万化 **qiānbìan wànhuà** (a thousand, ten thousand changes; 变化 means change)，十分活泼 **huópo** (lively)。有的小狮子躲藏 **duǒcáng** (hide) 得非常巧妙 **qiǎomiào** (clever)，因此几百年来一直有一种说法，认为 **rènwéi** (held that) 芦沟桥的狮子数 **shǔ** (count) 不清。直到一九六二年，北京的文物 **wénwù** (cultural relics) 工作者用了不少时间才查清 **cháqīng** (investigate clearly) 狮子的总数 **zǒngshù** (total number) 是四百八十五个。

一九三七年七月七日，日本帝国主义在这里挑 **tiǎo** (stir up, provoke) 起“芦沟桥事变” **shìbiàn** (incident)，对中国发动 **fādòng** (start) 大规模 **guīmó** (scale) 军事 **jūnshì** (military) 侵略。从此开始了中国人民的抗 **kàng** (resist) 日战争。

Lukouchiao

Southwest of Peking there is a stone bridge built in the 12th century called Lukouchiao (Reed Valley Bridge).

The total length of the big bridge is 250 meters. It has eleven arches and the top is broad. At the bridgehead there is a stone tablet, on which are engraved four big characters "Lu Gou Xiao Yue" (Daybreak Moon at Reed Valley). In the past most of the people coming to Peking, in order to enter the city in early morning, crossed Lukouchiao at daybreak. When standing on the bridge, they could see only the rolling water under the bridge and a bright moon hanging high in the sky. Therefore the scene here was called "Daybreak Moon at Reed Valley".

Each of the railings on either side of the top of the bridge has 140 stone balusters. On top of each baluster is carved a sitting lion. Each one is different. Some lions have small lions beside them. The biggest of the small lions measures 10-plus centimeters, the smallest only a few centimeters. Some of them lie on top of the bodies of the big lions, some sit on the big lion's back or head, some at its chest, some beneath its feet. Some have only half a head or the muzzle showing. They present so many different pictures, and are very lively. Some of the small lions are so cleverly hidden that through the centuries there was a saying that the lions on Lukouchiao were uncountable. This continued until 1962 when cultural relics workers in Peking spent quite a lot of time and finally found the number of lions to be 485.

Here on July 7, 1937, the Japanese imperialists provoked the Lukouchiao Incident and started their large-scale war of aggression against China. Thus began the Chinese people's War of Resistance Against Japan.



