

A CHINESE WEEKLY OF NEWS AND VIEWS

# Beijing Review

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VOL. 34, NO. 28 July 15-21, 1991

## ECOLOGICAL FARMING

Gulf War Impact on  
the World Situation



Playing a new role in ancient costumes during a break.

*Photo by Lian Haisheng*

# HIGHLIGHTS OF THE WEEK

## How Has Marxism Developed in China?

□ This article by Hu Qiaomu, a noted Chinese theorist, describes how the Communist Party of China has successfully applied and developed Marxism in China. The author lists 12 aspects of how the CPC has developed Marxism (p. 13).

## Ecological Farming in China

□ China's ecological agribusiness which began in the late 1970s and now operates at the county, village and household levels has achieved tangible results. In the 1990s, China plans to further expand the role of ecological farming in the nation (p.19).

## A New Modern Pace-Setter

□ Su Ning, a 37-year-old PLA man, has become a national hero for the public to emulate. He died while rescuing two soldiers from a hand grenade explosion last April. His death tells the public that only Party members like Su Ning who combine their strong sense of time with traditional moral excellence and reflect the basic principles of the Party are able to meet the standards set by the Chinese people for truth, honesty and beauty. It is people such as these who have a permanent and pronounced influence on the public's consciousness (p. 28).

## Steel Production Meet Half-Year Target

□ China's steel output has met the half-year target set by the state for the first six months. The steel output reached 33.6 million tons, a 4.15 percent increase over the figure of last year's corresponding period (p. 6).

## Impact of Gulf War on World Situation

□ At a recent symposium Chinese scholars discussed the lingering implications of the Gulf war: the rise of US influence, the weakening of Arab strength, and the emerging new world order. Concerns were expressed that power politics might dominate international relations (p. 8).

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**COVER:** "Fields" (Third prize winner at the Black-Diamond Photo Competition sponsored by *Beijing Review*).

Photo by Zhu Zhengming

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## Chinese Premier In Cairo, Amman

China stands ready to actively promote friendly relations and co-operation with the Middle East countries in various fields and contribute its part to the attainment of a just and reasonable settlement of the Middle East problem, said Chinese Premier Li Peng at a state banquet in his honour hosted by Egyptian President Hosni Mubarak on July 3.

Li arrived in Egypt on July 2 for a five-day visit on the first leg of his six-nation Middle East tour that will also take him to Jordan, Iran, Saudi Arabia, Syria and Kuwait. At the banquet, he expounded China's policy on the Middle East, stressing the great urgency to settle the four-decade-long Middle East issue in the wake of the Gulf War.

"The occupied Arab territories should be returned, the legitimate national rights of the Palestinian people should be restored, and Israel's sovereignty and security should also be respected and guaranteed," Li said.

"We likewise support the convocation of a well-prepared international conference at an appropriate time under the auspices of the United Nations and attended by the five permanent members of the Security Council and parties concerned," he noted.

"At the same time, all the parties concerned should agree to a balanced and comprehensive arms reduction and ban of the use and destruction of nuclear, biological and chemical weapons," Li said.

Li expressed the hope that all Middle East countries will try to establish a new political and economic order in the region based on the Five Principles of Peaceful Coexistence so that the Middle East countries, the Arab and the Jewish nations may live in



WU JIGUO

Premier Li Peng laying a wreath at the grave of unknown soldiers in Cairo.

harmony and achieve common development.

The Chinese government appreciates the positive efforts made by President Mubarak and the Egyptian government to push forward the Mideast peace process, Li said.

On the situation in Africa, Li said Africa faces grave challenges as well. The continuous economic difficulties, constant regional disputes and national conflicts make the continent turbulent, he said.

Encouragingly, however, the situation in Southern Africa has undertaken positive changes since Namibia won independence, he said, adding that different sides in Angola signed a peace agreement recently.

On bilateral relations, Mubarak said Egypt expects its co-operation with China in all fields to reach a new high in the next few years.

Talking with Egyptian Prime Minister Atef Sidqi the next day, Li said the Chinese and Egyptian governments shared identical, or

very similar, views on current international issues including the Middle East.

Sidqi said that Egypt attaches great importance to the role of China as she is one of the five permanent members of the UN Security Council and has "unsustainable influence" in the world.

On July 6, Li ended his tour to Egypt and arrived in Amman for a two-day visit.

The Chinese premier had talks with Jordan's King Hussein. Both sides agreed that the world is going through an unbalanced period and expressed their wish for the establishment of a just new world order.

Li noted that in the present world there exist different social systems and religious beliefs. "Therefore, no country should impose its standard on others," he stressed.

The two leaders urged the international community to speed up efforts aimed at a comprehensive, just and reasonable settlement to the Middle East issue on the basis of relevant United Na-

tions resolutions.

They agreed that the prolonged absence of a solution to the issue not only threatens the Middle East but also world peace and security.

A science and technology co-operation agreement, which was the first such accord between the two countries since they established diplomatic relations in 1977, was signed during the talks.

Under the pact, both sides will dispatch experts to explore potential research and development projects, exchange information and share achievements in co-operative scientific researches.

**China's Principles on Arms Sales** The same day, a spokesman who was with Li on the tour announced China's three principles on the issue of arms sales: China sells arms only to countries for self-defence; consideration has been taken not to tip regional balances; China will not use arms sales to interfere in the internal affairs of other countries. ■

## China, Britain Reach Accord on Airport

China and Britain have finally reached an agreement on the building of a new airport in Hong Kong after several months of off-and-on consultations.

Recent talks in Beijing between Chinese officials and Sir Percy Cradock, foreign affairs adviser to the British prime minister, resulted in an agreement, or the Memorandum of Understanding Concerning the Construction of the New Airport in Hong Kong and Related Questions.

According to the memorandum, the Hong Kong government will complete the core projects of the airport to the maxi-

imum extent possible, while China will support the construction, and Britain will consult China on important matters related to the project straddling June 30, 1997 — the date when Hong Kong is to be returned to China.

The Chinese government accepted that the Bank of China will play an appropriate part, for example, in the syndication of loans for the airport projects, and that Chinese construction firms may compete for projects connected with the airport, the document said.

The memorandum will come into effect after the signing by the heads of the Chinese and British governments.

The two governments agreed to step up consultation and co-operation over the Hong Kong issue. The Chinese foreign minister and the British foreign secretary will meet twice a year and the director of the Office of Hong Kong and Macao Affairs under the Chinese State Council and the governor of Hong Kong will also hold regular meetings.

An airport committee will be formed for the two sides to carry out consultation on important matters related to the project.

According to the memorandum, the Hong Kong government will plan its finances with the objective that the fiscal reserves left for the use of the future Hong Kong Special Administrative Region government will not be less than HK\$25 billion.

It was also agreed that the Chinese government will provide necessary and reasonable loans by the Hong Kong government to be repaid after Hong Kong's handover.

During his visit as the representative of British Prime Minister Major, Sir Percy was received by Chinese leaders Jiang Zemin and Li Peng. He also held a series of meetings with Chinese For-

eign Minister Qian Qichen and Lu Ping, director of the Hong Kong and Macao Office, on further co-operation over the transition of Hong Kong and particularly on the construction of the new airport.

A press release issued jointly by the British Embassy in Beijing and Xinhua News Agency commented that the agreement has not only provided a firm basis for the building of a modern airport to serve the expanding needs of Hong Kong in the future, but also has expressed the wish of the Chinese and British governments to deepen their co-operation over the Hong Kong issue on the basis of the Joint Declaration, as well as their confidence in the future of Hong Kong as an international economic, financial and trading centre. ■

## Beijing Tunes Up Taiwan Trade Links

Chinese authorities have proposed five principles for direct economic and trade relations between the mainland and Taiwan.

A spokesman for the Ministry of Foreign Economic Relations and Trade (MOFERT) said on July 2 that the indirect trade volume between both sides of the Taiwan Straits totalled US\$15.74 billion between 1979 and 1990, with an average annual growth rate of 43.3 percent. More than 2,000 enterprises have been built on the mainland with funds from Taiwan investors.

Statistics indicate that the expansion of economic and trade contacts across the straits have benefited the economic development on both sides and would facilitate the peaceful reunification of the country, the spokesman said.

However, he pointed out, the

Taiwan authorities' policy of "no contact, no compromise and no negotiations for reunification with the mainland" have been an artificially imposed obstacle which has kept economic and trade contacts between both sides of the straits in an indirect or one-way state.

The spokesman spelled out the Chinese government's five principles for the promotion of direct economic and trade exchanges as follows:

- ◆ Economic and trade exchanges should be direct and bilateral;

- ◆ The exchanges should be in line with the principle of mutual benefit and equality;

- ◆ The exchanges should not be confined to trade and investment, but be expanded to technology, scientific research, labour co-operation, advertisement, transportation and consulting;

- ◆ The bilateral exchanges are by no means an expedient. They should be maintained and promoted from a long-term point of view;

- ◆ Both sides should observe contracts and each side should protect the legitimate rights and interests of business people from the other side.

These principles were formulated by drawing on experiences of the past few years, the spokesman said, adding that the mainland would like to hear the opinions of the industrial and commercial circles in Taiwan. ■

## Iron, Steel Hit Half-Year Targets

China's steel output reached 33.6 million tons in the first half of the year, an increase of 4.15 percent over that of the same period last year, according to the Ministry of Metallurgical Industry. The output of

the main products all outstripped half-year quotas set by the state.

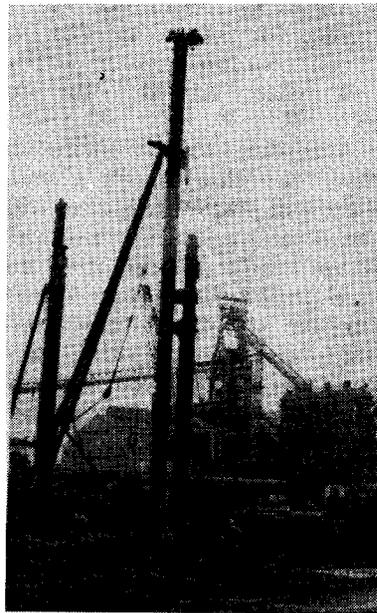
The output of pig iron and rolled steel were 31.67 million tons and 26.6 million tons respectively, up 7.3 percent and 5.64 percent over last year's corresponding period.

The output value of the large and medium-sized iron and steel enterprises reached 43.6 billion yuan in the first five months, up 5.24 percent.

On-shore oil and natural gas output is also expected to meet the targets set by the state for the first six months, according to the latest figure from the China National Petroleum and Natural Gas Corporation.

The oil industry is expected to turn out 68.07 million tons of crude oil the first half of this year, 49.7 percent of the annual quota. The natural gas production reached 7.5 billion cubic metres, 50.9 percent of the yearly target.

The average daily oil output in the first six months was estimat-



ZHANG PING  
China's best new blast furnace under construction at the Baoshan Iron and Steel Company.

ed at 376,000 tons compared with 375,300 tons as planned.

The old oilfields, especially those in East China, are trying to explore new oil and gas reserves while striving to fulfill the production quotas.

The major oilfields, such as Shengli in Shandong Province, Liaohe in Liaoning, Dagang in Hebei and Daqing in Heilongjiang, have discovered new oil-bearing structures.

A large new oilfield in Tarim Basin in Xinjiang Uygur Autonomous Region was discovered and its oil-bearing structure verified.

The Bank of China has loaned the corporation US\$1.2 billion to explore and develop the newly found Tarim Basin oilfield.

The basin is expected to produce 400,000 tons of crude oil. With the newly discovered resources, the oil industry expects to in fulfil this year's quota.

A large gas field discovered recently in the northern Shaanxi Province is expected to become another major gas producing centre. ■

## Weekend Club Offers Home to Lonely Hearts

It was raining cats and dogs one Saturday afternoon in late May in Beijing. Restaurants, shopping malls, theatres and clubs had fewer weekend customers than usual because of the foul weather. However, it was business as usual for Hehu Club, a "nesting place" for singles in the city's western suburbs. Hehu means "river lake" in Chinese.

This small one-floor community house next to Yuyuantan Park was little known until its recent rise to fame as a popular gathering place for smart or "swinging singles."

Members of the Beijing Week-

end Club braved the downpour to enjoy their first get-together. BWC, formed in the "merry month of May," offers a warm and welcome haven for the city's divorcees, widows and widowers, bachelors and single women. Called the "Lonely Hearts Club" of Beijing, it attracts many who want to have a go at it.

"We want to provide opportunities for the singles to meet, to exchange views, to understand and help each other, while enjoying themselves as they become friends," said Wang Xingjuan, one of the club's initiators and president of the Women's Research Centre under the non-governmental China Managerial Science Academy.

"We don't intend to make matches, as this is not a match-making office anyway. It's a club much like a large and caring family. Everyone needs warmth, intimacy and love. We try to offer a supportive environment.

"But we are happy to see couples fall in love here. It's obviously possible," Wang said. "When people in my club get married," she continued, "we would like to hold a wedding party for them, celebrating their future and the removal of their names from the roster of club membership."

According to the club rule, any single man and woman more than 27 and 25 years old respectively can apply for membership, regardless of nationality and religious belief.

However, the applicants must be college graduates. This requirement, explained Wang, is aimed at maintaining "a high-quality clientele."

Foreigners and overseas Chinese now living in Beijing are welcome to join the community, provided they meet the requirements, said Wang.

The club espouses singles' rights, said a middle-aged club member.



Beijing Weekend Club: The place lonely people call home.

LI HAIBO

"The club's claim of opposing discrimination against singles encourages me. We really need an organization to speak for us, to win the rights that belong to us. We have been told many times that people are created equal. But in fact we are not treated equally, simply because we're single," she said.

Old tradition does not look kindly upon the unmarried status of someone at the marriageable age. Someone over 30 years of age and single can easily become the target of bias, contempt and unkind rumours. In addition, urban singles are at a disadvantage obtaining living accommodation.

There are more than 44 million single people in the country. They have never made themselves heard as a social group in the past, and sociologists haven't paid enough attention to them. Now, with the club, things are expected to change.

The Beijing Weekend Club advocates self-reliance and modern social awareness, which is believed to be the hallmark of civilization, said Zhang Xuan, a well-known Chinese writer.

Zhang offered his newly-finished movie script — *A Bach-*

*elor Girl* — to the club, and Pan Hong, a just-divorced actress, will play the leading role in the movie.

Chen Yijun, a sociologist with the China Academy of Social Sciences, suggested that May 6 be acclaimed the Festival of Chinese Singles. Indeed, as many said, the club offers solace to those without family.

"I had a very wonderful and enjoyable time here, I hope everybody is as happy as I am," said 70-year-old Qu Duyi, daughter of late Qu Qiubai, one of the leaders of the Communist Party in the 1930s.

Having fun is what people come here for, but it is not the members' only purpose. Some members, especially the young, said they joined the club in order to leave it.

"People here are all identified singles, but most of them I believe do not intend to remain single for the rest of their lives," said Chen Fan, an engineer in his thirties. Perhaps, Chen said, it was the purpose for some to come here to speak out their minds. "For me, I come here to find a wife," he said.

by Staff Reporter Li Haibo

# Gulf War Implications Linger

by Our Staff Reporter She Duanzhi

*Recently the Institute of Afro-Asian Studies of Beijing University sponsored a symposium on the Gulf war and its implications on the world situation. About 100 Chinese specialists and scholars attended the meeting. The following is a summary of the viewpoints expressed at the meeting.*

**T**he Gulf war, though over for almost half a year, still exerts a considerable impact on the current international situation in several significant ways.

## **Rise of US Influence**

The Gulf war consolidated the position of the United States as the only superpower and provided an opportunity for Washington to establish a US-led "new world order" with the Middle East being a trial spot, some participants noted.

Domestically, the Bush administration and the Republican Party scored politically because of the US-led allied victory in the brief war. Economically, the prompt victory helped check the sliding US economy, thereby mitigating the effects of the recession.

Internationally, the US-led allied forces destroyed Iraq's mili-

tary potential and removed the threat of Baghdad's control over the oil resources in the Gulf. This led to a rise of pro-US moderate forces in the Middle East. Washington attempts to take advantage of its role as "victor" and "liberator" to orchestrate a post-Gulf war security arrangement.

## **Security Arrangement**

However, the United States is impeded by a series of constraints in its efforts to establish a US-led security system in the Middle East. First of all, it is restricted by its own limited strength. The fact that it had to fight the war using foreign financial donations and allied troops points to the US weakness. Nationalistic sentiments in the Middle East, the rivalling influence of Britain and France, and the attempts by some regional powers to seek dominance combine to counter Washington's efforts

to design a US-orchestrated security system.

Some experts questioned the stabilizing role of the United States in this region, contending that Washington is concerned primarily not about the political and economic stability in the Middle East but rather the stability of its own position and oil prices. These people cited as evidence the fact that the United States supplied Iraq with the intelligence of Kuwait drilling oil along the Kuwaiti-Iraqi border prior to the outbreak of the Gulf crisis, called on the Iraqis to overthrow the Saddam Hussein regime after the war and then finally abandoned the rebels.

## **Mideast Peace Process**

The Gulf war brought the Middle East problem once again in the limelight. It is a world consensus that without a resolution of the Middle East problem, world peace will not last. Precisely because of this, the Middle East peace process re-started after the war. In this positive sense, the Gulf war accelerated the process.

At the same time, however, the Gulf war added to the difficulties and complexities of the Middle East labyrinth. At present, the balance of Arab-Israeli and Palestinian-Israeli forces slants towards Israel. The war seriously damaged Kuwait and Iraq, two Arab nations, and widened the rift among Arab countries to a degree unseen in history. All this

has reduced Arab strength. The Palestine Liberation Organization suffered a serious setback in its international standing because of its siding with Iraq during the Gulf war. The Gulf nations suspended financial support for the organization. The United States has a bigger say in Middle Eastern affairs and is reluctant to pressure Israel to accept relevant UN resolutions.

Israel gained politically, economically and in safeguarding its security during the war. Moderate forces in and out of the Israeli government are forced into a disadvantageous position and it is likely the Israeli government will toughen its position in foreign policy. Under such circumstances, a resolution of the Middle East problem, should there be any, will naturally be unfavourable for the Palestinians and the Arabs.

Commenting on the US proposal of "dual-track" separate dialogues between the Arab countries and Israel and between the Palestinians and Israel, and the proposed regional peace conference on the Middle East, many scholars pointed out that the proposed regional peace conference bypassed the United Nations and therefore reduced the possibility of a just and reason-



UN representative in Kuwait to investigate war damages.

able resolution of the Middle East conflict. The prospects of such a meeting will be favourable for Israel, not Palestine; it will only lead to new chaos rather than stability.

### Arms Race

The Gulf war called into attention arms control in the Middle East. In reality, however, a new round of arms race is being waged in that region. The United States, while claiming that the arms race must be halted for Middle East peace, continued to sell weapons to countries in the region. Britain, France, Ger-

many and the Soviet Union are following suit. These countries sell weapons to make money and, even more importantly, to expand their influence. As for the Middle Eastern nations, some buy weapons to consolidate their defence capabilities, but it cannot be ruled out that others may attempt to use the weapons to seek dominance in the region. With the escalation of the arms race, possibility of a new war increases.

### A New World Order

The Gulf war, although a significant event, did not change the basic pattern in world politics and economics.

Politically, Soviet influence in the world has been significantly reduced due to domestic changes, while the United States is on the decline, too. However, the Gulf war elevated US national mood and strengthened US position in the world, prompting Washington to ponder on the establishment of a new world order. Although the post-Gulf war world continues to see the international situation tending towards relaxation, regional conflicts, North-South differences,

People in oil-rich Kuwait wait in line for gas which is in short supply.



and contradictions among capitalist countries and between the capitalist and socialist nations remain. The world today is by no means peaceful. Many attendants to the meeting discussed the meaning, origin and development of the new world order to be established and expressed concern that new forms of hegemony might dominate international relations.

The war brought disastrous damage to Kuwaiti and Iraqi economies and weakened the economic co-operative relations among Arab countries. Demand for labour in labour-importing Gulf nations shrinks, and investment in this region is affected.

### Oil Market

The big oil-consuming countries, such as the United States, Britain and France, have increased their clout over the world oil market. The war reduced oil production capacities of Kuwait and Iraq, and other members of the Organization of Petroleum Exporting Countries (OPEC) raised their production during the war. This makes it more difficult for the oil cartel to adhere to the policy of protecting oil prices by limiting production. The war also changed the internal balance of force within OPEC, with moderate countries headed by Saudi Arabia gaining the upper hand.

Despite this, however, some experts predicted that a replay of the "oil price war" of 1986, when oil price plummeted to below US\$10 a barrel at the lowest point, was unlikely. They believed that oil prices on the international market for a long time to come would hover at a low level because the glut on the world oil market remains basically unchanged, and oil production in the United States and the Soviet Union are dwindling. ■

## Apartheid Withers Away in South Africa

by Yang Lihua

*A crucial social change is occurring in South Africa whereby the old apartheid system, though reluctantly, has to give way to a new one.*

**T**he old political system of South Africa is a deep-rooted racist one. Since the founding of the Union of South Africa in 1910, the white people's racist rule has lasted for more than 80 years. This system is characterized by means of legislation and administration which are used to guarantee the political supremacy of the white people (only 15 percent of the white population) and their privileges in the economy and social life. The so-called "non-whites," namely, the Africans that account for the majority of the population, the Coloureds and

Asians have been deprived of political rights, subjected to economic oppression and exploitation. Also, they have been restricted and discriminated against in social life. The racist rulers put the national resources under the control of the whites and used cheap black labour to secure the maximum profit.

For this purpose, the racist authorities have made comprehensive and overelaborate laws to carry out apartheid in South Africa.

The South Africa Act of 1909 is the constitution written for the white people. This act stipulates

**Black people in Alexandra, South Africa protesting for the release of detained blacks.**



that the whites have a monopoly over the political power, while the "non-whites" are excluded from participation in the government.

The land acts adopted in 1913 and 1936 were a legislation which permitted the usurpation of African people's land by the whites. This law initially assigned 7.35 percent of the total land as the aborigines' reservation and later the reservation was expanded to 12.9 percent of South Africa's territory as the permanent division of land. The majority of Africans lost the land on which their livelihood depended and became cheap labourers.

The various labour acts were aimed at guaranteeing an adequate supply of cheap black labourers and at strengthening control over them. The Africans, excluded from formal employment, could only engage in non-technical work and had no right to organize trade unions.

The apartheid decree about living areas served to restrict the Africans' flow into white neighbourhoods.

Since the racist system of South Africa is a white minority rule, the white rulers have always had a sense of crisis. During World War II and the post-war period, with the enhancement of black working forces and the development of African national liberation movement, the ruling group of whites was afraid of being inundated by the blacks. So a plan to divide South Africa was plotted in an attempt to artificially prevent the trend towards integration of South African society which was promoted by economic development. In 1948, the South Africa National Party dominated by Dutch descendants rose to power and made a series of apartheid decrees. The existing racist system was put to extremes.

The National Party adopted

the Population Registration Act of 1950, the Prohibition of Mixed Marriages Act of 1949, the Immorality Amendment Act of 1950 and the Group Areas Act of 1950, erecting insurmountable colour barriers in the multi-racial country. The segregation in education and social life has subsequently been strengthened.

A major purpose of apartheid is to restrict the number of Africans in the white areas, thus removing the threat to the white minority rule.

Various laws were enacted to limit the flow of African people into cities and towns and force the "surplus" of them to move out from the white areas. The notorious Pass Law of 1952 stipulates that Africans at the age of 16 or over must bring passes with them and be prepared to be questioned by the police. Every year tens of thousands of Africans have been imprisoned in violation of the Pass Law. A total of 3.5 million Africans have been forced to move out from the white areas.

In spite of this, the white authorities cannot reduce the fear of the growth of the black people's strength.

The Bantu Authorities Act adopted in 1951 and the Promotion of the Bantu Self-Government Act of 1959 have divided the aboriginals' reserved land, which only makes up 12.7 percent of South African land, into 10 Bantustans (Later on they were called black homelands). All Africans are assigned into black homelands according to their tribes and have become citizens of these homelands. Those Africans who work and



A black activist demands the authorities withdraw troops from black communities.

live in the white areas became "alien labourers" and did not share any political rights. Thus the black South Africans, who account for 75 percent of the population, have been deprived of their nationality.

Such a fantastic scheme of racial segregation has caused the broad masses untold suffering and has been strongly opposed by the black people. At the same time this policy seriously impeded South Africa's economic and social development. In the late 1970s the apartheid system fell into a predicament and the South African authorities began to revise some acts of racial segregation.

The South African government first made compromises towards the African workers who account for 70 percent of the country's total labour force. The revised bill of Industrial Co-ordination Law of 1979 first recognized the workers' right to organize trade unions and cancelled the whites' job reservation system. Later, dozens of laws and decrees which controlled the Africans' movements were re-

pealed. These changes were made to overcome the shortage of skilled labourers and to bring the trade union movement within the official orbit.

In the mid-1980s the South African authorities rescinded the Prohibition of Mixed Marriages Act, the Immorality Amendment Act and the Pass Law in face of the sharp struggle of the black people against racial segregation and for the right to equality.

However, the patchwork cannot save the apartheid system. The broad masses of the black people believe that the apartheid system cannot be reformed; it must be eliminated. Under pressure of the South African people and the sanctions placed by the international community, President F. W. de Klerk, who took office in 1989, declared that he was to renounce the policy of racial segregation. He said he wants to unify the country and grant the black people equal rights.

In February 1990 the South African authorities lifted the ban



Soweto people demonstrate to demand the resignation of councillors in favour of an anti-apartheid council.

on political parties. The leader of the black people, Nelson Mandela, and some other political prisoners were released. Following this, a dialogue began with the leaders of the African National

Congress. The political development of South Africa has entered a new period.

Under great political and economic pressure at home and abroad, the South African authorities have gradually cancelled laws and decrees of apartheid. So far they have rescinded the four pillars of the apartheid policy — the Separate Amenities Act, the Land Act, the Group Areas Act and the Population Registration Act.

These moves are welcomed by the African National Congress and the international community. However, the cancellation of the apartheid laws is not equal to elimination of the apartheid system. The African National Congress pointed out that the cancellation of the Population Registration Act would not lead to any substantial change.

The task of eliminating the apartheid system has not been completely fulfilled. The political rule is still in the hands of the whites. The negotiation on the constitution has not started. To what degree the black people will gain political and economic liberation is to be decided by the trials of strength in the negotiations. Even if the apartheid system by law is eliminated, the extreme differences between the white and black people in the economic arena, educational level and living standards resulting from the system of racial segregation for hundreds of years and particularly this century will not be removed in a short period. Racial confrontation and conflicts cannot be automatically resolved. The traumata caused by the apartheid system will affect the social development of South Africa for a long period. ■

Thousands of blacks and whites pay their last respect to white activist David Webster.



# How Has the CPC Developed Marxism?

by Hu Qiaomu

*Hu Qiaomu is a noted theorist of the Communist Party of China. The following is an abridged translation of his 20,000-word article carried in "Renmin Ribao" (People's Daily) on June 25.—Ed.*

**D**uring its 70-year history, the Communist Party of China (CPC) has successfully applied and developed Marxism in China. In what aspects has the CPC developed Marxism?

**(1) Put forward the idea of Agrarian Revolutionary War waged by peasants under the leadership of the proletariat and the use of the countryside to encircle the cities as the road to the development of the revolution.** The agrarian revolutionary war waged by peasants under the leadership of the proletariat was inconceivable during the times of Marx and Engels. Although both Marx and Engels noted the importance of winning over peasants as allies of the proletariat, peasants in Western Europe lacked the desire for revolution (their situation was quite different from that of Chinese peasants) while proletariat revolutionary forces were not strong in the East. Although Lenin proposed that the Oriental proletariat should attach importance to exercising leadership over the revolutionary struggle of the peasants, Lenin's Party had not gained enough experience to lead the peasant struggle. In the Soviet Union, the slogan that land belonged to the peasants was raised and then realized by the working class when it seized

political power during the October Revolution; it was not achieved by the peasantry through its own revolution. The broad masses of the peasants in China, however, particularly poor peasants, lived in wretched poverty and hence had a strong desire for revolution. Therefore, the peasant revolutionary struggle led by the working class was necessary not only for Chinese peasants but also for the Chinese revolution. It was Mao Zedong who first pointed this out. In 1927, he created China's first rural revolutionary base area in Jinggang Mountains and afterwards established large tracts of revolutionary base areas (known as the Central Soviet Areas) in southern Jiangxi and western Fujian. When the Red Army reached northern Shaanxi after the Long March in 1935 and after the eight years of War of Resistance Against the Japanese Aggression and the three years of Liberation War, the numerous rural revolutionary bases in the end triumphantly developed into the great People's Republic.

**(2) Put forward a series of creative ideas on the people's army and people's war.** The development of the rural agrarian revolution and the establishment of the revolutionary bases in the rural areas are inseparable from the people's armed forces which

are led, independently, by the Communist Party of China. The Party formed the Workers' and Peasants' Red Army in 1927 and determined that the nature of the army was to be "an armed body for carrying out the political task of the revolution." "Besides fighting to destroy the enemy's strength, it should shoulder such important tasks as doing propaganda among the masses, organizing the masses, arming them, helping them to establish revolutionary political power and setting up Party organizations." The army followed the principle of unity between officers and men, unity between army and people and winning over the enemy troops. It practiced political freedom and freedom in its financial and military affairs. It is this kind of close relationship between the army and the masses that enabled the Red Army to formulate a whole set of strategy and tactics for carrying out people's war. This was a new chapter in the history of state development and in the Marxist theory on the state.

**(3) Create a unique experience by forming a revolutionary united front together with other political forces, and working out a series of new theories and tactical principles.** Revolution called for the establishment of an extensive united front as well as the establishment of a united front between the Party and the bourgeois political parties at a specific stage in the development of the revolution. This idea was not created by the Communist Party

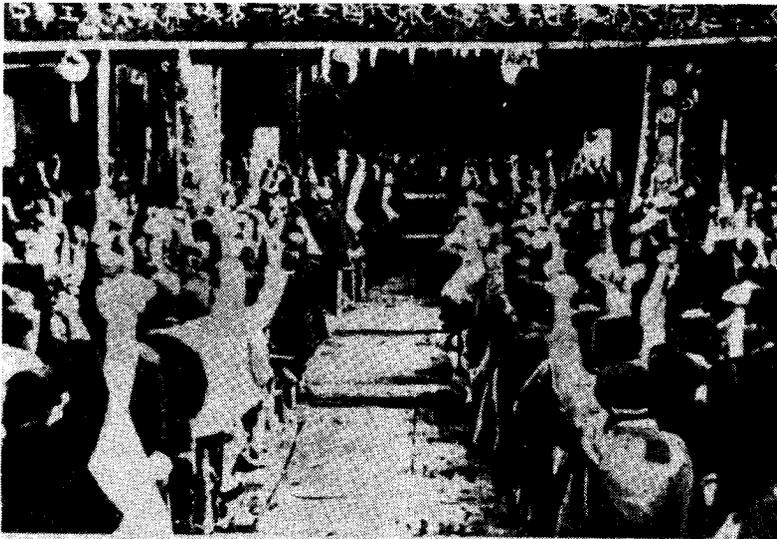
of China but was included in the *Manifesto of the Communist Party*: "In Germany they fight with the bourgeoisie whenever it acts in a revolutionary war, against the absolute monarchy, the feudal squirearchy, and the petty bourgeoisie." Unfortunately, the international communist movement failed to gain enough successful experience in this regard. The eight years of anti-Japanese war saw eight years of co-operation between the Com-

munist Party and Kuomintang and sharp conflict between them. The Communist Party of China, however, having a correct understanding of a complicated situation, formulated a series of principles and policies, such as "developing progressive forces, winning over the middle-of-the-roaders (middle forces) and isolating the die-hards (the die-hard forces)," "seeking unity through struggle," and waging a struggle "with good reason, ad-

vantage and restraint." As a result, the people's army and other people's forces, led by the Party, were able to tide over one terrifying period after another and eventually gained a substantial edge over the Kuomintang. After the founding of the People's Republic of China, the formation of a united front with the democratic parties became an important aspect of the state's political life. Multi-party co-operation under the leadership of the Communist Party of China is now a basic part of our nation's political system.

Upper: The First Congress of the China Soviet is held in the Jiangxi Central Revolutionary Base set up by the Communist Party of China. Lower: The China Soviet Republic holds its first executive meeting.

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(4) Create work methods to implement the Party's mass line. This is one of the outstanding contributions made by the Communist Party of China to Party construction. Mao Zedong's idea of serving the people wholeheartedly and the masses struggling themselves for self-liberation may have their origin in Marx and Engles who said that the movement of the working class was a movement participated in by the overwhelming majority of the people and an independent movement aimed at winning benefits for the majority of the people; the emancipation of the working class should be a matter of the working class itself. Mao Zedong's "from the masses, to the masses," however, was his own creation. According to Mao Zedong, the mass line means: "Take the ideas of the masses (scattered and unsystematic ideas) and concentrate them (through study turn them into concentrated and systematic ideas), then go to the masses and propagate and explain these ideas until the masses embrace them as their own, hold fast to them and translate them into action, and test the correctness of these ideas in such action. Then once again concentrate ideas from the masses and once again go to the masses so that the ideas

are preserved in and carried through. This should continue. And so on, over and over again in an endless spiral, with the ideas becoming more correct, more vital and richer each time."

(5) **Lay down the principle for the correct handling of the inner-Party contradictions, the correct differentiation and handling of contradictions among the people and between the people and the enemy.** In the history of the international communist movement, there have been many discussions on inner-Party struggle but very few were devoted to the correct handling of inner-Party contradictions. In actual life, it is common to see inner-Party diversity of ideology and action because, for a large party like the Communist Party of China, such diversity is unavoidable. In order to maintain the Party's discipline, unity and combat effectiveness, therefore, the correct handling of inner-Party contradiction has been an important question facing Party life. In the history of the Chinese Communist Party, there have been several major inner-Party struggles. Some of these were erroneous, the methods used were wrong and results negative. In 1942, Mao Zedong set forth the principle of "learning from past mistakes to avoid future ones and curing illness to save the patient," also known as the principle of "unity—criticism—unity." Thanks to this principle which is characterized by strict ideological education and lenient discipline, our Party achieved unity. Later, our Party successfully extended the scope of this principle in its handling of relations between leaders and the masses, between the army and people, between officers and men, among the troops, and among cadres. After national liberation, Mao Zedong applied the principle to democratic par-



A unit of the Eighth Route Army led by the Communist Party of China ambushes the Japanese invaders at the Great Wall.

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ties and industrial and commercial circles and, in his report entitled *On the Correct Handling of Contradictions Among the People* in 1957, made a systematic explanation of the principle and methods for differentiating and correctly handling the two different kinds of contradictions (i.e. the contradiction among the people and the contradiction between ourselves and the enemy). In dealing with the political disturbances between the spring and summer of 1989, our Party followed the principle for correctly handling inner-Party contradictions, correctly differentiating and handling the contradiction among the people and the contradiction between ourselves and the enemy. This is how the domestic situation was resolved so quickly.

(6) **Create a complete set of theories on new democracy.** Lenin said in 1920 that backward countries might follow the Soviet system without having to go through the development stage of capitalism and then enter the stage of communism after certain development stages. Due to the lack of practical experience, however, it was impossible to shape a well-considered idea. The Chinese revolution created a new experience in this regard; this was Mao Zedong's contribution to Marxism. In January

1940, Mao Zedong completed his work *On New Democracy* which answered in a systematic way such questions as what kind of state should be founded in a country subject to the influence of the October Revolution and a country where the political strength of the working class and its allies is comparatively strong while the capitalist class had a comparatively weak enthusiasm for the anti-imperialism and anti-feudalism democratic revolution, how the country could best determine its political, economic and cultural systems, and what should be the future goals for the country. The development of Chinese history testifies to the correctness of Mao's predictions in his *On New Democracy*. This work of Mao's represents major development of Marxist theory on national democratic revolution.

(7) **Create new experience in human history for peaceful socialist transformation.** Marx, Engels and Lenin all envisioned methods that could be used by the working class which won state power to buy out capitalists. However, Marx and Engels failed to have a chance to realize their envision. Lenin proposed the redemption policy in dealing with the capitalist class twice in 1918 and 1921 but failed due to lack of co-operation from Rus-



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The anti-Japanese united front policy formulated and implemented by the Communist Party of China has ensured victory in the anti-Japanese war. Upper: Part of the Red Army reach northern Shaanxi after the Long March. Lower: The Eighth Route Army reorganized from the Red Army meet in Yanan before marching to the anti-Japanese front.

sian capitalists. The Communist Party of China experienced a very different domestic situation: the Chinese national bourgeoisie once took part in the Anti-Japanese National United Front, and was, in large part, politically neutral during the War of Liberation. Some influential people had behaved progressive and supported the new democracy. Hence China's national bourgeoisie (industrialists and businesspeople) as a col-

lective took part in the Chinese People's Political Consultative Conference and had representatives in the government organs. Many national industrialists and businesspeople who had operating difficulties in the early period of China's liberation received government support. Later, they became more dependent on the people's government and the state economy and expressed support for the government's policies on state capital-

ism and on distribution. In 1956, after the implementation of joint state-private ownership, they agreed to withdraw dividends from their private shares at an annual rate of 5 percent within a given period. Thus the question concerning the bourgeoisie was solved by a buying-out method in the world's most populated country.

(8) **Successfully initiate the socialist cause of reform and opening up.** The reform and opening up is a continuation of the socialist transformation of the 1950s. The initiators of Marxism said on several occasions that they couldn't foretell the form of socialist society and that it would have to be decided upon by future generations through their practice and in accordance with concrete conditions. Some of the theses and tentative ideas proposed by Marx, Engels and Lenin, however, have been treated in a dogmatic way for a long time. In keeping with these, the Chinese Communists with Deng Xiaoping as their representative, decided to introduce the reform policy in the late 1970s.

China's reform started first in rural areas when, according to the wishes of farmers, the production management system of the people's communes was transformed into the household contract responsibility system with remuneration linked to output. The successful rural reform promoted overall reform. The subsequent urban economic restructuring focusing on invigorating enterprises reformed the planning, finance, taxation, banking, material supply, commerce, foreign trade, pricing and wage systems. At the same time, the single-sector system of public ownership of the means of production has been changed into a system wherein diverse economic sectors exist side by side with public ownership as the

main body. The reform of the relation of distribution (adopting diverse forms of distribution which dominated by the principle of "to each according to his work") and the redivision of the decision-making power of the central and local governments over their economic activities are being carried out, and reform in the educational, scientific and technological fields and in social life is under way as well.

While carrying out the economic reform, China has opened its doors to the outside world and strengthened its economic, technological and cultural exchanges and co-operation with foreign countries. In order to attract foreign investment, moreover, China has encouraged the establishment of Sino-foreign joint ventures, cooperative enterprises and wholly foreign-owned enterprises in China and has also established a group of special economic zones, open cities, development areas and coastal economic open zones. China's policies of economic reform and opening to the outside world have thus greatly contributed to the economic development of the 1980s.

**(9) Put forward the principle of a socialist commodity economy and the theory on the primary stage of socialism.** The principle guiding the reform of the economic structure is development of



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**In February 1984, Deng Xiaoping writes during his inspection to the Xiamen Special Economic Zone: "Running the special economic zone at a quicker pace and in a better way."**

the socialist commodity economy. This is a breakthrough in traditional socialist economic concepts because the principle of socialist commodity economy is also a principle of combining the planned economy with market regulation. Although it has not yet been perfected and matured, it is the road forward for China's economic restructuring and has allowed the accumulation of some practical experiences. In 1987, the Chinese Communist Party put forward the complete theory on the primary stage of socialism and pointed out that the socialist primary stage is a specific period which China has

to undergo to build socialism because China's productivity is backward and its commodity economy underdeveloped. It will be at least 100 years from the socialist transformation China completed in the 1950s to the essential realization of socialist modernization. This theory is the summing-up of the basic experience gained in the question concerning the stages of socialist development since the founding of New China in 1949 and sets the realistic tasks for current economic and social development.

**(10) Defend China's socialist system from corruption and subversion during reform and opening to the outside world.** The Chinese Communist Party made it clear in the early days of reform and opening up that China was introducing the economic reform in order to perfect its socialist system; while opening up, however, it is necessary to guard against the infiltration of decadent, unhealthy and anti-socialist ideas and prevent the reappearance of corrupt and evil phenomena within the Party and the country. To realize the four

**In 1956 China completes the socialist transformation of agriculture, handicraft industry, and capitalist industry and commerce. Here peasants in suburban Beijing register for membership in an agricultural co-operative.** XINHUA NEWS AGENCY





Wu Yusheng (second left) has become rich by contracting 20 hectares of lake surface. He teaches fellow farmers how to breed fish.

YU JIE

modernizations in China, it is necessary to persist in the four cardinal principles (keeping to the socialist road, upholding the people's democratic dictatorship, the Communist Party leadership and Marxism-Leninism and Mao Zedong Thought). There is no doubt that we have adopted the policies of opening up, stimulating the economy and reforming the economic structure in order to develop the socialist economy. To build socialism with Chinese characteristics requires that we should firmly follow the policies of reform and opening to the outside world and at the same time prevent peaceful evolution.

**(11) Propose and implement the Five Principles of Peaceful Coexistence in international relations.** The foreign policy of peaceful coexistence towards countries with different social systems was proposed by Lenin

after the October Revolution. The Chinese and Indian governments initiated the Five Principles of Peaceful Coexistence in 1954. The five principles are mutual respect for sovereignty, territorial integrity, mutual non-aggression, non-interference in each other's internal affairs, equality and mutual benefit, and peaceful coexistence. The Chinese government has always implemented the Five Principles of Peaceful Coexistence in developing its relations with other countries. It has always used these principles in its relations with other socialist countries.

In keeping with these five principles, the Chinese Communist Party has followed the principles of independence, complete equality, mutual respect and non-interference in

each other's internal affairs while handling its relations with parties of other countries (including bourgeois parties).

**(12) Apply dialectical materialism and historical materialist concepts to all of the Party's work.** The Chinese Communist Party has paid special attention to proceeding from reality in handling every field of work, (emphasizing investigation and study and seeking truth from facts). Social practice is a basis of cognition. The root causes of development are contradictions within matters and class struggle, therefore, is a historical motivation of a class society. All social phenomena should be analysed according to classes. These concepts are the principles guiding the Party's work. The above views should be used as a guide to all of the Party's work. The above-mentioned contributions made by the Chinese Communist Party to the development of Marxism are all the result of observing and resolving problems through the dialectical and historical materialist viewpoint in the Party's practical work. ■

**The Zhanjiang Economic and Technological Development Zone has set up a number of export-oriented enterprises yielding good economic returns.**

PAN JIAMIN



# Ecological Farming

by Liu Qi

*China's eco-farming industry which began in the late 1970s, has now been in operation at the county, village and household levels and achieved tangible results. In the 1990s, China plans to further expand the industry's role.*

Over the past ten years, as China's agriculture was marching towards modernization, ecological problems similar to those found in Western petroleum-based agriculture have occurred. These problems include soil erosion, grassland deterioration, desertified land, reduction of soil fertility, energy shortages and environmental pollution. These not only hamper the further development of agriculture and retard the process of modernization, but threaten the very existence and growth of the Chinese nation. Facing such a reality, China is searching for a mode of eco-farming which will better suit its own national conditions.

## Pilot Projects

In the late 1970s, extensive discussions were held within academic circles on how best to develop China's agriculture. Noted ecologists and environmental scientists Ma Shijun, Hou Xueyu and Qu Geping suggested that agricultural development be guided by ecological and eco-economic principles and that environmental protection and economy be developed coordinatedly. In 1982, the Beijing Environmental Protection Research Institute began an eco-farming pilot in Liuminying Village of Daxing County, Beijing.

Other research institutes also carried out similar experiments and research, ensuring that the theoretical research of eco-farming was put into practical use. Subsequently, most of the nation's provinces, municipalities and autonomous regions have done exemplary work in the field, continuing to expand its scale from eco-farming households and villages to eco-farming townships and counties. The pilot research projects have been very successful in several villages. For example, Liuminying Village in Daxing County, Beijing, Shanyi Village in Xiaoshan City, Zhejiang Province, Heng Village in Taixian County, Jiangsu Province, and Xiaozhang Village in Yingshang County, Anhui Province, each won the top prize for the 1987, 1988, 1990 and 1991 global environmental project award from the United Nations Environmental Programme for their achievements in eco-farming. By early 1990, some 29 eco-farming pilot units had been set up at the county level, 138 at the township level and more than 1,200 at the village or farm levels. They are scattered in every province and municipality in the nation except for the Tibet Autonomous Region and Taiwan Province. The number of eco-farming households in the country is going up too. Today, in Sichuan Province

alone, there are at least 10,000 such households.

## Features

China's eco-farming industry is a comprehensive agricultural production system based on a multi-tiered and multi-purpose intensive management system and the successful experiences of various agricultural production practices (especially the experience of China's traditional organic farming) in accordance with ecological and eco-economic principles and by applying modern scientific and technological methods. It is marked by the following features:

—Modern China's eco-farming industry used the many rich and valuable experiences of China's traditional methods of farming, such as crop rotation, inter-planting, inter-sowing, the use of organic fertilizer and intensive and meticulous cultivation. These methods attach great importance to the overall development of agriculture, forestry, animal husbandry, sideline production and fishery, the comprehensive management of agriculture, industry and commerce, the connections between various agricultural departments and diversified management.

However, eco-farming is not simply the blind use of past experiences, but instead, putting into practice modern systematic theories and ecological principles and co-ordinating economic and environmental development. At the same time, it makes extensive use of modern science and technology and is, therefore, essentially different from traditional farming.

—China's eco-farming is a model of a "large agricultural" system with comprehensively planned and rationally deployed plantation, animal husbandry, forestry and processing indus-



ZHANG SHENGGUI

The level terraced fields in Dingxi County, Gansu Province, form a comprehensive system for water and soil conservation.

tries. It takes into consideration not only horizontal development of each sector such as agriculture, forestry, animal husbandry, sideline production and fishery, but also the connection among agriculture, industry and commerce, and production, supply and marketing, in order to turn them into an organic whole and ensure the co-ordinated development of the entire eco-farming system in which each sector promotes a higher and more comprehensive efficiency in other industries.

In regard to the principle of production, China's eco-farming emphasizes to make the fullest and rational use of solar energy and biological resources. It also makes frugal use of other energy resources and carries out a vertical planting and mixed breeding system so as to make the best use of the limited space, water, soil, light and energy resources available and reach the highest possible usage rate of optic energy and of biological conversion. The efficient use of "wastes" turns agricultural organic wastes into productive resources. A comprehensive prevention and treatment programme has been carried out for the control of weeds,

insect pests and plant diseases, while manure, green manure and other organic manure are used as a principal source of fertilizer, with the rational application of chemical fertilizers.

—China's eco-farming pays attention to the agricultural ecology, afforestation, water and soil conservation, the treatment of deserts and saline and alkali land in order to improve the natural environment. It also emphasizes the long term use of natural resources for agricultural production so that the ecological system will be stable and able to sustain development.

—China's eco-farming mainly relies on the public's self-reliance, while the state chiefly provides guidance, programme design and technical assistance. Each locality raises funds on its own, by tapping its own potential and developing techniques requiring less funds, low cost and simple and practical technologies which can be easily popularized.

—China's vast territory, rich resources, varied climate and complicated geographical conditions have resulted in different methods used in eco-farming.

Based on their size and scale, eco-farming projects can be div-

ided into eco-counties, eco-townships, eco-villages and eco-households and, based on natural conditions, eco-farming areas can be divided into mountainous, hilly, plain and water areas.

In accordance with agricultural management departments, there are eco-farming, eco-forestry, eco-animal husbandry and eco-fishery, and, correspondingly there are eco-farms, eco-tree farms, eco-fish farms and eco-animal farms.

In terms of products, there are comprehensive and special ones. The comprehensive ones include output of agriculture, forestry, animal husbandry, sideline production and fishery which, at times, are produced in co-ordination. Generally, the scale is above the farm, village, township and county level. The special ones mostly refer to products turned out by eco-households dealing in grain, edible fungus, chicken breeding and others.

Based on its structural features and functional characteristics, the eco-farming programme is divided into five systems—vertical biological integration, circular material usage, mutual biological destruction, major factor control and overall regional planning—and there are certain eco-farming types and models in each of these eco-farming systems (21 types and 50 models in total).

China's practice in eco-farming over the past ten years proves that the production pattern of eco-farming conforms to natural laws. It has soundly co-ordinated economic development and environmental protection and ensured the sustained and steady development of agriculture. It is a fundamental way to build a modern agriculture system with Chinese characteristics. It has not only provided job opportunities for rural surplus labourers, but also created large quantities of quality sideline

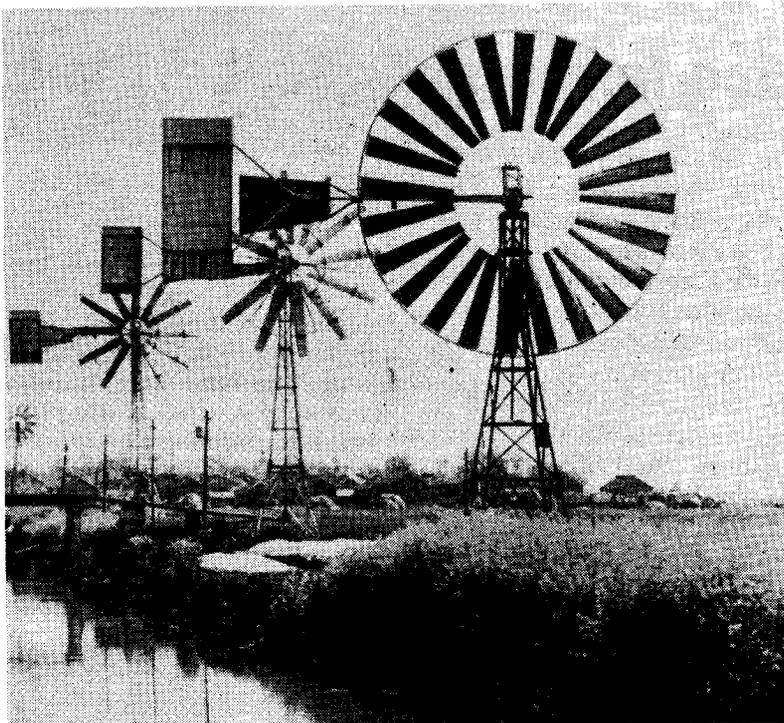
products, thus booming the rural and urban markets and ensuring an overall development of the national economy.

**Trends**

In the nation's future economic and social development programme, the Chinese government will continue to give priority to agriculture and stress the development of eco-farming. In the 1990s, China's eco-farming is expected to develop rapidly, and the development trends are as follows.

—The pilot project will be further expanded. At present, the eco-farming pilot units are scattered throughout the country, with many types and patterns in different localities. In the 1990s, project scales will be further expanded on the basis of new pilot projects at township and county levels.

—Theoretical study will be deepened mainly in the following aspects: Research on index systems and evaluation methods; programme design methods for large-scale eco-farming exemplary areas (including eco-farming townships, counties and cities); systematic research on various types and patterns; and research



Xinhua County of Jiangsu Province irrigates land with windmills to make up for its energy shortage.

XINHUA NEWS AGENCY

on engineering techniques.

—During the 1990s, China will expand eco-farming construction throughout the rural areas, working on the comprehensive improvement of the rural ecological environment. This will mainly include recovery of green vegetation, protection and

rational use of natural resources; improvement of land quality, resolving the problem of rural energy shortage and bringing agricultural and township enterprise pollution under control, as well as beginning eco-farming projects in small towns.

—Eco-farming product markets will be formed. The Chinese government has already included the production of eco-farming products into its major development programme and will establish a group of food production bases in areas less polluted by industry. A series of standards and management methods to promote the shaping of an eco-farm product market will also be formulated. Examples include the strengthening of quality inspection of products and issuing a "green food" label for eco-farm products. The establishment of an eco-farm product market will definitely stimulate the development of China's eco-farming industry. ■

ZHAO LIANSHENG

Wangdu County of Hebei Province pays attention to eco-farming and afforestation. Here people are planting trees.



# Eco-farming on Huaibei Plain

by Our Staff Reporter Li Ping

On June 5, World Environment Day, the village of Xiaozhangzhuang, Ying-shang County, Anhui Province was awarded a prize for environmental protection by the United Nations in 1991. The small village situated on the Huaibei Plain in east China was acclaimed as the "pride of China's eco-farming" by Dr. Mostafa K. Tolba, deputy general-secretary of the United Nations and executive director of the UN Environment Programme.

Xiaozhangzhuang is only one of many such eco-farming villages on the Huaibei Plain which plant trees, develop intensive farming techniques and engage in a courtyard economy. The development of eco-farming has not only brought about initial improvements to the ecology of the Huaibei Plain, but promoted the development of agriculture and steered the once poverty-stricken area on to the road to prosperity.

## Shelter Belts

On our way to Xiaozhangzhuang, Liu Qi, an eco-farming engineer with the State Environmental Protection Bureau, said to this reporter that Xiaozhangzhuang specialized in tree planting, grain farming and livestock breeding. He said it has done a marvellous job in afforestation, a fact we discovered to be true when we drove by the village, hidden from view because it was so enveloped in foliage.

Xiaozhangzhuang's farmland is crisscrossed by shelter belts, the roads and canals are lined by plane trees, houses are skirted by evergreens and flowers and lakes by groves of bamboo. It is hard to believe that years ago the village was plagued by disaster. Located in the low-lying area of the Huaihe River, Xiaozhangzhuang was often hit by either drought or flood, the sandy farmland could not be cultivated and trees were felled randomly during the 1950s and 1960s. Even as recently as the mid-1970s, the village would only reap 750 kg of grain per hectare and earn a yearly income of a little more than 50 yuan per capita. The area around Xiaozhangzhuang was one of the poorest in China.

It was around the mid-1970s that the village came to grips with poverty. As part of their overall zoning programme for the farmland, roads, canals and the village, the villagers began an ecological engineering project by building water conservation facilities and farmland shelter belts.

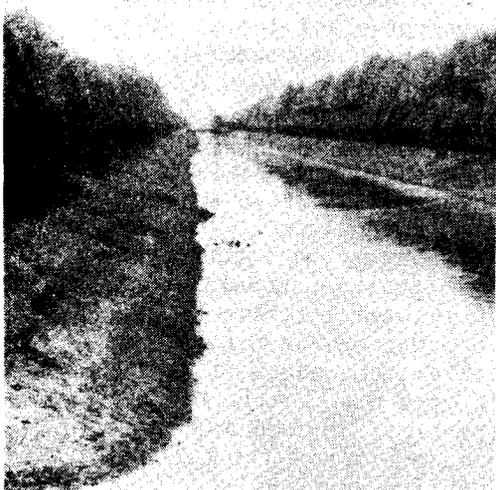
Given the fact that Xiaozhangzhuang is a low-lying area, it is difficult to drain off flood water.

The villagers spent several winters and springs to construct a farmland irrigation and drainage system complete with 20 canals, 15 fish-breeding pools, 64 motor-pumped wells and two irrigation and drainage stations. The system is so efficient that it can bring water to the farmland even during times of drought and drain it when hit by heavy rains. The villagers also plough deeply and apply organic manure to the farmland.

Their campaign to transform farmland was followed by a massive drive to plant trees. In the past decade or so, they have built 20 shelter belts totalling 40.8 km, 28.7 hectares of orchards and 8 hectares of bamboo groves. Altogether, they have planted 167,000 trees. Now, 26.2 percent of the village is wooded as compared with 6.9 percent in 1976. Increased wood acreage has improved the micro-climate of farmland and raised its capacity to resist natural calamities.

Eco-farming has improved Xiaozhangzhuang's ecology. A scientific survey shows that the wind speed has dropped by 47.7 percent and water evaporation by 18.9 percent. The trees provide a habitat for birds, and the increased number of birds reduces insect pests. Consequently, there is less need to apply agricultural chemicals and a reduced potential of pollution. In addition, the branches provide farmers with firewood, thus allowing more crop stalks to be used for manure.

Villagers are becoming prosperous. Xiaozhangzhuang, with a population of 3,000, has a per-capita income of 808 yuan in 1989, some 15.8 times that in 1976. The per-hectare yield stood at 15,480 kg in 1989, or 20 times as much as in 1976. All the farmers have moved into new houses built of bricks, with per-capita space of 20 square metres. They have done this all on their own,



A tree-lined canal.

LI PING

without asking for a single penny from the state.

Last September when he visited Xiaozhangzhuang, Tolba said excitedly, "Though I only saw a part of the village, I think it is an example for the whole world. They have obtained a relatively comfortable standard of living by relying on their own strength to develop the economy and at the same time have protected and improved the environment."



SHI LIXUE  
Dr. Tolba discusses eco-farming techniques while on a visit to Xiaozhangzhuang Village.

### Intensive Farming

Another salient feature of eco-farming on the Huaibei Plain is intensive farming techniques. A typical example is the district of Yimen, Woyang County, where farmers plant many crops on limited farmland, making full use of the limited space.

Chen Shuhua, head of the district, said that his area has a population of 100,000, only 0.08 hectares of land per capita. They have no other alternative but to intensively farm and interplant three local crops—paulownia, *taigan* (a wild vegetable like asparagus lettuce) and herbaceous peony. They manage to bring in three harvests a year by growing corn in summer, *taigan* in autumn and wheat in winter, grow herbaceous peony under paulownia trees all the year around and interplant *taigan*, broad beans and vegetables, or grow four crops in a year, that is, *taigan* in spring, corn in summer, again *taigan* in autumn and vegetables in winter. Such intensive farming brings in more than 15,000 yuan per hectare annually.

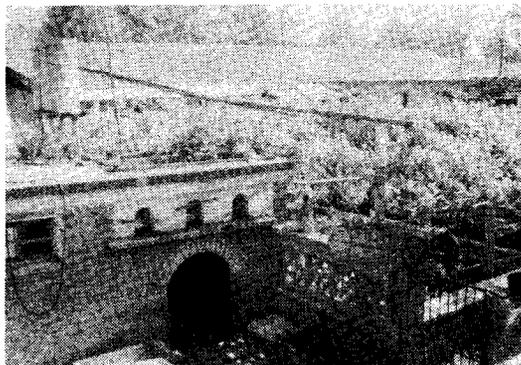
The effort has paid off. The Huang family of six has tilled 0.4 hectare on contract. On half the tract, they grow two crops a year,

wheat and rice, and have a yield of some 2,700 kg. Of this, they keep 1,000 kg for their own use and sell the remainder to the state. On the remaining 0.2 hectares, the family has planted apple trees, under which they grow herbaceous peony and *taigan*. The Huang family nets more than 10,000 yuan a year from this small tract of farmland.

### Courtyard Farming

Courtyard farming is another important feature of eco-farming on the Huaibei Plain. A case in point is the courtyard of Wang Puzhong, located on the tree farm on the outskirts of the city of Bozhou. A graduate from the Anhui Agricultural College, Wang is an expert in livestock breeding and aquatic farming.

SHI LIXUE  
Wang Puzhong practises intensive gardening in his courtyard.



Wang's courtyard is only 0.02 hectares in size, but it is efficiently used. In the centre he built a fish pool, 20 square metres in size and 2 metres deep. In the pool he raises carp, black carp, grass carp, loach and turtle, earning between 2,000 and 3,000 yuan a year for his efforts. Around the pool he has a grape trellis from which he nets 1,500 yuan from more than 1,000 kg of grapes annually. On one side of the pool is a

pigeon house and a pigsty in which he breeds some 40 pigeons and eight pigs. Atop the pigsty is a chicken coop with some 20 chickens. On top of the chicken house is a solar-energy water heater. Below the pigsty is a methane-generating pit. On the other side of the pool is a tiny vegetable garden which provides the family with vegetables all year round.

Wang's courtyard is a small eco-system. Chicken droppings are used to feed pigs, nightsoil is used to generate methane for cooking and liquid from the methane pit is used as feed for fish and pigs and the remainder as manure for farmland or as a culture medium for mushroom. From his courtyard, Wang earns nearly 10,000 yuan a year.

In the tree farm there are 85 villages. Ten villages and more than 100 households specialize in eco-farming, growing fruit trees, raising bees or weaving. This year each of the villages, as planned, will be led by a professional in charge of technical work and trained in mushroom cultivation. The villagers will then expand their courtyard farming, becoming rich through the use of scientific techniques. ■

# One College's Bid for Farm Modernization

by Our Staff Reporter Dai Gang

In China, an over-populated and still developing nation with an age-old agricultural tradition, dozens of agricultural colleges are having their hands full trying to meet the needs of agricultural modernization. Among these schools, the Shanghai Agricultural College (SAC) is neither the oldest nor the largest, but it is one of the best. During a latest assessment exercised by the authorities of higher education in Shanghai, SAC distinguished itself with outstanding achievements in education and research.

Located at Qibao, a town to the southwest of Shanghai, SAC currently has a student enrollment of 1,125. Of the nearly 600 faculty members, 246 are professors, lecturers and teaching assistants and 20 others are special researchers. Half of the SAC teachers are also engaged in scientific research and, as a result, the college's teaching and research arms are closely linked. Most of the research achievements have already been used in

agricultural production.

SAC has turned out a total of 2,355 students, 11 with Master's degree. These students, who have been employed by relevant institutes of the city's Academy of Agricultural Sciences and by agrotechnical departments in Shanghai's suburban counties, are the main force in Shanghai's drive for agricultural modernization. Many of them have carried out valuable research.

## Agrotechnology

Under the guiding principle of "Facing the countryside, adapting to it and serving it actively," SAC has established such a teaching system that stresses the training of professionals for a new type of agriculture by offering multi-level courses in applied technology and management, such a research system that chiefly studies applied theory and technology in agricultural science, and such a service system that provides suburban farmers with necessary farming knowledge and skills.

The rearrangement of faculties and major disciplines is the most unique feature that SAC can boast of in its reform. According to the developments in the rural economic structure, SAC was the first among the nation's all farming colleges to rearrange all its departments into five: Plant Science, Landscape Architecture and Environmental Protection, Zoology, Agro-engineering and Agro-economics. This new method has made the school more attractive than ever to college applicants and has helped increase SAC's enrollment. Moreover, to meet the demand of professionals for suburban farming, SAC's majors are quite specialized, including such studies as Export-Oriented Farming, Decoration Gardening, Rural Foreign Economic Relations and Trade, Farming Facilities and Machinery, and Rural Accounting.

## Foreign Exchanges

In recent years, SAC has actively communicated with its overseas counterparts. It has estab-

The Shanghai Agricultural College.

SHANG GONG



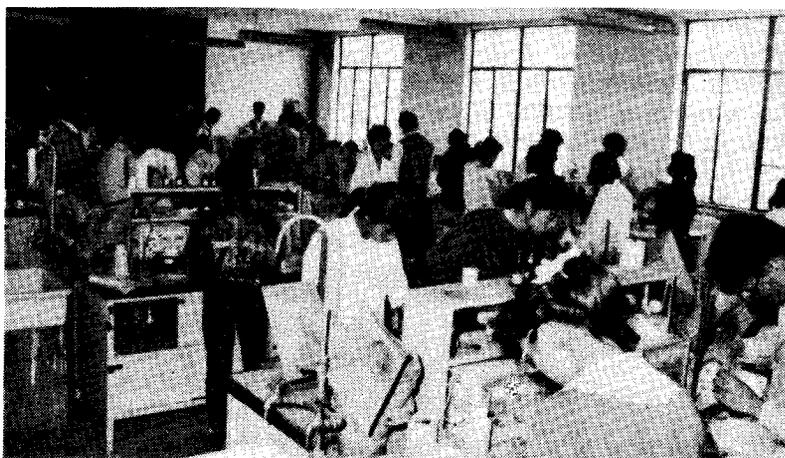
blished regular academic exchanges with 18 universities and institutes in the United States, Japan, Canada, Britain, France, the Netherlands and Belgium. It is also the sister school of two French agricultural colleges, and is currently discussing similar possibilities with schools in Australia, the Soviet Union and Thailand. Since 1985, more than 300 foreign scholars have come to lecture in SAC. Such academic communications have contributed to SAC's teaching and research. In addition, SAC always attaches importance to its faculty members' advanced studies. It has sent more than 40 teachers and researchers abroad to study and research, 85 percent of whom have returned.

Lu Ping, SAC vice-president and professor of the Department of Zoology, is among those who have returned. The middle-aged female professor went three times to the United States for studies. After she came home in 1987, she set up the most advanced high-tech laboratory at SAC, the No.1 Biotechnology Research Centre. With the support of her colleagues, the lab which cost 1 million yuan (US\$0.2 million) has been well equipped with complete sets of imported instruments and facilities, including an ultracentrifuge, a cell reactor and an ultra-low temperature refrigerator.

Lu's lab is working chiefly on cultivating monoclonal antibodies that can fight against viruses adversely affecting animal husbandry. The monoclonal antibody technology, discovered and developed by Milstein and Kohler in the mid-1970s, has been widely applied in every related field of bio-medicine in the United States and Western Europe. Although China has contributed much to the research which is now being commercialized, the monoclonal technology is rarely



French friends shown around the Shanghai Agricultural College.



A well-equipped laboratory of the Shanghai Agricultural College.

applied in veterinary medicine. Therefore, Lu's lab is of key importance in supporting China's agricultural modernization.

In fact, Lu's studies have been rightfully rewarded with the successful cultivation of the monoclonal antibodies against HORV and IBDV. Lu applied the hybridoma technique to get the desired antibodies through a complete process of virus segregating, purifying, combining, selecting and testing. Both of the new antibodies have been used as an aid in the diagnosis of the above-mentioned two diseases in

rabbits and chickens. In particular, over 20,000 IBDV-affected chickens have been cured with the specially prepared IBDV antibody. Some experts believe that these two research products are of international significance. Moreover, Lu's studies have broken through seroimmunological restrictions by producing cloned antibodies outside, instead of inside, the affected target subjects and as a result, making mass production possible. The scientist's next goal is to research the application of gene engineering techniques in veterinary med-

icine.

Over recent years, many people in Shanghai have shown an interest in nutrition. Fewer and fewer residents are satisfied with simply feeding their stomach. Demands for best-selling foodstuffs, fine farm produce as well as local specialties are soaring. In view of the need for a new type of agricultural system around the city, the municipal government has outlined two large long-term programmes to secure and enrich Shanghai residents' food: "the vegetable basket project" and "the rice bag project." As one of the major agrotechnical centres in Shanghai, SAC has contributed greatly to the two programmes with more than 100 prize-winning research achievements.

Zhao Zheshen, associate professor and dean of SAC's Department of Plant Science, is a cele-

brated expert in black rice whose success in developing a new species of special coloured rice has aroused increasing interest in agricultural circles. Special rices, including fragrant glutinous rice and black rice, are the SAC's trademark pride. Even on the local market in Shanghai, these rices are still too scarce to buy. According to Zhao, people have a growing taste for dark coloured food, a seemingly worldwide trend. This is because the dark coloured food, compared to others, contain more minerals and vitamins, and because the natural dark pigment is attractive. This fervour for "Dark Food" has spread silently throughout Shanghai.

China, one of the world's major rice producers, has many agricultural resources to be exploited. For example, black rice used to be tribute to imperial

court in ancient China. In 1985, Zhao and his fellow researchers introduced different strains of black rice from the provinces of Guizhou, Yunnan and Guangxi Zhuang Autonomous Region into Shanghai. After four years of selection, cultivation and studies, they invented black long-grained and black glutinous rices. In 1990, the production base for black rices was enlarged to 23 hectares and the total output reached 125,000 kg. In addition, both species of "SAC fragrant glutinous rice" and "SAC fragrant rice," the products of Zhao's research, have been introduced to a dozen south China

provinces and cities for large-scale production. The SAC cooperates with other food companies in the processing of ready-food with black rice as the main ingredient. Some of the foodstuffs have been introduced to hospitals for medical treatment and have proved effective in helping patients to recover from illnesses.

In addition to the special rices, SAC researchers have also carried out studies and experiments on the cultivation of orange, grape, strawberry, peas and beans, vegetables as well as edible mushrooms, and on dairy and poultry products. Their purpose is to supply more and quality products. Professor Fei Xuenan from the Plant Department, after seven years of experiments, succeeded in promoting the growth and improving the quality of oranges with his new plant-growth regulator. The method of raising chickens in plastic factory containers, developed by the Department of Zoology, is preferred by suburban farmers because of its high profit margin and low costs. SAC's scientists have also successfully produced a winter harvest of strawberry in greenhouses, thus expanding the local strawberry season from the usual 20 days to as long as six full months. Their research efforts in developing and maintaining the superior species of a number of flowers such as Chinese roses, chrysanthemum and orchid have proved a boost to the local flower market.

Even though Shanghai is China's most populous industrial metropolis, it still requires a modern suburban agricultural base to support its urban development. In this sense, SAC will continue to play an indispensable role in the modernization of the city's agriculture by training qualified agronomists and promoting scientific research. ■

**Chinese and foreign students performing anatomy on an animal.**

*by courtesy of the Shanghai Agricultural College*



# Su Ning—A Pace-Setter

by Our Staff Reporter Wu Naitao

**B**y the time the Chinese public first heard the name "Su Ning" over national CCTV news, Su Ning had left us for ever. The chief of staff of an artillery regiment for the Shenyang Military Area Command in northeast China, Su, 37, died last April while rescuing two soldiers from a hand grenade explosion.

The Chinese public are inspired by his heroic deeds and praise him as a "man of the times."

## Sense of Time

His death shocked his colleagues and the whole regiment. The Artillery Corps under the Headquarters of the General Staff of the People's Liberation Army deeply regretted the loss of

a talented commander and called on all commanders and soldiers to learn from his actions. In his 22-year career in the army, Su Ning tried to keep abreast of the times. One article in *Renmin Ribao* (People's Daily) commented that as a grass-roots commander, he had continuously dealt with matters of major importance.

Su began his research of modern warfare ten years ago. In 1981, he recommended the use of computers in war operations. Though with a junior middle school education, he studied very hard, determined to do his share in modernizing the People's Liberation army. In two years, he finished his 20,000-word research paper *Computer Decision-Making System for Offensive and Defensive Operations of Mo-*

*torized Troops*. His research aroused the attention of the Headquarters of the PLA General Staff and some military scientific research units. Some experts believed his research was an important breakthrough in the reform of the military command and his programme was approved and publicized throughout the army.

Su Ning studied at the Artillery Academy for three years and joined the National Society of Military Operations Research, the Economic Mathematic Research Society and the Artillerymen's Society under the Headquarters of the PLA General Staff. He wrote and published more than 60 papers totalling 500,000 words. His *Discussion on the Theory of the Use of Non-Material Resources in Modern Warfare* delivered at an annual meeting of the National Society of Military Operations Research and the Military Systematic Engineering Society caused a stir at the meeting. Chen Qinghua, secretary-general of the National Society of Military Operations Research, said Su's theory filled in the blanks in the research of military operations in China and provided new options for conducting military operations. His work was approved by the leaders of the Artillery Corps and the Headquarters of the PLA General Staff and he was encouraged to conduct further research.

Su Ning, however, was not satisfied with the achievements he had made. After the outbreak of the Gulf War, he wrote three papers and proposed a series of research and training programmes, including psychological training, battlefield sound simulation for missilemen, reduction of commanding procedures and modernization of the command structure.

Su Ning once said, "My job is concerned with the nation's security and my life would be

Su Ning (centre) and his colleagues plot their course on a snow-covered mountain.





Su Ning (*front*) takes his bearings on a snowy day.

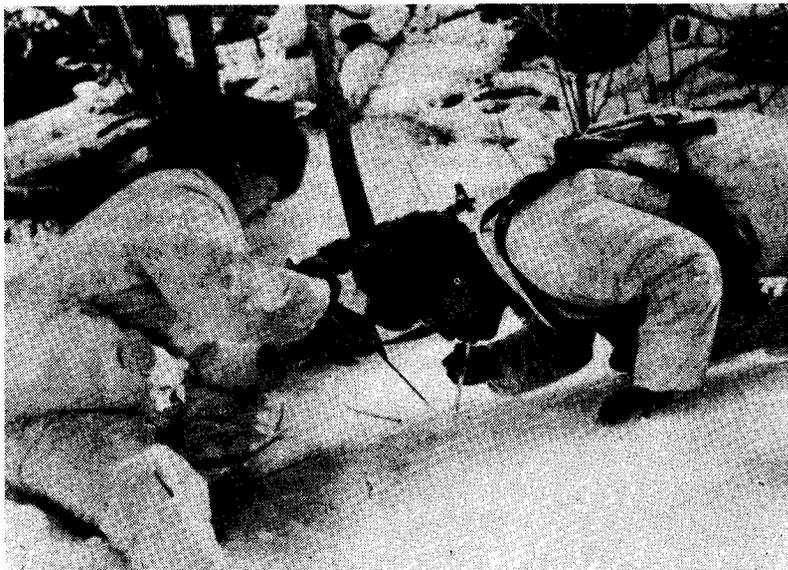
meaningless if I couldn't do something good for my country and the army." His strong sense of responsibility for the security of the country is a characteristic which hundreds of thousands of young people want to develop in themselves.

### Moral Excellence

Su Ning followed in the footsteps of Lei Feng who died while carrying out his duties and was well known for his hard work, plain living and willingness to help others in the 1960s.

Su's 9-square-metre room was very simple, with just a wooden bed, a desk, beddings and a pillow stuffed with his clothing. His wife, Wu Qinghua, said, "Su only thought about other people and he didn't waste one cent on his own food and clothing. He led a very simple life." Though she bought him a suit and a pair of leather shoes, he did not use them, saying his generation was here not for self-enjoyment but to struggle for the people.

He took pleasure in helping



Photos by ZHAO JUN

Su Ning (*left*) and his colleague practise winter survival techniques.

others. When he and his colleagues laid pipelines one winter, for example, he always undertook the hardest tasks and slept on the coldest bed.

The local shop attendants, students, teachers, farmers and policemen were all recipients of his generosity. A woman and her son

who made a living repairing shoes came to the barracks after hearing the news of Su's death. They said Su Ning had helped them quite a lot, giving them rice, edible oil, clothes and money when they had financial problems. They were as sad as if they had lost their own relative, crying, "It is unbelievable such a good person is gone for ever."

Since China introduced the reform and open policy in 1979, some people have only set their minds on a comfortable life. But Su Ning followed the spirit of Lei Feng—hard work, plain living and helping others. The majority of the Chinese people are moved by his deeds and convinced that his actions are worthy of emulation. They believe only Communist Party members who combine their strong sense

of time with traditional moral excellence and reflect the basic principles of the Party are able to meet the standards set by the Chinese people for truth, honesty and beauty. It is people such as these who have a permanent and pronounced influence on the public mores. ■

## Xinjiang Expands Foreign Links

Some new trade activities between China and foreign countries will continue to be carried out in the Xinjiang Uygur Autonomous Region this year in order to open west China's door wider, according to regional officials. The activities include:

—The Alataw Pass was opened in June and the Northern Xinjiang Railway put into temporary operation.

—Four additional border passes will be opened to develop local trade with the Soviet Union and Mongolia.

—Foreign capital will be actively introduced to develop the local economy. The region plans to seek loans from Britain and Spain, totalling US\$400 million, for the construction of a 140,000-ton ethylene plant. A contract for the purchase of complete sets of equipment for the project had been signed in Beijing not long ago. The region will also apply for an investment of US\$140 million from the above-mentioned government loans for the construction of a polyester

project. The World Bank will provide loans to the region to build the first phase of a farm irrigation and drainage project in the Tarim.

—The region's traditional festivals will be exploited to attract foreign businessmen and visitors. During the June, Corban Festival, the traditional Muslim gala, was held in Kashi, a well-known city on the Silk Road and a centre of activity for Uygur people. In July, the Nadam Fair, a traditional Mongolian activity, will be held in Bortala Mongolia Autonomous Prefecture at Alataw Pass, the Sino-Soviet railway juncture of the second Eurasian Continental Bridge. In August, the second Turpan Grape Festival of China's Silk Road will be held in the city of Turpan; the festival will feature on an exchange of culture, business talks and tours.

Located in the western part of China and on the border with the Soviet Union, Mongolia, Afghanistan, Parkistan and India, the Xinjiang Uygur Autonom-

ous Region is China's largest autonomous region (province). At present, the region has established economic co-operative relations with more than 50 countries and regions. Moreover, its trade and technological co-operation with the Soviet Union and countries in Central Asia have also made a lot of headway. Last year, Xinjiang exported US\$350 million worth of goods, an increase of nearly 21 times over the previous decade.

by Li Rongxia

## China to Set Up Railway Joint Venture

Deputy Minister Sun Yongfu of Railways has announced that China is seeking joint ventures to build railway lines.

According to Sun, in the coming five years, China will invest around 100 billion yuan in the construction of tracks. Some 4,600-km of newly electrified railway lines will be constructed. The Zhengzhou to Wuchang, Beijing to Zhengzhou, Chongqing to Guiyang, Chengdu to Kunming and Beijing to Qinhuangdao routes are under construction or are to be constructed. The project for the Beijing to Shanghai electrified line has been listed as a state plan. Another 6,100-km of tracks is to cover the routes from Hengshui to Shangqiu, Nanning to Kunming and Xian to Yanan. Also proposed is a 3,600-km double-tracked railway line from Zhejiang to Jiangxi and Shanghai to Hangzhou routes. At the same time, building is to proceed on lines in the north of Jiangsu Province and from Jinhua to Wenzhou, while the Wuhu Yangtze River Bridge is to be constructed and passenger stations at Hefei, Nanjing, Hangzhou and Nanchang are to be upgraded.

Sun said that in the future

The China National Oil and Natural Gas Corp. and the Bank of China signed in late June an agreement on the provision of a loan to the development of the Tarim Oilfield in Xinjiang. Attending the signing ceremony were Premier Li Peng, Vice-Premier Zou Jiahua and Vice-Premier Zhu Rongji.

WANG JINGYING



China will expand construction of railway lines through state investment, the local raising of funds and in the form of Sino-foreign joint ventures. ■

## **Dutch-Funded Optical Fibre Plant**

The Changfei Optical Fibre and Cable Co. Ltd., a Sino-Dutch joint venture, has recently gone into operation after three years of construction. It is the largest of its kind in China.

The new hi-tech venture was funded by the Wuhan Optical Communications Technology Co., the Wuhan Trust and Investment Co. and Philips Co. of the Netherlands. Total investment for the venture came to 72.5 million guilders plus 56 million yuan. Co-operation spans 20 years. Sixty percent of foreign capital was contributed by the Dutch government as loans, while the remainder was stock contributed equally by both sides.

By adopting Philips' world-leading PVC technology, the optical cable manufacturing techniques of the Dutch Electronic Cable Co. and advanced management, the venture will produce 50,000 km of optical fibres and 4,500 km of cables a year. Annual output value will be around 150 million yuan.

Chinese experts said that the Changfei operations have brought China's reliance on import of optical fibre to an end. The plant will meet domestic demand and export 20 percent of its products. ■

## **Tangshan Expands Bone China Production**

Tangshan, the porcelain capital in the north, is China's only city to produce high-grade bone china.



Bone china production line of the Tangshan No.1 Ceramics Plant.

CAO WEI

The Tangshan No.1 Ceramics Factory invested 42 million yuan in the renovation of its bone china production line last year. About US\$3.67 million of the sum was used to purchase 63 sets of production equipment from four British companies. This boosted the factory's annual production capacity to 5 million bone china pieces. According to estimates by the Bank of China, the factory's output value will increase by 26 million yuan after the production line is put into operation, and its annual export earnings will reach US\$3.3 million.

The factory produces bone china with fine quality raw materials mixed with a strictly set proportion of bone ash from herbivorous animals and according to international standards. Bone china ware thus produced is so good in quality that it can match its counterparts produced in Britain and Japan. Chinese and Western tableware, tea sets and coffee services manufactured by the factory have been used to substituted imported ones. They are used in first class cabins on the international flights of Air China, and in high-grade hotels including the Shangri-la Hotel, Palace Hotel, China Hotel, Beijing Tianping Lee Gardens Hotel and Beijing-Guangzhou Centre.

Ge Shilin, director of the Tangshan factory, said that 70 percent of his factory's bone china products are exported to a score of countries and regions including Britain, the United States, Japan, Australia and Southeast Asia. "We hope to expand our co-operation with more foreign friends," he added. ■

## **Foreign Funds Gain Ground in Sichuan**

China's inland province Sichuan is smoothly drawing on foreign investment. By the end of last May, the province had approved 799 Sino-foreign joint ventures, foreign-funded co-operative and wholly foreign-funded enterprises, to the tune of US\$1.522 billion. About 70 percent was invested by businessmen from Hong Kong and Macao.

Zhang Yingwen, chairman of the Sichuan Foreign Economic Relations and Trade Commission, said in a Hong Kong news conference that besides attracting direct foreign investment, the province, over recent years, has attempted to absorb other overseas investment including foreign government loans, export credits and issues of bonds and stocks in foreign countries. It has

put a total of 586 items on the agenda for processing imported material, designed processing, spare parts processing and compensatory trade. Moreover the province has signed contracts for attracting US\$1.44 billion foreign investment and about US\$630 million of the figure has been used.

The World Bank has decided to provide a loan of US\$740 million for the construction of the Sichuan Ertan Hydropower Station, the largest in Asia. The total investment for the power plant is 10 billion yuan and its installed capacity is 3.3 million kw. The project is expected to be completed within this century.

The province's foreign trade has grown rapidly due to the pouring in of this large amount of foreign investment. Zhang said that during the first five months of this year, Sichuan's direct export volume reached US\$534 million, representing an increase of 26 percent compared with the same period last year. Direct imports amounted to US\$80 million, an increase of 32.8 percent over the same period in 1990.

Hong Kong is Sichuan's largest trade partner. Their trade volume reached US\$389 million last year, making up about 35 percent of the province's total trade volume. ■

## Beijing to Conduct World Co-operation

To develop into a modern metropolis, Beijing requires a large amount of investment and new technology. In recent years the municipal government has successfully co-operated with more than ten countries and international institutions on over 20 scientific and technological areas.

Over the past three years, the Beijing Science and Technology

Commission has worked with the United States, Britain, France, Japan, Canada, Germany, Finland and East European countries. Projects have involved international organizations such as the Asian Development Bank, the Development Programme of the United Nations, and the Overseas Development Administration of the United States. Joint schemes have covered the fields of transportation and communication, water resources, environmental protection, urban renewal, construction of municipal works, medical and health care. The city has imported more than 100 scientific and technological items, invited over 140 foreign experts and sent nearly 100 personnel abroad for training.

China, Britain and France undertook a joint feasibility study on subways for Beijing. The British government donated US\$18.19 million and gave business loans of US\$24 million. China imported nine technological systems.

To solve the problem of transporting frozen water in winter along the Beijing-Miyun Diversion Canal, the Beijing Water Conservancy Bureau collaborated with Finland to successfully develop suitable technology. It has subsequently made huge economic profits.

Through the co-operation with an American environmental protection expert, scientific and technical personnel in Beijing devised technology for disposal of polluted water that can help to lower costs by over 50 percent.

Attempting to deal with the overcrowding situation of bicycles in Beijing, the city co-operated with Britain to set up traffic control and management systems in the eastern part of Beijing, drawing on British support of 550,000 pounds. The system has increased road availability for motor-driven vehicles to 25 percent and that of bicycles to

10 percent.

During the Eighth Five-Year Plan period (1991-95), Beijing will continue to strengthen international scientific and technological co-operation to solve glaring city problems. ■

## Price of Hangzhou Silk Goes Up

A yard of silk produced in Hangzhou is now worth US\$80 on West European markets, close to that of Italy's famous products.

Hangzhou is one of China's main silk-producing areas. Formerly, its silk was sold in Europe for only US\$30 per yard because the level of its technology for finishing, printing and dyeing was low. Through adopting compensatory trade in 1987, Hangzhou imported a widebreadth silk printing and dyeing production line and software from the KBC Co. of Germany which helped raise its manufacturing methods to international standards. In 1990, about 1.5 million yards of Hangzhou silk printed and dyed by such techniques were exported to Western Europe.

Sun Ziwen, deputy manager of the Hangzhou Silk Industry Corp., said that the city had spent US\$20 million over the past five years to import advanced silk printing and dyeing technology from Germany, Switzerland, Italy and Japan. In the coming five years, the city will invest another US\$20 million to import rapier and water-jet looms, and printing, dyeing and finishing technology and equipment.

by Lu Fengqin

### CORRECTION:

On page 31 in our issue No. 25, the second sentence of the second paragraph in the left column should read: "Investments for the enterprise totalled US\$671,200, of which...."



Wu Zuoren



Liu Kaiqu



Hua Tianyou



Luo Gongliu

## Footprints of the Art Masters

**E**ight professors from the Central Academy of Fine Arts recently held a joint exhibition of their masterpieces in Beijing. The eight professors have all made great contributions to the development of Chinese art. They are Wu Zuoren, Liu Kaiqu, Hua Tianyou, Luo Gongliu, Ai Zhongxin, Wang Linyi, Zeng Zhushao and Yunne-nikel.

Wu Zuoren is one of the first Chinese artists who received systematic training in Western painting methods and introduced them to China earlier this century. He

went to France in 1930 and studied at the National Paris Higher Art School and then continued his studies in the Royal Academy of Fine Arts of Belgium where he won a gold medal and an honorary title of laureate student.

Since 1949, he has served as professor, dean of studies, vice-president and president of the Central Academy of Fine Arts. Now he is honorary president of the Academy and chairman of the Chinese Artists' Association.

In 1985, Wu was awarded the Highest Award of Art and Litera-

ture by the cultural ministry of the French government for his outstanding contribution to world art. In 1988 he received the Crown Medal from Belgium.

Some of Wu's masterpieces were on display at the exhibition including *A Male Body*, which won a gold medal in Belgium; a portrait of Qi Baishi, who was a great master of traditional Chinese painting; as well as a number of works depicting street scenes of Beijing earlier this century.

Ai Zhongxin's oil paintings show his realistic approach and high level of workmanship. His works, both human figures and natural scenes, are full of vitality.

## Brick Relief of Two Farmer Brothers

**B**rick engraving is a traditional folk art in China which is now practised by only a small number of Chinese artists. Brick engravings of flower and grass patterns, birds and animals, and human figures are commonly seen in the architecture of the Ming and Qing dynasties, a period beginning in 1365 and ending in 1911. However, this traditional art form gained a noticeable comeback with the completion of an ambitious brick relief work by folk artists Zhang Cunshi and Zhang Cunsheng, two brothers from Henan Province, central China.

The Zhang brothers' work is a brick relief series based on the great Chinese classical novel written in the 16th century, *Journey to*

*the West*, describing the adventures of a Tang Dynasty Buddhist monk who went to India to seek Buddhist scriptures under the protection of his three disciples. The Monkey King, the elder disciple, has been a popular image among common people, especially children, for his heroic deeds and magical abilities ever since the birth of the novel.

The brick reliefs depict some of the most dramatic episodes from the novel such as: *The Birth of the Monkey King*, *The Monkey King's Revolt Against the Heaven* and *The Monkey King Conquers the White-Bone Spirit*. The brick relief is 100 metres long and consists of 20 groups of engravings on huge bricks, each measuring about 10 square metres. In the whole series

there are 894 human figures, 121 birds and animals, 393 houses, and countless flowers, trees, objects and natural sceneries.

In the work, human figures and their surrounding are vividly relieved in great detail. The brick relief, rather than being upright, rises gradually from a horizontal position along the ground, adding to the picture's perspective and three-dimensional effect.

The brick work took the Zhang brothers three years to complete. From beginning to the end, the brothers did not use a single blueprint but engraved the story directly on to the bricks, relying on their fine craftsmanship, rich imagination and inspiration. Unlike the traditional brick engraving method in which the sculptors carved the pictures on finished bricks, the two brothers carved on unfired bricks before placing them



Ai Zhongxin



Wang Linyi



Zeng Zhushao



Yunne-nikel

Representative of his works, *Crossing the Yellow River* and *Crossing the Yellow River At Night*, have an imposing artistic effect.

Luo Gongliu is one of the representative artists of the second generation of Chinese artists in the 20th century. He studied in the Soviet Union in the 1950s. Luo is adept in portrait painting which is characterized by the use of bright colours.

The other five are famous sculptors with Liu Kaiqu as the leading figure. Liu Kaiqu entered the National Paris Higher Art School to study sculpture in 1928. In 1953 he was put in charge of both the design and construction

of the Monument to the People's Heroes now standing in Tiananmen Square. He was the first director of the China Art Gallery and vice-chairman of the Chinese Artists' Association. His sculptures have an epic quality.

Sculptors Wang Linyi, Zeng Zhushao and Hua Tianyou all studied sculpture in France and became professors of the Central Academy of Fine Arts after returning from abroad. All of them participated in the creation of the relief sculptures on the Monument to the People's Heroes. *Meditation* by Hua Tianyou won the Spring Salon Award in France in 1943.

Yunne-nikel, wife of Wang Lin-

yi, is French-Chinese. She was born in Paris in 1912 and became a Chinese citizen in 1955. Since 1950, she has been a professor of the Central Academy of Fine Arts. On this occasion she exhibited some of her relief portraits of Chinese women heroes. Her bronze sculptures entitled *Deer*, *Leopard and Tiger* are vivid and breathing with life.

"Although there are a great variety of schools in Chinese artistic circles, the realistic tradition of Chinese art should not be neglected," said Zhu Naizheng, vice-president of the academy. "The works of the eight masters set us a good example," added Zhu.

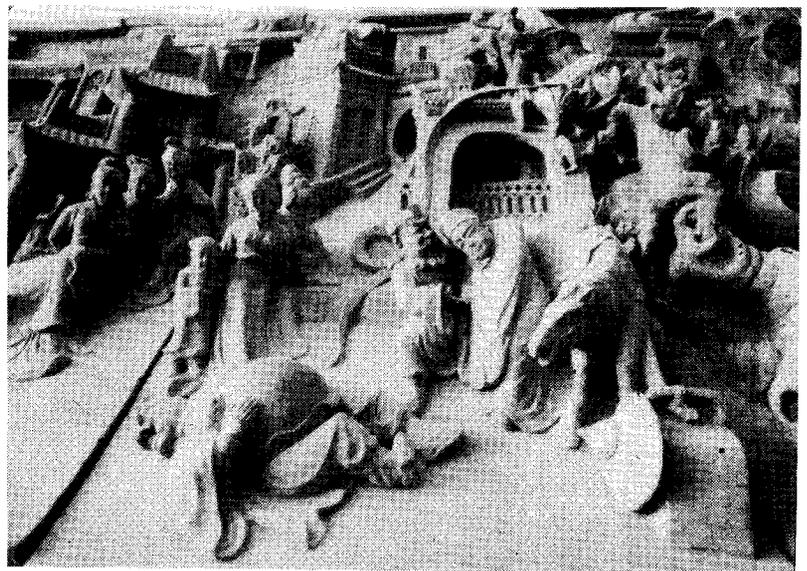
by Wei Liming

in the kiln. In this way, the finished artifacts are coated with a dark grey colour, smooth on the surface, durable and sturdy. The raw materials for the bricks, according to the Zhang brothers, is no other than the common earthy sand deposited by the Yellow River.

The Zhang brothers were farmers in Jiesu County, Anhui Province. They learned brick sculpture at an early age and later became well-known artists in their hometown. Several years ago, they came to Henan to work for the Yellow River Tourism Area.

At present, the brothers are preparing to present the *Story of Three Kingdoms*, another Chinese classic, in brick relief. They are also planning to carve two more ancient Chinese classical novels.

by Zhang Yibing



A section of the brick relief, *Journey to the West*.

## Satellite Saves Time and Funds

A proposal about satellite bands, which has saved China 500 million yuan and helped provide data for oceanographic study, won the first prize of the Excellent Suggestion Awards of the China Science and Technology Association.

Initiated in March 1985 by Gong Huixing at the Shanghai Institute of Technological Physics (SITP), the scheme suggested that the "Fengyun I" meteorological satellite, originally designed to take

photos of the earth's cloud charts and serve meteorological departments, have two wave bands added for observation of the ocean. It can double the information volume of each satellite channel and enable multiple use of one satellite.

This proposal aroused interest in some scientific departments. The National Bureau of Oceanography (NBO) had planned to launch an ocean satellite, but it would take ten years and cost 500 million yuan, making it hard to list it as a state project. Gong's proposal sparked intense curiosity at the NBO and the Remote Sensing Branch of the Chinese Socie-

ty of Space Research, which after inviting experts to appraise the suggestion, unanimously adopted it.

In August 1988, the State Council approved the addition of two oceanic wave bands to the weather satellite. SITP took charge of the research.

The cost of re-designing the satellite body and sensor was only two million yuan. The year 1988 saw the successful launching of "Fengyun I" which bore the tasks of providing weather forecast services and oceanic environmental investigation. From a sun-aligned orbit 830 kilometres above the earth, the satellite sent back high-resolution and life-like coloured pictures of the earth plus data concerning the weather and ocean. The space vehicle covers a vast area, ranging from 3,200 kilometres north to south and 1,600 kilometres east to west.

The multi-purpose "Fengyun I" has realized the goal of space supervision over the oceanic environment ten years in advance and is developing traditional oceanography along with space oceanography. With the help of this satellite, the probe time for fishing has been halved. The vehicle can forecast and supervise the disastrous oceanic climatic changes, such as typhoons, ice flees and coastal floods, helping reduce marine engineering losses.

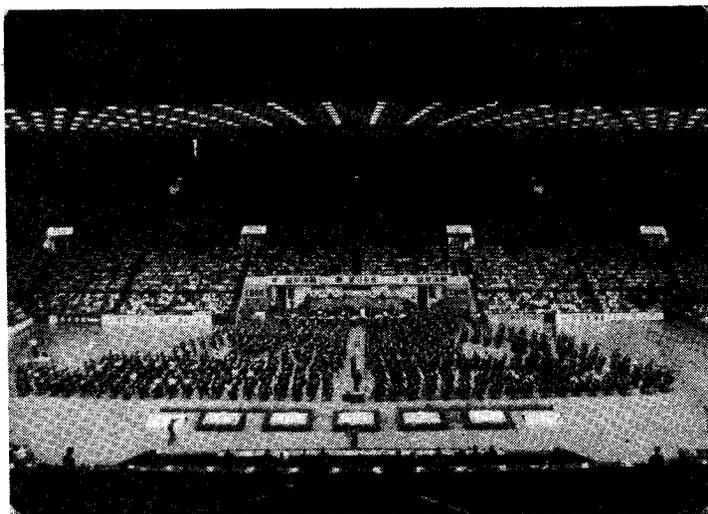
With the successful launching of "Fengyun I," realistic coloured images of the earth's land and oceans are available. This satellite is now the only one in orbit with such a function.

by Wei Liming

## Symphonic Concert Held in Beijing

Seven major orchestras in Beijing recently gave two joint concerts at the Capital Gymnasium which has a capacity of 18,000 seatings. The 500 musicians performed over ten Chinese and foreign classics

including the famous fourth movement of Chaikovsky's *Fourth Symphony*. The concerts were jointly sponsored by the Beijing Symphony Lovers Society and the Hongyun Cultural and Entertainment Corporation.

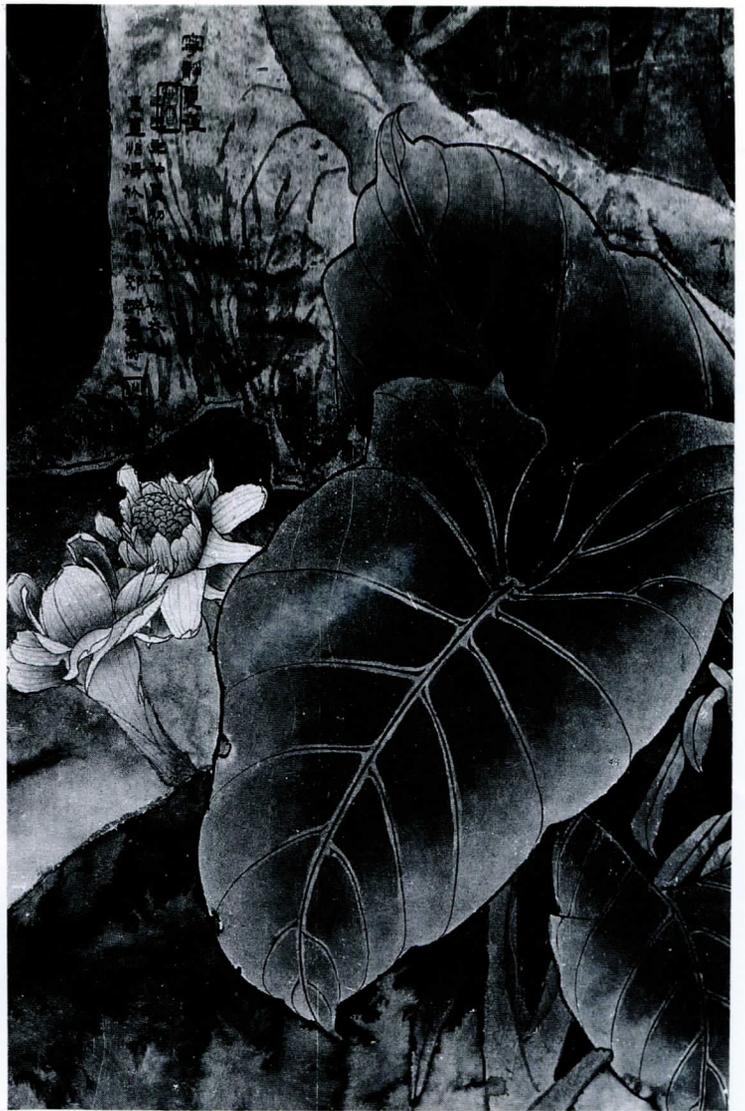




Bright colour and Beauty in Autumn.

## Chinese Paintings by Liu Yitao

Liu Yitao, born in Puer Town, Yunnan Province in 1955, now works in the Kunming Plant Research Institute of Yunnan Province. Specializing in Chinese flower and bird paintings done with fine and delicate strokes, he also uses freehand brushwork for his drawings. Some of his newest creations are based on traditional techniques.



Summer Night.



Cymbidiums.

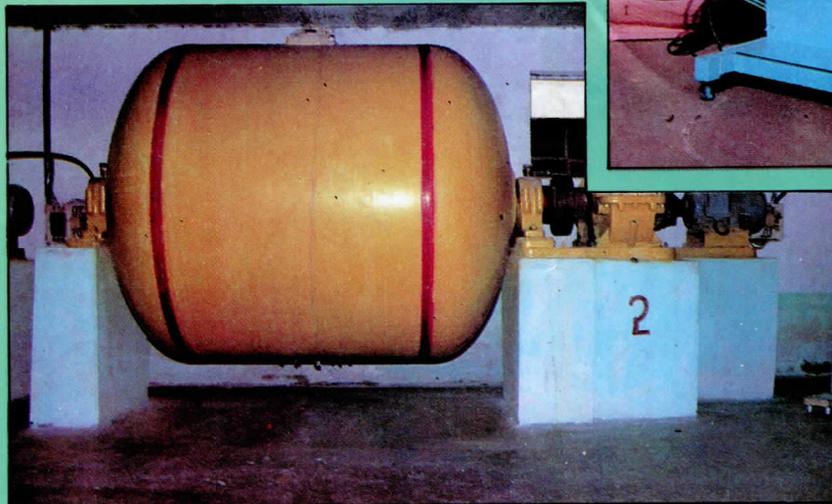
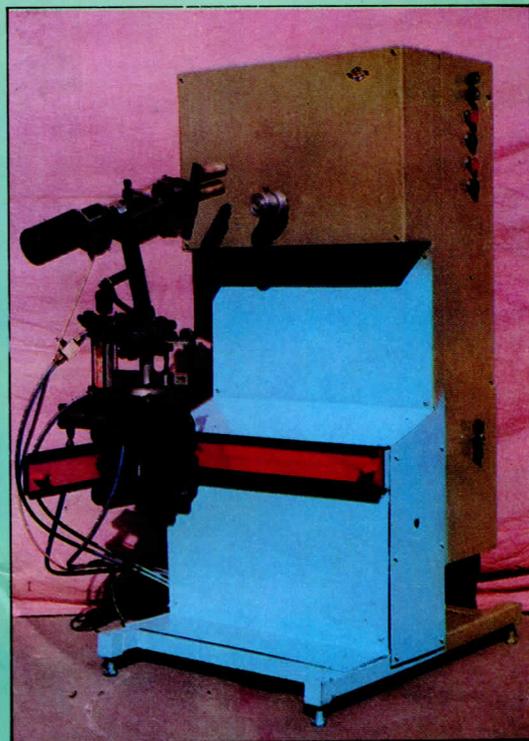
ART PAGE

# The Zibo Ceramic Machinery Plant of Shandong Province

Wang Shuan, director of factory, gives his best regards to customers in China and abroad!

A producer of special Kunlun-Brand ceramic and building machinery for nearly 30 years, the Zibo Ceramic Machinery Plant of Shandong Province is a member of Ceramic Machinery Co-operation Corp. under the Ministry of Light Industry of China and a member of the board of enterprises of the Ceramic Machinery United Corp. of Shandong Province. It produces complete sets of advanced equipment to meet the needs of all kinds of clay processing such as kneading, moulding, painting pottery and colour baking processing. Our factory produces nearly 30 main products including type 50kg-8T ball mill, type TC-102 vacuum clay mixer, mud filter, roll-press moulder, rubbing press, oil pressure pusher, setting-out machine, frame-type roller way furnace and plaster agitator. Some of our products, all of which sell well in the ceramic, building-material and chemical industrial enterprises in 29 provinces and cities nationwide, are exported. The TC-2.5T central-drive ball mill was cited as a good-quality product by the Ministry of Light Industry. The TC-102 vacuum clay mixer won a prize for provincial excellence in 1985 and is widely used in the highly efficient flow process for manufacturing ceramic and earthenware products.

Our guiding principle is to weed out the old and bring forth the new, win honour for our company by manufacturing high-quality products and offer a variety of good services. We warmly welcome customers from home and abroad to come and visit our factory and hold business talks.



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