

A CHINESE WEEKLY OF NEWS AND VIEWS

Beijing Review

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**Reform of
Scientific
Establishment**

公元12世纪 我国就已发明火
药箭
公元20世纪 我国成功地发射
世界先进水平的
运载火箭
公元21世纪 我国的火箭技术
拭目以待……

**ANCIENT SCIENTIFIC
PARTNERSHIP**





A Dong Nationality Girl
in Her Holiday Best.

Photo by Xu Xiangjun

Ornamented Tibetan Women
Seen From the Back.

Photo by Zhang Guisheng



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HIGHLIGHTS OF THE WEEK



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Two Major Items on NPC Agenda

■ The National People's Congress and the Chinese People's Political Consultative Conference, both to be held soon in Beijing, have two major problems to deliberate: how to ensure the balanced, steady growth of the national economy and how to combat bourgeois liberalization (p. 4).

Deng on Chinese Socialism

■ A new enlarged edition of Deng Xiaoping's book "Build Socialism With Chinese Characteristics" includes many recent speeches and statements by the Chinese leaders. Quite a few of them are being published for the first time. They demonstrate the long-standing link between the policy of reform and opening to the outside world and the task of combating bourgeois liberalization (p. 4).

'Double-Hundred' Policy Remains Unchanged

■ In an interview with *Beijing Review*, Zhou Guangzhao, the new president of the Chinese Academy of Sciences, discusses the academy's structural reform and other issues (p. 14).

Bridging the Scientific Chasm

■ After decades of unremitting research, a former Cambridge biochemist discovered one of history's unsung secrets: More than half of the world's inventions originated in China. Joseph Needham's definitive *Science and Civilization in China* and a popular condensation of it by a 43-year-old Kuntuckian have served to foster better mutual understanding between the West and the East (p. 17).

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Two Major Items on NPC Agenda

by Jing Qi

The National People's Congress and the Chinese People's Political Consultative Conference are to be convened soon in Beijing. The two major items proposed earlier by the Communist Party of China and the Chinese government for examination are developing the national economy steadily over a long period and opposing bourgeois liberalization. These items are expected to be written into the government work report to be ratified at the end of the NPC session.

The two conferences shall be

convened in the following circumstances: The national economy cooled its earlier over-heatedness to develop steadily in 1986, with the major planned targets for industrial and agricultural production being met or over-fulfilled. Opening to the outside world and reforming the economy worked well. The socialist democratic legal system has seen further improvements. The student unrest that occurred late last year has dissipated, and after several months of work, bourgeois liberalization has been initially

checked. The whole nation enjoys unity and stability and people live a normal life.

There are also some problems to which the long-term, stable development of national economy and struggle against bourgeois liberalization are proposed as remedial measures.

Economically speaking, major problems include enterprises' poor performance, serious waste in consumption, over-investment in fixed assets and capital construction, and the imbalance

Deng's New Book: Enlightening

by An Zhiguo

The recent publication of Deng Xiaoping's "Build Socialism with Chinese Characteristics" (Enlarged Edition) throws much light on the political scene in present-day China. Half of the 44 pieces in the collection are recent and go up to last January. They include Deng's speeches at Party meetings and talks with other Chinese leaders and foreign dignitaries. Many are being published for the first time. *Beijing Review* will print translations of some of the major pieces in future issues.

Understanding Chinese politics is often not easy. A series of events—the student unrest, the resignation of Hu Yaobang as Party General Secretary, and the unfolding of the struggle against bourgeois liberalization—came to people abroad, it seems, all too suddenly. Many are still wondering whether China's open policy and the policy of reform will change, despite repeated assur-

ances from Chinese leaders to the contrary.

Now, with the publication of Deng's most recent statements, originally aimed at very limited audiences, some of the misgivings and worries may be dispelled.

The 22 new pieces highlight the two different but interlinked aspects of the Chinese Party line since the 3rd session of 11th Central Committee in late 1978: the open policy and the policy of reform on the one hand, and opposition to bourgeois liberalization on the other.

Three months after that 3rd session, Deng made a long speech entitled "Upholding the Four Cardinal Principles" at a Party meeting on theoretical work (For excerpts of this speech, see *Beijing Review* combined issue, Nos. 5 and 6, 1987), where he went to great lengths to emphasize the importance of fighting bourgeois liberalization. Later, he made

more statements to the same effect. Several pieces in the new enlarged edition, including his speech at the 2nd session of the 12th Central Committee in 1983 stating that no spiritual pollution was allowed on the ideological front, are devoted to this subject.

In his talks with Prof. Chen Kuying on May 20, 1985, Deng pointed out: After the "gang of four" were toppled, an ideological trend dubbed bourgeois liberalization appeared in China. It is characterized by worship of "democracy" and "freedoms" in the Western capitalist countries and rejection of socialism. Deng stressed that China should never take the road of capitalism in achieving its modernization. If people who followed this trend and violated the law were not dealt with seriously, if the harmful tendency was allowed to spread, political upheavals would ensue and China would be unable to

between revenue and expenditure. Under the principle of plain living, hard struggle, and building up the country with industry and thrift, China needs a nationwide campaign to increase production while cutting expenditure. Moreover, China should, in the process of reform, institute means for the effective control of the macro-economy and for the invigoration of enterprises, larger ones in particular, by emphasising quality, efficiency and reduced consumption. Only thus can an overall supply-demand balance in society be secured and the economy develop steadily over a long period.

Politically, the trend towards bourgeois liberalization (which rejects the socialist system and advocates the capitalist system) has retreated. The elimination of

its pernicious influence, however, entails herculean efforts and painstaking ideological work. With the new semester order has been restored to universities and colleges where students took to the streets, and some of them have begun to ponder why the capitalist road is not feasible in China, what is socialism with distinctive Chinese features, and why reform should be conducted step by step. These students need help to study Chinese history and reality, and rudimentary Marxism. University authorities are making arrangements for the students to study these things.

The Chinese leaders have often reaffirmed that the struggle against bourgeois liberalization will be confined within the Communist Party and be targeted

at solving problems concerning political principles and political orientation; no movement whatever will be launched for this. As for non-Party people and intellectuals, they may enhance their political understanding through ideological education. This is expected to enable the line and policies instituted since 1978 to be better implemented and the political situation of stability and unity to be strengthened and developed.

The National People's Congress, as the highest organ of state power in China, is expected to make concrete and proper decisions on these two major issues during the upcoming session, in order to mobilize the entire Chinese people to push forward the socialist modernization construction. ■

proceed with socialist construction.

In discussing a draft resolution on building socialist ideology and culture at a session of the Party Central Committee last September, a few comrades did not favour the inclusion of the phrase "fighting bourgeois liberalization." Deng made his point very clearly. "Political reality requires us to write this into our resolution," he said.

In meeting Zimbabwean Prime Minister Mugabe on January 20, 1987, Deng said that weak leadership lay at the root of student unrest. In recent years, the trend towards bourgeois liberalization was proceeding and although he had repeatedly stressed the need to address this problem, no serious effort had been made by the Party leadership to do so. He described this as a major mistake of Hu Yaobang's, which explains why his resignation was accepted by the Party Central Committee.

It is clear then that fighting bourgeois liberalization is not a new principle, but an essential part of the Party line for many years.

Over the last few years, Deng has made many statements showing his continued advocacy of the open policy and the policy of reform. Two of his conversations with foreign visitors last January are included in the enlarged edition under the titles: "Eliminate Interference, and Implement Reform and the Open Policy Firmly" and "Strengthen Education in the Four Cardinal Principles and Uphold Reform and the Open Policy." In these conversations, Deng explained that China's current struggle against bourgeois liberalization would not effect its open policy and the policy of reform.

In the new collection, more of his works on these subjects include "Promote Democracy in Politics, and Carry out Reform in the Economic Field" (April 15, 1985), "Strengthen Economic Ties With Europe" (April 18, 1985), "The Economy of the Special Economic Zones Should Change From Being Domestically-Oriented to Externally-Oriented" (August 1, 1985), and "Reform is China's Only Way to Develop Forces of Production" (August 28, 1985).

Also included in the enlarged edition are several speeches and statements made by Deng in 1986 on political structural reform. He stressed that without reform in the political field, it would be impossible to safeguard the achievements of the economic reform, to develop socialist democracy to the utmost, or to encourage the initiative of the people and the work-units.

In his talk with Japanese Prime Minister Yasuhiro Nakasone on November 9, 1986, Deng listed the three objectives to be achieved: First, always retain the vigour of the Party and state, which calls for promotion of younger people; Second, overcome bureaucracy and enhance work efficiency; third, bring into play the initiative of workers, farmers and intellectuals as well as organizations at the grass-roots level.

The collection of Deng's recent speeches and statements is expected not only to find numerous readers in this country, but also to be welcomed by all serious students of today's China. ■

Established Policies to Continue — Zhao

While fighting bourgeois liberalization, China will continue to implement all its established policies, Zhao Ziyang, premier of the State Council and acting general secretary of the Chinese Communist Party Central Committee, told the 14th session of the Standing Committee of the National People's Political Consultative Conference on March 15.

In his speech, Zhao discussed China's economic and political situation, he said the economic situation is good, but admitted that problems still exist.

"The current economic situation is good. Our market is flourishing, with a rich supply of all kinds of goods," he said.

In the last eight years, he said, China's gross national product has doubled, and national income and state revenue have each increased by almost 100 percent. The amount of money retained by enterprises for their discretionary use has increased by more than 300 percent.

"All these achievements indicate that China's economic strength and the people's living standards have not been at a standstill but have continued to develop and improve," Zhao said.

He said the present economic situation is indeed good, but problems do exist. "Our modernization programme could not develop smoothly if we look only at the good side of things and fail to deal with specific problems seriously. But if we only stress the problems and do not see the favourable trends, we would have a distorted picture. The progress of the reforms and the steady development of the economy will ensure that our economic situation will become better and better," he said.

Speaking of the struggle against bourgeois liberalization, Zhao

said that it is a major event in China's political life. Some foreigners do not understand the situation in China and think it is a new campaign.

In fact, he said, the Chinese Communist Party has repeatedly stressed reforms, the open policy and economic growth as well as adherence to the four cardinal principles (socialism, the people's democratic dictatorship, leadership of the Communist Party and Marxism-Leninism and Mao Zedong Thought). He said the Party has always opposed adopting an attitude of concession and toleration towards bourgeois liberalization.

With regard to the student unrest last winter, he said, "Less than 1 percent of college students were involved in the unrest, which lasted only a short period. People in urban and rural areas remained calm. This illustrates two basic facts: (1) there still exists a certain market for bourgeois liberalization which cannot be ignored; and (2) at least 99 percent of the people abhor disorder."

Zhao noted that the student unrest was now over and the spread of bourgeois liberalization had been checked. "The climate has changed," he said.

But he warned that to prevent such things from happening again, "the Communist Party should give a clear-cut message to the whole nation that we treasure the people's hope for stability and unity, and that we will never allow bourgeois liberalization to go unchecked again, nor allow any social unrest to interrupt our drive for socialist modernization."

He reiterated that the struggle against bourgeois liberalization should be kept strictly within the Party and must not be extended outside it.

Zhao pointed out that the

current drive against bourgeois liberalization will not affect the Party's policy towards intellectuals nor the normal democratic life of the country. He emphasized that it was necessary to keep in mind that the great majority of intellectuals do endorse the Party and socialism.

He said "to esteem knowledge and expertise" and "to let a hundred flowers bloom and a hundred schools of thought contend" were the Party's well-established policies which would be earnestly implemented in the years to come, adding that all those who actively contributed to the socialist modernization effort would be encouraged.

Speaking to a group of scientists on March 14, Premier Zhao said that China will not oppose bourgeois liberalization at the expense of democracy.

He noted that the more intellectuals a unit has, the more attention it must pay to its build-up of democracy. Scientific research institutions and other units where many intellectuals work together should be one step ahead in democratization, he said.

"Channels must be opened for discussion and dialogue between leading officials and intellectuals so that intellectuals can have outlets for their views and contribute more to socialist modernization with ease of mind," he said.

In a speech the same day at another meeting, Zhao stressed the importance of building up a contingent of Marxist theoreticians, who uphold the four cardinal principles and oppose bourgeois liberalization, while at the same time combining Marxist theory with China's reality and studying new questions that emerge during the building of socialism with Chinese characteristics. ■

China Ready to Offer Space Test Services

To meet increasing international demand, China will provide foreign customers with space experiment services on its recoverable satellites, Sun Jiadong, vice minister of the Astronautics Industry announced March 10.

He said the move will expand China's participation in the international space industry which began when launch services were offered on *Long March* carrier rockets.

China has two kinds of recoverable satellites, the FSW-1 and the FSW-2, with payloads of 300kg and 500kg respectively. Foreign clients can either rent the satellite module or share in the launch as a co-passenger.

Recoverable satellites are spacecraft which can return to earth after completing their mission. At present, only three countries have mastered the satellite re-entry technology—the United States, the Soviet Union and China.

Since 1975, China has successfully launched and recovered eight satellites without a single failure.

Sun said that some foreign customers who had planned to book the US space shuttle for experiments began approaching China after the explosion in January, 1986. About 10 companies from Federal Republic of Germany, Belgium and France have made inquiries and some have already signed memorandam of understanding with the China Great Wall Industry Corp., the primary contractor in charge of recoverable satellites.

Foreign requests so far have been for three experiments: producing new materials and medicines under microgravity conditions, genetic engineering of micro-organisms in a weightless environment; and remote sensing surveys of natural resources and the earth's geological structure.

The primary purpose of offer-

ing satellite services to foreign customers is to promote international co-operation on space science and technology through commercial transactions and to contribute to peaceful utilization of space, said Sun.

He added, "We will work out incentive policies to attract foreign business for our recoverable satellites." ■

Model Worker: Zhao Chengshun

R*enmin Ribao* (People's Daily) has hailed a new Meng Tai. Meng Tai, a famous model steel worker of the 1950s, was known for his sense of dedication and responsibility to his plant. This spirit, says *Renmin Ribao*, has been carried on by Zhao Chengshun, deputy director in charge of production at the Anshan Semi-Continuous Rolling Mill.

The mill, an old plant equipped with a production line imported from the Soviet Union in the 1950s, has been producing in much the same way ever since. Its

products remained unchanged and its reject rate relatively high. Being the only factory producing much needed steel plate, however, it kept going.

Then last year, two other plants began producing steel plate, the time for change had arrived. Zhao wrote to the plant's Party committee proposing the renovation of the rolling machines.

Zhao received the go ahead and brought in Siemens, a West German company known for its expertise in the field, to lend assistance. A contract for the project was signed shortly after, but it required a 50-day shutdown of production while the renovation proceeded. Each day represented a 1 million yuan loss to the mill, and 7,000 tons of steel plate unproduced.

This was more than Zhao cared to stomach, and he suggested an alternative arrangement, which would involve no shutdown at all.

Zhao was quick to put his plan into action. First he was faced with the need to import a brand-new computer-controlled to replace old motors which were 12 tons in weight. The installation is

Zhao Chengshun (in the centre) and his fellow workers.

MIAO MING



difficult to accomplish in old concrete buildings and involves two weeks of dangerous work. Zhao accomplished it successfully in three days.

Then he needed to raise the power of the driving motors from 3,500 kw to 4,200 kw. The import of the motors would cost 18 million yuan. Relying on local resources, Zhao devised a method which was successful at one-sixth of the cost. He said, "Ours is still a rather poor country and we have to make every penny work."

Zhao succeeded in this only after hard work and struggle. He spent days and nights at the plant after the contract was signed, collecting data and drafting plans. Every detail had to be right. He was determined not to waste a single yuan, a single moment or a single calorie of energy.

He is no stranger to such concentration. Right from the time Zhao joined the plant in 1957 after graduating from a polytechnic school, the plant has seen his enthusiasm for industrial science and technology burgeon. Always on the lookout for possibilities of innovation, he lost an arm during a trial run of a new multi-functional rolling machine.

He did not retire after this, or call a halt to his innovation pursuits. Instead he took correspondence maths courses at the Liaoning University and studied automation control at night school. Soon he was promoted to chief engineer.

Zhao had to fight to have his revised renovation plan accepted. The first time he suggested the idea, his colleagues, both Chinese and German, became irritated. The contract had already been signed, and it seemed to be the act of a maniac who was also a wizard to believe such transformations could be carried out without halting production.

Zhao was not shy of battle, however, he persisted and formally requested amending the contract at the second planning

session with the German experts. It was agreed only on the condition that the Chinese side take full responsibility for the work.

Zhao happily took on that responsibility, in fact he thrived on it. For 25 work days he directed the operation, ensuring that the work would not interfere with production. He himself hardly ate a good meal the whole time, nor did he enjoy a full night's sleep. The work gave him energy.

All those who know Zhao have always admired this one-armed man's staunchness, and his enthusiasm for the motherland and the cause of socialist construction. He is quoted as having said that he hoped his life would be like a small stream generating power to help the progress of all of society. Zhao has been true to his words. "It was a miracle," says one of the foreign

experts who witnessed the work. "The fellow is remarkable."

The praise of Zhao's deeds coincides with a recent Beijing forum that called on people throughout the country to continue to learn from the spirit of Lei Feng, a PLA soldier who was set up as a national model of devotion to the country and people 25 years ago.

Lei Feng was born in 1940 to a poor farmer's family in Hunan Province and joined the army and the Party in 1960, and died in an accident in 1962. One year after, on March 5, 1963, Mao Zedong and other Chinese leaders issued calls to the entire nation to learn from Lei who was hard working and ready to sacrifice his personal interest and even his own life to help others. His motto was: "I live in order to serve the people wholeheartedly." ■

China Awards More Sea Oil Contracts

In its second round of competitive bidding for the exploitation of offshore petroleum, China has signed eight contracts with 15 corporations from five countries, including Japan Petroleum Exploration Co. Ltd., Esso China Ltd., Shell Exploration (China) Ltd., and Texaco Petroleum Maatschappij from the Netherlands.

This was announced by Chen Binqian, vice-president of the China National Offshore Oil Corporation (CNOOC) at a March 11 press conference in Beijing. The companies were awarded a total of 44,913 square km in blocks in the basin at the Pearl River estuary and southern Yellow Sea.

At the same time, China signed a first-round contract covering 9,238 square km with the US Amoco Orient Petroleum Company and concluded three geo-physical survey agreements cover-

ing 6,389 square km in the Pearl River estuary basin and Beibu Gulf with Huanan and Nanhai Oil Development Corp., Getty Oil International (Orient) Inc., and Sun Orient Exploration Company.

"We will continue to adopt flexible approaches on the basis of equality and mutual benefit in the joint exploration and development of our offshore petroleum resources," Chen said.

He added that the second round of bidding began when oil prices on the international market were declining and many foreign oil firms were cutting their expenditures for oil exploration. However, the bidding has successful. "We are pleased that the Lufeng 13-1 well, about 250 kilometres southeast of Shekou in Shenzhen, was the first one to begin gushing out oil during the second round of bidding, with an average of 927

tons of crude oil each day," he said.

Last week, oil began flowing from an exploratory well drilled by Amoco Orient Petroleum Company in the Pearl River estuary basin. Named Liuhua 11-1-1A well, it is expected to produce 2,246 barrels daily.

Chen said large-scale drilling operations in the blocks awarded in the second round of bidding will begin before June.

China's first round of bidding took place in February 1982. Since then foreign companies have invested US\$2.1 billion in China's offshore areas, although US\$470 million was spent on what turned out to be dry holes.

At present 25 oil development contracts and geophysical survey agreements have been signed for China's offshore waters. Thirty-seven companies from 10 countries are co-operating with CNOOC; 33 oil- and gas-bearing structures have been discovered, and two oilfields—the Wei 10-3 oilfield in the Sino-French joint exploration area and Chengbei Oilfield in the Sino-Japanese joint exploration zone—have already gone into production. In addition, some other oilfields are being evaluated for possible development.

According to Chen, CNOOC will meet with any foreign company interested in other offshore blocks. Contracts can be negotiated before China begins a third round of bidding sometime in the future. "We will also work out procedures for selling geophysical and drilling data on some sea areas for interested foreign companies to study," he added. ■



Weekly Chronicle (March 9-15)

POLITICAL

March 10

■ The 20th meeting of the Sixth National People's Congress Standing Committee opens in Beijing with reports on regulations governing village committees, on a draft law on state-owned industrial enterprises, and on the campaign to publicize legal education throughout the country.

ECONOMIC

March 9

■ Xinhua reports that 20 Chinese cities produced an output value of more than 10 billion yuan (about US\$2.7 billion) each in 1986. They are Shanghai, Beijing, Tianjin, Suzhou, Wuxi, Shenyang, Guangzhou, Wuhan, Nanjing, Chongqing, Chengdu, Dalian, Qingdao, Hangzhou, Ningbo, Changzhou, Yangzhou, Foshan, Nantong and Yantai.

March 10

■ Xinhua reports that the Chinese Academy of Sciences earned US\$15.6 million, by exporting technology and products it had developed in 1986. This was a 160 percent increase over 1985.

March 12

■ China will witness a major expansion in electric power construction this year as more than 50 new generators go into production, according to Xinhua.

CULTURAL

March 9

■ An English edition of *Selected Chinese Laws*, including every important statute enacted by the National People's Congress and its standing committee and, all regulations issued by the State Council since the founding of New China, is published. The book was

compiled jointly by the China Law Society, Macao's University of East Asia and the Institute of Chinese Law (Publishers) Ltd. in Hong Kong.

March 10

■ The annual working conference of the Chinese Academy of Sciences opens in Beijing. State Councillor Fang Yi calls on the academy to concentrate on serving the national economy.

SOCIAL

March 12

■ Fan Zeng, a famous Chinese artist, donates 1.2 million yuan he earned from exhibitions of his works in Japan to Nankai University in Tianjin for construction of an oriental art building.

FOREIGN RELATIONS

March 11

■ At a weekly briefing Foreign Ministry spokesman says China welcomes a US Supreme Court ruling on the eight-year-long Huguang Railway bearer bonds case on March 9.

The spokesman also expresses deep regret over US Sen. Claiborne Pell's advocacy of "self-determination and independence" for Taiwan. He says, "The Chinese government has all along firmly opposed any such thing, in words or deeds." He says Pell's open advocacy of "self-determination and independence" for Taiwan is "gross interference" in China's internal affairs and runs counter to the principles of the 1979 joint communique on establishing diplomatic relations between China and the United States.

March 12

■ Chinese Premier Zhao Ziyang holds a two-hour talk with Dr. Yasin Saeed Normen, prime minister of the People's Democratic Republic of Yemen, and reaffirms China's firm support of the just struggle of the Palestinian and other Arab peoples.

SUDAN

Peaceful South: Long Way Off

Sudanese Prime Minister Sadiq Al-Mahdi announced March 9 that his government will grant regional autonomy to the South. This increases hopes for peace in the war-torn region.

It was the second peace plea in four months by the Khartoum government to the rebelling Sudan People's Liberation Army (SPLA) headquartered in Addis Ababa, Ethiopia. Last November, the premier declared that local governments would be set up in three southern provinces of Equatoria, Upper Nile and Bahr El Ghaal.

So far, the rebels, led by Colonel John Garang, have made no official response, but observers predict that the government's offer fell short of the SPLA's expectations, especially dissolution of the central government and economic and administrative reforms.

Conflict between the Arab Moslem north and the Christian and animist south has long been a thorny issue in the north African country. In 1972, former President Jaafar Nimeiri reached an agreement with the rebels on autonomy for the south, but it broke down in 1983, when the rebels accused Nimeiri of violating the accord.

Nimeiri attempted to Islamize the country by imposing the Sharia (Islamic code), which provoked strong protest from the non-Moslem southerners and a new round of bloody clashes in the south.

Since Nimeiri was deposed in 1985's bloodless coup, the new government has been in constant contact with the SPLA in a bid to negotiate a ceasefire. The talks peaked last July when Premier Mahdi and Garang met in Ethiopia, but the two failed to bridge their gaps and ceasefire has never been reached.

The SPLA rejects the legitimacy of the present government, which

came to power after a general election last May, and insists that a national constitutional conference should be held to address all the fundamental issues, including the problem of the south, facing the country.

The SPLA has also demanded abolition of the emergency law, in force since the 1985 coup, an end to the Sharia code, repeal of defence pacts with Libya and Egypt, and greater autonomy for the southerners before entering into peace talks with the government.

The government has agreed in principle to reconsider the Sharia code and to set up a special committee to prepare for a proposed constitutional conference, but insists that a ceasefire must come first.

The downing of a passenger plane by the SPLA last August in the south further blocked Khartoum's efforts to persuade the rebels to join the government. Soon after the incident, the premier called on his people to fight the rebels, indicating an end to the negotiations.

After months of fierce battles in the south, government troops,

although they outnumbered the 20,000-strong rebel forces, failed to win a decisive victory. The rebels are still carrying on guerrilla warfare.

In addition, the country's agriculture-based economy was hard-hit by drought and plagues of locusts last year. Foreign debt rose to US\$11 billion, and there are more than 1 million refugees from neighbouring countries to be fed.

Impelled by the worsening military situation and economic woes, the government resumed its call for peace but met with no positive response from the SPLA. On March 9, the day Sadiq Al-Mahdi announced his latest peace initiative, fighting was reported around the southeastern town of Pibor and the government had to send troop reinforcements there.

Observers are not optimistic about an early solution to this issue, because the deep-rooted conflicts between the north and south cannot be solved overnight. Besides political, religious and tribal differences with the north, the rebels also oppose some economic projects, such as the Jonglei canal, which they say would only disrupt life in their region and benefit the Moslem north.

However, the only way to iron out these differences is peaceful negotiation since neither the government nor the SPLA can win the upper hand in the fighting. Peace lies far down the road, most observers say.

by Li Hongqi

SOVIET UNION

Little Headway on Kampuchea

Soviet Foreign Minister Eduard Shevardnadze visited Australia and several Asian countries, but made no breakthrough on the Kampuchean issue.

Soviet Foreign Minister Eduard Shevardnadze visited Thailand, Australia, Indonesia, Laos, Kampuchea (the Phnom

Penh regime) and Viet Nam March 2 to 13 in an effort to strengthen its ties with the region and to seek support for Moscow's

so-called "new thinking suited to the realities of the cosmic age."

But most analysts believe that the main aim of the tour, though Shevardnadze did not say so, was to look for a possible solution to the Kampuchean issue, caused by the Vietnamese invasion into the country in late 1978.

Viet Nam has occupied Kampuchea for eight years with a force of more than 140,000 soldiers. It is quite clear that a country like Viet Nam torn by war since its independence in 1945 and afflicted with a weak economy will find it impossible to fight another eight-year war without foreign aid. In fact, Moscow has, in the past eight years, become Hanoi's major backer—militarily, economically, politically and diplomatically.

Yet Moscow did not expect the war to drag on so long. Nor did Hanoi. Today, the Kampuchean issue is the major obstacle to improved relations between the Soviet Union and Asian-Pacific countries. They are very concerned about the stability and security of the region, which are threatened by the Vietnamese invasion of Kampuchea. Since Soviet leader Mikhail Gorbachev delivered his speech on the Soviet foreign policy in Asian and Pacific countries last July in Vladivostok, Moscow has seemed eager to improve in this region. Shevardnadze's visit was aimed at seeking a way out of the impasse. Thailand, Indonesia and Australia play big roles in the regional affairs, and therefore became the targets of the visit.

However, it is difficult for Moscow to abandon its established interests. It took years for the Soviet Union to develop close relations with the three Indochinese countries, especially Viet Nam, where Moscow took over the US-built port and airfield at Cam Ranh Bay, which has become one of its major ice-free naval bases.

Because of this strategic interest, Moscow continues to support Hanoi's stand on the Kampu-

chean issue—that the elimination of the Khmer Rouge, the strongest faction of the tripartite resistance forces, and their exclusion from any negotiations on a solution, are a precondition of a Vietnamese pullout. In their talks, Shevardnadze and his Indochinese counterparts reaffirmed that their policies towards Kampuchea remain unchanged. This disappointed many countries that had been optimistic about the tour.

In return, Viet Nam and its allies fully support Moscow's proposals on major world issues and promise to further strengthen their ties.

But Shevardnadze found it difficult to reach agreement with Thailand, Indonesia and Australia. At a press conference in Bangkok, Shevardnadze admitted that the Soviet Union differs from Thailand on the Kampuchean issue. Indonesian Foreign Minister Mochtar Kusumaatmadja told him that the Association of Southeast Asian Nations recognizes only the Coalition Government of Democratic Kampuchea (CGDK) headed by Prince Sihanouk, not the Heng Samrin

regime. Australian Foreign Minister William Hayden informed Shevardnadze that Australia opposes Viet Nam's occupation of Kampuchea and is concerned about Soviet activities in the South Pacific.

A spokesman of the CGDK's Foreign Ministry pointed out that although the Soviet foreign minister made some remarks on Kampuchea that drew attention of observers, there was no sign that the Soviet Union would stop supporting the Vietnamese occupation or support a Vietnamese pullout.

Analysts also noted that Shevardnadze's visit coincided with a trip by US Secretary of State George Shultz to China, Japan and South Korea. Therefore it is believed that Soviet visit was in part intended to counter-balance US influence in the region and to increase Soviet influence. However, relations between Moscow and Asian-Pacific countries will not improve as long as their main concern—the Vietnamese occupation of Kampuchea—is not resolved.

by She Duanzhi

USA

Has Reagan Turned the Corner?

Though President Reagan scored a personal triumph by assuming full responsibility for the Iran-contra affair, further crises could damage his gains.

United States President Ronald Reagan's TV speech early this month, in which he acknowledged that the Iran-contra deal was a mistake, has won general sympathy from Americans.

The speech was a formal response to a highly critical report released by a special review board headed by former Senator John G. Tower. The report brushed aside Reagan's defence of the Iran operation and said it had in fact been an arms-for-hostages deal.

Reagan said he accepted the

report's findings and was taking action to implement its recommendations. He said he was angry and disappointed at some of his staff, but added, "I take full responsibility for my own action and for those of my administration." However, he still insisted that he did not know about any diversion of funds to the Nicaraguan Contras.

The *New York Times* commented later, "As for the absence of an apology, the whole tone of the speech constituted a sort of

apology." The influential newspaper compared Reagan's speech to President John F. Kennedy's admission of blunders following the catastrophic invasion of the Cuban Bay of Pigs in 1961 and underlined its significance by saying it was the first time in 25 years that an American president had acknowledged errors.

Reagan promised to put the White House in order by taking action in three basic areas— personnel, national security policy, and procedures.

Regarding personnel, Reagan nominated William H. Webster, head of the Federal Bureau of Investigation (FBI), as new director of the Central Intelligence Agency (CIA), Frank Carlucci as national security adviser and former Sen. Howard H. Baker Jr. as White House chief of staff. Baker's appointment was greeted with special approval. A retired Senate majority leader and investigator of the Watergate scandal, Baker still commands the respect of his former colleagues on Capitol Hill and will be a plus for the administration.

Regarding national security policy and the process of making national security decisions, the president declared that the National Security Council (NSC) staff has been forbidden to engage in any covert operations and that there would be no more "freelancing" by staff members. He also promised to abide by laws mandating consultation with Congress on secret intelligence operations.

These moves, obviously aimed at winning forgiveness from the nation, seem to have been effective: the American public's approval of Reagan's job performance jumped about 10 points following the speech, and CBS Television said 51 percent of those interviewed after the speech approved of how he was handling his job, compared to 42 percent earlier.

However, it would be premature to conclude that Reagan has

totally ridden out the crisis of confidence. The investigation, particularly of how funds from the sale of arms to Iran to reach the Nicaraguan Contras, is far from complete. If Congress grants major figures such as John Poindexter and Oliver North immunity from prosecution in return for testimony, the crisis could flare again.

FEDERAL GERMANY

New Government With Old Policies

A mixture of opportunities and difficulties lies ahead for the new government of the Federal Republic of Germany.

Federal Germany's Bundestag witnessed the creation of a new government March 11 when Helmut Kohl, who was elected on the slogan "everything just as before," took the oath of office as chancellor.

The election slogan, adopted by Kohl's Christian Democratic Union for January's general election, means that his coalition with the Christian Social Union and the Liberals will carry on the policies of the previous four years.

It really was just as before after the vote, with the ruling coalition still in office, Kohl still chancellor, few new faces in the cabinet, and a new government platform that was almost a replica of the previous one.

But the situation the new government is facing has changed. In late February Soviet leader Mikhail Gorbachev came up with an initiative to sign a separate accord with the United States on removing medium-range missiles in Europe. This has placed West German leaders on tenterhooks.

The new Soviet disarmament overture is nothing new to the Kohl government; the United States and the Soviet Union reached initial accord on the issue at the Iceland summit last year, but it was killed when the Kremlin insisted on tying it to the United

States' Strategic Defence Initiative (SDI) or Star Wars. Meanwhile, most Americans now seem to be taking a wait-and-see attitude towards the performance of the president and his new men in the White House. Reagan may be anxious for a major breakthrough in either relations with the Soviet Union or the budget to win back the confidence of his countrymen.

by Wan Di

States' Strategic Defence Initiative (SDI) or Star Wars.

After the summit, Kohl hurried to Washington to call President Ronald Reagan's attention to the need to grapple with Soviet supremacy in short-range missiles, conventional armaments and chemical weapons, and not to focus on medium-range missiles only, a lopsided approach which would place Europe's security at risk. This showed that the Kohl government was taking the arms cut issue into an overall consideration.

Now the Soviet Union is no longer insisting on the links with SDI, thus bringing a treaty on removing medium-range missiles within reach and opening real prospects for a comprehensive settlement of the issue of superpower military forces in Europe through arms control talks. These are good tidings for a country sandwiched between the East and the West whose territory is dotted with missiles.

Of late, the Soviet Union has expressed hope that Bonn will cooperate in helping to bring about such an accord. This "key role," as the local press put it, greatly flattered Federal German politicians who had just gone through a freezing offensive from Moscow. Foreign Minister Hans-Dietrich

Genscher was reported to have said that he saw a starting point for a new *ostpolitik*. Kohl also said the present time carries with it "great opportunities" for improved relations between the two Germans.

The domestic economic situation has been deteriorating. When Kohl took office in 1982, the economy had been growing. This became one of his trump cards, and was the basis of the "everything just as before" slogan. Now, this foundation has become shaky.

Industrial production has declined each month since November, including 3 percent drop in January. The chief causes were

high exchange rate of the mark against other currencies, and listless exports.

Although the government has stressed that the economy will register 2.5 percent growth this year, nearly all research institutes have predicted different targets. Last year's consumption boom was originally supposed to replace exports as a chief motive force of the economy, but now it seems to have been only a flash in the pan.

Obviously, the Kohl government is facing new problems, both domestic and foreign, that will call for new judgments and new decisions. Kohl's political fortunes will be determined by how he acts and how much success he achieves in the changed situation.

by Xia Zhimian

unexpectedly surpassed Britain's, putting it in fifth place among Western countries and enabling the country throw off its earlier image of "poor European relative." Craxi's economic policies also made marked progress in reducing inflation, the biggest threat to the Italian economy, from 16 percent in 1983 to 5 percent at present, the lowest in the past 14 years. Moreover, Craxi has dealt with social problems ranging from terrorists to labour relations, as shown in decreased terrorist activities and strikes.

The resignation of the Craxi government has created two difficulties—the nomination of the premier and the administrative programmes. While the five parties have agreed to choose a premier from among the Christian Democrats, they cannot settle on a definite candidate. The Socialists are now insisting that the Christian Democrats nominate either Secretary Ciriaco De Mita or Party President Arnaldo Forlani as Prime Minister if they want Socialist support. But the Christian Democrats say the Socialists' request is unacceptable because the constitution of the Christian Democratic Party says the party secretary or president cannot become Prime Minister. They picked Craxi's Foreign Minister, party veteran Giulio Andreotti, as their only candidate.

The Republicans have no objection to Andreotti but maintain that the coalition's members must reach an accord on administrative programmes. The Christian Democrats have also said choosing a new prime minister means little without an administrative accord.

On March 9, Italian President Francesco Cossiga named Andreotti as Prime Minister designate. Andreotti, following normal procedure, has delayed accepting until he ascertains whether he can form a government. It is believed that this will be a very difficult task.

by Qing Ren

ITALY

Political Crisis Erupts

Italian Premier Craxi's resignation, caused by deep divisions in his five-party coalition, has set off a political crisis in the country.

Italian Premier Bettino Craxi resigned March 3, ending the country's longest-surviving post-war government and setting off its second political crisis in 10 months.

The crisis was triggered by a row between Craxi's Socialists and the Christian Democrats over the premiership. According to an accord reportedly reached last July between the Christian Democrats and the Socialists, Craxi was to hand over the premiership to the Christian Democratic Party this March. But in his February 18 television speech, Craxi denied there had been any such agreement and added that there was little chance the premiership would be handed over. In addition, the Socialists said that even if they handed over the premiership, the five members of the coalition should first reach an agreement on administrative programmes and the formation of a new government. But the

Christian Democrats insisted that Craxi resign first.

Analysts said the Socialists changed their mind about the agreement at a time when the tenure of the current parliament only has more than one year left, the general election is impending and the country's economy has shown an upturn. To continue holding the position of premiership will increase Craxi's prestige and the Socialists' influence, thus paving the way for winning next general election, the analysts said. To hand over the premiership now would mean a loss to the Socialists.

Bettino Craxi, Italy's first Socialist premier, took office in August 1983. He can pride himself on the success of his leadership, under which Italy's economy has maintained a steady average growth rate of 2.8 percent, the highest among European Community members since 1984. Also, domestic output value last year

INTERVIEW WITH SCIENCE ACADEMY PRESIDENT

'Double Hundred' Policy Remains Unchanged

by Our Correspondent Wei Liming

At the annual work conference of the Chinese Academy of Sciences held on March 10, Zhou Guangzhao, the new president of the academy, talked to *Beijing Review* about the reform of China's top scientific establishment and the struggle against bourgeois liberalization.

Question: The Chinese Academy of Sciences started reforms in 1984. Why are they needed? How do they proceed? What's your plan for the future?

Answer: The reform of the academy is designed to meet the long-term needs of the development of the nation's economy and science.

The academy was established on a Soviet model in the early 1950s, and has kept to that system since. Given the country's backward science at the time, it was necessary to pool the efforts of large numbers of scientists to establish laboratories and start large-scale and well-organized research. In that way we hoped China could catch up with the most advanced research. It has worked well and in the days to come it will still be necessary for scientists to collaborate.

However, the research institutes set up in the past were stereotypes, cut off from universities and industry, and the staff were shut behind closed doors, unable to come and go as they wished. Projects for these institutes were assigned according to the central plan. The system also served to hamper the growth of science and technology.



zhou guangzhao.

SHAO XIAOCHUAN

Research institutes were oversized and lacked vitality, and there was a serious ageing problem among the staff. While it was difficult to apply the research results in practice, practical problems in need of solutions could not be fed back to research institutes. The reform currently under way in the academy is indispensable for establishing close ties and a healthy interaction between science and economic development.

In the last couple of years, many academy scientists and officials have ventured out of research institutes and offices to initiate co-operation with communities, enterprises and schools in the service of the national economy and the development of science and technology.

Research institutes under the academy have established regular

co-operative relations with over 3,300 industrial enterprises. Of the 1,411 research results achieved by the academy in 1986, most were at the cutting edge of international science and two-thirds provided solutions to urgent problems in the national economy. A full 72 percent of the applicable results were put to use in production last year, as against 62 percent in 1985.

Closer co-operation with the outside world has changed our views tremendously. We have been moved by the desire of the people in general to boost the economy, and achieve prosperity. We have also perceived the pressure of international economic competition. It has impressed upon our scientists and technicians the sense of their obligation to the state.

During the Seventh Five-Year Plan period, we mean to bring at least two-thirds of the resources of

the academy into the service of the national economy. We will participate in developing technology- and information-intensive industries; in updating traditional industries and helping Chinese enterprises draw on and assimilate imported technology. We will co-operate with a number of enterprises to turn them into outward-looking companies to open up the world market for Chinese products and introduce the system of integrating scientific development with production, sales and service.

At the same time, we will study China's natural resources, ecology, environment, oceans, atmosphere, and agriculture and collect data to provide a sound scientific background for overall economic decisions such as the development of natural resources, environmental protection, and the construction of major industrial projects.

In the long run, the academy will become the state's natural science research centre incorporating state laboratories and research institutes, a state scientific engineering centre, a natural resource and environmental research and development centre, syndicated laboratories available to society as a whole, and research offices of high-tech enterprise agglomerates. This should help combine science and technology with economic development; and pave the way for a more vibrant development of science and technology.

Q: You have said that the academy will use more than two-thirds of its resources to serve the national economic development. What has prompted you to make this decision? Does it have anything to do with a shortage of funds for scientific research?

A: We made this decision based on the actual conditions of the academy. In deploying its resources, the academy has all along devoted approximately 25 percent of its resources to fundamental work in research, basic and

applied, and to keeping up-to-date with new developments.

Twenty to 30 percent of the academy's institutes are related to work in natural resources, environment, ecology and agriculture. Because basic research work in these fields is for the most part linked to the nation's economic development, these institutes constitute a major force in the academy's effort to serve the national economy.

Incidentally, many institutes under the academy's Technology Council and Chemistry Council have been in close touch with industrial departments for a long time. These institutes embracing about 40 percent of the academy's intellectual resources, have contributed greatly to the develop-

ment of the national economy and will continue to do so. These establishments, plus the factories under the academy, make up two-thirds of all the resources of the academy.

Some people think that to make science serve the national economy is to turn scientists into business managers or ask them to run factories and enterprises. This is a misconception. Actually no scientist suitable for research in basic science has ever been forced to change his or her academic pursuits. Rather, our intention is to put the work related to the economy to good use; it is the only way to draw the society's attention to these people's role. Even some of these people have to undertake basic science research projects.

Zhou Guangzhao: A Profile

Born in Changsha, Hunan Province, in May 1929.

Enrolled in Beijing University as a postgraduate student in 1951, upon graduation from the Physics Department of Qinghua University.

From 1957 to 1961 was a researcher at the Dubna United Nuclear Research Institute in the Soviet Union, where he attracted worldwide attention for his outstanding work in the basic laws of high-energy physics and particle physics.

Early 1960s, guided the designing and production of China's first atom bomb and hydrogen bomb, making major contributions to the development of the country's nuclear weaponry.

Late 1970s, returned to the field of theoretical physics contributing to the study of particles and statistical physics.

Served as guest researcher and professor at the Virginia Polytech-

nic Institute USA; and the West European Particle Research Centre.

Member of the International Particles and Field Society and of the Third World Academy of Sciences.

Since 1981: elected a member of the General Assembly of the Chinese Academy of Sciences, vice-president of the Theoretical Physics Institute under the Chinese Academy of Sciences.

1984, became vice-president of the Chinese academy of sciences and concurrently president of the Science College of Qinghua University.

Zhou Guangzhao was elected an alternate member of the Party Central Committee at the Party's 12th National Congress. He was elected a full member of the Party Central Committee at the National Party Conference in September 1985.

Inadequate investment remains a problem for science in China. The country is not strong enough economically to considerably increase its investment in scientific research. We will ask for more state allocations for science but we will also seek to increase our revenues by strengthening co-operation between our research institutes and factories and enterprises.

Q: Where does research in basic science stand in the work of the academy? How will you ensure enough money for research projects that seem to yield no immediate economic results?

A: The Chinese Academy of Sciences will continue to devote plenty of effort to basic science research and keeping up with the growth of high technology. The history of science shows that breakthroughs in basic research eventually exert inestimable influence on production. Research in this field will remain an essential part of our effort to bring Chinese industrial development up to advanced international standards. In the industrially developed countries, results in basic research are being transformed into commodities with increasing speed. Therefore by no means should we reduce our efforts in basic research and in keeping abreast of technological development.

Our scientists will be encouraged to continue their research projects in basic science even if they do not yield immediate economic returns and are still in the experimental stage. Since scientific discoveries are often made accidentally it is worthwhile investing in such projects.

The basic science researchers can go to the newly established State Natural Science Foundation for part of the money they need. The foundation distributes its funds according to the decisions of its board of experts.

Q: As the new president of the Chinese Academy of Sciences,

what are your aspirations for your term?

A: In research and development in basic and applied science, our academy has obtained results which have reached or even overtaken the advanced world levels. This shows that after a decade of painstaking work and study, Chinese scientists have in certain areas overcome the setbacks of the "cultural revolution" and begun to catch up with the advanced world level. This is no mean feat for a country as economically underdeveloped as ours. This shows that in China in general and in the academy in particular, there is a vast contingent of talented scientists.

As president of the academy I will do my best to motivate these scientists. I hope to enable people in different fields to develop their special skill and to work in unity and co-operation.

I will do my utmost to protect and support Chinese scientists and, finances permitting, create better working and living conditions for them. The keyword here is "democracy, unity, camaraderie, and liveliness," so that all scientists can do their share for the state.

Q: Some people abroad say that the struggle against bourgeois liberalization will stifle free academic debate. What is your opinion?

A: Combating bourgeois liberalization is strictly an inner-Party matter that has nothing to do with academic debate. In the field of science we will stick to the policy of "letting a hundred flowers bloom and a hundred schools of thought contend," and encourage scientists to research and think for themselves. Science and accomplished scientists will be held in high esteem. Erring scientists are welcome to correct their mistakes and use their talent.

Fang Lizhi, the astrophysicist who was recently stripped of his position as vice-president of the China University of Science and Technology as part of the fight

against bourgeois liberalization, has been transferred to Beijing Observatory, where he has been active in his research work. He has recently delivered an academic report. We are now finding him a good house to live in and, within the capacity of the academy, solving any other problems he wants us to help him with.

Q: Your predecessor, President Lu Jiaxi, was elected at a session of the general assembly of the academy, but you were nominated by the premier of the State Council and appointed by the National People's Congress. Can you tell me how a president of the academy is chosen?

A: In the past all presidents of the academy were nominated by the premier and appointed by the National People's Congress. The exception was in 1981, when an experiment was made and the academy was to choose its president at the general assembly. President Lu was elected at the assembly and later appointed by the National People's Congress. After 1983 a group was organized to study the nature and tasks of the academy and a consensus was reached that it was better for the premier of the State Council to nominate the president of the academy and the National People's Congress to appoint him. This was how the leadership of the academy was decided in 1984, in which I was chosen as vice-president.

My transition to the post of academy president was made after a long period of discussion. Those who link this shift with the current effort to check bourgeois liberalization have obviously misunderstood the real situation.

As for retired scientists, we will make arrangements so that they can still play a role in the academy. President Lu Jiaxi, Vice-President Yan Dongsheng and other scientists who have made historic contributions to the science of China have already been invited to be special advisers to the academy.

East-West:

Bridging the Scientific Chasm

by Our Correspondent Ling Yuan

The chilly winter wind tore at Robert Temple's parka as he paced the Marco Polo Bridge snapping photographs. He eyed the details around him with intense concentration.

The 43-year-old former Kentuckian knew a surprising amount about the bridge which Marco Polo had written about in the 13th century. The legendary Italian explorer had been awestruck by the bridge, which he described as wide enough to allow 10 horsemen to ride across it abreast.

Temple, however, had never been to China before. His knowledge about ancient China had come from painstaking research over the past few years.

"We went there not because Marco Polo described it but because of the arches," Temple explained. The bridge's 11 spans are segmental arches, an engineering innovation that gives more strength and uses less construction material than the semicircular arches that were being used in Europe at the same historical period.

For Temple, who was paying his first visit to China in the company of Joseph Needham, the world's foremost authority on Chinese science and technology, the bridge in Beijing's southwestern suburbs was one of China's major but unsung discoveries and inventions — inventions that have contributed greatly to what is often, but wrongly, thought of as "Western civilization."

The two men came to China in November, 1986, partly to celebrate the publication of the Chinese edition of *The Collected Papers of Joseph Needham* and partly to do further research. For



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Joseph Needham ponders reporter's question.

example, Needham said in a press conference that he planned to visit the Dazu Grottoes in Sichuan Province to confirm whether the carvings there contain the first known sculpture of a handgun.

"It's held by a character that has two horns on his head, some sort of devil, and (the gun) actually has flames and a cannonball coming out of it," Needham said.

Needham and Temple were accompanied by director-producer Michael Gill and cinematographer Michael Fox, both of whom had been involved with the "Heart of the Dragon" television series. The two filmmakers were there to document what might turn out to be Needham's last trip to China, since the scholar is now 86 and afflicted with arthritis.

"A Brilliant Distillation"

Temple, who has lived in England for the past 20 years, is the author of *China: Land of Discovery and Invention*, a popular condensation of Needham's life-work, the definitive multivolume

Science and Civilization in China.

The new book describes 100 outstanding Chinese discoveries and inventions — from the spinning-wheel and paper money to the umbrella, rocket, and movable type — culled from Needham's work in support of what Temple calls one of history's forgotten secrets: that more than half the inventions on which the modern world is based originated in China. The book has already been published in England and will soon be released in the United States by Simon and Schuster under the title *The Genius of China*.

Temple never expected to become so deeply involved with the history of Chinese science. To be sure, his interest in one kind of science, cooking, was aroused at an early age when he used to follow Col. Harland Sanders around demanding, unsuccessfully, to know what the secret ingredients were that flavored what later came to be known as "Kentucky Fried Chicken."

He majored in oriental studies and Sanskrit after entering the University of Pennsylvania at 16, and it was there that he was introduced to the work of the man he considers "the greatest scholar of the 20th century."

When Needham started writing his books about China in 1948, he envisioned a six-volume work that would be completed in a few years' time. But the more he learned about ancient Chinese science, technology, and civilization, the more there was to learn. He soon realized he had stumbled upon an "absolute gold mine."

So far, 15 books, some more

than 1,000 pages long, have been published by Cambridge University Press, and at least another 10 are projected. During his visit to Beijing, Needham said the project was so gigantic that he wondered if he would live to see it finished, but added that he takes a "Taoist" attitude towards it and does not worry.

The Needham Research Institute in Cambridge is cooperating closely with more than 30 scholars from all over the world to compile future volumes, on subjects ranging from Chinese mycology, the study of mushrooms, to Chinese psychopathology.

The books, which have been bestsellers all over the world, are a far cry from his early vision of the project, which he "by no means" intended to be academic. In addition, the volumes are expensive and long. Even some libraries cannot afford them, and those that can often have long waiting lists of readers.

Needham had always intended to make his work accessible to the average reader, but as the scope of the work expanded and the years went by, he came to realize he could no longer hope to accomplish that task himself.

When Temple went to Needham in 1984 and offered to write a popular book oriented to the general reader, the scholar immediately gave him a go-ahead, and even offered Temple access to masses of unpublished materials and manuscripts in progress.

Temple had already published several books related to the history of science, but condensing Needham's voluminous research into one 254-page book was no easy task. And he also wanted the book to be ready in time for Queen Elizabeth II's visit to China in October, 1986.

So for more than a year he worked 14 hours a day, pushing himself to exhaustion perusing typescripts, proofs and sections of the unpublished portions of Needham's work.

The result is a beautiful book graced with hundreds of previously unpublished photographs and drawings. And because Needham's own accounts of some Chinese discoveries and inventions are still in manuscript, Temple's volume will be the only source for these materials until the larger project is complete, which may not be for many years.

Temple recalled, "I was very nervous when I gave the result to him to see what he thought of it, and I was very worried that I hadn't done a good enough job."

But Needham was not only enthusiastic enough about Temple's book; he wrote an introduction to it, calling it a "brilliant distillation" of his larger work. He later commented that *China: Land of Discovery and Invention* would "certainly reach many more people than those who have time to read my own more detailed volumes."

Needham did comment, in a letter to *Beijing Review*, that he felt there were "some mistakes ... and various statements which I should like to have seen expressed rather differently" in Temple's book, but he added, "I still think that the work as a whole is admirable."

According to Temple, Needham's only criticism was that "he wanted to have the section on warfare not to be the end, because he didn't like people to finish reading the book thinking the Chinese were warlike." But Temple said the publishers refused to change the order of the material. "I was very sorry his wishes were not respected," Temple added.

"Conversion" to a New Field

Before Needham found his life's work in the study of ancient Chinese science, he had established himself as a pre-eminent biochemist. His *Chemical Embryology*, published in 1931, laid the groundwork for modern embryology.

Because of his achievements, he was elected Fellow of the Royal Society in 1931, and was named Sir William Dunn Reader in Biochemistry at Cambridge in 1933.

He was well on his way to greater achievements and fame when he underwent a "conversion" that he likes to compare to St. Paul's on the road to Damascus.

The catalyst for his conversion was the arrival of three Chinese students at Cambridge University's biochemistry laboratory in 1936. One of them, Dr. Lu Gwei-Djen, the daughter of a Nanjing doctor, later became his longtime chief collaborator. The more Needham got to know them, the more he realized how "exactly like my own their minds were," and the more fascinated he became by their tales of how the Chinese had been the originators of what he had always believed to be Western discoveries.

This kindled his interest in the history of science, technology and medicine in China. In 1942, the Royal Society asked him to go to China as its envoy. He ended up staying there throughout World War II as scientific counselor at the British Embassy in Chongqing and developed many contacts with leading Chinese scholars in many disciplines.

They told him what to read and what books to buy, and, once the war ended, the British Air Force shipped his thousands of volumes back to Cambridge. The books later became the nucleus of the Needham Research Institute, the world's largest library on the history of Chinese science. Needham and his associates recently moved into a new building which will house the institute and library.

The war years paved the way for a complete switch in Needham's academic pursuits. When he returned to Cambridge in 1948, he dropped his research in bioche-

mistry completely to write a book about Chinese contributions to science, technology, and medicine prior to the 15th century.

Setting the Record Straight

What Needham found in his research exceeded his expectations — many of the West's greatest achievements turned out not to be independent discoveries, but borrowings from China. Over the years, his findings have astonished not only Westerners, who tend to think modern civilization is based on the Scientific Revolution and other Western developments, but also the Chinese, who have themselves lost touch with the splendors of their past.

The field of agriculture is just one example. Needham learned that modern agricultural techniques, which heralded the great European Industrial Revolution, came about because of ideas and techniques imported from China.

The planting of crops in rows, intensive hoeing of weeds, the modern seed drill, and the iron plow all came from China. In addition, the Chinese were using the trade harness and collar harness while farmers in the West were choking their horses and

draft animals with straps around their throats.

Others of Needham's findings were just as surprising. Without the importation from China of the rudder, the compass, and multiple masts, Christopher Columbus would not have been able to sail to the Western hemisphere and Europe would have been hard put to establish colonial empires overseas.

In addition, Germany's Johann Gutenberg was not the first to invent movable type; Britain's Sir William Harvey was not the first to discover and describe the circulation of the blood; and his countryman, Sir Isaac Newton, was not the first to discover the First Law of Motion....All had been discovered or invented, sometimes hundreds of years earlier, in China.

"The \$64,000 Question"

When one leafs through Needham's and Temple's books, the inevitable question comes to mind: if the Chinese were so advanced in antiquity and the Middle Ages, how was it that their many ingenious inventions and discoveries failed to develop into modern science?

In his introduction to Temple's book, Needham calls this "the \$64,000 question." In his opinion, Chinese inventions and discoveries prior to the 15th century were absolutely important to all humanity, but they failed to develop systematic theories. Without such theories, the Western scientific and technological revolutions would never have happened.

But the fundamental factors that accounted for the development of modern science across Europe were the decline of medieval feudalism and the rise of capitalism and the ascendancy of the entrepreneurial bourgeoisie in the 17th century. During the same period, however, China was sinking deeper into the morass of feudalism and deep-rooted bureaucratism.

Needham concluded that Chinese feudalism inhibited further scientific progress in China, and in particular the kind of breakthrough that occurred in Europe.

Today, the Chinese still see remnants of "feudalism" as major obstacles to their nation's economic and social development, and the determination to catch up with the West in science has been a

Joseph Needham talks with reporters at the Beijing Friendship Hotel.

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rallying point for everyone from China's top leaders to its ordinary workers and farmers.

Temple commented during his visit to China that he saw the efforts being made to speed up scientific progress and that he had no doubt that the country would succeed in its endeavor.

"I've been particularly impressed by the extremely high level of intelligence of some of the senior officials I have met, and I think the intelligence of the average Chinese is higher than that of the average Westerner. This is a unique factor which cannot be changed," he said. "The Chinese certainly could become world leaders in computer technology....It would be only appropriate since the Chinese invented binary arithmetic by which computers operate."

However, he warned that the "will to support science and technology is essential." He commented, "I think it is safe to say that sending rocket scientists

to paddy fields during the 'cultural revolution' was the sort of thing that was not likely to lead China to becoming a world leader in science and technology."

Bridging the Chasm

In a 1946 lecture, Needham said: "I personally believe that all Westerners, all people belonging to the Euro-American civilization, are subconsciously inclined to congratulate themselves, feeling with some self-satisfaction that, after all, it was Europe and its extension into the Americas which developed modern science and technology. In the same way I think that all my Asian friends are subconsciously inclined to a certain anxiety about this matter, because their civilization did not, in fact, develop modern science and technology."

Needham's 40 years of work have disproven both misconceptions. He has offered solid evidence to prove that modern

science is not exclusively European in its origins, and that many other nations of the world, including China, have made major contributions to the modern world. Both his monumental volumes and Temple's popular version will help to foster a clearer mutual understanding and bridge the mental chasm between East and West.

Temple may have summarized Needham's aims as well as his own when he wrote in the preface to his book:

"It is now time for the Chinese contribution to be recognized and acknowledged by East and West alike. And above all, let this be recognized by today's schoolchildren, who will be the generation to absorb it into their most fundamental conceptions about the world. When that happens, Chinese and Westerners will be able to look each other in the eye, knowing themselves to be true and full partners."

Robert Temple on the Marco Polo Bridge with a British film crew.

XUE CHAO



Scientific-Social Revolution and Reform

by Qian Xuesen

The First part of this article was published in issue No. 11.

I have been talking about history, now let's turn to the present. The fifth industrial revolution is characterized by further extension of the scale of production, with the whole world becoming an entity. Under such conditions, I think world war is avoidable. The third world countries rose up after World War II, and they want to develop production. While their level of plant capacity is low, their enthusiasm for production is high. In short, production has attained the scale of world integration, but development is uneven. Therefore financial economics must be studied.

World Economic Outlook

I have some statistics. World-wide trading of goods plus labour exchange totals US\$2,500 billion to 3,000 billion every year, an enormous figure. At the same time, transactions on the world stock markets, such as those in London and other parts of Europe, amounts to US\$300 billion per work day, or US\$75,000 billion annually, 25

times the amount of the exchange of goods and labour. In world trading centres, which handle foreign exchange business, the volume of transactions reaches US\$150 billion everyday, or US\$35,000 billion annually, 12 times the amount of goods and labour exchange. This is another example showing the importance of financial activities.

The fifth industrial revolution, now under way in the world and characterized by specialized computer-based production and fast flow of information, depends on how well a country develops its science and technology.

As production is carried out on a worldwide scale, the structure of the productive forces has become extremely complicated. The economics of productive forces,

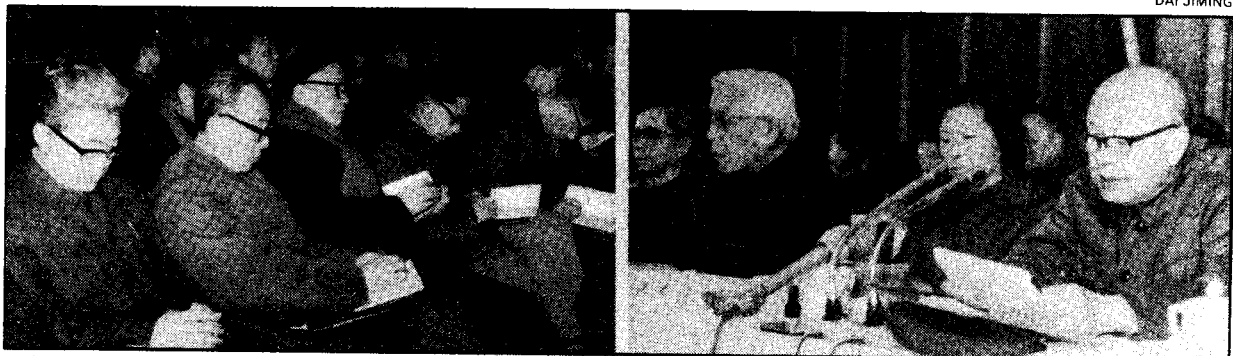
the study of macro productive forces organization and structure, has become an important branch of learning.

For instance, each process of production is not necessarily done in one place, but in whatever places are suitable. Last year the Louis Gallop Toy Co. of the United States sold up-to-date toys valued at US\$58 million. Traditionally such a company should have its own factories and workshops. But actually it has a permanent staff of only 115, with neither factory nor workshops. The ideas for most of the products come from independent investors and amusement companies; and the design and technical work are mostly done by outside experts. The company employs a dozen contractors in Hong Kong, and labour-intensive work is done in Taiwan. Sales are made by agents. The company only organizes the work through telephone calls. This is one of the so-called "empty shell companies" in the United States.

This phenomenon has caught the attention of many foreign economists, as the cost of raw materials is rather high in the US companies, which import rather

Qian Xuesen (first to the right in the photo on the right) delivering a speech to ranking officials of central Party and government organizations. The report was entitled "on Questions Related to the Understanding of the New Technical Revolution."

DAI JIMING



than produce iron and steel on their own. Some companies turn to smelting waste steel in electric furnace. In Japan, instead of making products inside the country, many Japanese purchase factories in other countries. This is a noteworthy phenomenon of the current economic changes, a further development of the global economic integration that came into being since the fourth industrial revolution, and has been transformed into the fifth industrial revolution characterized by genuine worldwide production.

What are the special features of the fifth industrial revolution?

1. Specialization developed further from the specialization of parts and components to working procedures. Take for instance the production of gloves. The animal skin may be produced in one country, transported to another country to be tanned, and the tanned skin again shipped to a third country to be made into gloves.

2. The production organization must be able to meet the different needs of different clients who require one kind of product today and another kind tomorrow. Previously, if a new product was to be made, a new production line would be needed, replacing the old line. In China, the production line is a major issue: Should a production line be dismantled once the product is no more in demand? If dismantled what is to be done if the product comes once more into demand? Now there is a new technique, known as CIMS (computer integrated manufacturing system) that organizes highly flexible production lines with the help of computers.

3. Information has become a central link in the whole organization. We have what is called an "information society."

4. Soft science and systems engineering have become extremely important branches of learning.

5. The proportion of white collar workers is even higher than in the fourth industrial revolution. In many high-tech companies, the ratio between workers, management personnel, and engineers and technicians is 1:1:1. This is to say, the percentage of physical labourers is going down, while the percentage of management personnel and technicians is rising.

6. Communication and transportation have become very important. In complex worldwide organizations, trade and competition among countries are extremely intense, and changes are rapid. It is almost impossible to maintain the same situation for even one year. Under such conditions, it is also impossible to maintain a static economic organization because of the quick changes.

To realize its modernization programme, China needs to open up rather than seal itself off from the outside world. It should be linked with the outside through as many channels as possible.

All these changes show the importance of science and technology. In the 21st century, if a particular country fails to be in the lead in science and technology, it will be difficult for it to maintain its economic activities and international standing. Thus it is understandable why some developed countries vie with one another in the field of science and technology. A new generation of computers, known as "intelligent machines," is being developed in Japan. The Japanese also intend to invent a "science of human beings." Earlier, other countries

considered it impossible to manufacture an "intelligent machine," but when the Japanese development got started, they immediately followed suit, not only in Europe but also in the United States. After President Reagan launched the Strategic Defence Initiative Programme, Europe initiated the Eureka project, and the Warsaw Pact countries also proposed a high-tech development plan. So science and technology have become the essence of developing the productive forces, which would be impossible without science and technology. This is an intellectual war, and the 21st century will be an era of this kind of "warfare."

China's Economic Reform

The current reform is aimed at establishing a system which will enable us to build socialism with distinctive Chinese characteristics, by taking full advantage of present world developments and of those during the early 21st century. This means that China will never lock itself behind closed doors but, as a member of the world community, will be linked with the rest of the world in a thousand and one ways.

Obviously, to fulfil this task, we should catch up with the fourth industrial revolution. What we did in the industrial field prior to the economic reform was very outdated. Developed countries started their reforms as early as 1890, but our reform did not take place until 1984.

But our task does not stop here, for we should also catch up with the fifth industrial revolution, a very arduous task indeed. Our reform, taking place in the form of self-improvement, is actually a social revolution, the "Second Revolution" as Deng Xiaoping called it. The chief element of the Second Revolution is industrial revolution, a tremendous change in the economy's social formation which will inevitably give rise to great changes in political social

formation. The political revolution will at long last bring changes in ideological social formation. Thus the Second Revolution is also a cultural revolution in its true sense, involving many areas of endeavour. In these changes everything develops at an unprecedented speed that brooks no stoppage and slackening of our efforts. We should continuously recognize the objective world and work to transform it.

In the face of such heavy tasks, it is very important for us earnestly to enhance our ideological and political awareness. But how? As I see it, the first thing to do is to use the concepts of dialectical materialism to understand the world we are living in. Rather than understand the world narrowly, we should work to know it in the spirit of seeking truth from facts.

Have we really understood the general principles and policies of the central authorities? The central authorities hold that it is necessary to strive for world peace, which certainly can be gained through struggle. To strive for peace, it is necessary to strengthen national defence. The stronger our national defence, the more possible is our struggle to maintain peace. While a major war may not break out by the year 2000, small wars are hardly avoidable. Under such circumstances we should, by opening up to the outside world and enlivening the domestic economy, greatly promote socialist development, so that 60-70 years from now, in the mid-21st century, we can catch up with the world's developed countries. This means that we should not only do a good job in our work but know the world as well. Accordingly, we should focus our studies on the following two aspects.

On the one hand, we should be both expert in a particular field and knowledgeable about as many things as possible. A specialist cannot be expert if he is not

knowledgeable of things outside his own field of pursuit.

The Science Centre of Beijing has done us a good service by sponsoring the monthly Scientists' Day in which specialists of various disciplines can mingle and swap their experiences. Two multidisciplinary conferences took place recently. One, sponsored by the geo-science departments, was attended by 11 scientific societies, and the other, a symposium on the science of materials sponsored by 17 societies in Chongqing, attracted experts in both basic sciences and engineering. Both conferences achieved good results.

Our reform is a social revolution or a cultural revolution involving many areas of endeavour and causing changes not only in the social but also the political and cultural fields.

Scientists and technicians should not confine themselves to their own field of endeavour, because to know something in just one field is far from enough. To know the world, you should venture out of natural science and engineering technology to learn something about the social sciences. As I have said before, in finance, economy and production, the world of today is quite different from the world during the beginning of this century or even in the 1940s.

On the other hand, it is necessary to learn some philosophy. This is because Marxist philosophy is the highest summary of human knowledge. Many accomplished foreign scientists made outstanding achievements because they had grasped some

Marxist principles, although they themselves did not realize it. How could Einstein be so profound in his thinking? I think he had learnt something about dialectic materialism, although he did not admit it. A few years ago, I read an article written by R. Sperry, a Nobel prize-winning brain scientist, in which he made his analysis entirely according to dialectic materialism. But the irony was that the author said he was against Marxism. We should learn a little Marxist philosophy, for it is a treasure without which we will be at a disadvantage.

There has been much talk lately about the necessity of nurturing people's creativity. In China we do have a Creators' Association, which is actually devoted to gadgeteering. It is far easier to foster the knack for gadgetry than to cultivate high-calibre wisdom, which needs knowledge of the world. In other words, wisdom stems from an understanding of Marxist philosophy and a mastery of its use. As the old Chinese saying has it, "A man of great wisdom may appear slow-witted." People who are really intelligent do not care much about small gadgetry and, indeed, they may look a bit slow. As you know, Einstein was not very good in primary and high school, and even in university. After graduation from university the best job he could get was to serve as a patent bureau examiner. But in the final analysis, he was a world-class scientist, someone who was really wise.

How can we fulfil the heavy task given by the Party and state for the development of a society with a highly developed economy and advanced culture and ideology? How is it possible to enrich our knowledge so that aside from being expert we can also be more knowledgeable? This is a very glorious task. As the old saying goes, "Once you learn the ropes you become a man of valour." This means that once you have gotten things straightened out you

will be afraid of nothing. Therefore, real courage, the courage for reform and creation, originates in a real understanding of the objective world.

Talking about reform, it is said that small enterprises in Shenyang will be put out for rent, and some people are already asking: Is this socialism? But Li Changchun, governor of Liaoning Province, answered unequivocally by citing the fundamental principle of Marxism of seeking truth from facts and proceeding from reality. "If you are accustomed to measuring something new by established yardsticks in your mind, ignoring its real results, yours can hardly be called a Marxist attitude," he said. Having spent eight years in a factory and five years in a company, he said he had realized that in the absence of a motive force for improving management and a mechanism for promoting technical progress, it was impossible to compete with capitalism. If this situation continues to exist, he said, China cannot stick to socialism. "Communists of our generation are confronted with a serious question," Li continued, "and that is how to turn the mind of more and more people to socialism and Marxism. If we fail to solve the problems that have occurred in the practice of socialism, we are not really persevering in socialism. To uphold socialism it is necessary to conduct reform and give full play to the socialist commodity economy. Only thus can the superiority of socialism be demonstrated." His opinion is worth our careful consideration.

How should we deal with these problems? In my opinion, we should resolutely carry out the Party and state principles and policies and act according to the will of the people. This is a clear answer. Once the reason is made clear, those who have temporarily lost their mind will come to their senses. The Chinese are a very

good people. Some people are given to saying that the young of the 1950s are different from the young of the present, but aren't the young people today Chinese? The problem is that we have not got some problems clarified. A few years ago some students at Qinghua University said that

To uphold socialism, we must reform and promote the socialist commodity economy. We should carry out Party and state policies and principles and act according to the will of the people. We should study Marxism and keep to the principle of seeking truth from facts. We should have a clear understanding of the objective world.

China should have a try at capitalism. Later, when I visited that university and asked some of them about it, they told me that they had solved the problem. They had never studied modern Chinese history and did not know whether capitalism had been tried or not. Later, when the university started a modern history course, they came to know that capitalism simply had not worked in China.

Not long ago a few university students put up big-character posters and took to the streets demanding bourgeois liberalization. The overwhelming majority

of them actually did not know much about what capitalism really is. Therefore, it is not that the young people of today are no good. It is that they are ignorant of Chinese history. If they knew history, if they knew what road China had traversed and that it will take at least 60 or 70 years for China to reach its long-term goal of catching up with the advanced countries in the world, they would know that the Party and state policies and principles are correct and that reform can go smoothly only under Party leadership. The same holds true for other Chinese people. Once they know history and the present situation, they will understand the contradictions that have occurred in the current reform and understand the reason why salaries in many places are still low and why the housing shortage is still very acute. These are not personal problems, and there are intrinsic causes behind them.

We middle-aged intellectuals too will become courageous if we can foster an all-round understanding of things. We will forge ahead on the road of reform no matter what great risks lie ahead. I have just read a poem Lu Xun wrote to Yu Dafu, which said to the effect that all birds capable of long-distance flight did not like or even hated sunny, windless days and that small hills, though bedecked with beautiful, fragrant flowers, serve only to obstruct the view of the high mountains behind. These two lines are indeed profoundly meaningful. We should all know our world better, and the development of history. We should strive to learn more knowledge, so that we will never hanker after personal comforts or even embrace erroneous tendencies. Inspired by lofty ideals and morality, we will overcome all sorts of difficulties and fulfil the task of building up a socialist society with a highly developed economy and advanced culture and ideology. ■

INTERVIEW WITH SGATT DIRECTOR HAN KEHUA

China's Tourism — Today and Tomorrow

by Our Correspondent Han Guojian

QUESTION: Would you please comment on the recent development of China's tourism?

ANSWER: Tourism is new to China. Since implementing the open policy in 1978, it has developed rapidly. From 1979 to 1986, the number of foreign tourists visiting China increased at an average annual rate of 21.6 percent. In 1986, entries into China totalled about 22.819 million, an increase of 28 percent over the previous year. Of them, foreigners totalled 1.482 million (not including individual tourists), an increase of 8.2 percent. Overseas Chinese and compatriots from Hong Kong, Macao and Taiwan totalled 21.337 million, an increase of 29 percent. In 1986, the number of Chinese tourist trips at home also grew, reaching 270 million in all.

The facilities and transport for travellers have been improved. In China, there are more than 900 hotels with 275,000 beds. More than 100 hotels with 30,000 rooms are being built, some of them will be completed and put into service soon. China's travel services have 14,500 cars and buses. The CAAC has opened 277 internal and external air routes, 99 more than in 1980. This year, 25 giant transport aircraft will be put into service. Four airports and a number of highways, railways, and water-ways have been built or enlarged.

Some important historical sites and scenic spots are being renovated and rebuilt, including



Han Kehua, director of the State General Administration for Travel and Tourism.

the museum of Qin terra-cotta warriors in Xian and the Lijiang River in Guilin.

There are some 500 travel services in China, 17 of them (as against three in the past) receiving foreigners directly. Foreign exchange income from international tourism rose steadily. In 1986, the income amounted to US\$15.3 billion. Tourism has become an important part of China's tertiary industry.

Q: What is at the root of this progress in tourism?

A: The open policy. It revises people's thinking. In the past, tourism in China was mainly to promote political ties of friendship. But now tourism has become an important business.

But also the state began to pay more attention to tourism. It brought tourism into the state

plan for economic and social development, and increased investment considerably. At the national tourism conference sponsored by the State Council in 1986, it was decided that in the year 2000 China should receive 10-12 million travellers, including 7-8 million non-Chinese, and that income from tourism should reach US\$8 billion to US\$10 billion.

At the same time we have taken positive measures to encourage tourism and reformed its administration structure. By now all the travel services have implemented the policy of separating government administration from enterprise management. The travel services, tourist hotels and tourist car fleets will become relatively independent enterprises.

Q: What are the problems tourism faces in China? And what do you think of foreign tourists' criticisms?

A: China is a developing country, and began to open to tourists only recently, so our tourist facilities, professional training and service quality all leave much to be desired. Transport also needs improving. I will outline some of the problems for you.

1. Low capacity. In some cities, hotels and transport are inadequate. In the busy season, accommodation is in short supply in Beijing, Shanghai, Xian and Guilin.

2. Besides a shortage of good interpreter guides, professional training and service also falls short of requirements.

3. No unified standards for hotels. In China, hotels are managed by investment departments. The investment-responsibility system should be changed, otherwise our hotels cannot match up to international standards.

4. The variety and designs of souvenirs and gifts should be increased.

In view of this, complaints about the quality of our tourism among foreigners are understandable.

Q: What are you doing about it?

A: We hope to solve these problems by the end of 1990. Our main tasks are as follows:

1. We will improve and develop six or seven world-famous scenic spots in the key tourist cities. Meanwhile, we'll establish several tourist vacation villages, and meet the needs of honeymooners, religious groups, international meetings, recuperation and other leisure holiday makers.

As the number of individual tourists increases, we should provide them with more convenient travel opportunities.

We will rebuild the following scenic spots by the end of 1990. (1) In Xian, we will continue the excavation of the terra-cotta warriors and horses guarding the main entrance to the tomb of Emperor Qin Shi Huang. By now 1,000 life-size terra-cotta warriors and horses have been unearthed and reconstructed from Vault I, and 2,000 others will also be reconstructed in the near future. In 1987, we will open up Vaults 2, 3 and 4 and establish a museum there. (2) In Guilin, we will improve water quality and raise the water level of Lijiang River, and dredge navigation line. (3) In Jiangsu Province, we will dredge the ancient Qinhuai River, especially the 2.8-km section close to the Confucius Temple in Nanjing. (4) In Suzhou, we will repair the Panmen Gate scenic spots and enlarge the Hanshan Temple. (5) In Hainan Island, we



Women visiting an ancient palace in Beijing.

will strive to develop Yalongwan Bay into a subtropical winter resort. (6) In Hangzhou, we will rebuild Huqinyutang, a shop of traditional Chinese medicine, and set up a convalescent home for the disabled. We will also build a silk museum and a tea museum there and renovate the ruins of the ancient Longyao porcelain kiln. Moreover, we are preparing to build tourist villages in Wuxi and Hainan Island.

2. We will increase our reception capacity. We will add more aeroplanes and airport navigation equipment, build or enlarge airports, improve highways and update international communication equipment.

From now on we will build mainly middle and lower class hotels to meet the needs of the less wealthy traveller.

3. We will improve professional training and the two tourism colleges at Beijing No. 2 Foreign Languages Institute and the Shanghai Tourist College. We intend to establish two training centres in Nanjing and Tianjin for training managers; and we intend to send people to study abroad

and compile relevant teaching materials. We will continue and improve the tourist departments or courses at the 10 universities which have them, and the 120 secondary tourist schools.

4. We will reform the hotel management system by setting up a hotel management-group company which will take over and manage hotels. We will strive to enable a number of big hotels in some major tourist cities to reach the world's advanced management level.

5. We will improve the management system of travel services, implement the policy of centralized leadership and decentralized management.

6. We will keep competitive prices and implement seasonal variations in price. Our hotel's prices should be equal or a little lower than the prices offered by hotels of the same grade in Hong Kong and Southeast Asia.

7. We will redouble our effort to develop varied souvenirs and traditional travelling goods with local colour.

Q: What is the fundamental purpose of China's tourist

development?

A: As a developing socialist country, our purpose is to enhance international understanding and friendship and, at the same time, increase foreign exchange income and promote China's socialist construction. We can do that by creating a comfortable, healthy tourist environment for foreign tourists, and offering better services and accommodation. Gambling and pornography are not allowed to exist in China. We think that foreign tourists have more extensive interests, so we will satisfy them by adding different specialized tours and improving entertainment facilities. We believe that the foreign traveller

can have a pleasant and interesting time on a varied colourful, healthy and distinctive speciality tour with evening entertainment. In short, our tourism should have a distinct Chinese character.

Q: In your opinion, what is the foreign traveller looking for?

A: I think that China's unique tourist resources are the main attraction for foreign travellers and these are also what they are really interested in. These fall into three general fields: (1) In China all civilization has 5,000 years of history. There are numerous scenic spots and historical sites throughout the country; (2) China has a vast territory. Natural reserves, like Zhangjiajie in

Hunan Province and Jiuzhaigou in Sichuan Province, the Qinghai-Tibet Plateau and the Silk Road, have a great attraction for foreign tourists; (3) The large number of minority nationalities, which are widely distributed over China, also attract foreign tourists because of their diverse ways of life, their culture and customs.

Besides, many foreigners are interested in our reforms. Visiting China helps them gain an experience which they cannot have at home. We will do our best to meet their needs.

Q: What role does tourism play in the national economy?

A: First of all, tourist related business includes construction, post and telecommunications, transport, municipal works, industry, finance, culture, health, as well as customs, foreign trade and other departments. Its efficiency and the quality of its service lie in the support and collaboration offered by all of them. In turn, the development of tourism gives an impetus to the entire economy. Last year, I had this quoted in a magazine: "The development of all business promotes tourism, while a lucrative tourist trade gives an impetus to all business."

Q: Tourism is not just about people coming to China, there's a whole network of international contacts that facilitate it. What is your view on this?

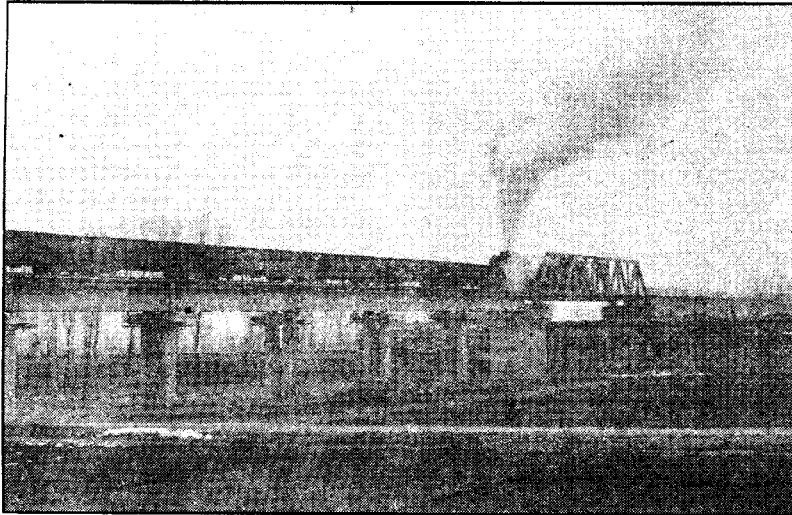
A: Yes, of course. China is a member of the world tourist organization. Last year alone China took part in the world tourist conferences held in Sofia and New Delhi, the Asian-Pacific tourist seminar was held here. Also a high-level American tourist delegation came on a visit and we agreed on regular future meetings. Already this year a high powered tourist delegation from Japan, headed by the vice-minister of communications, came to China.

We have also invited foreign tourism experts to come on lecture tours, so that our tourist enterprises can help expand our international contacts. ■

The Guangzhou Railway Station's converted waiting rooms now popular dining halls.



China Makes Use of Japanese Loans



A train on a bridge on the Yanzhou-Shijiusuo Line.

SHI PANCI

By the end of 1986, China had received 196.3 billion yen in loans out of the 474 billion yen granted by the Overseas Co-operative Fund of Japan. Loan agreements for this year will be signed soon.

With this loan, China is building seven capital engineering projects including Bingding Dock in Qinhuangdao, Miaoling Dock in Lianyungang, Qianwan Port in Qingdao, dual-track electric railway lines between Zhengzhou and Baoji and between Hengyang and Guangzhou, Tianshengqiao Hydro-electric Power Station on the Hongshui River, upgrading the telephone systems in Shanghai, Tianjin and Guangzhou. All these projects will be finished and put into operation after the end of 1988.

The first loan agreement between the Chinese and Japanese governments was signed in 1979. By 1984 loan agreements totalled 330.9 billion yen. At present, 98 percent of the loans have been used and some equipment have not yet arrived. Using the first loan, China built six projects which were completed and went

China's Annual Use of Loans From Japan

Year	Japanese Yen (billion)
1979	50
1980	56
1981	60
1982	65
1983	69
1984	71.5
1985	75
1986	80.6

Year	Export value to China	Import value from China
1981	85	80
1985	135	140
1986	170	150

into operation before the end of last year. The six projects are: Shijiusuo Port in Shandong Province, the expansion of Qinhuangdao Port, the dual-track electric railway line between Beijing and Qinhuangdao, the railway engineering project between Yanzhou and Shijiusuo, a 300,000-ton ethylene project in Daqing and the first-phase project

of the Baoshan Iron and Steel Works. The 281-kilometre dual-track railway line between Beijing and Qinhuangdao has an annual capacity of 50 million tons and has carried 30 million tons of coal since it was opened in 1984. The 300-kilometre railway between Yangzhou and Shijiusuo has 12 million tons of annual capacity. The Shijiusuo Port has two 100,000-ton berths with a combined annual handling capacity of 15 million tons. The completion of the 300,000-ton ethylene project and the first-phase project of Baoshan Iron and Steel Works have played a big role in China's national economy and construction. ■

Sino-W. German Trade on the Rise

In April 1987, China will take part in the world fair in Hannover, and State Councillor Zhang Jinfu will lead the Chinese government delegation to the opening ceremony. This should strengthen the development of trade between China and West Germany.

Since the establishment of diplomatic relations between China and West Germany in October 1972, the total volume of trade has increased year by year. In 1986 the total volume of the trade between the two countries was US\$3.65 billion, 18.9 percent more than in the previous year, and 16 times what it had been before diplomatic relations began. China's trade with West Germany was 4.8 percent in 1971 and in 1986 accounted for 6 percent, West Germany is now China's largest trading partner in Western Europe.

In 1986, Chinese exports to West Germany were worth US\$840 million, 24.1 percent more than in the previous year, and 11.5 times what it had been in 1971. China's exports include native produce and animal by-

products, textiles, cereals, edible oils and medicines. The value of imports was US\$2.81 billion, 17.4 percent more than in the previous year and 18 times what it had been in 1971. The main import items from West Germany to China include complete sets of equipment, technology, machinery, rolled steel and industrial chemicals.

Technical co-operation between the two countries is developing. By the end of 1986, 17 contracts for joint ventures in China had been signed by enterprises from the two countries: the joint ventures include Tianjin Liming Cosmetics Co. Ltd. and Shanghai Volkswagen Automotive Co. Ltd.

At the same time, co-operative production between enterprises from the two countries has also developed. The resulting products range from machines to complex complete sets of equipment production lines. In recent years, part of the equipment imported from West Germany has been manufactured in China. A case in point is the 7,800 sets of the 2030 cold rolling mill manufactured by Shanghai plants under West Germany Sigmag supervision for the second-phase project of the Baoshan Iron and Steel Works.

Contracts for projects, co-operative labour services, leasing and providing technical consulting services are also growing. In

the past two years, with the co-operation of the West German Banking Group led by the Bank of the Federal Republic of Germany, the Bank of China has twice issued Deutsche mark-denominated bonds in Frankfurt.

During the period of the Seventh Five-Year Plan (1986-90), China's total volume of trade will increase at an average annual rate of 7 percent. This should be advantageous to the development of West Germany and China. The exports China will increase are exactly what West Germany imports, and the imports China requires are leading products in the Federal Republic of Germany's industry. China will bring in foreign investment for energy resources, communications, raw materials industries, machinery, and electronics. As West Germany has abundant funds and advanced technology and equipment in these fields, the joint ventures between China and West Germany have great potential.

At the moment the problem is the imbalance in trade. In 1986, China's trade deficit with Germany reached US\$2 billion, 33 percent of China's total trade deficit. This could hamper the growth of the bilateral trade. Only by relying on the two countries' common efforts, can a balance be reached. ■

food additives and colourings and imports from China edible oils, additives for animal fodder, tea, down, semi-finished industrial products and raw materials. Its imports and exports are basically balanced.

The British corporation's successful trade with China helps co-operation in other fields. With the British corporation as its agent, the Celanese Fibre Corp. joined the China National Tobacco Corp. Jiangsu Branch in running a joint-venture company in Nantong, which, involving a total investment of US\$35.17 million, will be put into operation by the end of this month. It is discussing with the Chinese corporation another two joint ventures.

by Yao Jianguo

Export Packing: Prize Winner

The prevailing priorities for China's export goods: quality first, packaging second and price third has been amended somewhat very successfully.

In recent years, China's packaging of export goods has improved. The proportion of paper and plastic packaging materials continues to increase as timber packaging drops. Fashionable packaging has taken over our export goods. For example, hanging exported clothing in containers has been put into practice at the main ports in Liaoning, Shanghai, Tianjin, Beijing and Jiangsu. Small soft packaging of tea is now used in place of the previous bulk gunny-bag, much to foreign traders' pleasure. At the 13th Asian Packaging Congress held last June in Beijing, China won six Asia Star Packaging Prizes, while at the 8th World Packaging Congress held in Tokyo in October last year, China won the 1986 World Star Packaging Prize for its packaging of "classic wine of Western Han" made in Hunan Province, and "household glasswear" from Chongqing, Sichuan Province. ■

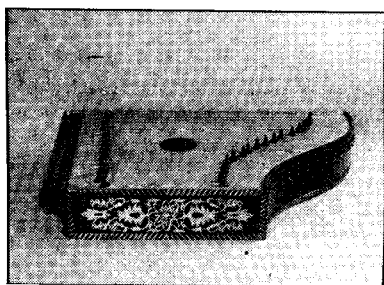
Britain Expands Trade With China

Unlike other companies which just want to sell their products and are not interested in China-made goods, my corporation is considering what products to import from China while we export our products to China. Combining export and import will promote trade between China and Britain, said G.M. Perry, director of the London Export Corp. Ltd., at a recent British chemical technological symposium.

The British corporation specializes in trade with China. As early as 1952 the corporation established its office in Beijing. Based on this experience the corporation has rapidly developed its trade with China and increased its export value from US\$200,000 in 1952 to US\$320 million in 1986, a 1,601-fold increase. The British corporation primarily exports chemical machinery and technology, household chemicals,

Minorities' Musical Instrument Show

Crowds of visitors converged on the Cultural Palace of Nationalities in Beijing to view the musical instruments of minority nationalities which were being displayed for the first time. Those who wanted to could even try some of them — from the 4-metre-long *lusheng* (Chinese wind pipe), through a *kouxuan*, the size of a



"Kalong."

one *fen* coin, to a 1,300-year-old *guqin* (Chinese zither). About 400 exhibits were on display.

Chinese minority nationalities have long cultural histories, and the colourful musical instruments they create play an important role in Chinese music.

Chinese ethnic groups developed relatively independently before liberation. The differences in their geography, economy and psychology have been reflected in their musical instruments. String instruments tend to be more popular in the north while bamboo and copper instruments, particularly percussion and wind instruments are more so in the south. These instruments have strong local flavours and local residents produce them with their own hands. People use them at work, at gatherings, celebrations, housebuildings, weddings, funerals and religious ceremonies. Music is intensely social and everyone participates.

Some instruments themselves have long histories handed down from one generation to another. Some which have disappeared in the interior provinces still remain in out-of-the-way minority areas, a testament to past cultural exchanges.

The exhibition is divided into four parts: percussion, wind, string and modified instruments.

The percussion section is comprised of gongs, drums, cymbals and clappers (traditional Chinese bamboo instruments). The drum, the most popular, comes in many varieties, from a primitive wooden drum and copper drum typical of the south, through wooden and bamboo and pottery drums to the iron drum of the Uygur nationality.

A 2,000-year-old copper drum found in an excavation in Yunnan Province, southwest China, is said to be the earliest known copper drum in the world. It is placed either horizontally on the ground, or hung upside down to be played.



(From left to right) "lusheng," "zhuqin," "wagu," "sanxian," "hulusheng," "rewapu," and "suona."

The *dingdong* is an extraordinary instrument, the sensation of the exhibition. It has two long clubs, hung horizontally on a

wooden frame. It produces different pitches depending on where along the clubs the performer strikes with his short stick.

The *paimang* is similar in that several gong-like instruments of different sizes are hung on a wooden frame. When the long stick hung above them is turned, the hammers tied to it will strike the *paimangs* and produce soft, sweet music.

Minority percussion is used rhythmically and expressively, and is important during group activities, in songs and dances, operas, solo and ensemble concerts.

The wind instruments are made primarily of bamboo. South China is "a bamboo kingdom."

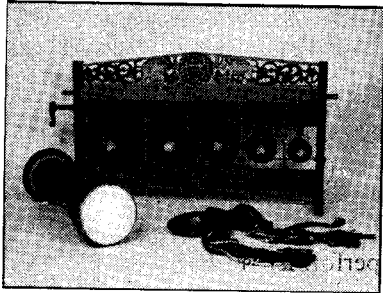
The *xun* is venerable among wind instruments. It dates back 6,000 years. It is often made of pottery, and is oval shaped. Its sound is deep and has a very remote quality.

The *huluxiao* is a reed instrument made of a gourd. It is perforated and the tune is produced in the usual way by opening and closing the holes with the fingers.

The Tibetan *trumpet* is a religious instrument that crosses many ethnic boundaries and unites them in religious services. All these instruments provide significant insight into the origins of wind instruments.

The string instruments are perhaps the most fascinating in their strange shapes and ingenious action. On display are both plucked and bowed instruments. The plucked ones include the Korean *jiayeqin*, the Uygur *dutaer* and *rewapu*, and the *dasanxian* of the Yi.

Duxianqin means in Chinese "a single stringed instrument." It is



"Palmang," "naoba" and "xianglaogu."

made of a section of bamboo cut lengthwise. With its one string, it is still very expressive.

The *xiqin* of northeast China is one of the oldest bowed instruments in China. People used a bamboo slice as the bow in the Tang Dynasty (618-907). Later the bamboo was replaced by horse tail hair. Through the *xiqin's* long development, many other bowed instruments were created on its

The Chinese Snookered in Beijing

Though snooker is one of the most popular games in Britain, in Beijing snooker player world No. 1 is almost as alien as frisbee world No. 1. Many Chinese dictionaries do not distinguish between billiards and snooker, let alone the Chinese in the street who would undoubtedly, call them all *taiqiu*, table ball game. However, the brilliant performance of Britain's Steve Davis with his magic stick and the fat prize money, awarded to the winner of the Kent Cup China International Snooker Masters Tournament held in Beijing from March 5-8, 1987, shook China's sports fans out of its indifference.

The snooker became a talking point around China. It is estimated that 50 million people turned on to watch CCTV's coverage of the first matches, with the final attracting perhaps 100 million viewers. This is probably a record for snooker, which has already chalked up the highest viewing figures for any television programme in Britain.

model. These are now characteristic of different nationalities.

Since New China was founded in 1949, there has been much discovery and improvement of the ethnic people's musical instruments. The Central Song and Dance Ensemble of Nationalities has collected many traditional instruments, and has reproduced, refined and improved many of them.

Chifeng Song and Dance Ensemble of Nationalities in the Inner Mongolian Autonomous Region has devoted three years to studying documents, consulting experts and artists and has found 28 pieces of 9 kinds of ancient Mongolian musical instruments, thus saving some from disappearing. That dedication has made possible this large and varied exhibition. ■

Despite the way in which Steve Davis captivated his Chinese audience, he was described as having "charming manners" by the "People's Daily," he lost to Willie Thorne (rated 7th in the world) 4 frames to 5 in the semi-finals, and Thorne went on to win the tournament by easily beating Jimmy White (rated 5th) in the finals 5 frames to 2.

Also on the British team were Dennis Taylor No. 3, Terry Griffiths No. 8, Tony Meo No. 10, Neal Foulds No. 13 and Rex Williams No. 16. Playing against them on the first evening were eight Chinese players.

Zhang Yanbin, 26, a cook in Shanghai Hotel, actually won a frame from Jimmy White in the preliminary. He said after his eventual, but anticipated defeat, "Only if I could play snooker six to eight hours a day, would I catch up with the world level in four or five years."

Snooker and billiards were introduced into China through Shanghai in the 1930s-'40s. Zhang Yanbin's coach was a hand in a

Shanghai snooker house for the rich before 1949. However, among the reasons for the game's failure in China since then, the most significant is that the game was labelled during the "cultural revolution" as something "royalist," part of "bourgeois lifestyle."

"It's not necessarily an aristocratic game today" said Rex Williams, Chairman of UPBSA. It is character building, though. Zhang Yanbin believes it cured him of being a "bad-tempered boy." It built his patience and made him at last a gentleman. Rex Williams reaffirms this, "You need to take the pressure and the tension and stick to the tactics. However much you want to attack you have to keep to the tactics and play the shots."

As well as promoting snooker, the tournament was staged to promote international understanding and world trade, according to Sun Fuling, President of the Chinese Billiards and Snooker Association which is less than a year old.

For the Chinese players this tournament was a unique opportunity to learn, said Zhang. Snooker is getting more and more popular in Shanghai, where 80 percent of young men under the age of 30 watch snooker matches on a regular basis and 30 percent of them play once or twice a week, according to Zhang. He also said that unlike football or basketball, which demands size, strength and stamina, snooker is appropriate for the Chinese like table tennis, because Chinese people are characterized by patience.

The Kent Cup is China's second star-studded major snooker tournament. The first international snooker event was last August, the Shanghai Camus Masters Snooker Tournament, where Steve Davis beat Griffiths in three straight frames. National snooker tournaments have included the 1986 National Invitational Tournament, the 1986 Shanghai Junior "Jiu Ting" Cup tournament, the

1986 Shanghai Junior "Shen Hua" Cup tournament, the Beijing-Tianjin Cup, the 1986 "South Wind Window" Cup, the "Magnificent Palace" Cup, and the 1987 "Yue Xiu" Cup.

by **Zhao and Audrey**

Cameos

Hunting Ground in Northeast Opens. The Yuquan Hunting Ground, 40 kilometres east of Harbin in the northeastern part of China, opened to foreign and domestic tourists in January this year. Covering an area of 3,000 hectares, the hunting ground is inhabited by a wide variety of game, including bear, wolf and roe deer. The hunting lodge consists of a main building, octagonal in shape and European in style, and a classic Russian-style building which provides comprehensive service like ticket purchase, laundry, shopping, etc.

Precious Buddhist Sutra Found. The Buddhist Lotus Sutra, curiously copied in gold and silver ink, was found last August in Jimo County Museum in east China's Shandong Province by two touring art specialists.

According to art connoisseurs Shi Shuqin and Liu Guangqi, most sutras are copied in plain black ink, but this copy in gold and silver ink as well as its delicate and intricate design indicates there was stability in China when it was made. They believe the sutra was copied in 1044 A.D. during the Northern Song Dynasty.

During the Northern Song Dynasty, He Zizhi, a Buddhist disciple from Sichuan, southwest China, donated money to fashion the sutra which is a classic of the Mahayana school of Buddhism.

The sutra comprises seven volumes, each measuring 1,100 cm. long and 30 cm. wide, with a

total of 70,000 Chinese characters. Gold and silver pictures depicting Buddhist stories adorn the first pages of the volumes, as well as portraits of the disciple's family.

The paper on which the sutra was written is believed to be the earliest and finest product preserved to date.

TV Series "The Great Wall" Being Shot. The 37-instalment TV series, *The Great Wall*, is being jointly shot by TV stations in Hebei, Liaoning, Shanxi, Inner Mongolia, Shaanxi, Ningxia and Gansu provinces and autonomous regions, where the ruins of the Great Wall now lie.

According to the directors and scriptwriters, the series is intended to show the great spirit of the Chinese nation through the scenery, local customs, life styles and economic development of towns, cities and rural communities located along the Great Wall.

The Great Wall, a gigantic defensive work, was successively built by more than 20 dynasties and feudal states, dating from the Warring States Period (475-221 BC) down to the Ming Dynasty (1368-1644 AD).

If shooting goes according to schedule, the TV series will be on the screen in the second half of 1987.

Rarely Seen Bronze Dagger-Axe Unearthed. A bronze dagger-axe of the Shang Dynasty (c. 1600-1100 BC) was recently found in Jinxian County, northeast Liaoning Province.

The blade measures 8 cm., and the handle, measuring 72.5 cm., was cast with a four-sided diamond-shaped pattern, with pearl-like designs inside, and a ball-shaped knob at the end.

Noted archaeologist Su Bingqi believes that in the early Shang Dynasty, this kind of dagger-axe was a symbol of royal sovereignty. Its discovery provides valuable data for the study of the ancient state, city and culture of the western part of present-day Liaoning Province. Professor Zou Heng, a bronzeware expert, said that it is the first time this kind of Shang Dynasty bronze dagger-axe has been found in China. According to Zou, there is a similar bronze dagger-axe in an American museum, but that one was not cast in a whole piece, nor is its decoration as exquisite as it is on the recently found artifact.

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Objective Reports and Comments

I carefully read every 1986 issue of *Beijing Review*.

First of all, I must say, your reports and comments were welcomed, did not cover up, and reported on both good and bad things. Li Rongxia's article "Traffic Jams Plague Beijing Residents," for example (issue 12), which I liked very much, not only told of the reasons for the problem but also discussed the solutions. Many cities in the world could do well to learn from it.

Another objective article was Premier Zhao's "Report on the Seventh Five-Year Plan," (issues 16, 17). You made great efforts in 1986 to report on China's economic reform and its successes. You wrote frankly about good results and about difficulties. Again there are lessons to be learnt. Another article, written by Chen Yun, "Planning and the Market" (issue 29) gave readers a good idea of what goes into combining planning and the market. Next century, with population explosions and food shortages, will force every country in the world, including the most developed ones, to try to perfect their economic systems.

The article "Making a Dent in the Iron Rice Bowl," (issue 37), by He Guang, Minister of Labour and Personnel, was fine. It mentioned that China will operate a labour contract system, examination-based recruitment and a pay system which would reward the diligent and punish the lazy, and do away with the job-for-life system. I hope you will continue publishing these economic articles.

One of the important articles was "Resolution of the Central Committee of the Communist Party of China on the Guiding Principles for Building a Socialist

Society With an Advanced Culture and Ideology," (issue 40). You published the whole document without embellishing and abridging, and let your readers think about it. As for the content, I must say it was very vague, general and abstract, like a blurred picture. The concept of "encouraging the emancipation of people's minds, adhering to the ideological line of seeking truth from facts," is clear enough. But it did not elucidate the meaning of things and clarify their order of importance. For example: "In building a socialist society with an advanced culture and ideology, the basic task is to help people become well educated and self-disciplined socialist citizens with lofty ideals and moral integrity, and to raise the ideological and ethical standards of the whole nation as well as its educational and scientific levels—all in the interest of socialist modernization." If we omit the word "socialism" could we not use this concept in other countries of different ideas and social systems? Where is the difference? What is special about it? The document also said "always employ the methods of discussion, reasoning and criticism and self-criticism in addressing ideological problems—that is, the methods of persuasion and education." This is suitable to everyone no matter what political views they hold.

Dr. Manuel Delgado Bedoya
Lima, Peru

More International Politics

I think your reports are interesting. There is a need to increase the international political news, in order to increase fighting power and encourage people to see your position. Those soft articles which pander to the reader are not needed.

Though the pictures are good, I

think the content is the point of a political magazine.

Instead of increasing the number of columns you should improve the existing columns.

A. Gonzalez
Uruguay

Understanding Chinese Culture and Society

I was lucky to read many *Beijing Review* copies sent to me by a friend, though they were late, I gained a great deal from them. I learnt about Chinese news. Through your magazine I came to understand Chinese society and culture. I do not know how to express how I honour the Chinese people, and how eager I am to know Chinese culture and Chinese people's thinking.

A. B. Niang
Senegal

Nobel Prize Controversy

I was interested to read your article (*Beijing Review* Vol. 29 No. 47) about the Nobel Prize for Literature and Chinese Writers.

It reminds me of the story about General Gordon telling one of his Chinese officers to pray to God in English. When asked why, Gordon said "Not everybody understands Chinese, old chap."

If it is any consolation, one of the greatest playwrights in Britain, Saunders Lewis, wrote in the Welsh language. Like Chinese writers, Mr. Lewis, who died recently, never received the Nobel Prize.

I have read dozens of Chinese works in English translation, the latest being "Mimosa" by Zhang Xian Liang. The literary standard has always been high. But why should a work have to be translated into English to win an international prize?

I.J. Kenna
London, Britain

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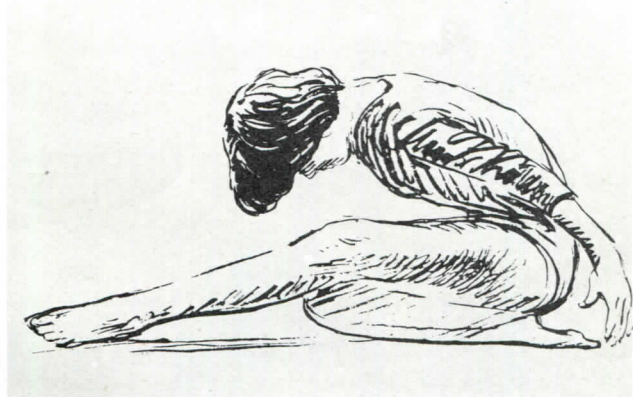
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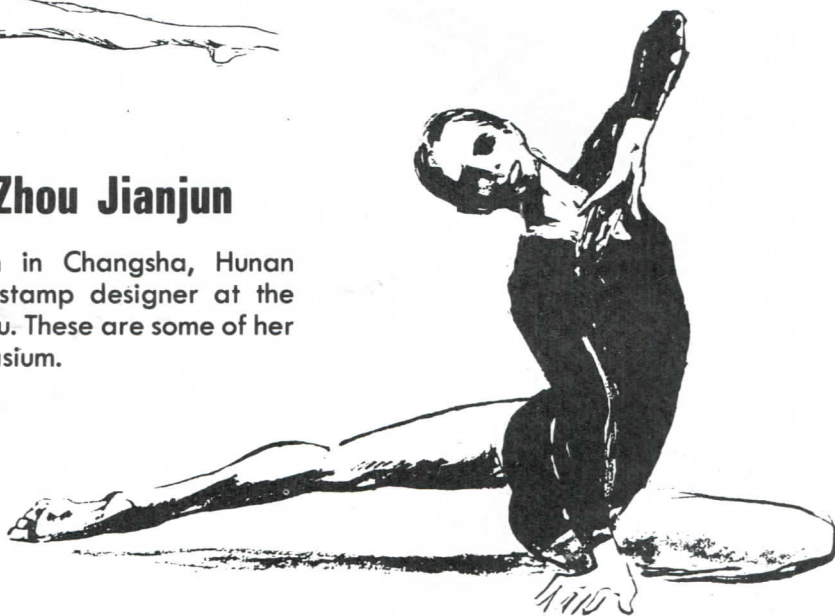
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Sketches by Zhou Jianjun

Zhou Jianjun, born in Changsha, Hunan Province in 1943, is a stamp designer at the Stamp Distribution Bureau. These are some of her sketches from the gymnasium.



ART PAGE

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