

A GLANCE  
AT  
CHINA'S CULTURE

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## *Foreword*

**B**EFORE liberation, the old China under Kuomintang rule was a semi-colonial, semi-feudal society, with a culture to match, which served imperialism, feudalism and bureaucrat-capitalism. For many years Chinese Communists fought for China's political and economic revolution as well as for cultural revolution. The founding of the People's Republic of China in 1949, marking the beginning of China's socialist revolution, turned a new page in the cultural revolution.

Chairman Mao points out: "**A cultural revolution is the ideological reflection of the political and economic revolution and is in their service.**" New China is a state under proletarian dictatorship. The broad masses of the people are the masters of the country. Socialist ownership (ownership by the whole people and collective ownership) of the means of production has superseded private ownership. The state has achieved much in bringing about, step by step, the modernization of industry and agriculture. Correspondingly, a socialist cultural revolution was needed so that culture could be geared



to the needs of the workers, peasants and soldiers and the broad masses of the people and serve the consolidation of proletarian dictatorship and the development of socialist economy.

Socialist cultural revolution has undergone acute and complicated struggles. The agents of the bourgeoisie in the Party, Liu Shao-chi, Lin Piao and their type, obstinately pursued a revisionist line to oppose Chairman Mao's proletarian revolutionary line. They defended, peddled and spread bourgeois and revisionist culture, flagrantly attempting to restore capitalism in China. Chairman Mao has consistently stressed the two-line struggle on the cultural front. The Great Proletarian Cultural Revolution personally initiated and led by him has successively smashed the two bourgeois headquarters of Liu Shao-chi and Lin Piao. This has dealt a crushing blow to their counter-revolutionary revisionist line and brought a great victory for Chairman Mao's revolutionary line.

On the literature and art front, the revolution in Peking opera was the proletariat's signal to attack the literature and art of the bourgeoisie and all other exploiting classes. History is made by the people. The revolution in Peking opera drove from the stage the emperors and kings, generals and ministers, scholars and beauties, who for so long had dominated it. The heroic workers, peasants and soldiers have become the principal characters in their own right, thus reversing the reversal of history and restoring historical truth.

The revolution in Peking opera has touched off a revolution in the other spheres of culture.

Inspired by the example of the revolutionary modern Peking opera, writers and artists strive to reflect the fighting life of socialist revolution and socialist construction and depict the heroic workers, peasants and soldiers. Many good works of drama, dance drama, music, fiction, the fine arts, and the handicraft art have been produced. The garden of literature and art flourishes with a hundred flowers blossoming.

Educational revolution has been extensive. In the cities workers' Mao Tsetung Thought propaganda teams are posted in colleges and schools so that the working class can play its leading role more fully and directly there. In rural areas the schools are administered by committees formed by poor and lower-middle peasants. There have been new phenomena in the course of the educational revolution, such as workers, peasants and soldiers going to university, factories running colleges and educated youth settling down in the countryside. Middle and primary-school education has been further extended.

**"In medical and health work, put the stress on the rural areas"** is the direction pointed out by Chairman Mao for China's work in these fields. Changes are occurring constantly in health work in China's vast rural areas. Examples are the co-operative medicine system, the training of "barefoot doctors" and medical teams bringing their service to the countryside. The whole picture of China's medical service is vigorous and remarkable in achievement.

In science and technology, the people's scientific experimentation, broadened after liberation, has promoted scientific research. In the past 25 years, and especially

in the Great Proletarian Cultural Revolution, encouraging results have been gained in scientific research, technical revolution and innovation.

In accordance with Chairman Mao's directive "**Promote physical culture and build up the people's health,**" mass sports are featured. As a result of popular participation in sports there has been excellent performance in ball games, track and field, swimming, weight-lifting, mountaineering and other events. The new socialist sportsmanship of "friendship first, competition second" is being observed in all contests.

Socialist cultural revolution is class struggle in which the proletariat opposes the bourgeoisie and revisionism in the ideological and cultural spheres. Throughout the historical stage of socialism, classes, class contradictions and class struggle continue, the struggle between the socialist and the capitalist roads continues and the danger of capitalist restoration remains. Socialist cultural revolution is, therefore, a long-term task. It is in the course of constantly repudiating bourgeois and revisionist culture that China's socialist new culture flourishes and develops.

The movement to criticize Lin Piao and Confucius now going on throughout China is a political and ideological struggle of Marxism winning against revisionism, and of the proletariat winning against the bourgeoisie in the realm of the superstructure. The deepening of the movement is bound to further liquidate the poisonous influence of the Liu Shao-chi and Lin Piao counter-revolutionary revisionist line as well as the influence of the reactionary exploiting-class ideology as expressed in the doctrines of

Confucius and Mencius, consolidate and expand the gains of the Great Proletarian Cultural Revolution and propel China's socialist cultural revolution forward victoriously along Chairman Mao's revolutionary line.

## Revolution in Education

CHINESE reactionary rulers through many dynasties eulogized Confucius (551-479 B.C.) as the "most holy sage and master." He preached: "A good scholar will make an official." "Emolument will be found in learning," he said, and Mencius (c. 390-305 B.C.), who inherited Confucius' mantle, spread the reactionary theory that "those who work with their minds govern, while those who toil with their hands are governed." With these concepts both were straining every muscle and nerve to foster an intellectual aristocracy ruling and enslaving the broad masses of the labouring people. Until liberation, the Kuomintang reactionaries took over the doctrines of Confucius and Mencius and defended the reactionary tradition in education which had been handed down for more than 2,000 years since Confucius' time. At school they brought up young people with the preachment "A good scholar will make an official," and did their best to mould students into tools for their reactionary rule.

In this era when the proletariat and working people have risen as the masters of socialist new China, educa-

tion is fundamentally and totally different from that of the past. Our educational policy enables everyone who receives an education to develop morally, intellectually and physically, to become a worker with both socialist consciousness and culture. Its aim is to train the young people and bring them up as successors to the revolutionary cause of the proletariat.

In semi-colonial and semi-feudal old China, culture and education were extremely backward. The children who received schooling were mostly those of the landlord and bourgeois classes, while the workers and peasants were hard pressed to eke out a living, let alone send their sons and daughters to school. In those days over 80 per cent of the population at large were illiterate, the rate running to 95 per cent in the countryside.

Since the founding of new China, and especially in the Great Proletarian Cultural Revolution, education has expanded rapidly. Junior middle-school education is already universal in large and medium-size cities, and senior middle-school in some of them. In the countryside a universal five-year primary-school course is the rule and, where conditions permit, there is a seven-year combined primary and middle-school course. Figures for 1973 showed 5.7 times as many primary-school pupils as before liberation, 16.8 per cent more than in 1965 before the Cultural Revolution. The number of middle-school students was 23 times that before liberation and 3.7 times the figure before the Cultural Revolution. Higher education has also developed greatly. The number of students graduating from colleges in the 20 years from 1949 to 1969 was 11 times that in the 20 pre-liberation years under the Kuomintang.

As China's peasants comprise the overwhelming majority of her population, the spread of education in the countryside is a vital part of the over-all struggle against cultural backwardness. Besides state-run schools, those run by rural production brigades are encouraged. The state subsidizes their setting up and their teachers' salaries. This type of school is called a "state-subsidized school run by the people." The peasants show great initiative in running such schools, which have been an important vehicle in popularizing education. Various forms of schools and classes are set up in accordance with local conditions in the rural areas so as to enable the youngsters to help with farm work or household chores. There are concentrated, full-time regular primary and middle schools and scattered, non-regular village schools, and also morning, noon and evening classes. The forms of teaching vary according to conditions. In villages where the households are far apart, in mountain areas and grasslands, teachers make regular rounds to teach the children in village school or class. In pastoral areas the teachers go to the grazing grounds on horseback to teach, this form being known as the "mobile school for herdsmen." In fishing settlements there is the "floating school." In the fishing season the teachers follow the fleets out to hold classes during work breaks or evening hours. These different ways of bringing education to the doorsteps of the peasants, herdsmen and fisherfolk have greatly raised the rate of attendance by school-age children.

Education has also been greatly extended in areas where minority nationality peoples live in compact com-

munities. To train minority nationality personnel in all fields of work, colleges or nationality institutes have been set up in Inner Mongolia, Sinkiang, Tibet, Chinghai, Yunnan, the Kwangsi Chuang Autonomous Region and the Yenpien Korean Autonomous *Chou* in Kirin. Before liberation there were only two schools in Tibet, both for training officials—religious and lay—while the sons and daughters of the labouring people were denied the right to education. The region now has the Tibet Nationalities Institute at college level, a secondary normal school, 10 middle and more than 2,000 primary schools, with a total enrolment of about 124,000, mostly children of emancipated serfs who suffered oppression from serf-owners and lived virtually as slaves. Luchun County in Yunnan Province on China's border has a population 96 per cent minority nationality, including the Hani, Yi, Yao, Tai, Han and Kutsung peoples. Culture and education were shockingly backward in this area in the old days. For generations the broad masses of poor and lower-middle peasants could neither read nor write but recorded events by making notches on wood or knots in ropes. Education grew rapidly after liberation, and especially in the Great Proletarian Cultural Revolution. Sanmeng People's Commune of 84 production teams alone has 80 primary schools with the rate of attendance for school-age children rising from 26 per cent before the Cultural Revolution to over 90 per cent. Before liberation there was only one primary school in the entire Yellow Bordered Banner in Inner Mongolia. Now each of its 60 production brigades has a school while more than 200 settlements have school classes attended by all school-age children on the grasslands.

Socialist education serves proletarian politics and is combined with productive labour. The old educational system needed thorough transformation in the course of educational development.

Chairman Mao pointed this fact out soon after liberation, indicating that the old school education should be carefully and gradually reformed. Following that, he issued a series of directives concerning educational revolution, but his proletarian educational line was never really implemented until the Cultural Revolution began in 1966. The reason was that Liu Shao-chi and his like held the power in educational departments and pushed a revisionist educational line. The entire old educational system and old principles and methods of teaching remained virtually intact, prescribing a long period of schooling with many courses and centring on book knowledge. It took at least 16 years or even 20 to complete the courses from primary school to university, during which period students studied behind closed doors without ever seeing how workers worked, peasants farmed, or how commodities were exchanged. Such students could not serve the people well as they were divorced from the workers and peasants and from productive labour, had no notion of how the labouring people thought and felt, and lacked practical experience.

One of the most important tasks set for the Cultural Revolution was to change the old educational system and the old principles and methods of teaching. Chairman Mao said that the students' main task is to study, but they should also learn other things, that is to say they should not only learn from books but should also learn industrial and agricultural production and military affairs.

At the same time they should criticize and repudiate the bourgeoisie. The period of schooling was to be shortened, education to be revolutionized and the domination of China's schools and colleges by bourgeois intellectuals was not to be tolerated any longer.

The Great Proletarian Cultural Revolution smashed the control of Liu Shao-chi's counter-revolutionary revisionist line in education. Under the guidance of Chairman Mao's proletarian line in education the revolution in this field has been launched on an extensive scale in colleges, middle and primary schools throughout the country. Chairman Mao pointed out in good time: **"To accomplish the proletarian revolution in education, it is essential to have working-class leadership; the masses of workers must take part in this revolution and, in co-operation with Liberation Army fighters, form a revolutionary three-in-one combination with the activists among the students, teachers and workers in schools and colleges, who are determined to carry the proletarian revolution in education through to the end. The workers' propaganda teams should stay permanently in the schools and colleges, take part in all the tasks of struggle-criticism-transformation there and will always lead these institutions. In the countryside, schools and colleges should be managed by the poor and lower-middle peasants — the most reliable ally of the working class."** Under the unified leadership of Party committees at various levels, workers' Mao Tsetung Thought propaganda teams and poor and lower-middle peasant administrative committees have been active in guiding school cadres, teachers and students to study Marxism-Leninism-Mao Tsetung Thought conscientiously and constantly raise their consciousness of class

and line struggles. To enable them to contribute substantially to socialist revolution and construction, the school cadres, teachers and students are encouraged to receive re-education by the workers, peasants and soldiers and learn their fine qualities in the three great revolutionary movements of class struggle, the struggle for production and scientific experiment. On the basis of the past several years' experience the revolution in education has gone forward rapidly.

The period of schooling has been shortened from six to five years for primary school and from six to four or five years for middle school. Most college courses are of three years' duration. The teaching material has also been revised to satisfy the needs of socialist revolution and construction, and the method of college enrolment has been changed according to Chairman Mao's directive that students be selected from among workers, peasants and People's Liberation Army men with practical experience and that they return to production after a few years' study. This method is of far-reaching significance in creating a great contingent of working-class intellectuals, consolidating proletarian dictatorship and building socialism. Middle-school students do not as a rule enter college immediately upon graduation but are given at least two years of practical training on a farm, in a factory or a P.L.A. unit. Selection for college is made on the basis of performance in these units.

The old way of studying behind closed doors has been eliminated. Middle and primary schools are run in an "open-to-society" way, i.e., learning industrial and agricultural production and military affairs. Urban middle and primary schools keep in touch with nearby



factories as well as with suburban agricultural production brigades. Where conditions permit, the schools also run small factories or farms where the teachers and students join periodically in productive labour. Some basic knowledge is given of the work being done. Rural middle and primary-school pupils take part in physical labour in their own production brigades. And here, too, where possible, the schools run their own small farms or factories where the pupils learn the rudiments of industry and agriculture.

In many areas the "open-to-society" method of running schools is combined with the practice of working while studying, and students create material wealth for the state by engaging in both industrial and agricultural pursuits. This not only furthers Chairman Mao's proletarian educational line and the training of successors to the revolutionary cause but also reduces the expense of education on the state, collective or the people. It also promotes the popularization of schooling. An example is the Chulinghsia Primary School of Sungshan People's Commune in Popai County, Kwangsi Chuang Autonomous Region, which is run by three production brigades. The students' enthusiasm for physical labour has been stimulated since they started the work-study programme. The income from their work has gone into enlarging the school buildings and setting up a small hydro-power station. From the second term of 1967 tuition has been free and all primary school-age pupils are in school. The salaries of the three teachers, office expenditure, books and periodicals in this school are all met by the income from the students' part-time work.

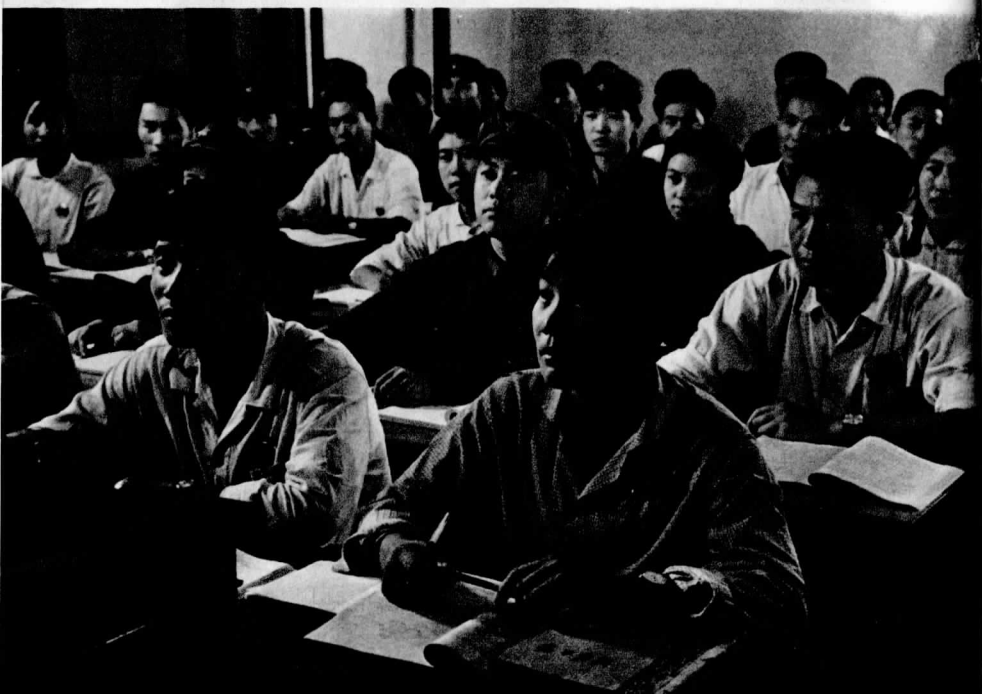


Pupils of various nationalities at the No. 6 Middle School, Urumchi, Sinkiang.



A worker with practical experience lectures in a college.

University students chosen from among workers, peasants and soldiers.



Middle-school pupils learn farming techniques.

"Tent classroom" for Tibetan children in a pastoral area.







An amateur music group composed of primary and middle-school pupils.

The achievements in the revolution in education in the institutions of higher learning are even more remarkable. Workers, peasants and soldiers go to university, take part in its administration and transform it with Marxism-Leninism-Mao Tsetung Thought, giving it an entirely new look. The new "three-in-one" combination of teaching, productive labour and scientific research is followed. Science and engineering colleges and universities adopting the "open-to-society" method of education maintain constant contact with factories where the teachers and students go regularly, teaching and learning as they work. This system has broken down the old way of teaching and learning in isolation from practice. Factories and universities co-operate in developing scientific research and technical innovation in order to foster the students' ability to analyse and solve problems on the basis of their practical experience. University-run factories have grown rapidly in the past few years and are already doing fairly well. Promoting the combination of teaching and productive practice has greatly raised technical level. New products of comparatively high standard include an integrated circuit electronic computer which performs a million operations per second produced by Peking University, a programme-controlled milling machine produced by Peking's Tsinghua University, a high-precision jig boring and milling machine produced by Tientsin University and electrolytic machine tools and a surface grinder produced by Hofei Engineering Institute in Anhwei Province. In the educational revolution science and engineering colleges and universities, having actively developed scientific research, have turned out a number of scientific and technical items of advanced standard and so made contributions to the state.

Among these are a condenser microphone of high intensity produced after successful research by Tungchi University in Shanghai and China's first single crystal furnace with hydraulic transmission produced as a result of research by Hopei Engineering College.

Agricultural colleges have moved to the countryside where teachers and students can more easily integrate theory with practice and combine scientific research with productive labour. Medical colleges, answering the needs of the countryside, organize teachers and students into mobile medical teams which go periodically to the countryside or mountain areas to prevent and cure disease for the peasants. The teachers and students practise, teach and learn, at the same time taking part in productive labour. Just as science and engineering college students often go to factories to do practical work, combining theoretical study with production, liberal arts students take society at large as their "factory," leaving the campus and plunging into social activity, investigating and studying social conditions while continuing theoretical studies.

Factories running colleges is a new thing born of the educational revolution. The "July 21" Workers' College run by the Shanghai Machine Tools Plant is an outstanding example. It enrolls workers with experience from that plant and other factories. They leave production for two or three years to acquire, on the basis of their practical experience, more knowledge in scientific and technological theories, and then return to production. This type of education is proving an important form in training technicians from among workers.

The first class of worker-peasant-soldier students graduated from various types of higher educational institutions in 1973. Proud and enthusiastic, they returned to practical work in the three great revolutionary movements (class struggle, struggle for production and scientific experiment). During their period of schooling they always gave first place to a firm and correct political orientation and, with their aim of studying for the revolution clear, they studied hard and persisted in combining theory with practice. Acquiring knowledge in a lively way, they were quickly enabled to analyse and solve problems with essential theoretical knowledge. Quite a number did well in the three great revolutionary movements while attending the college and after graduation. The first class of worker-peasant-soldier students at Tsinghua University engaged in a period of practical work preliminary to graduation in September 1973. Inspired by the movement to criticize Lin Biao and Confucius, they completed over 300 practical pre-graduation projects with encouraging results. Both their choice of subjects and depth of the work would have been inconceivable in pre-graduation projects at Tsinghua University before the Cultural Revolution. For instance, 68 graduates in the machine tools speciality of the precision instruments department, co-operating with the workers and technicians, designed in four months a major part of an important project — a large numerically controlled planer-type milling machine. Sweeping away every obstacle, eight students and five teachers in the underground architecture speciality of the architectural engineering department produced a practical design for an underground water-sealed oil tank, the first in China. Such accomplishments fully demonstrate the superiority

of proletarian education and as forcefully refute those reactionaries who try to negate the Cultural Revolution and the revolution in education, who advocate retrogression and restoration of the old order.

Since the movement to criticize Lin Piao and Confucius began, China's educational revolution has gone still deeper. Guided by Chairman Mao's proletarian revolutionary line and inspired by this movement, China's revolutionary teachers, students and cadres in the field of education will continually sum up experience and gain greater grasp of the characteristics and laws of the educational revolution so as to win still greater success.

## For the People's Health

**M**EEET the needs of the workers, peasants and soldiers; put prevention first; unite doctors of both Chinese and Western medicine, and integrate health work with the mass movement." Geared to this principle new China's medical and health service has made great progress in the 25 years since liberation. It has been further greatly strengthened in the rural areas since the Great Proletarian Cultural Revolution. A medical and health network covering both city and countryside is now taking shape, fundamentally changing the pre-liberation situation in which the working people had no access to doctors or medicines.

In semi-colonial and semi-feudal old China the Kuomintang reactionary government was completely indifferent to the health of the people. Sanitary conditions in town and country were appalling so that infectious and parasitic diseases were rampant. After the founding of the People's Republic the People's Government established epidemic-prevention stations throughout the country as well as border quarantine stations. Specialized institutions for preventing and eradicating endemic and

parasitic diseases were set up in areas affected by such diseases as snail fever (schistosomiasis) and kala azar, and effective measures were taken to treat patients already infected with these diseases and to check their spread by getting at the mode of transmission. Scourges such as smallpox, bubonic plague and cholera have been wiped out. As for endemic and parasitic diseases like Keshan disease,<sup>1</sup> Kaschin-Beck disease and snail fever, some have been brought under control while the spread and rate of occurrence of others have been drastically reduced.

In accordance with Chairman Mao's instruction: "**Get mobilized, pay attention to hygiene, reduce disease, improve health conditions,**" and the policy of "putting prevention first," the broad masses of the people throughout China are organized to participate regularly in patriotic public health campaigns centring around the elimination of pests and diseases. Today, such carriers of infectious diseases as flies, mosquitoes, bedbugs and rats have been greatly reduced in number, and people have generally formed the habit of paying attention to hygiene and cleanliness. Free universal vaccination and immunization against disease is carried out every year. The mass patriotic public health campaigns and the work of the medical and public health institutions have together successfully controlled infectious and parasitic diseases.

There were very few medical and health establishments in old China and they were concentrated in big

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<sup>1</sup> Keshan disease, named after the county in China's Heilungkiang Province where it was first detected, is a local disease whose cause is still unknown. It mainly affects the muscles of the human heart.

cities to serve a handful of wealthy people. In the pre-liberation year of 1947 there were, for instance, only some 60,000 hospital beds. Medical education was weakly based. In the 20 years between 1928 and 1947 China's medical colleges graduated only 9,000 students who joined those already congregated in the cities, leaving the vast countryside virtually without doctors and medicines. Since liberation, medical and health establishments and medical education have undergone a tremendous expansion. By 1973 there were already 21 times as many hospital beds as before liberation and 27 times as many medical college graduates as in the 20 years before liberation. In addition, a million "barefoot doctors" and several million health workers and midwives who at the same time participate in everyday productive work had been trained in the rural people's communes. Together with the full-time medical workers, these paramedical people protect the health of China's peasant masses.

In areas inhabited by minority nationalities the change is even more noteworthy. The number of state-run medical and health establishments in the Inner Mongolia Autonomous Region had by 1973 increased from 29 at the time of liberation to over 580. Hospitals, epidemic-prevention stations, health centres and pharmaceutical establishments have been set up in the capital of the autonomous region and in each banner and county there. Every commune now has its own clinic. In the past Tibet had only one hospital which served the feudal serf-owners while generation after generation of poor Tibetan peasants and herdsmen led a miserable life without any sort of medical care. After Tibet's liberation in 1951 the People's Government sent large numbers of medical per-



sonnel there to give free treatment, at the same time setting up hospitals in Lhasa, Shigatse, Chamdo, Gyantse, Yatung and other cities and towns. Now, in addition to the 12 general hospitals in the prefectures and cities, there are hospitals or clinics in every one of the more than 70 counties of the Tibet Autonomous Region. Many of the districts, communes and townships also have their own clinics. Medical schools and colleges in Peking, Lanchow and Chengtu, and the medical class in the Tibet Nationalities Institute have trained over 400 Tibetan medical workers. At the same time more than 4,000 "barefoot doctors" and health workers have been trained from among the sons and daughters of peasants and herdsmen, making up an important force on the Tibetan medical and health front.

To better ensure the health of the working people the Chinese government in 1951 adopted a series of labour insurance regulations entitling factory workers and staff members to free medical care, while their dependents are given a 50 per cent reduction in medical fees. From 1952 free medical care has covered personnel in the government offices and other organizations, students, teachers and other staff members in the universities and colleges, and teachers and other staff members in the middle and primary schools. Since the Cultural Revolution a system of co-operative medical care has been operating in most of the production brigades of the rural people's communes. Under this system each commune member contributes one or two yuan a year as the co-operative medical fund, which is at the same time subsidized from the brigade's accumulated funds. The commune member then pays only a three to five fen registration fee for

complete medical care at the health station or clinic. This measure of preventing and treating diseases is welcomed by the peasants. In Tibet, the free medical care which has been in effect ever since its liberation has gone a long way towards ensuring the health of the people in general and of the women and children in particular. In the old days, Tibetan slave women gave birth in a cowshed or sheepfold and the infant mortality rate was very high. Today, hospital delivery is free, or a doctor is available if the mother prefers to have her baby at home. Statistics of the region's People's Hospital gynaecological and obstetrical department show an infant survival rate of 98 per cent. With the improvement in the health of the Tibetan people the population of the region has increased by 200,000 since the Democratic Reform in 1959.

Acting on Chairman Mao's instruction: "**In medical and health work, put the stress on the rural areas,**" the provinces, municipalities and autonomous regions have since the Cultural Revolution augmented and strengthened medical and health establishments in the countryside by large allocations of man-power and material and financial resources, bringing about further improvement in the medical and health work there. The number of medical personnel in Sinkiang's Kezlesu Khalkhas Autonomous *Chou*, for example, is five times that before the Cultural Revolution, hospital beds are six times as many, and medical allocations for the rural and pastoral areas have more than doubled. Medical teams organized by hospitals in the big cities go to villages, factories and mines and frontier areas by turn and at regular intervals to give treatment. By the end of 1973 over 100,000 medical workers had gone to grass-root units, most of them

settling down in the countryside, and mobile medical teams involving 800,000 person-trips had visited rural areas. With full-time medical personnel living and working in the countryside or joining mobile medical teams, the training and improvement in rural "barefoot doctor" service have been greatly speeded up. Full-time medical personnel and part-time "barefoot doctors" join forces in ensuring the health of the peasants.

Chinese medicine and pharmacology are a great treasure-house. They are the crystallization of the people's rich experience in their ages-long fight against disease and illness. Before liberation the Kuomintang reactionary government, however, rejected and attacked this precious cultural legacy and laid their hand of death on it. Since liberation, China's medical workers have followed Chairman Mao's instructions and made big headway in exploring and sorting out Chinese medicine and pharmacology and in raising them to a higher level. The traditional Chinese therapeutic acupuncture and moxibustion<sup>2</sup> are widely used and developed. The use of Chinese herbal medicine in preventing and curing diseases is now common both in city and countryside. Chinese medical workers follow the policy of "combining Chinese and Western medicine," which has proved the correct way to developing traditional Chinese medicine on modern lines. Practice shows that better and faster results can be obtained in treating many diseases by using both methods in combination than by applying the Western method

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<sup>2</sup> Acupuncture and moxibustion are two methods of medical treatment, the first by inserting needles under the skin, the second by applying a cylinder of burning moxa leaves near the body. In both, the spots for application must be precisely chosen according to the disease.

alone. Examples are acute abdominal conditions, fractures and pneumonia. A Tientsin hospital which since 1958 has used the combined method in treating more than 13,000 cases of fracture of the limbs found that, compared with fractures treated by the Western method of plaster immobilization, those treated by the combined method healed in a third to a half less time. Today the method of combining Chinese and Western medicine in diagnosis and treatment is widely used in clinical practice in the medical, surgical and other departments of many hospitals.

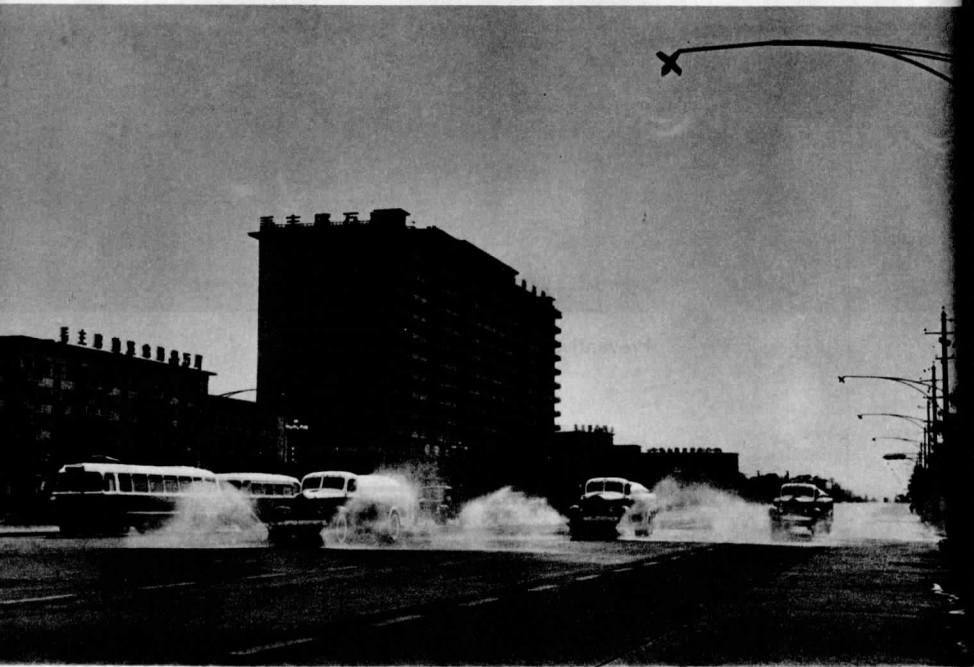
Much has been done also in medical research over the past 25 years. Reinforcing the work done in the more than 100 medical research institutes, research work is also being carried out in all large hospitals, epidemic-prevention stations and medical colleges. The principle of serving the vast majority of the people is adhered to in this sphere of endeavour and emphasis placed on the common and recurrent diseases, endemic and infectious diseases, and those most harmful to the people's health. At the same time, advanced studies are being conducted into, e.g., the theory of acupuncture and moxibustion, and research in cancer and other not yet controlled or understood diseases. The healing of burns covering a large area of the body surface, the rejoining of severed limbs, fingers and toes, acupuncture anaesthesia, and the designing and making of a successful artificial larynx are some of the achievements in recent medical research. Acupuncture anaesthesia is achieved by inserting and manipulating one or more needles into one or more points of the patient's body. Analgesia follows a period of inducement and stimulation, allowing the operation to proceed while

the patient is fully conscious. This method has been developed by doctors of the Western school of medicine in the course of learning from the traditional Chinese school. It, too, is an example of combining the two schools, and the scope of its application is being continually enlarged. To date, it has been safely and effectively applied in operations on the head, chest, abdomen and limbs. Incomplete statistics compiled in 1973 show that anaesthesia by acupuncture was applied in many more kinds of major and minor operations for 600,000 patients. About 90 per cent of all surgical patients responded to this new anaesthesia. Chinese medical personnel are doing further research into the theory concerning anaesthetization by acupuncture on the basis of clinical experience in the past dozen years so as to perfect this method of controlling pain.



Preventive inoculations are free.

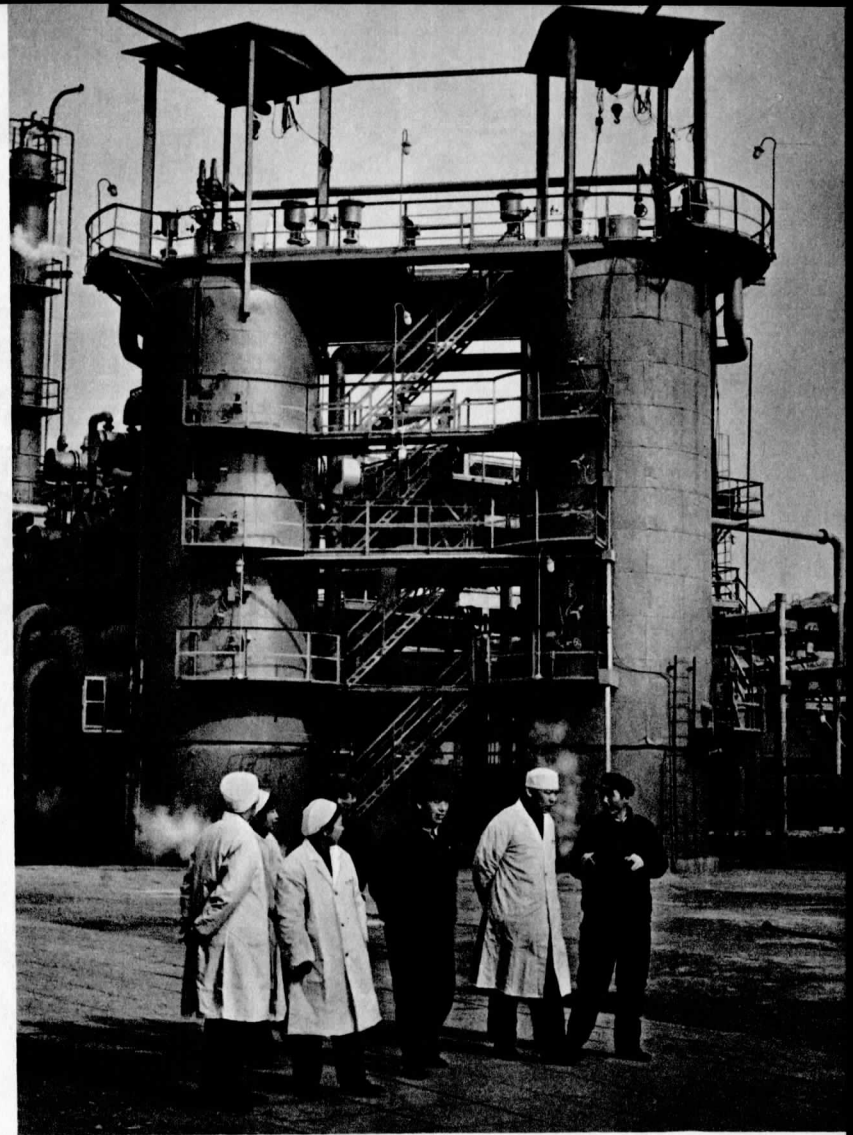
Street sprinkling.



Medical teams make regular rounds of the countryside.



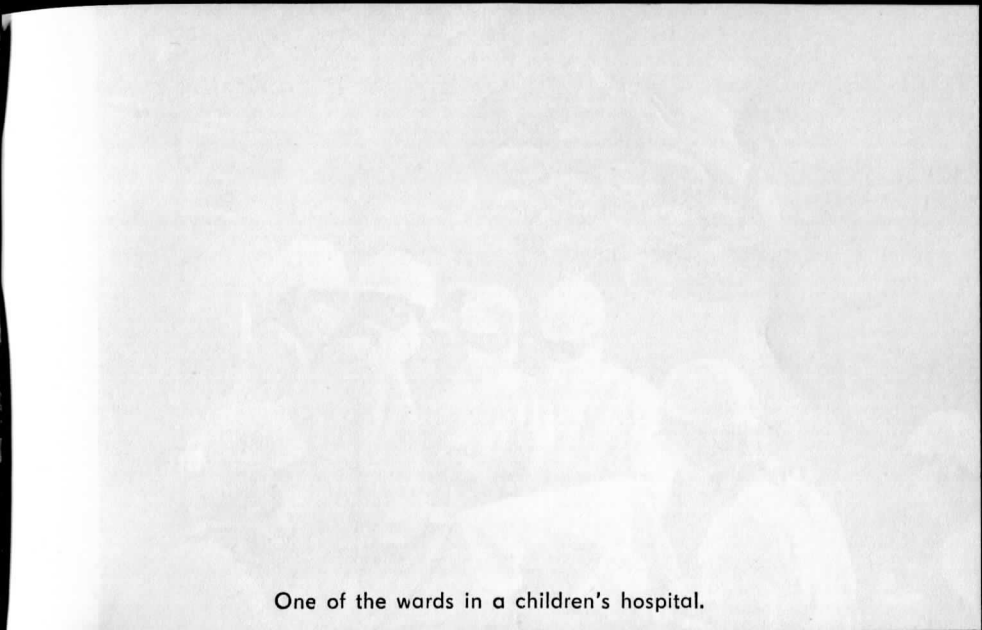
"Barefoot doctors" do farm work with commune members.



Medical workers examine environmental hygiene in a factory.



A workers' sanatorium.



One of the wards in a children's hospital.



Patients sitting up in their beds in a hospital ward.



Performing stomach surgery under acupuncture anaesthesia.

## Flourishing Socialist Literature and Art

CHAIRMAN MAO'S *Talks at the Yen-an Forum on Literature and Art* in 1942 and other relevant instructions point the direction for China's socialist literature and art: to serve the workers, peasants and soldiers. They set forth a comprehensive proletarian revolutionary line for literature and art. The *Talks*, embodying and developing the Marxist world outlook and theory on literature and art, are a powerful ideological weapon in the struggle against various shades of opportunist trends of thought and also in the movement to criticize Lin Piao and Confucius now going on throughout the country.

After the birth of new China Chairman Mao put forward the policy for literature and art of "letting a hundred flowers blossom; weeding through the old to bring forth the new" and "making the past serve the present and foreign things serve China." This is a policy for developing China's literature and art and promoting the progress of science; it is a policy for enriching her socialist literature and art. It calls for free development

of various art forms and styles and requires that the best in the legacy of past literature and art, both Chinese and foreign, be critically taken over and drawn upon while creating for the socialist era a new, proletarian literature and art with national characteristics. This policy is now guiding China's proletarian literature and art along the path of vigorous development.

Following the progress of creative work in socialist literature and art, the integration of revolutionary realism with revolutionary romanticism is encouraged so as to enable literature and art better to serve the workers, peasants and soldiers. This method opens a broad vista for creative work in China's socialist literature and art.

**"In the world today all culture, all literature and art belong to definite classes and are geared to definite political lines."** The struggle between political lines invariably finds its reflection, first of all, on the ideological-cultural front. Since the founding of the People's Republic there has always been fierce two-line struggle on this front.

Chairman Mao has always paid great attention to the class struggle in the ideological field. From the early days of liberation he has personally initiated and led a series of major struggles in the ideological-cultural sphere: the criticism of the reactionary film *The Life of Wu Hsun* and the Hu Shih school of subjective idealism, the struggle against the Hu Feng counter-revolutionary clique and the bourgeois Rightists and, more recently, at the outset of the Cultural Revolution, the criticism of the reactionary historical play *Hai Jui Dismissed from Office*. In the course of these struggles the

counter-revolutionary Chou Yang and the other three of "the four villains" *et al.* hidden in the revolutionary ranks came into the open one after another at the bidding of their chieftains Liu Shao-chi, Lin Piao and other political swindlers to make mad counter-attacks on Chairman Mao's revolutionary line. Utilizing the portion of power they had usurped, they opposed the orientation of literature and art serving the workers, peasants and soldiers. They also resisted and undermined Chairman Mao's revolutionary line on literature and art by putting up a big show of feudal, bourgeois and revisionist counterparts. Every one of these struggles reflected sharply the clash between the proletariat and the bourgeoisie and the two opposing political lines they pushed in each historical period.

The Great Proletarian Cultural Revolution smashed the counter-revolutionary revisionist line of Liu Shao-chi, Lin Piao and their like so that profound changes have taken place in the whole sphere of China's culture, including literature and art. The revolution exemplified by the model revolutionary theatrical works has opened a wide road for developing and enriching the creative work in socialist literature and art.

Throughout the historical period of socialism there are still classes, class contradictions and class struggle and the struggle between the socialist and the capitalist roads, and there exists the danger of capitalist restoration. The overthrown reactionary classes will not take their defeat lying down but will try every day and every minute to stage a comeback. They have viciously attacked the Cultural Revolution, trying to negate the revolution in literature and art, the model revolutionary theatrical works

and the orientation of literature and art serving the workers, peasants and soldiers, so as to reverse the verdict on the counter-revolutionary revisionist line on literature and art. The current movement to criticize Lin Piao and Confucius marks a deepening of China's socialist revolution and is a political and ideological struggle of Marxism winning against revisionism, of the proletariat winning against the bourgeoisie in the realm of the superstructure. This struggle has great practical and far-reaching historical significance to the consolidation of the dictatorship of the proletariat and to the prevention of capitalist restoration. In the sphere of literature and art this great struggle means to firmly persist in the correct orientation of serving the workers, peasants and soldiers, to defeat the revisionist line with the proletarian revolutionary line and so to carry the proletarian revolution through to the end. Literature and art form an important aspect in the ideological-cultural field where, long dominated by the exploiting classes, the various reactionary ideologies handed down through the generations from Confucius to Lin Piao have deep influence. It is therefore an important task of the present movement to thoroughly discredit their reactionary conception of literature and art. With the workers, peasants and soldiers as the movement's main force, Lin Piao's criminal attempt to restore capitalism by following the Confucian doctrine of "restraining oneself and returning to the rites" and his all-round revisionist line as well as the manifestations and influence of the revisionist line in the literature and art field have been further repudiated, dealing a powerful blow to the handful of class enemies who attack and slander the revolution in literature and art.

The revolution in Peking opera under the guidance of Chairman Mao's revolutionary line on literature and art completely ended the domination of the stage by emperors, kings, generals, ministers, scholars and beauties, so that the heroic workers, peasants and soldiers have supplanted them in the spotlight. Following the direction of literature and art serving the workers, peasants and soldiers and serving proletarian politics, and combining revolutionary realism with revolutionary romanticism, the modern revolutionary Peking operas born in the revolution in Peking opera take their themes from real life but are elevated above real life. They successfully moulded the brilliant images of such proletarian heroes as Li Yu-ho, Yang Tzu-jung, Kuo Chien-kuang, Fang Hai-chen, Yen Wei-tsai, Chiang Shui-ying, Hung Chang-ching, Chao Yung-kang and Ke Hsiang.

Adhering to the Party's basic line for the historical period of socialism and taking their themes from worker, peasant and soldier life, the modern revolutionary Peking operas reflect the Chinese people's revolutionary struggles under the leadership of the Chinese Communist Party and their great leader Chairman Mao; they praise the magnificent deeds of the worker, peasant and soldier masses in making history. To successfully portray worker, peasant and soldier heroes, conventionalized tune-patterns fitting feudal characters have been replaced by new ones in which the music is positive, militant, invigorating and beautiful, more suited to the depiction of the socialist era's new people and new ideas. To express the new content, modern revolutionary Peking opera still uses traditional instruments but has introduced some Western instruments and drawn on the merits of

Western symphony. This has helped create a new orchestra for Peking opera, one having the distinctive characteristics of the era, strong Chinese flavour and rich symphonic style. Dance movements have been refined from real life and useful ones assimilated from the old Peking opera, creating for modern revolutionary Peking opera a new dance style. Among the new productions of the past few years are *The Red Lantern*, *Taking Tiger Mountain by Strategy*, *Shachiapang*, *On the Docks*, *Raid on the White Tiger Regiment*, *Song of the Dragon River*, *Red Detachment of Women*, *Fighting on the Plain* and *Azalea Mountain*. While preserving Peking opera features these outstanding works bring out the socialist new. They have won the enthusiastic acclaim of the worker, peasant and soldier masses.

Inspired by the revolution in Peking opera, the revolution in ballet and symphony has also achieved good results. Applying the principle of **"making foreign things serve China,"** literary and art workers have successfully adapted these two forms of art for reflecting the contemporary fighting life of revolution and portraying worker, peasant and soldier heroes. In transforming such a classical art form as ballet, they have developed and made use of such movements as rise on points, leaps and turns. They have also adapted dance movements from real life and borrowed and assimilated useful elements from the Chinese classical dance, folk dances, *wu shu* (traditional military arts) and traditional operas. Through repeated artistic practice, they have enriched the techniques of characterization of the ballet and infused it with national flavour. Examples of this artistic practice are the modern revolutionary ballets *Red Detachment of Women*, *The*

*White-Haired Girl*, *Song of Yimeng Mountain* and *Sons and Daughters of the Grasslands*. In the field of revolutionary symphonic music such fine works as *Shachiapang* and *Taking Tiger Mountain by Strategy* have been created in the recent few years; the piano composition *The Red Lantern* with Peking opera singing and the piano concerto *The Yellow River* are other musical creations.

The successful creation of these model revolutionary theatrical works is the practical embodiment of Chairman Mao's revolutionary line on literature and art. It provides rich experience in persistently serving the workers, peasants and soldiers as the orientation of literature and art, in moulding heroic proletarian characters, and in taking over and drawing from the fine artistic legacies of China and other countries — for the sole purpose of creating a socialist new literature and art. With the production of the model revolutionary theatrical works leading off in the Cultural Revolution, literary and artistic creation on a mass scale is beginning to flourish in China. A number of excellent or fairly good examples have appeared on the dramatic stage (including local operas), in films, music, the dance, fine arts, literature and other fields of art. The contingents of the proletarian revolutionary literature and art workers grow and mature as they integrate with the workers, peasants and soldiers. Socialist literary and artistic works flourish like a hundred flowers blossoming.

Popularization of the model revolutionary theatrical works has led to vigorous mass creation of literary and artistic works by amateurs in factories, villages and army units. With literature and art as a powerful weapon for



uniting and educating the people and for attacking and destroying the enemy, workers, peasants and soldiers have produced a great many militant works featuring the present era. They penetratingly reflect the tremendous changes brought about by the Cultural Revolution in the political, ideological and economic spheres and highlight the noble communist thinking and spirit of worker, peasant and soldier heroes. Most of the works by amateurs in factories, villages and army units are posted on blackboards and wall newspapers, which are popular in these places. Rich and lively in content and varied in form, they comprise short, incisive articles and poems and drawings in various styles.

In the past few years local newspapers and publishing houses have carried or published a great number of literary and artistic works by workers, peasants and soldiers. Over half of the pieces appearing in *Morning Light*, the first volume of *Shanghai Literary Series*, were written by workers and all of the 17 short stories in the collection entitled *A Young Pathbreaker* are the creations of young workers. The fisherman-singer Li Yung-hung at Paiyang Lake in Hopei Province wrote the long revolutionary story *Winged Soldiers on Paiyang Lake* depicting the anti-Japanese armed struggle of the local people under the leadership of the Communist Party. The Chinese painting *Old Party Secretary* done by Liu Chih-teh, secretary of the third brigade Party branch of Chintu People's Commune in Huhsien County, Shensi Province, vividly portrays the spirit of an old Party secretary who earnestly studies Marxism-Leninism-Mao Tsetung Thought. Kao Hung, a woman soldier in the weather forecast station of an army unit, wrote the one-act play *Before a Thunder-*



Piano concerto *The Yellow River*.



Scene from the modern revolutionary ballet *Red Detachment of Women*.



Scene from the feature film *Fiery Years*.



Scene from the *pingchu* opera, *Hsiangyang Store*.

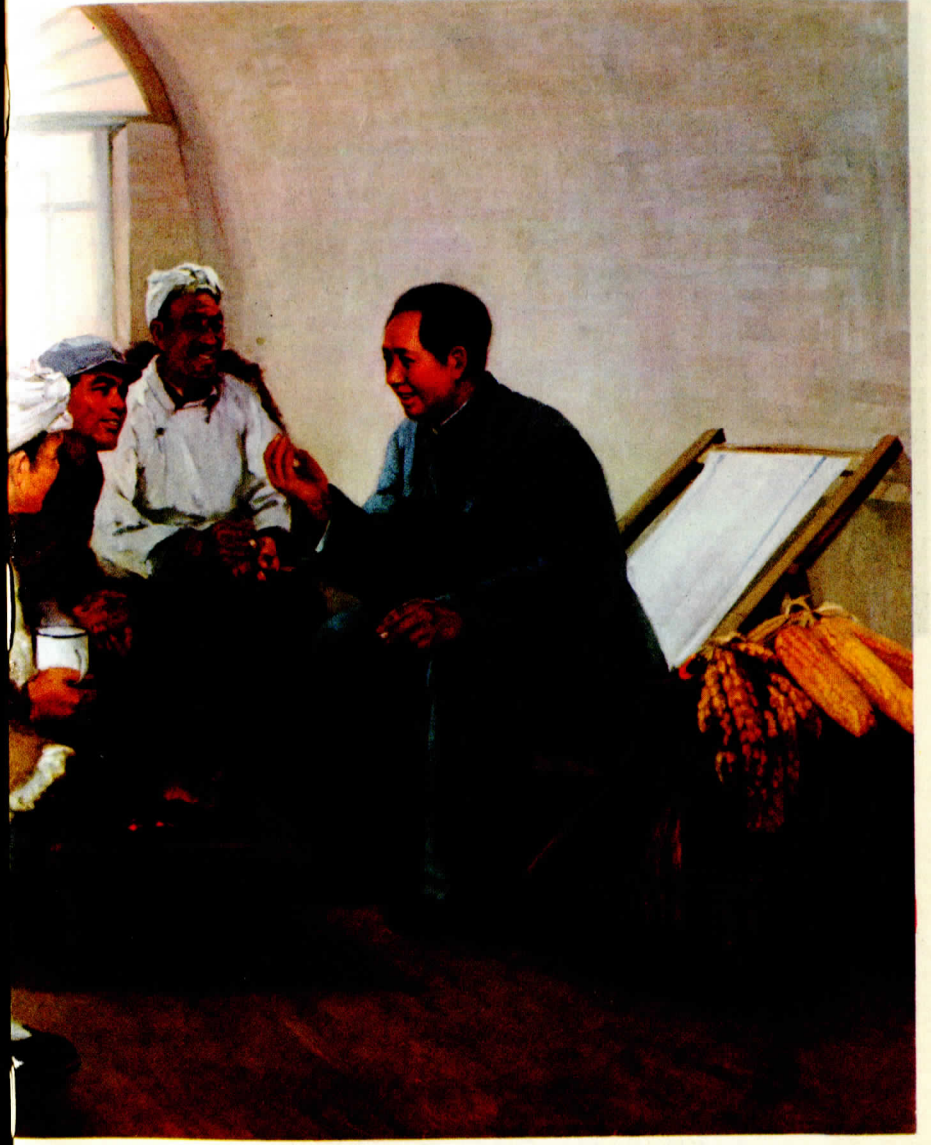


Scene from the modern revolutionary Peking opera *Song of the Dragon River*.

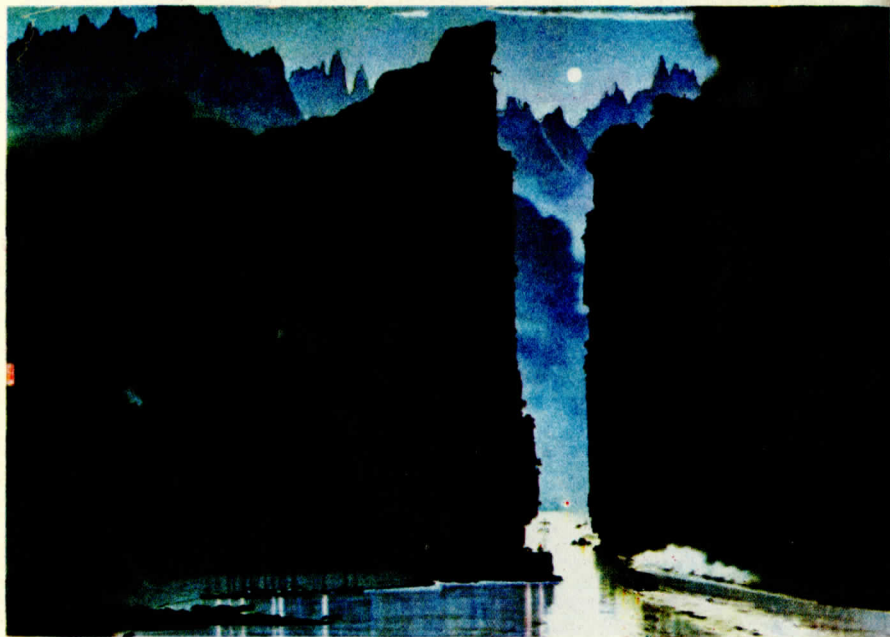
An amateur song and dance troupe performing for Tibetan peasants.







"Chairman Mao Is of One Heart with Us"  
(oil painting) by Chin Wen-mei.

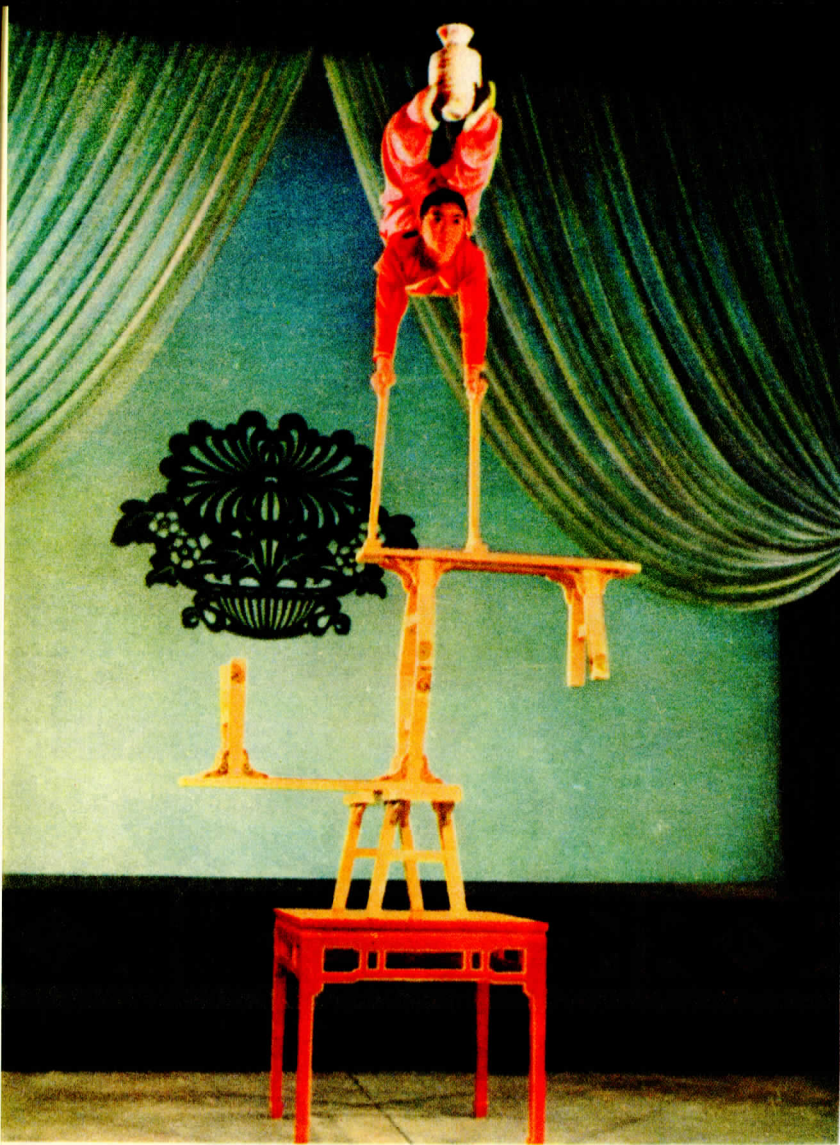


"Night Voyage Through the Yangtze Gorges"  
(painting in the traditional Chinese style) by Li Hu.

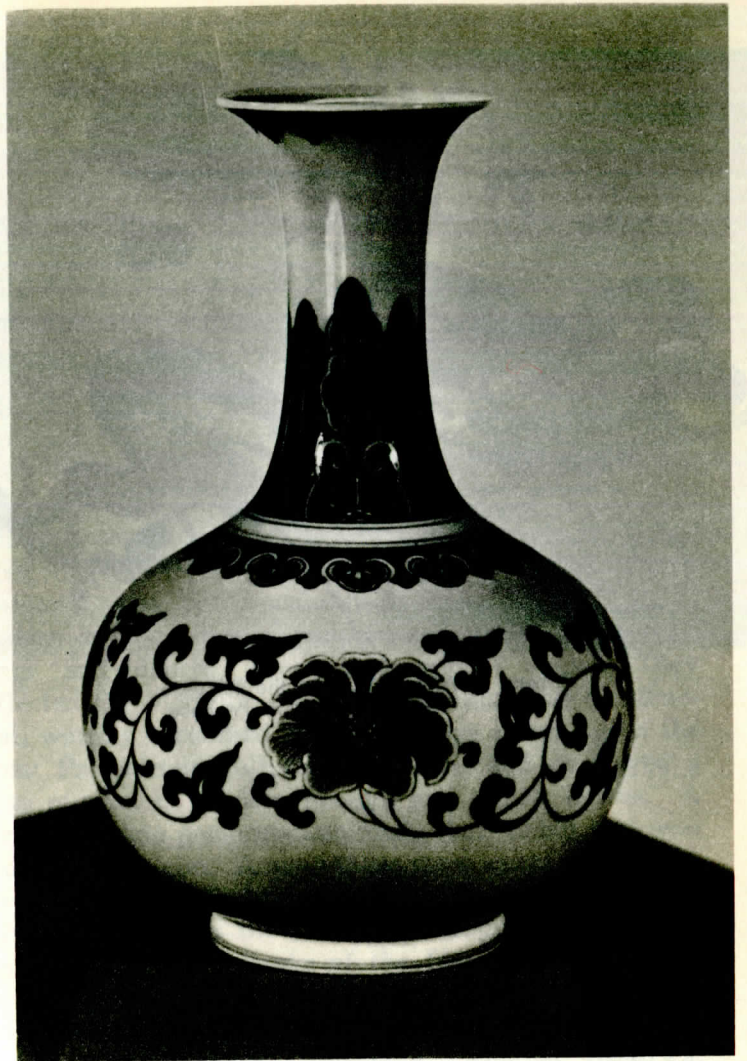


"Old Party Secretary" (peasant painting of  
Huhsien County, Shensi Province) by Liu Chih-teh.





Acrobatics, pagoda of bowls.



Porcelain vase (*blue and white*) by the Chingtehchen Ceramics Research Institute.



Prawns (*shell carving*) by the Tsingtao Shell Craft Factory, Shantung Province.

*storm* depicting the life of army meteorological workers in a highland region.

Worker, peasant and soldier amateur literature and art propaganda teams active in factories, villages and army units also composed and put on many music, dance and *chuyi* (balladry, story-telling and cross-talk) performances. For May Day and National Day celebrations in the parks of Peking and other places a great many performances are given to review the amateur creations of workers, peasants and soldiers.

In the excellent situation of the revolution in literature and art being crowned with successes, the North China Theatrical Festival was held to coincide with the Spring Festival of 1974. Participating in the festival were troupes from the cities of Peking and Tientsin, the Inner Mongolia Autonomous Region and Hopei and Shansi provinces, the performances including Peking opera, modern drama, *pingchu*, *pangtzu* and other local operas, songs and dances, *chuyi* and puppet shows. They reflected the vigorous socialist revolution and construction, warmly acclaimed the new things emerging in the Great Proletarian Cultural Revolution and portrayed a large number of worker, peasant and soldier heroes. A number of fine performances made their debut and won wide mass acclaim. Among these were songs and dances performed by Inner Mongolia's *Ulanmuchi* ("mobile red cultural troupe" in the Mongolian language), the modern dramas *On the Banks of the Liehma River* and *In the Prime of Youth*, the *pingchu* opera *Hsiangyang Store*, the *yingtiao* opera *Swallows Braving the Storm* and the operetta *Demarcate the Line*. Another theatrical festival of troupes from Shanghai, the Kwangsi Chuang

Autonomous Region and Hunan and Liaoning provinces was held in the autumn of 1974. The performances reflected on a wider scale the socialist revolution and construction on various fronts, works focussing on China's revolutionary history forming a big part of the repertoire. They were in the form of Peking opera, modern drama, local operas, singing, dancing and *chuyi*. Some were long, some were of medium length and others were short, but all showed the characteristics of various nationalities and different areas and were in a variety of artistic styles. Every troupe had its local opera adaptation of one of the model revolutionary theatrical works. This is an important aspect of the revolution in literature and art, not only popularizing the model revolutionary theatrical works but also promoting the reform of local operas and bringing the model revolutionary theatrical works into fuller play in performing their fighting function. The study and adaptation of model revolutionary theatrical works add new colour to the various local operas. Many local adaptations such as the Hunan *huaku* opera *Shachiapang* and the *pingchu* opera *Song of the Dragon River* enjoy wide popularity among workers, peasants and soldiers.

During the festival a number of good or fairly good new works appeared. These were the modern revolutionary Peking operas *Panshih Bay*, *Trial of a Chair* and *Battle Against Sea Waves*, the modern dramas *Battle in the Shipyard*, *Maple Bay* and *The Mountains in Uproar*, and songs, dances and *chuyi*, all of which were well received by worker, peasant and soldier audiences. These two theatrical festivals are highly significant for helping further to implement Chairman Mao's revolutionary line

on literature and art, spur the revolution in literature and art and enrich socialist literary and artistic creation.

As for film art, more model theatrical works have been screened in colour in recent years, not only further popularizing these theatrical works among the worker, peasant and soldier masses but also adding to the experience in portraying proletarian heroes through the medium of films. Produced after learning from the experience in creating and filming the model revolutionary theatrical works were a number of motion pictures symbolizing the new gains of the proletarian revolution in literature and art. They were the colour feature films *Fiery Years*, *Bright Skies*, *Pine Ridge*, *Bright Red Star* and the wide-screen colour feature *Fighting North and South*. Against the background of the fierce struggles on the industrial and agricultural fronts in the socialist era, or of revolutionary historical struggle, these films successfully portray the heroic images of Chao Szu-hai, Hsiao Chang-chun, Chang Wan-shan, Pan Tung-tzu and people's army officers and fighters. The successful screening in colour of the Kwangtung opera *Shachiapang* is another flower in the bouquet of adapting model revolutionary theatrical works. Other films, such as the colour animated production *Bugle Boy*, the colour animated papercut picture *Children's Patrol of the East China Sea* and the colour puppet show film *Little Eighth Route Armyman*, are warmly acclaimed by workers, peasants and soldiers, and especially the youngsters.

In fine arts, the National Fine Arts Exhibition, National Photographic Exhibition, National Exhibition of Chinese Paintings and Serial Pictures, and the Exhibition of Paintings by Peasants of Huhsien County have been



held in Peking in the last two years in which were displayed a large number of photographic and art works by amateur worker, peasant and soldier artists as well as by professionals. Full of political enthusiasm and clear and bright in colour, these works presented the grandeur of China's socialist revolution and construction and truthfully portrayed daring workers, peasants and soldiers. The paintings by peasants of Huhsien County in Shensi Province are marked by their clear-cut, profound proletarian political content and an original revolutionary style. They bring forth in bold strokes the wisdom and talent of the working people. Their own masters now, the Huhsien poor and lower-middle peasants have taken up the brush to step onto the stage of socialist literary and artistic creation. Linking painting art closely with the three great revolutionary movements — class struggle, the struggle for production and scientific experiment — these peasant-artists have set an example for their professional counterparts to make art serve proletarian politics and socialism.

The last few years have also brought new successes in literature by amateur worker, peasant and soldier, and professional writers. A great number of literary works have appeared in newspapers, especially in the comprehensive literature and art magazines sponsored by provinces, cities and autonomous regions. *Battle of the Hsisha Archipelago*, reportage in verse by Chang Yung-mei, and *Sons and Daughters of Hsisha*, a medium-length novel by Hao Jan, are new successful works. In the first, the author Chang Yung-mei with full political enthusiasm succeeds in portraying the proletarian heroes who dare to fight back against aggression and are good at it, ex-

pressing the iron will of the Chinese people who are not to be bullied and whose soil and territorial waters are not to be invaded. The novel by Hao Jan takes as its background the struggle of the South China Sea people's armed forces led by the Communist Party of China against Japanese imperialism. It tells how the courageous Hsisha fishermen fought in defence of their island and against a local traitor despot and the Japanese invaders. The author succeeds in bringing out the image of the proletarian revolutionary hero Cheng Liang, and extolling Chairman Mao's revolutionary line. Novels by both professional and amateur worker, peasant and soldier writers published so far include *The Bright Road* by Hao Jan, *Journey to the Future* by Kuo Hsien-hung, *The Mountains in Uproar* by Li Yun-teh, *Snow Ushers In Spring* by Chou Liang-szu and *Battle in Wumingchuan* by Cheng Chih. Among books for young people are *Bright Red Star* by Li Hsin-tien, *Red Rain* by Yang Hsiao and *Red Tassel of the Battlefield* by Shih Wen-chu. Short story collections include *A Young Pathbreaker*, *Story of Red Pine Village*, *Resonant Bugle Call* and *In Bright Sunshine*. Among the collections of reportage articles are *Spring Comes to Phoenix Hill* and *People with the Red Sun in Their Hearts*. Poetry anthologies include *Spring Comes for Salt Workers* and the minority nationality *Songs of Praise Soar to Peking*.

The publication of *New Songs of the Battlefronts* in three separate volumes is another achievement in this field. The volumes contain more than 300 fine revolutionary songs composed since the Cultural Revolution by worker, peasant and soldier amateurs as well as professionals. The publication of these songs indicates the

flourishing literary and artistic creation brought about by the Cultural Revolution and the rich results in music achieved from implementing Chairman Mao's revolutionary line.

The works of Lu Hsun (1881-1936), great Chinese writer, thinker and revolutionary, have been published in large quantities in new China. In recent years *Collected Works of Lu Hsun* has been reprinted (altogether 20 volumes, the first 10 original works and the rest his translations). Another 20-some of his works have been published in pamphlet form, including *Essays of Chieh-chieh-ting*, *Semi-Frivolous Talk*, *Bad Luck*, *A Brief History of Chinese Fiction*, *Call to Arms* and *Wandering*.

In classical literature famous masterpieces such as *Dream of the Red Chamber*, *Heroes of the Marshes*, *Romance of the Three Kingdoms* and *Pilgrimage to the West* have been republished. Also published are Chang Shih-chao's *Principal Points of Liu Tsung-yuan's Writings*, a specialized work devoted to the study of the thinking and writing of this celebrated Tang Dynasty writer; and Kuo Mo-jo's *Li Po and Tu Fu*, a treatise on these two famous poets of the Tang period.

China's arts and crafts have a history of several thousand years. As far back as the Stone Age painted pottery had already reached high artistic level. After liberation, especially since the Cultural Revolution, handicraft artists have combined contemporary creation with inheritance of traditional techniques. In creative work they have made use of the artistry of ancient times while discarding the reactionary, decadent, feudal and superstitious elements. Many of their recent productions in carving,

embroidery, lacquer, basketry, pottery and porcelain are wholesome in theme, of excellent workmanship and economical and practical for daily use. The National Exhibition of Arts and Crafts held in Peking in 1972 indicated the achievement in this sphere.

China's 2,000-year-old acrobatic art was given new life at liberation and has shown great development since. With the innovations and improvements introduced during the Cultural Revolution Chinese acrobatics has presented new, healthy, graceful performances with national flavour. The performances have won the warm praise of the Chinese and other peoples of the world.



## Developments in Science and Technology

C HINA had in the past made considerable contributions to mankind in the development of science and technology. In the last century, however, she was dragged behind in this field by imperialist aggression and the corruption of the reactionary governments of old China.

Since liberation the Party and government have paid great attention to promoting science and technology. They have drawn up long-term plans, appropriated large funds and established many scientific research institutes. At present, apart from the Chinese Academy of Sciences, there are the Chinese Academy of Medical Sciences, the Chinese Academy of Agricultural and Silvicultural Sciences and other research institutes of the natural and social sciences. Scientific research organizations have also been set up in the provinces, municipalities and autonomous regions, while in institutions of higher learning research work is combined with teaching.

Over the past quarter-century fierce two-line struggle has permeated the realm of science and technology. Chairman Mao has formulated the policy of **“maintaining independence and keeping the initiative in our own hands and relying on our own efforts”** and the mass line for the development of science and technology. But prior to the Great Proletarian Cultural Revolution, Liu Shao-chi, the renegade, hidden traitor and scab, and his agents in the departments of science and technology, taking advantage of the power they had usurped, peddled the concept of “going at a snail’s pace” and “slavish comprador philosophy.” Pushing a revisionist line, they sought to block and disrupt the application of Chairman Mao’s revolutionary line. During the Cultural Revolution the revisionist line of Liu Shao-chi and Lin Piao was repudiated. Guided by Chairman Mao’s revolutionary line, the Chinese people and the broad masses of revolutionary scientific and technological workers overcame the interference and disruption caused by the revisionist line and considerable progress has since been made in this field.

Mass participation in scientific experiments is a salient feature of China’s scientific and technological progress. Chairman Mao has pointed out: **“The masses have boundless creative power.”** In socialist China science and technology have been wrenched from the hands of the few to become powerful tools in the hands of the working people with which to remake nature and reconstruct their country. The government attaches great importance to the training of scientific and technological personnel and provides good conditions for this. Valuable results have come in scientific research work from following the



Chinese mountaineers and scientists conducting scientific researches in the Mount Jolmo Lungma area in the Himalaya Mountains.





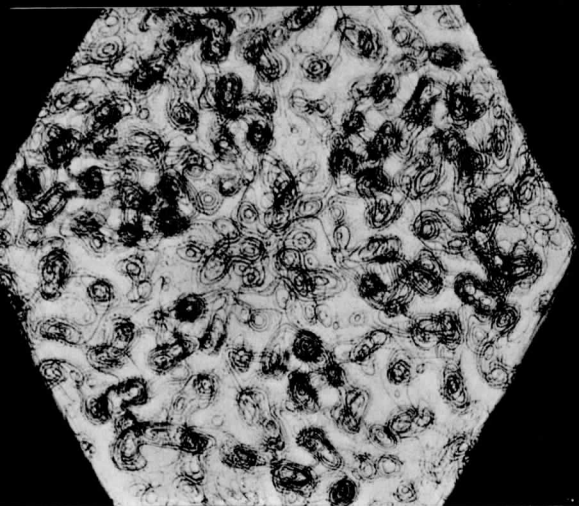
Mathematician Hua Lo-keng (*second from right*) helping workers make scientific experiments.



Commune research workers experiment with the artificial pollination of maize.

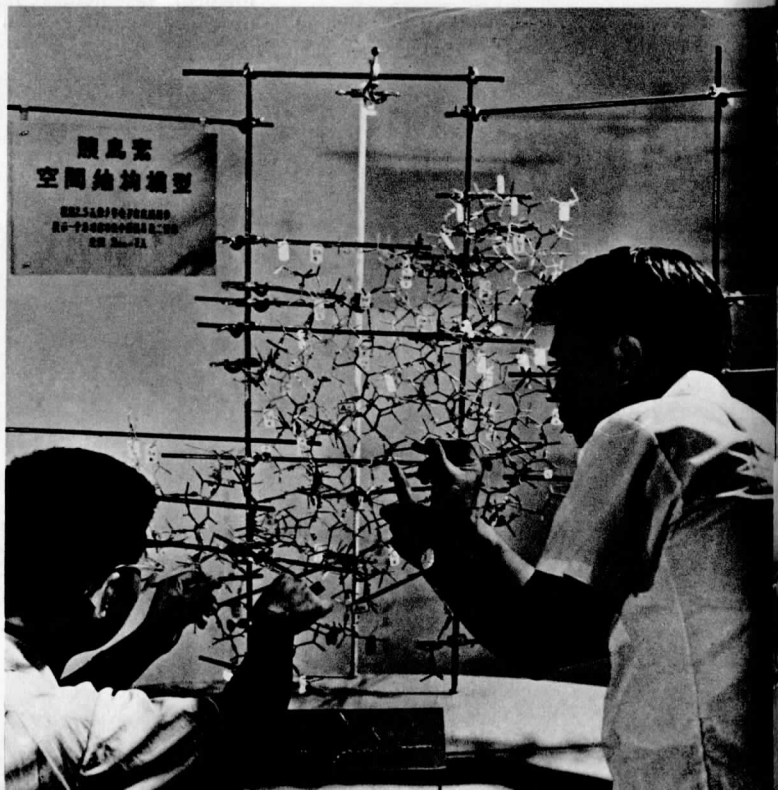
Medical researchers test the Chinese artificial larynx on an animal.





The electron density chart of insulin made after a scientific analysis of the data.

Researchers construct a model showing the spatial structure of insulin.



mass line, upholding the principle of integrating theory with practice and forming the two “three-in-one” combinations — the combination of worker-peasant-soldier masses, leading cadres and scientific and technological personnel, and the combination of production, research and teaching. Many scientific research workers have established close ties with the workers, peasants and soldiers, and many important achievements in science and technology have sprung from such “three-in-one” combinations.

The Cultural Revolution has given great impetus to mass scientific experiment, technical revolution and innovation and has brought into full play the wisdom and ability of the labouring people. In the mass movement in industry to learn from Taching,<sup>1</sup> technical innovation and revolution are flourishing and there has been a steady flow of new techniques and technologies, new materials and products.

Carrying out Chairman Mao’s teaching, “Take the road of the Shanghai Machine Tools Plant in training technicians from among the workers,” factories, mines and other enterprises all over the country are taking effective measures by various means to train worker-technicians. In September 1968 the Shanghai Machine Tools Plant founded the “July 21” Workers’ College, the first of its kind in China. Since then, through this college and by various other means, the plant has trained a large number of worker-technicians who have become an important force in science and technology. Together with other

<sup>1</sup>Taching, an oilfield built from scratch in the spirit of self-reliance and arduous struggle, is a national pacesetter on the industrial front.

revolutionary engineers and technicians they have designed and manufactured a number of new products of fairly high level, such as large crankshaft grinders and large machines for screw and gear grinding, besides making several thousand technical innovations.

In the mass movement in agriculture to learn from Tachai and to implement the "Eight-Point Charter"<sup>2</sup> for scientific farming, members of rural people's communes have set up organizations of various types for agricultural scientific experimentation. More than 10 million people now take part in scientific experiments in the countryside. The various specialized research institutions have further improved their work and organized nationwide co-operation in scientific research on important problems, speeding progress in agricultural science. The experience of the commune members of Tachai Brigade in Hsiyang County, Shansi Province, in building "Tachai fields" by terracing the mountainside and developing water conservancy to ensure good harvests despite drought or waterlogging has been adopted in many regions according to local conditions. Throughout the country, improved seed strains of many crops have been cultivated and propagated. There has also been rapid development of various bacterial fertilizers and microbial pesticides and these have been tested and popularized

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<sup>2</sup> The "Eight-Point Charter" for agriculture: soil (deep ploughing, soil improvement, general survey of soil and land planning), fertilizer (rational application of fertilizer), water (building water conservancy works and rational use of water), seeds (popularization of good strains), close planting (rational close planting), plant protection (plant protection, the prevention and elimination of plant diseases and pests), management (field management), and tools (improvement of farm implements).

over vast rural areas. Many regions have initiated reforms in farming methods and changed from one crop a year to two, or from two crops to three. Technical innovations and scientific experiments in forestry, animal husbandry, subsidiary production and fishery have also made gains.

In recent years, rapid progress and gratifying achievements have been noted in the extensive study and application of such new techniques as radioactive isotopes and X-rays in agriculture, industry, medicine and scientific research. Radioactive isotopes have been used in agriculture and seed cultivation by radiation has been adopted in many places. Several dozen new strains of rice, wheat, cotton, corn, millet, soyabean and rape have been obtained by combining radiation or X-rays with other methods, while an increase in the yield of tussore cocoons has resulted from exposing the eggs to low-dose fast neutrons to stimulate their growth. The application of radioactive isotopes and X-rays in industry is continuously extended. In the departments of metallurgy, machine-building, chemical industry, oil, water conservancy, architecture and geology, the principle of absorption and diffusion of rays emitting through substances is widely applied in producing instruments and meters for measuring the thickness of metal plates, plastic materials and paper, the density of ore pulp and the level of liquids, which facilitates automation in production. In medicine the application of radioactive isotopes has become one of the main ways in diagnosing and treating certain common and recurrent diseases.

The successful explosion of atomic and hydrogen bombs and the successful launching of artificial earth

satellites indicate the new level of China's science and technology.

China now builds 10,000-ton class steamers, supersonic jet-planes, transistors and integrated circuit electronic computers. The application of laser technology is also broadening.

Acting on Chairman Mao's directive, "**Develop the mining industry,**" geological research workers have integrated with the workers, peasants and soldiers and undertaken large-scale survey of natural resources resulting in the discovery of some 140 different mineral deposits. The multi-purpose scientific survey of the Mt. Jolmo Lungma region has yielded important data concerning the geological changes and physical geography of the Himalayas and Mt. Jolmo Lungma.

China is a country of frequent earthquakes, and the study of seismology is an urgent task in its socialist construction. Before the founding of the People's Republic there was only one seismological observatory and three seismological research workers in the whole country. Now, personnel specializing in this field have been trained and research in forecasting and preparing against earthquakes has begun. Since the Great Proletarian Cultural Revolution, the research personnel have teamed up with workers, peasants and soldiers to sum up the masses' long and valuable experience in forecasting earthquakes. Many forecast stations have been set up by the local people themselves with the help of numerous commune members, pupils, students and meteorological workers. In this way an earthquake-forecast network has been formed over the vast territory of China.

Important achievements have also been made in the fields of astronomical and meteorological research. In 1968 a large-scale multi-purpose observation was conducted in the Sinkiang area on a total eclipse of the sun and valuable data obtained on solar physics.

Substantial progress has also been made in the fields of anthropological, paleontological and archaeological research. The skull of the ape-man discovered at Lan-tien, Shensi Province, and a new skull of Peking Man discovered fairly recently at Choukoutien near Peking add to the material useful in studying the physical characteristics and labour capacities of primitive man and provide important scientific data for the study of man's origin. The Institute of Vertebrate Paleontology and Paleoanthropology of the Chinese Academy of Sciences has discovered a number of mammalian fossils of the Paleocene Period in the red beds in Nanhsiung County of Kwangtung Province, Chienshan and Hsuan-cheng counties in Anhwei Province, Tayu County in Kiangsi Province and Chaling County in Hunan Province. The discoveries provide important paleontological material for stratigraphic analysis of the Cenozoic era. They also offer important scientific data for studying many theoretical aspects of the history of life, including the origin, evolution, migration and dispersal of ancient mammals. These new fossils recovered in recent years in the southern provinces which belong to the middle and late Paleocene Period consist of more than 30 new genera and species of mammals previously unknown in the world. The discovery and study of the fossils of reptiles of the Permian and Triassic periods in the Sin-



kiang area furnish fresh evidence for the change and development of the animal kingdom and the history of the earth, and provide new material for the dialectical materialist view of nature. In the field of archaeology, a vast number of ancient relics were unearthed during the Cultural Revolution. Among them is a 2,100-year-old Han tomb at Mawangtui in Changsha, Hunan Province. The corpse of the woman entombed was so perfectly preserved that there was no sign of deterioration. The muscle tissue was still supple. The finds from this tomb will be of tremendous value in the study of the history, culture, agricultural production and medical science of the early Western Han Dynasty.

Theoretical research in the natural sciences has also made substantial progress, filling in some important gaps and reaching ever higher levels. For example, in the study of the synthesis of protein, scientific workers have chemically synthesized a biologically active protein, crystalline bovine insulin, and succeeded in determining the spatial structure of the crystalline pig insulin molecule at a resolution of 1.8 angstroms (one angstrom is a hundred-millionth of a centimetre) by using the method of X-ray diffraction. In the theoretical study of the elementary particle, scientific workers have further explored the theory of the "straton model" reflecting the internal structure of the elementary particle which has deepened our knowledge of the microcosm. Theoretical research in geomechanics has thoroughly disproved the imperialist fallacy that "China is oil-poor" and guided the geological workers in discovering rich oil and other mineral resources.

Guided by Chairman Mao's teaching of "self-reliance," many research units of the Chinese Academy of Sciences have worked in close co-ordination with factories since the Great Proletarian Cultural Revolution, participating in the designing and manufacture of instruments and equipment for scientific research. They have not only partially satisfied the needs of scientific research and accelerated research work, but have also given facility for the research workers to be re-educated by the working class through their work in the factories and thus to speed up ideological remoulding. Most instruments and equipment were imported before the Cultural Revolution. Then, together with the workers, the scientific personnel designed and manufactured 110 important scientific instruments and equipment which are not only useful but also economical. These are the major scientific instruments for physical optics, component analysis, electronics, astronomy, semi-conduction, testing, oceanography, meteorology, measuring and plotting as well as important equipment for optical processing. Of these, the photo-electric astrolabe, equi-potential focussing apparatus, bi-focussed spark source mass-spectrometer, gas chromatograph, atomic clock, small aperture measurer and high-speed camera are the first of their kind to be made by China. Most of these products have proved their worth in practice, some reaching advanced world levels. Although China has accomplished a very great deal in science and technology during the past 25 years, ours is still a developing country whose general level of science and technology is still rather low and does not keep pace with the rapid development of its national construction. But the Chinese people have high



aspirations and the ability to rapidly change their backward situation in science and technology by perhaps several dozen years of effort and to reach advanced world levels.

## Mass Participation in Sports

**I**N the early morning in Peking it is common to find people of every age, every walk of life, starting the day with exercises in the parks, on sports grounds or under the trees, running, doing calisthenics, playing ball or practising traditional Chinese swordplay and *taichi* boxing.

Along with China's over-all progress, sports have become a mass pursuit in new China and an important means for the people to build up their health and vary their cultural life.

**“Physical culture is of major importance concerning as it does the health of our 600 million people.”** Chairman Mao and the Party Central Committee have paid consistent attention to the health of the people and to the development of physical culture. Chairman Mao's directive, **“Promote physical culture and build up the people's health,”** is the orientation of China's physical culture. The Party and the government take the development of physical culture as an important political task, and special commissions have been set up by the government organs at all levels to lead in this field. In addition, there

is a national mass sports organization — the All-China Sports Federation — which has branches throughout the land. Under the federation are various sports associations: track and field, swimming, gymnastics, table tennis, basketball, volleyball, soccer, badminton, tennis, weightlifting, cycling, wrestling, fencing, *wei chi* (Chinese draughts), Chinese chess, archery, marksmanship, mountaineering, and winter sports. They promote mass sports and organize contests both at home and abroad.

Physical culture has been included in the regular work of the educational, public health and national defence departments as well as of worker, youth and women organizations.

Since the founding of the People's Republic of China, the government has successively introduced and popularized throughout the country by radio several sets of calisthenics for people of all ages. Work breaks are arranged for cadres and workers to do the exercises.

There are large, well-equipped stadiums, gymnasiums and swimming pools in big and medium-sized cities, in some of which parachuting towers, shooting ranges, skating rinks, skiing grounds and cycling tracks have been built. Among the stadiums, the Peking Workers' Stadium seating 100,000 people and the indoor Capital Stadium with 18,000 seats are equipped with standard sports facilities.

In Peking, Tientsin, Wuhan, Shenyang, Sian and Chengtu physical culture institutes have been set up for special training, while in 26 normal universities and institutes throughout the country there are physical culture departments established to train physical culture

teachers for primary and middle schools. There are in addition about 1,000 spare-time schools giving systematic extracurricular training to enthusiasts among primary and middle-school students so as to popularize sports and raise standards. In order to scientifically develop physical culture, research institutes have been set up for studying physical culture theory and practice and sports physiology. Sports equipment factories have been built in Peking, Shanghai and Tientsin, producing all sorts of sporting goods to meet the needs of workers, peasants and soldiers.

The oppressed labouring masses of old China have become the main force in today's sports activities and mass sports have made big strides since the Great Proletarian Cultural Revolution. **"Wherever feasible, physical culture and sports of all kinds should be encouraged, such as physical exercises, ball games, running, mountain climbing, swimming and traditional Chinese *taichi* boxing."** Workers, peasants, soldiers, office staff and students warmly respond to this call of Chairman Mao's by developing a variety of sports adapted to local conditions and to people's interests.

Since Chairman Mao's swims in the Yangtze River, swimming has gained mass popularity. Millions temper themselves physically and in revolutionary will by swimming in rivers, streams, lakes and seas. In the textile city of Tsingtao, Shantung Province, swimmers in summer reached a total of 2.1 million, turn-stile count, in a recent year. In Tungkuan County, Kwangtung Province, three out of every four of the 40,000 members of one people's commune can swim and more than 100,000

people of that county participated in a cross-river swimming event.

Every winter snow and ice winter sports are in full swing. Many people take an active part in winter swimming in the south, while in the north ice and snow sports are popular. In January 1974 when in Nanning, capital city of the Kwangsi Chuang Autonomous Region, the Week of Winter Swimming Across the Yungkiang River was held, 30,000 workers, peasants, soldiers and students participated. Harbin in Heilungkiang Province is known as a city of ice sports. It has the natural skating rink of the Sunghua River and more than 100 artificial rinks that attract tens of thousands of child and adult ice-sports enthusiasts daily. Another mass attraction is the winter long-distance races organized in Peking, Shanghai and Tientsin. An example was the "Long March" race, symbolizing the Red Army's 25,000-li Long March, held in Peking on New Year's Day 1974 in which 700,000 young people from various organizations took part.

The broadcast calisthenics have been popularized among the workers, cadres, soldiers, students and young children.

Ball games are very popular in China, especially table tennis and basketball. Many factory workshops, rural people's commune production brigades, college, middle and primary-school classes and government offices have their own ball teams. In the Yenpien Korean Autonomous Chou, Kirin Province, soccer is a favourite sport. According to incomplete figures, this *chou* has 1,100 soccer fields and nearly 10,000 teams most of whose

members are peasants who are competent in both production and sports. Taishan County in Kwangtung, known as "the volleyball town," has over 5,300 men's and women's volleyball teams and 2,100 courts built by the players themselves. Each production brigade has its volleyball team, and there is a volleyball court in each village. Vigorous practising and exciting matches are a common sight in towns and villages after work and on holidays. Taishan's women are very active in volleyball, the county having over 1,200 women's volleyball teams whose matches attract many spectators. Grandmothers often come with grandchildren to watch daughters or daughters-in-law play volleyball, or both mother and daughter-in-law play in a match. It is obvious that the emancipation of Chinese women from the feudal yoke that bound them for centuries will continue to promote physical culture and sports.

In Peiling People's Commune in Haiian County, Kiangsu Province, where sports are developed extensively, 8,000 peasants, or 80 per cent of the commune members, participate in spare-time sports. Three generations in a family will be found swimming together, while parents find themselves in the same ball game with their children. Each production brigade at Peiling has its own table tennis, track and field and men's and women's basketball teams. Excellent group calisthenics performances, exciting ball games, and rope-climbing, tug-of-war and cycling competitions in the ten peasant sports meets sponsored by the commune were watched by enthusiastic spectators.

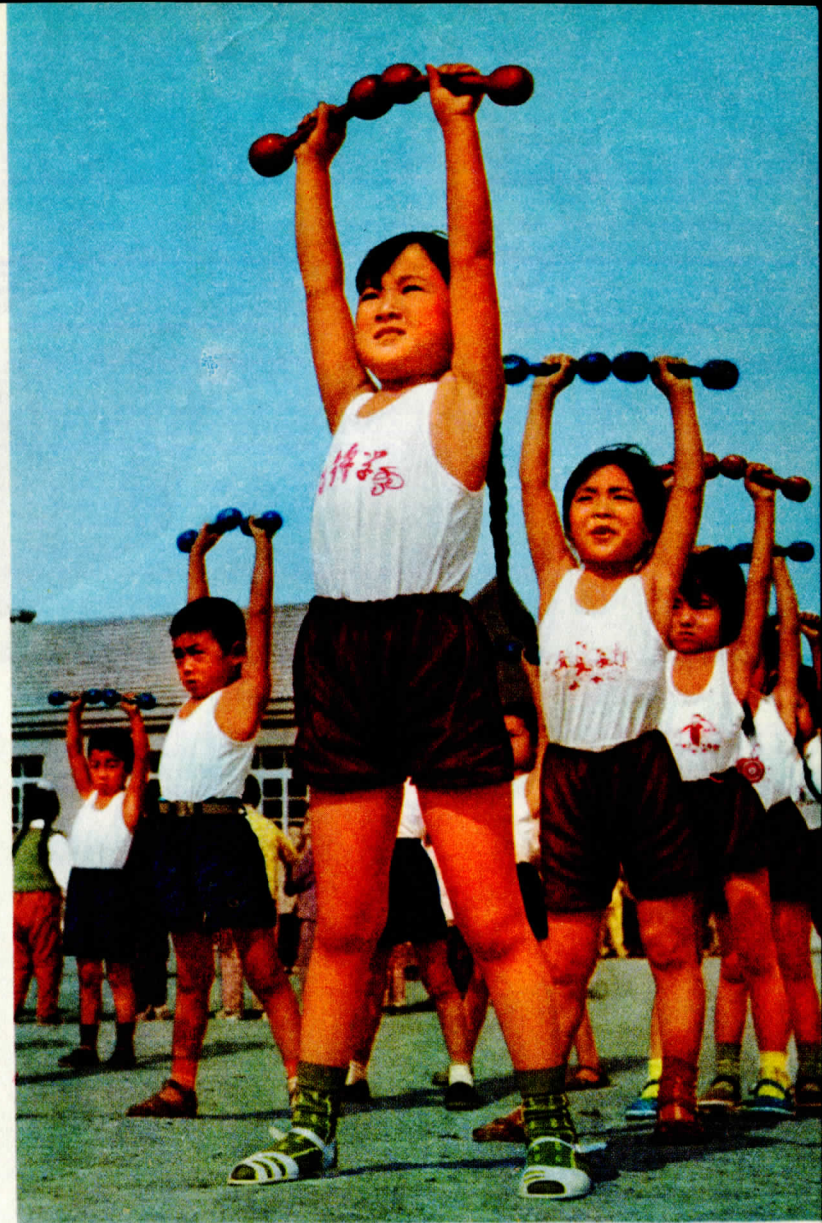
In border areas and regions where people of minority nationalities live, mass and traditional sports have re-

ceived new impetus. In the Inner Mongolia Autonomous Region 20 banners observed the Nadam Festival in 1973 with horse racing, wrestling and marksmanship, while in the Kuolo Tibetan Autonomous *Chou* in Chinghai Province 4,000 metres above sea level, over 70 per cent of the communes held herdsmen's sports meets. In the Tibet Autonomous Region ball games and track and field sports have gone forward. Sportsmen in horsemanship, archery, wrestling and mountain climbing, especially, have set excellent records in many national competitions.

National competitions have increased with the growing popularity and development of sports, 31 countrywide competitions in 19 sports items being held in 1973 with a total participation of 20,000. Local competitions at all levels are held frequently. In order to make physical culture better serve the workers, peasants and soldiers and to further promote mass sports, major competitions are held in factories, rural districts, army barracks and schools, and are well attended.

Mass participation in sports has helped towards building up the people's health and promoting the revolution, production and other work and preparedness against war. Many fine sportsmen have come to the fore and the standards in many items have constantly improved.

Since the founding of the People's Republic, weight-lifter Chen Ching-kai has on nine occasions broken the world clean-and-jerk records in bantam and feather-weight class. Ni Chih-chin and Cheng Feng-jung both broke world records in the men's and women's high jump, Ni Chih-chin in 1970 chalking up a new world record for the men's high jump by clearing the bar at



Exercising with dumbbells.





A women workers' basketball team.

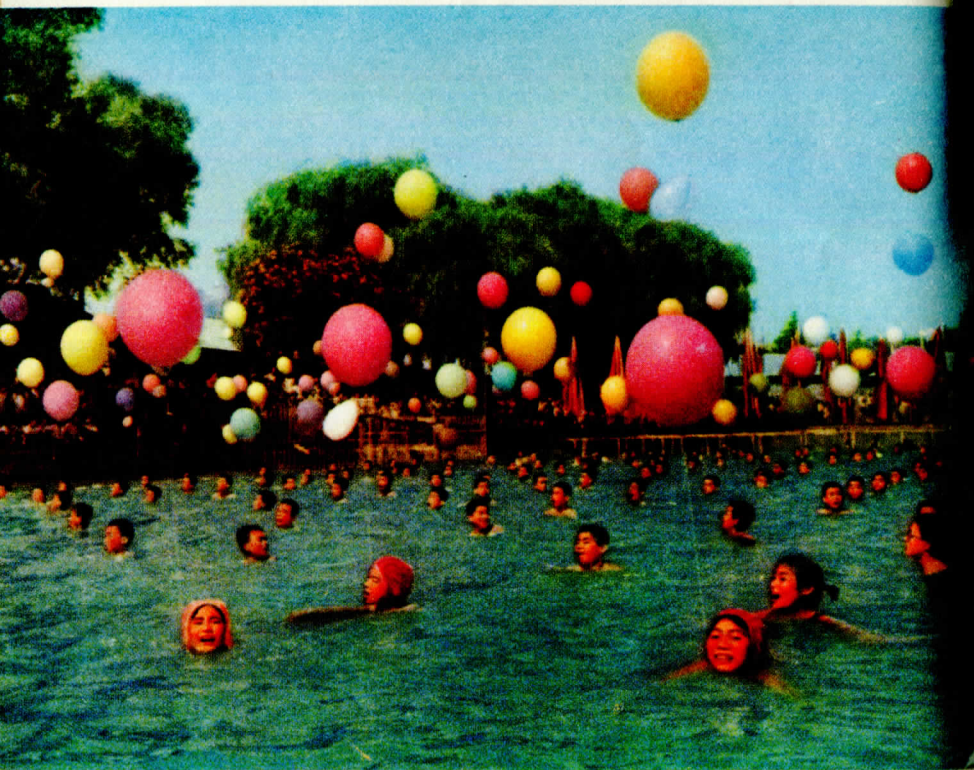


Commune women's bicycle race.



Round-the-city race in  
winter time in Peking.

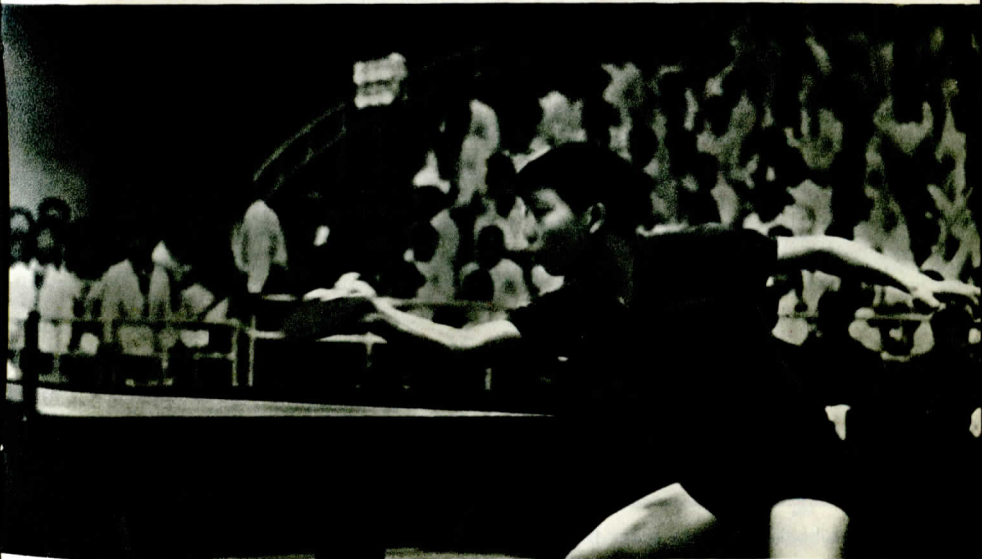




Youngsters like swimming.



Ni Chih-chin, a high jumper, clears the bar at 2.29 metres in a contest held in Changsha, Hunan Province.



Young table-tennis player.





Ice-hockey players enter the rink at the indoor Capital Stadium, Peking.

2.29 metres, the record for this sport before liberation being 1.87 metres. In 1954 Chinese swimmers broke all pre-liberation swimming records by wide margins, including a world record for the 100-metre breast stroke. Chinese sharpshooters and archers have also broken world records many times; Chinese table tennis players have won 19 titles at successive World Table Tennis Championships, while basketball, soccer, badminton, gymnastics, skating and cycling sportsmen have done well in international competitions. A Chinese women's team in 1959 scaled the peak of the 7,546 m. Mustagh-ata, establishing a women's world altitude record in mountain climbing, while in 1960 a Chinese men's team for the first time conquered the world's highest peak, Mt. Jolmo Lungma in the Himalayas, from the difficult north slope. In the First International Track and Field Championships of Middle-School Students young Chinese sportsmen captured a world title and two third places.

"Friendship first, competition second" is the spirit of sportsmanship observed by Chinese sportsmen in international tournaments. They have promoted friendship and exchange of experience with sportsmen of other countries and carried the friendship of the Chinese people to the peoples of other countries. In 1973 China had sports interchanges with 109 countries and regions involving more than 5,000 sportsmen. In the same year, the Asian-African-Latin American Table Tennis Friendship Invitational Tournament was held in Peking with more than 1,100 participants from 86 countries and regions. Chinese sportsmen also go abroad to take part in international competitions. Worthy of particular mention is the fact that Chinese table tennis players have

established close ties and profound friendship with table tennis circles of many countries. All this has strengthened the bonds of friendship between the Chinese and other peoples of the world and promoted the development of sports in China.

中国文化简况

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