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Some Basic Facts About Sports
— Interview with Huang Chung, Vice-President of the All-China Spo

What are the most popular sports in China?

We have more than 40 kinds. Of the ball games, basketball has the biggest following. Almost every school, factory, mine and rural commune has its own team. Next are volleyball and football. There is a county in Kwangtung province called Taishan in which half the population plays volleyball. And there is also Meihsien county in Kwangtung, where almost everyone is either a football player or fan. Both counties are famous for their mass participation and high level of skill.

Long-distance running is popular not only with young people but with the middle-aged and elderly. In the big cities like Peking, Shanghai and Tientsin every winter over a million people run. Cross-country and round-the-city races are held on New Year’s Day and the Spring Festival. The Peking race, first sponsored by press units in 1956, was held for the 15th time last February with thousands participating.

Swimming is becoming more and more widespread, particularly in the south. On July 16 every year there are cross-river or cross-lake swims all over the country to commemorate the anniversary of Chairman Mao’s swim across the Yangtze River at Wuhan in 1966 at the age of 73.

Sports on ice enjoy the widest participation in the northeast where the winter is long. In Tsitsihar in Heilungkiang province, for example, skating is popular with young and old alike. Skating contests and ice hockey tournaments are held every year. People in the hilly outskirts go in more for skiing and hunting.

The most widely practiced form of physical culture is the exercises...
A volleyball match in a middle school in Kwangtung's Wenchang county where there is wide mass participation in the sport.

in China

Sports Federation

A volleyball match in a middle school in Kwangtung's Wenchang county where there is wide mass participation in the sport.

done to music broadcast over the radio. There are different sets for adults and children. Factory workers and shop assistants do them in the morning before they start work. Office workers do them during mid-morning and mid-afternoon breaks. Special sets have been designed for steel workers, coal miners and textile workers by the State Physical Culture and Sports Commission. We are also promoting eye exercises in the primary school. These are based on an ancient method for preventing shortsightedness long known to traditional Chinese medicine.

Then there is wushu, which is a traditional form of martial arts. There are enthusiasts everywhere. Generally middle-aged and elderly people like taichi boxing and taichi swordplay, which call for slow and flowing movements that are actually very good for body building. The younger people prefer the more fast-moving types of boxing and the exercises with instruments, which train a fast reflex and split-second coordination. Every morning tens of thousands of city wushu activists can be seen doing their exercises in parks or on wide tree-shaded sidewalks.

The minority nationalities have their own traditional sports. The Mongolians love horse racing and wrestling, the Koreans are skilled in high swinging and see-saw jumping, the Tibetans excel in archery and are also excellent riders.

How do people qualify for the national teams?

Good athletes are first discovered in competitions at the grassroots level. They usually play on regional teams before being selected for national teams. A great
many are teenagers who have had training in junior sparetime sports schools.

How are competitions organized?

National games are held every so often. We've had three since 1949 and are planning for the fourth in September 1979.

Every year about 70 nationwide competitions are held for the different sports. Many more are held by the provinces, municipalities, autonomous regions and the People's Liberation Army.

We also give attention to competitions for young people under 17. The most frequent are in track and field, gymnastics, badminton, table tennis, basketball, volleyball, football and weightlifting. A football competition for schoolchildren under 12 was held in Sian last August. Most recently we've had national sports meets for middle school students and swimming competitions for children between 7 and 12.

Where do you get the funds for sports?

The state provides the funds for everything — facilities, equipment and instruction and training in sports institutes, including the 3,000 sparetime sports schools for young people under 17.

The All-China Sports Federation receives subsidies from the state to supplement its income from sports competitions.

Sports funds in rural people's communes are allotted from the commune public welfare fund. In factories funds are taken care of by the trade union.

Where do you get teachers and coaches?

China has eight physical culture institutes in Peking, Shanghai, Tientsin, Wuhan, Sian, Chengtu, Kwangchow and Shenyang. The one in Peking is the biggest, which has a current enrollment of 2,000. These institutes train teachers for universities and middle schools, and coaches for individual sports. Some also train graduate students. There are physical culture departments in 46 teachers' colleges. These train teachers for primary and middle schools.

What sports organizations are there in China?

On the national level we have the All-China Sports Federation (ACSF). It promotes mass participation in sports, organizes nationwide and international competitions, and arranges for teams and individuals to take part in international sports activities. It has a branch in every one of the country's provinces, municipalities and autonomous regions with the exception of Taiwan province. There is a Taiwan province sports liaison office in Peking.

Under the ACSF are 30 associations specially for track and field, swimming, gymnastics, basketball, volleyball, football, table tennis, badminton, tennis, weightlifting, cycling, wrestling, fencing, weichi (go), Chinese chess, archery, marksmanship, mountaineering, wushu (martial arts) and winter sports and others.

Why hasn't China joined the International Olympic Committee and the Olympic Games?

China first became a member of the International Olympic Committee (IOC) in 1924. In October 1949, a month after the establishment of the People's Republic of China, at a national conference of representatives from sports circles the former China National Amateur Athletic Federation was reorganized and renamed the All-China Sports Federation. In 1952 this federation sent athletes to the 15th Olympic Games in Helsinki, Finland. In May 1954 the 49th session of the IOC in Athens passed a resolution recognizing the ACSF as the Chinese Olympic Committee.

In 1956, however, a few of the leaders of the IOC, without discussion or adoption of any resolution by the committee, accepted Chiang Kai-shek clique's sports organization as a member of the IOC. This was the attempt to create "two Chinas". We made repeated protests with no results and in 1958 had to announce our withdrawal from the IOC.

In spite of all the interference, China has been steadily widening her contacts with sports organizations in other countries. We now have exchanges with more than 100 countries and regions. We have joined 18 international sports organizations and 14 Asian sports organizations. We have held many international tournaments which have contributed to friendship and understanding between China and other countries.

Tug-of-war in a commune in the Kuolo Tibetan Autonomous Prefecture, Chinghai province.
Chen Wei-chiang, New Weight-Lifting Champ

In a Peking gym ten weight-lifters practice rigorously for the 8th Asian Games. One of them is 19-year-old Chen Wei-chiang, 1.5 meters tall, with solid chest muscles and strong arms and legs. He looks a lot like his uncle, Chen Ching-kai, who broke world bantam and feather-weight records nine times.

In Osaka in 1976 Chen Wei-chiang smashed the 123-kg. world jerk-lift record in the 52-kg. class with 125-kg. In the past two years he has broken four more world records.

Chen Wei-chiang comes from a family of weight-lifters. Two of his uncles, Chen Ching-kai and Chen Man-lin, are noted world record breakers. Another uncle is a weight-lifting coach in a sparetime sports center for young people. In his hometown of Shihlungchen in Kwangtung province the young Chen often heard stories of his two uncles and Yeh Hao-po, a neighbor, who were called "the three heroes of Shihlungchen".

Chen started his training in 1972 when he was in Middle School No. 105 in Kwangchow. Fourteen years old, 1.32 meters high and weighing 32 kg., he went to the sparetime sports school at the city gymnasium three times a week. "To be a weight-lifter," his uncles told him, "you must not be afraid of hardship and fatigue. Put all you've got into it."

Two years of hard work brought him better physique and basic technique. He had good coordination and flexibility, and recovered his strength easily after intensive workouts.

Chen Wei-chiang has the same stubborn character as his uncle Chen Ching-kai. Once he starts something, he does it well. One day he was practicing the jerk. When the added disks reached his limit — 145 kg. — he failed. As he got ready for a second try, he suddenly fainted. When he came to, he was told to rest. But he insisted on continuing. That same day he broke his own record by jerking 150 kg.

At the 8th Asian Weight-lifting Tournament in Baghdad in 1977, in spite of fatigue and the heat, he broke the world junior jerk record of 125 kg. with 125.5 and again with 127.5 kg. Upon his return to China he took part in the China-Pakistan weight-lifting contest in Kwangchow. Suffering a cold and not in top form, he stubbornly persisted until he broke three world junior records, snatching 101.5 kg., jerking 128 kg. and running up total scores of 225 and 227.5 kg.

Last April in a meet between Chinese and West German weight-lifters in Kwangchow, Chen competed in the 56-kg. class. He jerked 135 kg. on the first try. While he was trying for 141 kg. — 0.5 kg. more than the world record — he twisted his arm and failed. In great pain he wondered if he...
should give it up. But the audience expected him to set a new record and his uncle, Chen Ching-kai, was watching him. Suddenly he remembered what his uncle had once told him: "I become confident the moment I think I'm competing for our motherland and not for myself." Chep grasped the 141-kg. barbell, took a deep breath and jerked it. The scoreboard flashed a new record.

**Shen Mao-mao, Young Javelin Thrower**

At a national track and field team demonstration at Sian in 1971, a 14-year-old boy among the spectators was fascinated by the javelin. Six years later he became one of China's outstanding javelin throwers.

Shen Mao-mao was a middle school student when he came back from the stadium that day. He promptly made a javelin out of bamboo and began to practice. By the end of the year he took first place in the javelin throw in a school sports meet.

In 1972 he represented his school district in a citywide sports meet. He didn't even reach the finals and sat on the sidelines angry and discouraged. Meng Fan-yu, a Sian Physical Culture Institute coach, happened to see him there. He encouraged him to continue to practice and told him to drop in at the institute whenever he had time. Later Shen became a member of the Sian track and field team and Meng became his coach.

In a little over a year his score jumped from 38 to 65.50 meters, breaking the junior national javelin record. In 1974 he took first place in javelin at the First World Middle School Students' Sports Meet in Wiesbaden, West Germany. In 1975, however, at the Third National Games in China, he didn't even make the list. He slipped in his first throw, overstepped the line in the second and threw his javelin out of bounds in the last. Realizing that he had a lot to do to improve, he settled down to more strict training.

In 1976 he became a member of the national team and went to Peking for some time of concentrated training. There he got help from Chang Pao, once China's javelin champ. When the training was over, Chang Pao gave Shen his own javelin. "We old-timers have been trying for years to smash the 80-meter record," he told Shen. "I'm too old for competitions now. But I hope you will work hard and break that record with my javelin."

Shen put the words "Break 80!" on the javelin and began struggling to raise his 72-meter limit. Every morning he got up early to practice, slowly developing a style combining fast speed for extra momentum, a burst of power for the throw and flexible movements for accuracy. A rapid run helped make up for his smaller size.

On September 19, 1977 in Peking's Hsiennungtan Stadium, 35,000 spectators were watching a China-Japan track and field meet. Two red flags in the field marked the 78.56-meter national record and the 79.54-meter Asian record, the latter set by Hisao Yamamoto in 1969. Fired by the challenge, Shen Mao-mao hurled his javelin with all his might. It pierced the turf at 81.68 meters—the new Asian record.
LAST September when Liang Chiu-hsia returned from the Fourth National Women's Congress to the headquarters of the national badminton team of which she is a member, she was struck by a sign facing the entrance: "Only 82 days to the Eighth Asian Games. What have you done to qualify for it?" The question gave her a restless night. The next morning she went to the gymnasium even earlier.

At 27 Liang Chiu-hsia is a veteran on the Chinese women's badminton team. She stands 1.62 meters tall and weighs 56 kg., her open manner, lively speech and short hair giving her a boyish air. She plays a fast and tricky offensive game with very flexible tactics.

Liang Chiu-hsia was born in Tjirebon, a small town in West Java, Indonesia. Because her father worked in the local federation of Chinese residents, she played a lot of badminton in the federation's auditorium. In 1965, as a member of the West Java team she played against Liang Hsiao-mu of the Chinese team then touring Indonesia. She envied the red Chinese national emblem on Liang Hsiao-mu's sweat shirt and hoped that one day she could wear it herself and win honor for China in international competitions.

In September 1966 while she was still in middle school she decided to return to China. She was an only daughter and her parents didn't want her to go. She stuck to her decision. Her father and mother saw her off with tears in their eyes. Not quite 15, she entered the physical culture department of the Changsha Teachers' College in Hunan province.

At first the rigorous practice tired her easily. Knowing that a strong constitution was basic to a good game, she began basic training with the men athletes. Her favorite route for her daily jogging was from the school to the Revolutionary Martyrs Park. The sight of the Martyrs Monument on a pine- and cypress-covered hill, a landmark in the city, always made her run faster and longer.

In early 1972 Liang Chiu-hsia was taken on to the national training team in Peking. Here she met famous players she had long admired — woman champion Chen Yu-niang and men such as Tang Hsien-hu and Hou Chia-chang. Like a sponge soaking up water she learned everything she could from them — Tang's explosive smashes and Hou's fast-changing tactics and excellent footwork. She had long practice sessions with them every day.

Liang Chiu-hsia considers every international match a chance to learn more. Five times she had defeated the Japanese player Hiroe Yuki, several times women's singles champion at the British Commonwealth Badminton Championships. Nevertheless Yuki played a more versatile game, skillfully combining smashes with short drops, attacks with defense, while Liang relied more on attacks which was more exhausting. She made notes of Yuki's good points and tried to learn them. At the Seventh Asian Games in 1974 she placed second in the women's singles and shared first place in the doubles. At the Third National Games at home in 1975 she took the women's singles title. She then was twice champion of women's singles in two Asian badminton invitational tournaments. In 1976 she won the women's singles title at the Fourth Asian Badminton Championships held in Hyderabad, India.
Sung Shu-hsien, Woman Archer

Since 1974 archer Sung Shu-hsien has broken six world records and tied three world records. She is also holder of nine of the ten national archery records for women’s individual events.

Sung Shu-hsien was born 24 years ago in a worker’s family on the Pohai Gulf. Sickly as a young child, at 11 she contracted tuberculosis. After she recovered, her physical education teacher urged her to take up sports to strengthen her constitution. She took part in a school-wide obstacle race and won a placing. In time she grew tall and strong. In senior middle school she made the basketball team. In 1971 she was admitted into the Peking Physical Culture Institute to specialize in track and field. She was 1.73 meters tall and weighed 73 kg.

One day passing the archery training field she saw woman archery coach Li Shu-lan practicing. She was fascinated. “May I have a try?” she asked.

“Sure.”

She fingered the fine string and wondered why it didn’t break under the tension. When she tried to draw the 44-pound bow she failed. Finally by exerting all her strength she succeeded. She and Li Shu-lan became good friends and Sung transferred to archery. Li Shu-lan had beaten world records nine times. Now 29 and mother of a little girl, she has become a coach. Her husband Hau Kai-tsai is also an archery coach.

At first Sung Shu-hsien did not seem to be the stuff of which good archers are made. More often than not she placed last in her training group. This only made her work harder and always go beyond her training plan. Even when she ached all over at the end of the day, after supper she would perfect her stance before a mirror and then go out in the courtyard and practice some more.

In a meet with a Korean team in 1974 she became interested in the signal device attached to the bow, now universally used in international archery contests. Sung wanted to use it but the national archery meet was only a month away and to use the technique she would have to learn all new movements. When she tried it her left arm became badly bruised. Her coach advised her to wait until after the meet. But Sung persisted. She used the new technique in the national meet in September 1974 and scored 585 points in the 70-meter double-round event, beating the world record of 580 held by the Soviet Union’s K. Losaberidze.

During the meet Sung had a sudden attack of acute rheumatoid arthritis. She was taken to hospital directly from the field and stayed there four months. As soon as she was released she went back to the archery class. Several months later she astonished spectators in another national competition held in Fukien province by breaking three world records (70-meter double-round, single-round total and double-round total) and tying two world records (70-meter single-round and 60-meter double-round). Every time she has made a mark Sung Shu-hsien has set herself a new one. Last year she decided to capture 2,500 points in the double round total, which would put her in world class. She increased her training plan from 140 shots in three hours to 300. This March in the Kwangsi meet she scored 2,515 points, tying the world record set by Ryan of the United States. Later, also in Kwangsi, she upped this to 2,527 points. In July at the selective trials for the 8th Asian Games in Peking, she drove it to 2,538 points.

CHINA RECONSTRUCTS
An Exhibition of Skill and Grace

Staff Reporter

UNDER the bright lights of the Shanghai Indoor Stadium a slim golden-haired girl in a cream-colored leotard leaped onto the beam with a straddle mount followed by a slow handstand. After several exquisitely flowing movements she somersaulted forward and backward with perfect control and grace. The girl was Romania's famous Nadia Comaneci, 16, who in the words of a British sports writer, seems to "turn that four-inch bar into her own personal theater". In Shanghai 18,000 spectators watched her incredible performance with bated breath, now gasping, now bursting into stormy applause. Two years earlier, at 14, Nadia had won seven full marks and three gold medals at the 21st Olympic Games in Montreal, becoming a new miracle-maker in gymnastics history.

Though she had hurt her foot during an international competition in France in early June, she did not take time out to rest but came to China for the Shanghai International Gymnastics Friendship Invitational Tournament held from June 16 to 20 to take part in the team event. Teams from Canada, Korea, Egypt, France, Japan, the Netherlands and Romania came. The first international gymnastics event ever hosted by China, the tournament was seen by millions on television.

High-level performances by over 100 men and women gymnasts made it an exhibition of

Nadia Comaneci chats with Chinese athletes.

A China-Romania conversation.
Tsai Huan-tsung of China on the pommel horse.

Annelies Nijdam of the Netherlands dismounts from the uneven bars.

Leap with a body twist in floor exercise, Uchida Katsura of Japan.

Kang Gwang Song of Korea cat-leaps over the horizontal bar.
Willy Moy of France on the rings.

Mohamed Ibrahim Sadik of Egypt on the vaulting horse.

Back somersault followed by a handstand on the parallel bars, Philip Delesalle of Canada.

Nadia Comaneci of Romania somersaulting on the balance beam.
unusual beauty. Many new and difficult routines were revealed on all ten kinds of apparatus. On the rings, for example, several Chinese and Korean athletes were able to slowly somersault with arms straight end up in a cross. Japan’s Kuruma succeeded in executing an inverted cross. Many men and some women executed the swirl with remarkable grace. A movement calling for somersaulting twice in succession with the body making a full twist at the same time, the swirl first appeared in the 70s. China’s Ma Wen-chu did hers on the vaulting horse with impressive speed and smoothness.

Several years ago only a few gymnasts were able to somersault successfully on the beam. This time gymnasts from France, Japan, Canada, the Netherlands, Egypt and Romania gave marvellous performances of this movement.

With the distance between the asymmetric bars now widened to over 80 cm. and the bars more elastic than before, many new movements and routines have been created. In her first international competition, China’s Ma Yen-hung, 14, performed a routine that included ten “C” movements, five of which were done in succession and two were super-“Cs” — free circle to a handstand with a full body turn to handstand, a beat swing with half turn and dismount with tucked backward somersault. She did this with such perfect coordination that the spectators broke into cheers. She received 9.95, five-hundredths of a point short of perfection, the highest individual score so far made by a Chinese gymnast.

The French all-round champion, Martine Pidoux, scored 9.50 on the vaulting horse. On the asymmetric bars she was breathtaking in a tucked forward somersault from the low bar to catch on the high bar in a hanging position. The sisters Monique and Ingrid Bolleboom of the Netherlands both scored over 9 points in each of the four events for women. Lively, pony-tailed Elfi Schlegel of Canada, 14, who had trained since she was nine, gave a lithe performance on the asymmetric bars that resembled the men’s movements on the horizontal bar.

Nadia Comaneci was the undoubted star in skill and grace. On the floor she blended her dance movements flawlessly with her leaps and somersaults, all the time flowing smoothly to the music. It was a routine she had created together with her coach and pianist, infusing French musical elements she had heard in a competition in that country.

The youngest gymnast at the tournament was a ten-year-old Korean girl. Most of the girl athletes were around 14 and 15, showing a general trend toward early training.

In addition to the gymnastics competitions, this year China has also hosted the Third Asian Badminton Friendship Invitational Tournament, the Peking International Volleyball Tournament for Men and Women, the Peking Men’s Basketball Tournament, the Peking Football Invitational Tournament and the Shanghai Youth Football Cup Tournament. Fifty-one teams from 24 countries and one region came. China’s busiest international sports year gave her athletes many opportunities to learn from the teams of other countries and improve their own levels.
Two Workers' Families

A SHORT TIME ago I met Pi Ming-an, a maintenance worker of 41 in the twisting shop of the Peking Cotton Textile Mill No. 3. Outgoing and frank, he talked easily about his family and their daily life for the readers of China Reconstructs.

Pi lost his mother when he was only a baby and was brought up by his father who was then in a guerrilla unit fighting the Japanese invaders. When the War of Liberation started he was placed in the home of some peasant friends near Tsingtao in Shantung province. After liberation he came to Peking.

With 23 years of work experience, the stocky, dark-complexioned Pi is one of the best technicians in the shop. His co-workers say they can't do without him for repairs both big and small. He does his job well and eagerly teaches his know-how to his apprentices.

Pi lives in two adjoining rooms facing south, an area of 23 square meters. There is quite a lot of furniture, but it's arranged to make the place neat and cozy. Most of it Pi made himself. A red artificial leather divan is one of his proud creations. It's a couch during the day and a double bed at night.

His wife, Wang Mei-hua, is a worker in the spinning shop. About 40, she is quiet and slow-spoken. She too is one of the best workers in her shop. At home she shares the housework with her husband. She's the factory club's pingchu (a kind of local opera) singer. A few years ago when she began to have high blood pressure the leaders transferred her to the permanent day shift so she could rest better. Because of careful treatment in the factory hospital, she is now basically recovered. When she was not well, her husband and the children did not let her do any housework. Nevertheless she always managed to get hold of the family laundry. "You just don't wash clean enough," she said. She likes to read good novels.

Early this year the couple's oldest son, Pi Chun, was accepted into the army. They were proud of him. "He always does what he says he will," Pi Ming-an said with a smile. "He's wanted to be a PLA man since he was little. Now he's made it." Their son writes often about his training, work and daily life.

Pi Hsia, their daughter, a recent middle school graduate, went to work in the mill. She is a vivacious, well-mannered 19-year-old with two long braids down her back. She likes to sing. I saw some lovely crocheted doilies on the table, sofa and radio, all her work. When her brother went into the army the job of getting the meals went to her. She can make pan-baked buns, ping (thin cakes) and chiaotzu (meat or vegetables wrapped in thin dough) and many other north China favorites. When a guest comes to dinner, though, her mother only lets her help with things like the washing and preparing ingredients. But ordinarily Pi Hsia has the meal ready by the time the family come home from work. "Daughters are more thoughtful of their parents," says her mother with a smile of satisfaction.

At the end of her first days at work in the factory, Pi Hsia's legs and back were stiff and sore. She thought of quitting. Her parents wouldn't tolerate such shrinking from hardship. "What work is easy?" her father demanded. "If you want to make things lighter you've got to use your head, think of ways to improve the machines. Running away from it isn't the way." Her mother added, "If you're afraid of hard work, you'll never achieve anything." Pi Hsia knew they were right and made up her mind to become an outstanding textile worker like her parents.

Pi Yung, 16, is the youngest. Though still in middle school, he's already taller than his father. His parents are especially concerned about what he will do when he graduates. Pi Ming-an would like him to study electronics so he can help more directly with modernizing the country. But he likes to play the yangchin (Chinese dulcimer) so much that his mother wants him to study music. After all, becoming a people's artist is just as important, she says. Pi Yung himself wants to become a PLA man like his brother.

Just outside their apartment building is a small grocery. Pi Yung's task is to shop for food there, wash the dishes and sweep the floors.

The Family Budget

Wang Mei-hua handles the family's income. Her husband and daughter both hand over their salaries to her every month. She puts Pi Hsia's salary in the bank for her— "so she will have something to furnish her home with when she gets married," her mother says. Their income is about average and Wang Mei-hua plans well so there are no money problems.

The couple together have an income of 123 yuan a month. and with bonuses for good work this comes to about 140 yuan. Their monthly expenditures run as follows:

- Rent, electricity, water: 4.50
- Gas: 2.00
- Grain: 26.76
- Subsidiary foods such as eggs, sugar, salt, oil, soy sauce: 13.00
- Meat: 14.00

**December 1978**
Vegetables 20.00
Buns, etc. bought ready-made for quick breakfasts 2.40
Fruit 5.00
Candy 2.00
Soap, toothpaste, etc. 5.00
Tea 1.00
Mutual-aid bank 7.00
Pi Ming-an's spending money 10.00
Pi Hsia's spending money 5.00
Peking Daily 1.00

The mutual-aid bank is a method of saving that workers and staff of the mill can use on a voluntary basis. Each member deposits a certain sum every month. The amount is decided by the depositor, the lowest being one yuan per month. When a member needs a loan he can get it from the bank without interest and pay it back in monthly installments. At the end of each year the money is returned to the members and the interest earned from it is used to buy useful things like enamelware or towels which are distributed to every member.

For New Year's and Spring Festival there are more expenses than usual. There are special foods to buy, maybe some new clothes, small gifts for friends and relatives they will go to see, and firecrackers for the celebration.

A large expense is always discussed by the whole family. Big things are bought with money from the mutual-aid bank and other savings. This year Pi Ming-an wants to buy a bicycle and his wife wants to get a bigger television. The children support their mother's proposal.

"We don't have much saved," Wang Mei-hua explained, "but our daily life is secure. We have free medical care and the two younger children get it at half-price. There isn't much else that takes money. When we grow old our pensions will be quite sufficient." The couple look to their old age without worries.

The Pi family's next-door neighbors are a younger couple, both 31 years old. The husband, Yang Shu-hsien, works in the trade union branch of the scutching shop. His wife, Chen Lin, is a weaver. Their two-year-old son Yang Peng stays in a day-care center.

The morning I visited them Chen Lin, on the middle shift from 2 p.m. to 10 p.m. that day, was busy chopping the meat filling for chaotzu. She was rushing through washing the vegetables, mixing the filling and kneading the dough rather unskillfully. I could see she wasn't very good at housework and could hardly believe that this was the same skilled weaver I had seen a few days before in the mill. At work her hands flitted through the loom rhythmically like two white butterflies, no knot escaping her deft fingers.

**Fifteen Wash Basins**

When she brought out a big enamel wash basin with a beautiful floral design on it to knead the dough in, I asked her why she used that instead of the crockery ones most families used. "Well, we've got so many," she answered with her head still bent shyly over the basin. I followed this up with more questions and she finally told me the story.

Fourteen years ago, which was in 1964, after graduating from middle school, she had come to study in the mill's technical school and was in the same class as Yang Shu-hsien. A year later Yang was...
assigned to Communist Youth League work. He was capable and made very strict demands on himself. Chen Lin, by now a worker in the mill, also did some work for the League. Together in many activities, they fell in love.

In 1969 they became engaged. But when Chen Lin told her mother, she was dead set against it. She told Chen Lin she should be like her big sister and marry a cadre or professional man with a university education. The girl didn't want to hurt her mother's feelings and felt she meant well so she finally broke off the engagement. Her mother then got people to introduce all kinds of young men to her. There followed introduction after introduction to cadres and professionals, all with a university education. Some were handsome enough. But each was just a stranger to Chen Lin and she could never find many things to talk about after the first meeting. And she couldn't forget Yang.

Yang meanwhile didn't really believe Chen Lin's heart had changed. Finally he wrote her a letter telling her how he felt about her and suggested how she might try to help her mother change her mind. Chen Lin was very moved by this letter. Several of her friends also urged her to follow her heart. At the same time they criticized her. "It's not right to look down on workers," one said. "Isn't that bourgeois thinking? Why, you're getting to be like your mother, trapped in a money pot!"

Chen Lin started to think about many things. She saw that money and position actually had meant a lot to her. And she a Communist. How awful this was. What should she do? Turn back quickly. She wrote a long letter to her brother who was an engineer working in another part of the country and told him all about her problem. Her brother answered, pointing out how unhealthy her values had been and encouraging her to resume contact with Yang. He also wrote to their mother to try and persuade her. Her father, brother and Chen Lin all started working on the mother. Yang himself started paying her visits. The mother saw he was a steady fellow who talked sense and gradually changed her mind.

They had a tremendous wedding. Everybody came — their leaders, co-workers, schoolmates, friends, relatives. Some people who didn't even know them well came because they wanted to congratulate them for successfully concluding a six-year courtship with many ups and downs. Among the many gifts the pair received — bedding, tea sets, kitchenware and other things — were 20 thermos bottles and 15 beautifully decorated enamel wash basins!

Yang continues with his union work and sometimes on Sundays or holidays has to visit workers' families. Nevertheless, he tries to do his share of the housework. He washes clothes, prepares meals and takes care of the child when Chen Lin is on night shift. Chen Lin in turn is very thoughtful of him. She buys his clothes and does her best to prepare, no matter how difficult, the things he likes best to eat. "I'm impatient, but he's not, so we never have a quarrel," Chen Lin says.

Of course they have their differences too. Right now it's about another child. She wants to have another baby around 1982 and she hopes it will be a girl this time. But he feels the one boy is enough, that both should put more time and energy into their work.

Nowadays Chen's mother goes around telling her acquaintances what a fine son-in-law she has and when she meets others who are interfering in a daughter's marriage, she tells them her own story and tries to dissuade them.

After Work

Pi Ming-an, Wang Mei-hua and Yang Shu-hsien all work the day shift from 7:30 in the morning to 4:30 in the afternoon. They have an hour for lunch. They have after-work study two times a week, one period for political and current events and the other for subjects to raise their vocational ability. On the other days there are factory-run classes in art and mathematics. They also watch regular foreign language lessons and electronics lectures on television.

Both families often go to the movies, theatrical performances or sports events. Both spend many of their evenings around the Pi family television set. Their favorite program is "In Different Parts of the World" because they get to know about other lands and people and their advanced science and technology. All of them are trying to help their country "catch up with world levels".
ABOUT TIME IN CHINA

ALTHOUGH China's territory stretches through five time zones, the entire country uses Peking time. Radio stations give time signals hourly.

Peking time is the meridian time of longitude 120° in the eastern hemisphere. It is based on the international standard time system adopted at the Meridian Conference in Washington in 1884. Twenty-four standard meridians 15° apart in longitude were set up, starting from longitude 0° at the Greenwich Observatory in London. Each meridian is the center of a time zone. When the sun is directly over this line it is noon throughout the zone. Peking is in the eighth time zone in the eastern hemisphere traversed by longitude 120°. Therefore it is eight hours ahead of Greenwich mean time (though the city itself is actually on longitude 116° and its actual time would be 16 minutes different).

China's land crosses five time zones. The time difference from east to west is over four hours. When it is noon in the east, the people in the far west are just going to work.

After the founding of new China in 1949 the government decided to establish one standard time throughout the country as an aid to unification and economic development. Because Peking, two other municipalities and more than half the provincial capitals are located in the eastern eighth time zone, it was decided to adopt the local time of this zone as the standard time for the entire country. It became known as Peking time. To make adjustment easier for the people of Sinkiang and Tibet in the west, Peking time was not introduced there until a decade later.

Ancient China used sundials and water clocks. The water clock was a bronze container of water which dropped slowly through a small opening in the bottom, the lowering level revealing time markings. For centuries the Chinese people divided the day into 12 parts. Not until the 17th century when clocks were introduced into China was the time division changed to 24 hours a day. Before liberation many cities had no observatories to determine the exact time. Guns, drums or clappers were sounded to divide the day and these, of course, were not accurate. Toward the latter half of the 19th century, the French imperialists built and operated an observatory in Shanghai to aid their economic and military control. The observatory's signal tower on the Bund reported the time twice a day, suspending a ball at noon and a lantern at 9 p.m.

After liberation the unified time system was set up step by step. Today six observatories in China form a network to measure and check the time. Besides broadcasting through radio stations for civilian purposes, they use wireless facilities to give accurate time signals for use in national defense and scientific research. Thanks to the efforts of Chinese astronomers, the degree of accuracy in measuring time has reached 1.2 milliseconds.

A China-made hydrogen maser for time frequency standard World time zones five (shaded area to far left) is important in astronomy, communication, navigation and to nine east of Greenwich as they cross China.
Shapotou where once only sand existed.

Stopping the Desert’s Advance

HO SUI

The Paotou-Lanchow railway from Inner Mongolia to Kansu province runs along 50 kilometers of the Tyngeri Desert in the Ningsia Hui Autonomous Region. Here passengers see endless stretches of yellow sand. The dunes, however, seem covered by giant fish nets — part of the people's efforts to check the desert. Green belts covered with pink flowers flash past.

This is Chungwei county in western Ningsia, lying between Tyngeri Desert on the north and the Yellow River on the south. In the days before liberation it was a desolate, uninhabited place. Occasionally a camel caravan plodded by in the bitter cold wind. Sometimes sudden storms would descend and travelers would never be seen again. The desert swallowed up fields, villages, even the Great Wall, leaving only the ancient beacon towers showing above the dunes.

In the spring of 1954 camel caravans again appeared. This time they brought surveyors for a rail line that would link Inner Mongolia with the northwest. It had to be built here, for to the north the desert was too tough and to the south was an earthquake area.

Here, 1,000 meters above sea level, construction teams camped on the sand dunes. A windstorm not only uprooted their tents but destroyed the new road bed. As the men started rebuilding, local people brought 100,000 cubic meters of pebbles on several hundred camels to anchor down the road bed. Finally the banks were reinforced with blocks of stone. In
Scientists inspecting the growth of sweet vetch.

Poplar belt in the Tyrneri Desert.

A train passing through the Tyrneri Desert.
August 1958, four years later, the line was opened to traffic, just in time to greet the founding of the Ningsia Hui Autonomous Region.

**Magic Netting**

The railroad engineers knew that now the problem would be how to keep the line from being swallowed up by the sand. In the Tyngeri strong winds from the northwest blow some 200 days a year, driving the sand relentlessly toward the new railway. In 1957 a sand-stabilizing forest farm and a laboratory for sand control were established at Shapotou where the sandstorms were worst.

Shapotou is practically waterless. Sand temperatures go as high as 70°C. Very few plants can survive.

At first the lab staff tried wooden fences to block the sand. These were soon buried. They tried planting ground cover. The plants were either cut down by the wind or buried. More experiments finally found a method that worked. Bundles of wheat straw were laid flat on the ground in rows, and more bundles in rows were laid at right angles to them. The middle of each bundle is pressed with a shovel 10 cm. into the sand so that the two ends showing above ground form one-meter square hedges. The system, resembling a checkerboard netting, fixes the shifting sand and reduces wind speed. The squares also retain enough rain and snow water to help vegetation get started. With the help of local people, the forest farm workers began building checkerboard belts 300 meters wide north of the railroad and 200 meters wide south of it. Today these belts line the entire 50-kilometer desert section of the line — a total area of 3,800 hectares.

The straw hedges rot in four or five years and are blown away. New ones have to be laid but work has started on a long-term plan to stabilize the sand with vegetation.

Rainfall is so scant here that it evaporates at a rate 15 times faster than the precipitation. The sand is many meters deep, the water table low, and vegetation almost non-existent. Technicians, however, found a stable layer of moist sand at 30 cm. with a water content of 2 to 3 percent. This is why some plants can live.

In 1959 the forest farm workers tried 10,000 sagebrush plants. Unsuitable to the locality, all of them died. They raised a variety of desert plants in their nursery and chose a dozen that had long roots, could withstand heat and cold, grew rapidly and could live even under sand.

One of the sturdiest of these was *Hedysarum mongolicum*, a variety of sweet vetch that grows wild in the Tyngeri Desert. One to two meters tall, it has small sparse leaves, long and thin branches and small pink flowers. Its capillaries are bigger and more numerous than those of other plants, enabling it to absorb more moisture. Its pores close tight during the heat of the day and open in the morning and evening, thus regulating its own temperature and moisture. A layer of velvet-like hair on the bark protects it from strong sun. It can live ten years or more in a harsh desert environment. The farm workers collected seeds, cultivated it in nurseries and then transplanted it to the straw squares.

Today both sides of the railroad are green with clumps of vetch, pea shrub and yellow willow. This growth reduces wind speed, checks sand, and traps rubbish carried by the wind. When it dies, the leaves and branches form humus that improves the sandy soil for other growth.

**Water for the Desert**

Stabilizing sand with vegetation is longer-lasting and costs less than straw squares, but the plants grow slowly and the survival rate is unstable. In especially dry years the plants die in great numbers. Water had to be brought to the desert to guarantee the plant growth. Wells were sunk to provide irrigation but the water was too deep and too little. The best solution seemed to be the use of water from the Yellow River south of the railway and fairly near.

The first problem was that the water sank too far into the sand to nourish plants. But experience showed that after several waterings, this stopped because the great amount of silt in the Yellow River water had formed a deposit that effectively retained the water. Plants and vegetables grew well on this soil. A melon grown that year weighed over 10 kg.

This discovery made the forest farm workers decide to pump in Yellow River water. Near Shapotou a sheer cliff drops 100 meters to the river. With the help of the local water conservation department a two-step pumping station was built here and finished in 1968.

A pipeline over seven kilometers long was laid along both sides of the railroad in the Shapotou section. Three-nozzle aluminum sprinkling heads water 0.5 hectare of trees and plants each. The irrigation canals, a total of about 20 kilometers, are lined with concrete slabs to prevent seepage.

The water also made it possible to build farm fields. In 1973 workers and commune members in nearby villages began leveling sand dunes and building terraced fields. So far they have reclaimed 78 hectares.

During the ten years since water was first lifted into the desert, seven kilometers of trees interplanted with shrub growth have been planted, the beginning of a long green wall.

More than 20 years have passed since the first train crossed the Tyngeri Desert. The storms continue to rage, but a green belt holds the sand in check. Trains take out coal, salt, furs and skins from Ningsia and bring in materials and equipment for building up the area. Ningsia, once isolated, is now linked to the rest of the country.
Kuo Mo-jo

A Cultural Giant

CHOU YANG

THE late writer Kuo Mo-jo was, with Lu Hsun (1881-1936), one of the two main founders of the new literature following the May 4th Movement of 1919. After liberation he became an esteemed leader in China's cultural and scientific fields and Chairman of the All-China Federation of Literary and Art Circles.

His initial collection of poems, The Goddesses, was first published in 1921. Imbued with the spirit of seeking freedom and light, it was the beginning of a new wave of revolutionary poetry. “The Nirvana of the Feng and Huang” is one of the most famous poems in this collection. Starting from the idea of nirvana as gaining a new life through pain and death, the poem foretold the death of the old world and the old China and their rebirth anew. The poem shows the author's profound dialectical thinking and fervent aspirations, in tense patriotism and confidence in the future.

In 1927 when Chiang Kai-shek's betrayal brought about a bitter struggle between revolution and counter-revolution, Kuo Mo-jo wrote his famous article “A Good Look at the Chiang Kai-shek of Today”, exposing Chiang in his true colors as an arch traitor and conspirator. The article was an inspiration to our revolutionary people and gave them fresh faith and courage to fight on.

Kuo Mo-jo was one of the first in our country to try to study Chinese history from the Marxist viewpoint of historical materialism and to raise the banner of proletarian literature. During a time of warlord repression he and his comrades in the Creation Society, an organization of writers, had the courage to spread Marxist ideas on culture and proletarian literature, thus sowing the seeds of revolution in the minds of thousands of young intellectuals. After the failure of the revolution in 1927 he went to live in Japan. Even during these years of exile from 1928-1937 he never stopped his revolutionary activity. Though he did outstanding research in deciphering the inscriptions on the Shang dynasty oracle bones, which won the praise of Japanese scholars, his real interest was not there. Day and night he worried about the fate of his unhappy motherland and kept in close touch with the Left-wing cultural movement in China.

In 1937 he returned home after the Japanese invasion of China. Then, under the guidance of Chou En-lai, he worked indefatigably in the Kuomintang areas to build up the resistance, develop revolutionary culture and set up united front organizations for resistance among literary and art people. He wrote the famous historical play Chu Yuan (1942) about the great patriotic poet of ancient times. In the figure of Chu Yuan one can see a lot of Kuo Mo-jo himself. Through Chu Yuan he leveled a passionate attack on the policies of the Kuomintang government. The play produced a strong response from audiences in the Kuomintang-controlled areas.

In 1944 he published his celebrated essay “Commemorating the 300th Anniversary of the Year Chia-Shen (1644)” in which he discussed the causes for the defeat of the peasant uprising led by Li Tzu-cheng (1606-1645) at the end of the Ming dynasty (corruption and factional struggles among the peasant leaders after their entry into Peking — Ed.). This article was highly praised by Chairman Mao who urged that all members of the Chinese Communist Party read it.

After liberation Kuo Mo-jo was put in charge of scientific and cultural work for the new China. In his spare time he wrote many poems, essays and historical plays in a vein of revolutionary romanticism. He also wrote many poems extolling the friendship and solidarity of the peoples of the world and their struggle against imperialism, hegemonism and revisionism. He was an extremely active and versatile man with achievements in many fields.

I knew Kuo Mo-jo for 40 years. In a talk with him last year I happened to mention Goethe, whose Faust and other works he had translated. Recalling Engels'
characterization of Goethe as an Olympian, I began to muse upon the idea that the old man before me was like the god of Mount Tai, a sacred mountain of old in China. Indeed these two cultural giants had much in common: encyclopedic knowledge, intellectual brilliance and artistic genius, as well as devotion to the natural sciences. But of course there were differences. "You are our Goethe," I said to Kuo Mo-jo, "but a Goethe of the new socialist China." Like Goethe, he was a cultural giant and the pride of his nation.

Kuo Mo-jo

Archeologist and Historian

DURING his sojourn (1928-1937) in Japan Kuo Mo-jo devoted himself to study of the oracle bones and tortoise shells unearthed at the ruins of Yin, the Shang dynasty capital, and inscriptions on bronzes of the Yin* and Chou dynasties (14th to 3rd centuries B.C.). His analysis of these materials from a Marxist viewpoint was published in his Essays on Ancient Society of China which appeared in 1930. It was an epoch-making work in Chinese historical science for it advanced a view altogether different from that held by Hu Shih (1891-1962), a bourgeois scholar, and Trotskyite commentators, who asserted that China had never had a slave society. These people held that the Marxist view of social development could not be applied to Chinese society which was in a category all its own. Kuo Mo-jo proved with a wealth of archeological evidence and historical facts that China had gone through the stage of slave society.

In the following 20 years Kuo Mo-jo made deeper studies in this field. In "Critique of My Research on Antiquity", written in 1944 and later to form a part of the book Ten Critiques,** he revised some of his conclusions on the periodization of Chinese slave society. These points were dealt with more fully in The Age of Slavery (1952). His revised view — that Chinese slave society existed from the Yin dynasty through the changes that distinguish the Spring and Autumn period from the Warring States period which followed — has been generally accepted in historical circles.

Both wide and profound learning and a Marxist viewpoint are needed for anyone to correctly deduce the mode and relations of production and the ideology of the Yin and Chou times from the oracle bone and bronze inscriptions from an early age. Kuo Mo-jo had read the classics and other ancient books. While studying medicine in Japan he learned modern methods of research and acquired an understanding of dialectical materialism. His extraordinary analytical ability, memory and power of imagination all helped.

His most important archeological work is The System of the Inscriptions on Chinese Bronzes of the Chou Dynasty, Illustrated and Annotated. At the time, excavation and study of oracle bones was already being done on a scientific basis, but work on the bronze inscriptions was still in a state of confusion. There were many counterfeit vessels and data was rarely available as to when and where the authentic ones had been excavated. While there had been writings on them since the Northern Sung dynasty (960-1127), no system had been established for classifying or evaluating them. Focusing his research on the Western and Eastern Chou periods covering the 11th to 3rd centuries B.C., Kuo Mo-jo classified the important bronzes both chronologically and according to the states of their origin. The book is an indispensable reference for research on Chou bronze inscriptions and on the entire period of ancient Chinese society.

In the preface to this work Kuo Mo-jo proposed dividing the

*The Yin dynasty is the name given to the latter part of the Shang dynasty. It dates from the time the Shang capital was moved to a new site named Yin (now Anyang, Honan province) in the 14th century B.C.

**Ten Critiques is a collection of ten articles Kuo Mo-jo wrote during 1943-1945. In them he criticized various schools of thought. He also criticized his own mistaken ideas in relation to his studies of ancient times in one of them.

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bronze age of the Yin and Chou dynasties into three periods according to shape, design and script (including both literary form and the style of the written script). This idea was explained in greater detail in a later article “The Bronze Age”. This was an important breakthrough in the method of classification of Chinese bronzes and has been widely adopted by researchers both in China and abroad.

His other works on ancient written scripts include both those on general themes and notes on his research on inscriptions from certain libation vessels or on individual written characters, with the purpose of learning more about the historical background or ascertaining the dates. His translations of the longer inscriptions into contemporary language are rhymed and beautiful literature in themselves. His untiring explorative and creative spirit brought many refreshing ideas to this field.

In the early days after liberation he served as a Vice-Premier of the Government Administration Council, Chairman of its Committee on Cultural and Educational Affairs and President of the Chinese Academy of Sciences. Heavy administrative tasks did not stop him from maintaining an active interest in archeology. It was at his suggestion that a Cultural Objects Bureau was set up under the Ministry of Culture and the Institute of Archeology formed under the Chinese Academy of Sciences. Both have made great contributions to archeological work in China. He himself continued his researches, going to excavation sites whenever he could. In 1971 Premier Chou En-lai approved the plan he proposed for an exhibition of cultural objects to go abroad.

In 1973 he supervised a major revision of A Draft of the History of China, a book he had edited in 1958, enriching it with a wealth of new material and revised conclusions based on it.

In January 1977, though confined to his home because of illness, he asked to see representative bronzes and jade pieces unearthed at Anyang from the tomb of Lady Hao, wife of King Wu Ting of the Yin dynasty. He continued to supervise editing of the Collected Oracle Bone Inscriptions by the Institute of History and gave active support to the writing of Collected Inscriptions from Chinese Bronzes of the Yin and Chou Dynasties, for which the Institute of Archeology has started to gather materials.

His articles on history and archeology written before 1961 have been published in a book entitled Essays on Literature and History. Those written in later years have been brought together by the Institute of Archeology to be published by the Science Publishing House.

Kuo Mo-jo in his home at work on collation of ancient books, 1955.

Examining recently-unearthed bronzes to ascertain their period.

Kuo Mo-jo

He Welcomed the Springtime for Science

CHOU PEI-YUAN

When I first came to Peking in 1919 I had the opportunity to read Kuo Mo-jo’s early translation of Immensees* and his poems inspired by the May 4th Movement. Those bold, unrestrained and soul-stirring verses, as the writer himself later said, expressed his patriotic fervor: “It was then that I found the outlet for my volcanic

A novel by the German writer Theodor Storm (1817-1888).
eruption.” His works had a great influence on the young people and I admired him very much.

I first met Kuo Mo-jo in Peking in 1949 at the preparatory session for the Conference of Natural Science Workers. His speech there left a deep impression on me. He portrayed with confidence a bright future for China’s culture, science and art. In the 29 years since then I worked with him closely. He was a good teacher and friend.

The old China was backward in culture and science. After liberation the Chinese Academy of Sciences began with only 200 people left from the Kuomintang’s Central Research Academy and Peiping Research Center. As president of the academy since 1949 Kuo Mo-jo contributed immensely to organizing and promoting the development of science in China. Today the academy has over 100 research units and tens of thousands of research workers.

Kuo Mo-jo always paid attention to training young people. With his sponsorship and leadership the Chinese University of Science and Technology was founded in 1958 and he was named its president. He wrote the words for the school song and invited Lu Chi, a noted composer, to write the music. With leadership from the Communist Party, we in China have had great success in the field of science. We have filled in many blanks in our country’s scientific work, strengthened weak links and are narrowing the gap between China’s science and world advanced levels. This is due to the hard work of Academy President Kuo and the ranks of scientific workers.

I shall not forget the moving scene when Kuo Mo-jo, though seriously ill, appeared at the opening session of the National Science Conference on March 18 this year. He had been told by the doctor to stay only half an hour, but he stayed on to the end of Vice-Chair-

man Teng Hsiao-ping’s speech and Chairman Hua Kuo-feng had to ask him to go back to the hospital. All present were greatly moved by his spirit of giving his last measure of devotion to the cause of Chinese science.

Kuo Mo-jo was too ill to attend the closing session. The speech he wrote, entitled “Springtime for Science”, was his last testament left to us. He said, “In the old society many people involved in scientific and cultural endeavors longed for the prosperity of their motherland, for the revival of nationhood and the flowering of science and culture. But then, in those dark years, science did not have a place and scientists had no future! . . . So many men and women with high ideals, worried and frustrated, wished to do something about it, only to find that, able as they were, they had no chance to carry out their ideals.” These words evoked a ripple of response from the older members of the audience.

“Today,” he said, “we can say with our heads up: The time when the reactionaries could trample on
Chairman Hua in Romania

I am a long-time subscriber and admirer of Chinese publications. Your magazines are good both in content and format. I like the subjects and the way you present them. As I write this letter, I and the people of my country are greatly excited because Comrade Hua Kuo-feng, the respected Chairman of your Party Central Committee, is on a friendly visit to our country and has had very successful talks with our President Comrade Ceausescu.

Bucharest, Romania

M.A.M.

Service for Tourists

My wife and I will be visiting your country as part of a group sponsored by the U.S.-China People's Friendship Association. In preparation we are spending several hours each day reading back issues of China Reconstructs, New China, China's Foreign Trade and Peking Review.

On our tour we will visit Nanning. But in about a dozen books on travel in China and many magazines, I have found very little about Nanning. Suggestion: since your country will be hosting more and more people from the United States, perhaps you could include at least one article a month on the cities most tours visit. People who travel like to study the areas they will be visiting.

Huntington Beach, U.S.A.

T.E.L.

Life of the Ordinary People

I support R.B.'s request from Caen, France in the Postbag of your August issue that you give us more details about how ordinary people like us live. (See p. 13 in this issue—Ed.)

Do you pay any income tax? Are you taxed at all—if so, how? You know that we in the west are taxed directly on income, then again by sales-purchase taxes and other indirect and hidden ones. Our apparently high salaries, therefore, are constantly whittled away. I know you have given us budgets from time to time, but I would like to hear how family income is allocated on an average, and details such as how long annual holidays are, maternity concessions and sick benefits (convalescence especially).

I especially appreciated "Popular National Dances Seen Again", "Do You Know: How Chinese Names Are Formed", "China's Favorite Cartoon Character" and the "San Mao Cartoons".

How about more humor, jokes and cartoons? A regular section on national dress and theatrical costumes would be interesting.

M.F.

Banjul, The Gambia

In Booklet Form

I am a reader of China Reconstructs and China Pictorial. Both magazines are wonderful. I am a dentist and have placed your magazines in my waiting room for my patients to enjoy. Not a few have told me that they are now subscribers.

Your columns such as art, science, geography, modern and ancient history are presented vividly with examples. Maps are very helpful. Your subjects are rich and varied. But there is one you have not given enough attention to—music. The Chinese people have been very fond of music since ancient times. Music is also an important factor in uniting the peoples of all countries.

Recently you have published a series of very good articles on the Yangtze River. How about publishing them in a booklet form? Articles on other subjects can also be compiled into booklets e.g., principal cities, provinces and regions with special features, certain local handicrafts (sculpture, embroidery, art, etc.). Also regions that have undergone great changes since the founding of New China, such as Tibet. With such booklets your readers would gradually acquire a real encyclopedia about China, and feel closer to your country.

Lausanne, Switzerland

M.N.E.

I Like the August Issue

The August issue of China Reconstructs covered varied topics in a very interesting way. The photographs were superb and well reflected Chinese life and history. Your Science and Technology column is well reflected Chinese life and history. The photographs were superb and well reflected Chinese life and history. Your Science and Technology column is good in presenting new developments in Chinese customs and traditions. There are eight in our group, all of whom have visited the People's Republic of China within the past four years. In our opinion most Americans have difficulty understanding modern China due to the lack of background knowledge of China's past.

Tucson, U.S.A.

R.A.D.

Sports News

Your issues have been quite good but I have some suggestions I would like you to consider. As China Reconstructs is read all over the world, it would be better if you include more articles and photographs about mass sports activities in various parts of the world.

Also if you increase the number of colored photographs I am sure you will get many more subscribers. I am very eager to see colored photographs concerning the wild life of your country.

Jinja, Uganda

F.K.L.M.

Home Life and Medicine

I have received the August issue and especially enjoyed "Popular National Dances Seen Again", "Tawenkou: Neolithic Culture Find", "San Mao Cartoons" and "The Artcraft of Weaving".

I hope you will not forget to publish some articles on home life, medicine and the education of children.

Lima, Peru

L.C.R.
IT was the Spring Festival. The PLA company helping the villagers build a reservoir were going to celebrate with a fine dinner. Everyone in their quarters on the edge of the village was busy getting things ready.

In the kitchen, the squad leader was sharpening the chopper. "Hsiao Tu," he said, "bring me the chickens we bought."

Hsiao Tu lifted the cover of a large bamboo basket. His brow creased and he said, "Hey! How come there's an extra one?"

"Nonsense. We bought six."

"Well, there are seven now! I can count!"

Exasperated, the leader looked. There were seven. "How the . . .?" He scratched his head. Suddenly a rooster crowing in a nearby house gave him an idea. "That's it! Somebody in the village sneaked it in for our dinner tonight."

"Why didn't he tell us about it?"

"Don't be so thickheaded. Every holiday they bring us eggs, fish, crabs and stuff, and we never accept them . . ."

"But . . ."

"You know our rule — don't take a needle or a single piece of thread from the masses. So they put it in the basket while we were out."

The squad leader had guessed right. The extra hen belonged to a boy named Hsiao Lu who lived with his grandmother next door to the PLA men's camp, a bright ten-year-old who was always running in to get them to tell him stories. Hsiao Lu wanted to be a PLA soldier when he grew up. When his grandmother had bought baby chicks the year before, he had asked for one to fatten up for his PLA uncles. Now that it was big and fat, he and his grandmother had stealthily put it in the mess squad's kitchen.

It was getting late and the squad leader was worried. How could they kill any of the chickens until they found the owner of the extra one?

"I know, squad leader!" Hsiao Tu said. "Let's take them all around the village to look for the owner."

"Takes too long."

"Then why not weigh them before we kill them. Then after our dinner when we find the owner we can pay him for it . . ."

"Oh great!" said the squad leader. "And just how do you think the owner is going to identify his chicken from the pile of bones that's left?"

Suddenly the squad leader's face brightened. "Hsiao Tu," he said, "turn them loose in our yard." The chickens ran around a little then settled down to scratch in the dirt for something to eat. "Now chase them a little — but not too hard," he told Hsiao Tu.

The squad leader had guessed right. The extra hen belonged to Hsiao Lu's grandmother. The chickens ran frantically here and there, turning this way and that looking for an exit. But one of them squawked and clumsily flapped its way over the wall. "That's the one!" the squad leader exclaimed. "Let's go next door to Hsiao Lu and his grandmother.

Turning to the cook, he said, "Catch these six and get them ready."

Meanwhile, Hsiao Lu and his grandmother were trying to chase the hen out of their yard. "Damn you!" she said, puffing. "It was hard enough to sneak you into the PLA men's kitchen, who let you come back?"

Hsiao Lu was shouting, "You don't appreciate the honor! The PLA uncles help us in all kinds of ways, why can't you help them by going into the pot?"

Finally, flapping its wings and squawking, the hen half ran, half flew out the gate — right into the arms of the squad leader who was just coming in! Hsiao Lu and his grandmother, hotly chasing the runaway, almost bumped head on into the leader and Hsiao Tu.

"Grandma, Hsiao Lu," the leader said with a big smile, "we appreciate your thoughtfulness, but you know we can't take things from the people. Let the hen stay and lay more eggs for you." He put the hen in the grandmother's arms and, before she and Hsiao Lu could protest, turned back to camp.
A TRIP TO YUNNAN
MARIE-LUISE LATSCH-HEBERER

As an ethnologist I had been interested in the minority peoples of China for a very long time, so it was with great excitement earlier this year that I learned I had the opportunity to travel to Yunnan province and the Kwangsi Chuang Autonomous Region, home of the Chuang nationality. I particularly wanted to study the changes socialism had brought to the minority nationalities in China.

First, a word about minorities as a whole in the People's Republic of China. In addition to the Han people, her majority nationality, China has 54 minority nationalities. While they account for only 6 percent of the population, traditional minority areas cover 60 percent of the country's area. (Whether or not a group is a minority nationality is determined on the basis of social, economic, territorial, linguistic and psychological factors in common.) Though not much is known about these minorities outside China, nevertheless they represent an extraordinary variety of peoples. This is manifested in, among other things, the many language groups to which these minorities belong, including Sino-Tibetan, Altaic (Turkish, Uighur, Tatar and others), Korean and Indo-European.

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Yunnan was especially interesting to me because more than 8 million out of its 28 million population are members of minority nationalities. They dwell in 70 percent of the province. Yunnan is situated in China's far south and borders on Vietnam, Burma and Laos. Twenty-one minority nationalities live there: Yi, Pai, Hani, Chuang, Tai, Miao, Lisu, Hui, Lahu, Wa, Naxi, Yao, Tibetan, Chingpo, Pulang, Puyi, Nu, Achang, Penglung, Mongolian and Tulung. Eight of them (Yi, Naxi, Tibetan, Puyi, Lahu, Chingpo, Lisu and Tai) have their own writing.

At the time of liberation in 1949 these nationalities were in various stages of development: in the final phase of primitive classless society, in a form of slavery, in a stage of transition from slavery to feudalism and, finally, feudalism itself. Slavery or serfdom predominated among the Tai, Hani, Lahu, Achang, Tibetan and Yi peoples, while nearly 600,000 of the Lisu, Chingpo, Wa, Nu, Tulung, Penglung and Pulang nationalities had class society with remnants of the primitive classless stage. Their economy was very underdeveloped and their standard of living extremely low.

How have these peoples managed to leap the centuries into socialism as at present? I wondered. Could there really be equality among nationalities? Have they been able to make a suitable evolution, or is it really Han chauvinism in disguise that is dominant? From teachers at the Institute for Nationalities in Kwangsi, which has minorities similar to Yunnan's, I learned the findings of their research into the evolution, history and other aspects of these peoples' lives which helped answer my questions.

The Nu people, for instance, at the time of liberation were in a stage of transition. Although they farmed communally they could not be classed as in primitive classless society because many clans had begun to split into family units.** The Jino people for instance (though it is not yet decided whether or not they are truly a nationality) lived together in clans and practiced equal distribution typical of a primitive classless society, with the exception that the clan leader always got a bigger and better portion.

Kuomintang Forced Assimilation

Before liberation under the Kuomintang, the minorities suffered severe oppression. The Kuomintang tried to force their assimilation with the Hans. Their languages and culture were suppressed. The Kuomintang's refusal to acknowledge that China has many nationalities was carried to point of denying these nationalities' existence.

For the Kuomintang there was only one nationality — Han. Others were either regarded as offshoots of the Han, as "savages" or, in extreme cases, as Hans differing from the majority only in religion. Han chauvinism was policy. The minorities were suppressed, exploited, even massacred.

**A characteristic of primitive classless society is that at the people's low level of the productive forces and primitive division of labor, the means of production are owned in common. Nomadic tribes which subsisted through collective gathering of plants and hunting, and later settled tribes who farmed collectively, shared the means of production in common.
if they dared to rise against this oppression.

As an example of Kuomintang policy the nationalities institute teachers told how in 1932 in Kwangsi's Sanchiang county a committee was set up for "reform" of the minority peoples' customs and clothing. The peasants dared not wear their national costumes to market lest Kuomintang soldiers tear them up, so they were forced to wear Han-style clothing.

In China today under the Communist Party, the customs and culture of the minority nationalities are respected. They wear their national style of dress or not as they see fit. "We don't have the right to force any people to do anything," a Han Chinese ethnologist said. He cited Article 4 of the Constitution, which states: "All the nationalities have the freedom to use and develop their own spoken and written languages, and to preserve or reform their own customs and ways." This, of course, also means that efforts are made to educate the minority nationalities in order to gradually abolish negative aspects of their society such as those which handicap production or are prejudicial to health.

How different things are in today's socialist China, where not only is these nationalities' right to existence recognized but they control their own local affairs in five large autonomous regions (the equivalent of provinces), 29 autonomous prefectures and 69 autonomous counties or banners.

**Old Hsishuangpanna**

One of these is the Hsishuangpanna, the autonomous prefecture of the Tai people in Yunnan province. It covers an area of 20,000 square kilometers and has a population of 620,000, of which the Tai make up 47 percent. It was established in 1953, taking in three counties, Chinghung, Mengla and Menghai. In early summer when I was there the scene was one of almost overwhelming vegetation with a superabundance of sweet-smelling flowers, coconut, mango and banana trees heavy with fruit and groves of oil-palms and teak. Everywhere there were innumerable birds, and huge butterflies nearly as large as one's hand. And in the early morning in people's communes carved right out of the virgin forest, the fragrance of young rice shoots. Many wild creatures abound in these forests, peacocks, wild oxen, elephants, panthers and monkeys, but unfortunately I never caught sight of them. At first glance it seemed like a paradise. But had it been so before the liberation, I wondered.

Before 1949 half the population suffered from malaria for which this region was notorious. Smallpox, cholera, typhoid and bubonic plague raged. People used to say about the village of Mengwang, "If you go there you'd better first sell your wife and then order your coffin," so certain was it that no one returned from there in good health. I learned these facts from a man of the Tai nationality, who as a child had lived in a monastery being trained as a monk. They made me think of something I had read a short time before in a book written in the thirties, _A Doctor Living in China_ by A. Gervais. He said that when a western doctor had proposed measures to halt a cholera epidemic in the adjoining province of Szechuan, General Lo Hsing-hui, Kuomintang military governor of Szechuan had replied that even in good years there are not enough rice, corn and vegetables to feed the population, which showed a marked increase every year. The population was too great and famine was inevitable, he said. He refused to undertake the suggested measures although they would have saved one or two hundred thousand lives. If the cholera spread, he said, it would help decrease the over-dense population and thereby give the survivors a chance to eat and live. Anyone who knows a little bit about the old China will realize that this is no isolated case.

**Interesting Clothing**

The first thing that struck me as we traveled into the area where the Tai people live was the clothing, especially that of the women. The men dress much like the Hans, but occasionally one sees a man with the Tai collarless shirt, narrow trousers, a wide sash at the waist and a long strip of cloth wound round the head as a turban. The women wear multicolored towels on their heads, or wear their hair pinned up and adorned with flowers or a bright comb. Their long-sleeved collarless blouses are buttoned at the side with five buttons, and are seen in many colors. Skirts, some knee-length but most reaching the ankle, range from colorful cottons to velvet. In some cases they are pleated. These are girdled sometimes by a sash of silk but more often by a wide belt of wrought silver. The women wear a lot of jewelry of silver and some of gold.

**Houses on Stilts**

I was also struck by the special style of architecture, the traditional Tai houses of wood and bamboo erected on stilts. A portion of the space below is given over to pigs and chickens, and the rest to storage, including storage of the long, narrow boats used during the water splash festival, the Tai people's biggest holiday. Upstairs the house consists of a single large room with a section curtained off for sleeping. There are no windows but light filters in through spaces between the boards of the walls, which also keep the house comfortably cool. The village I visited had electric lighting.

We were invited to a meal in one of these houses in Mengching-lan Village which is part of a people's commune not far from Chinghung, capital of the autonomous prefecture. We sat on little stools around small, low tables and savored the dishes typical of the area. There were several kinds of chicken and fish, a special variety of herb vegetable and other dishes with a curry-like sauce, piquant and spicy. Glutinous rice was served in a large bowl placed beneath the table. It is made into balls to be eaten with the fingers. We drank a home-brewed corn liquor.

In the course of the meal the commune brigade leader and the head of its research group told us something about the history of the

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Rural scene in Hsishuangpanna.
At the Hsishuangpanna Tai Autonomous Prefecture

A dress rehearsal shot of the Peacock Dance, a Tai folk dance.
fluence over the Tais. When a child was born a monk chose his name, if a person became seriously ill a monk was called in to assist and to pray. Every aspect of life was linked to Buddhism. The people had to provide the monks with food and clothing. If there was a temple in a village the people had to supply it with firewood, rice, oil, vegetables and cash, although sometimes wealthy people acted as sponsors for the monks and provided them with food and clothing.

Buddhism conditioned people's thinking and also left its mark on them physically. On our trip we often met people with crosses or other geometrical figures tattooed on their arms and legs. Parents had done this to their children to make it easier for them to attain nirvana.

The team and research leaders gave another example of the old beliefs. When a person was considered unlucky the Tais would declare him a "piba devil" and drive him away. Women who bore twins, an "unnatural" event, were so treated. When someone was ill, the piba devil supposed to have caused it was sought out. The nobles and chiefs knew how to exploit these superstitions. If anyone opposed them they declared him to be a piba devil and expelled him from the village. Before liberation among 69 families with 300 people at one time resident in Mengchinglan Village, 12 had been declared piba devils and driven into the mountains. When the land reform started there in 1955 the activists persuaded the other villagers to seek out these people and urge them to come back and share in the redistribution of the land. It took a month to get them all back. The man who told me this had been one of those expelled as a piba devil on the instigation of the village chief. This was the head of the agricultural research group himself. But now, not long before we met, he had been a delegate to the National Science Conference. How life has changed!

Beliefs

Another important feature of Tai life in the past was religion. Most of them profess Hinayana Buddhism or Baizhuang Buddhism, one of its subdivisions (the other subdivisions are Ren, Cuodi and Douli, but not many Tais follow these). This latter branch is less strict than the others. For example, the monks can wear rich robes, cover with a blanket, travel by bus or horseback and eat meat. All these are forbidden to the Cuodi Buddhist monks. On meeting one of them one had to kowtow. Hinayana Buddhism exerted great influence over the Tais. When a child was born a monk chose his name, if a person became seriously ill a monk was called in to assist and to pray. Every aspect of life was linked to Buddhism. The people had to provide the monks with food and clothing. If there was a temple in a village the people had to supply it with firewood, rice, oil, vegetables and cash, although sometimes wealthy people acted as sponsors for the monks and provided them with food and clothing.

The man I mentioned above who had been sent to a monastery as a child is now head of the Hsi-shuangpanna prefecture tourist office. From him I got more examples. Today, he said, it is forbidden to declare anyone a piba devil or to kill twins or handicapped children or expel their mothers. As a way of forging equality and unity, people are forbidden to refer to any nationality in derogatory terms such as were once used.

On the question of language, Hsi-shuangpanna newspapers are published in the Han and Tai area. From their words one could sense the bitter past which the people had suffered for centuries, and this gave me a better understanding of the present. The feudal system among the Tais can be traced back to the time of Confucius (551-479 B.C.). Under it, all land belonged to the feudal chieftains. Each holding included many villages, whose heads were nominated by the chieftains. The best land was kept for use by the chieftains and the rest was let out to the villagers as tenants. There were three kinds of villages: the first were responsible for farming the land, the second supplied labor for the chieftains' households, the third type of village engaged in special lines such as horse-breeding, boat-building or caring for the graves of the aristocracy. This latter branch is less.
languages, and there are radio transmissions in both. At important meetings there are interpreters for people representing the different nationalities. In elementary schools children study in their native language (Tai or some other) for the first three years, and then in the Han language.

The central government also gives the minority nationalities certain privileges and financial aid. The cloth allotment for the minority nationalities is more than that for the Hans. Salt, which before was tremendously expensive, is priced the same in Hsishuangpanna as elsewhere. The state bears the high cost of transport, which is not included in the price.

**Good Customs Encouraged**

These national customs and traditions which do not affect socialist progress are encouraged, while those with a bad effect, like restricting the development of the forces of production or injuring the people's health, are not. Again and again people we talked to stressed the differences between the old society and the present. One person mentioned that before Hsishuangpanna had virtually no industry and everything had to be brought in from outside. Transport costs plus profiteering added to the price so that a box of matches might exchange for four pounds of tea, or a hoe for ten baskets of rice. Today the prefecture has factories making chemicals, paper, cement, shoes and sugar, and its own mining industry.

In agriculture the main emphasis is on grain but there is also large-scale cultivation of tobacco and tea and cattle-raising. Some of the wild virgin forest has given way to stands of teak, rubber and oil-palms being grown in a controlled way. Betelnuts, cinnamon, pepper, cinchona and medicinal herbs are cultivated in great quantities. Cocoa, mangoes, bananas, pineapples and grapefruits are harvested in abundance.

Formerly the land was cleared by burning off the vegetation and in many places in the mountains the digging-stick was the sole agricultural implement. We saw evidence that some burning-off is still done. Apparently this is because of the lack of manpower to fell the trees and transport them. Much plowing is done by buffalo, but also more and more "iron oxen" (tractors) are being used. Today, unlike in the past, fertilizer is applied and the crops are weeded. The yield has therefore risen considerably.

It is not possible to describe all the changes in detail, but two aspects which should be mentioned are the present level of education and culture and the health situation. We were told that before liberation 70 percent of the Taisho were illiterate. Then the entire prefecture had only six schools with a total of 500 pupils, only the children of the rich. Today there are 34 middle schools and a teachers' training college, which we visited. Altogether 97,000 children are enrolled in the 1,280 elementary schools and 26,000 at the middle school level.

Very few people could get medical treatment before liberation. There were very few doctors, and illness was widely viewed as caused by demons. Now the prefecture has a modern hospital. In Yunnan province as a whole for every 400 persons there is a medical worker (doctor, nurse, ambulance driver, etc.). Malaria is rare because of the special measures taken to fight this disease. Out of every ten families one person was chosen to be trained in malaria prevention and is responsible for this work among these families.

**Population Increase**

The marked improvement in living conditions is reflected in the increase in population of the minority nationalities. In the province as a whole it has risen from 6 million in 1949 to over 8 million today. The figure for the Hani people has gone up from 490,000 in 1954 to 780,000 in 1970-71. The Penglungs have increased three-fold, from 2,592 in 1954 to 8,000 in 1977.

On my return to Peking I weighed the situation. What impression had Yunnan made on me? The result was definitely positive. On one side I understood more about the many problems still to be solved and what it means when China is described as a developing country. On the other hand — and there is no question about this — the socialist system has brought a huge, radical, positive change to the lives of the minority peoples. Exorcism has been replaced by modern medicine, illiteracy by schools, stick-digging by tractors and burning-off by modern agricultural methods. The former slaves and tenant farmers have taken their destiny into their own hands.

Involuntarily I recalled the peasant who had been expelled as a "devil" and this year had been a delegate to the science conference.
The Bactrian Camel

The camel is becoming a rather rare animal in the modern world. The one-humped dromedaries of Arab lands are diminishing and the two-humped Bactrian camel of China now lives wild mainly in eastern Sinkiang. The Bactrian camel is better suited for cold climates and rocky hill country. It feeds on the thorny, bitter desert plants rejected by most other animals, drinks brackish water readily and, because of its weak power of self-defense, chooses to live in a harsh natural environment in order to avoid attacks by its natural enemies.

The area in eastern Sinkiang inhabited by the Bactrian camel—a desolate territory 250 kilometers long and 100 kilometers wide—is very hot in the summer and bitter cold in the winter. Only 30 mm. of rain falls per year and this evaporates almost at once. In July and August when the temperature reaches 55°C, that of stones and sand can reach 70°C. From December to February the temperature drops to 20°C below zero. Strong winds blow for more than 50 days a year, driving stones and sand, darkening the sky with sand. There are no rivers or lakes, and only a few brackish springs.

Animals, plants and humans are rare. Only thorny plants that withstand the dryness grow here. There are occasional Mongolian gazelles and sometimes migratory birds such as wild geese and sheldrakes, many of whom die in passage. Lack of water keeps the camel’s enemies, the wolf and lynx, away.

Survival of the Fittest

The Bactrian camel belongs to the genus Camelus of the order Artiodactyla. The wild camel is somewhat different from the domestic animal. The head and
humps are smaller, the neck and legs longer. With its long legs it can run for two hours at 30 kilometers per hour. Its widespread foot, covered with a horny layer a half centimeter thick, is well adapted for walking on gravel and scorching sand. The Bactrian camel weighs about half a ton, the male often one-third heavier than the female. The nostril is soft and can be closed against flying sand. Its keen sense of smell enables it to detect things as far as 10 kilometers away. Highly suspicious, it readily runs from danger.

The Bactrian camel grows a long, thick winter coat, which it sheds in masses in the spring, replacing it with a thin coat for the summer heat. Its two humps store food for the long winter. In the autumn they are full of fat, stand straight and weigh about 40 kilograms. By the time the winter is over their weight is down to two or three kilograms. These features help the animal stand the greatly different temperatures of the desert in winter and summer.

Its main food is the camel thorn, a plant rich in starch. It also eats tamarisk, reeds and other desert shrubs. It can go without eating for two weeks or more. In the spring, summer and autumn, it seldom drinks water because its food contains enough. In the winter the camels congregate near brackish springs. In the summer they leave the springs to get away from mosquitoes, flies and other insects. Thus the plants around the springs are left to grow and provide food the following winter.

Bactrian camels have no fixed home in the desert. In the summer they live separately. Usually a male and female and their young stay together. In the autumn and winter they assemble in herds of about thirty, these subdivided into three smaller groups according to age. The old eat and rest, the two-year-olds play in a separate group, while the one-year-olds form another group under the supervision of an old female. The little ones often fight and the female roars to separate them or spits out a repulsive mixture which temporarily blinds them and forces them to stop fighting. Ordinarily each group keeps a certain distance from the others, but when a storm threatens they huddle together with the young in the center or under the necks of the adults.

Wolves often attack camels, especially the young, who stray into grassland areas. Their defense is to run deep into the desert where the heat and lack of water discourage the wolves. Camels have been known to run steadily from wolves for 40 or 50 kilometers until they reach the heart of the desert safely. Sometimes wolf packs attack and kill the weak or the young.

The Bactrian camel used to be widely scattered in the arid areas of northwest China. With the development of production the area where they can survive has become smaller. Today the Bactrian camel has become a species protected on natural reserves by the people's government. Hunting them is strictly forbidden.
A COUNTY WEATHER STATION

Staff Reporter

Forecaster Chang Shu-mei.

ONE evening at six o'clock, in the villages of Chiating county near Shanghai, the loudspeakers announced, "All communes and brigades take notice: Tonight there will be a heavy rain..." This was the regular county forecast.

It was the 8th of June. The wheat harvest was in full swing. The sky had been clear all day. Chang Shu-mei was on duty in the county weather station. In late afternoon she noticed clouds rising from the horizon and slowly covering the sun. She had learned much from the peasants' experience in forecasting the weather and at this moment she recalled a saying: "When clouds hide the setting sun on the horizon, rain will pour at midnight."

Her suspicions were confirmed by a falling barometer and a call from the Shanghai weather station saying that a rain front in China's southwestern region was approaching rapidly. Soon loudspeakers throughout the county were broadcasting the forecast of rain for the middle of the night and urging its 19 communes to take measures to protect the wheat.

Commune members set out for the fields and threshing grounds on the run. Some tied the cut wheat, stacked it and covered it with plastic sheets. Others carried the threshed wheat into the storehouse. Heavy rain struck at midnight but the wheat had been saved.

This reporter went to Chiating county's weather station. Hsi Hsi-hsien, thin, a little over 40, with glasses perched on his nose, is the assistant head. Their specific forecasts, he said, are based on observations over the 500 square-kilometer county area and correlated with weather forecasts from Peking, Shanghai and neighboring provinces. The county issues short-term three-day forecasts, middle-term forecasts covering 15 days and long-term forecasts covering about a month.

The station is well equipped. "We phone our forecasts to the county broadcasting network," Hsi explained. "They broadcast them three times a day: 6 a.m., 11:20 a.m. and 6 p.m. Our middle-term reports are relayed to the county agricultural bureau which sends written forecasts to the county's communes, brigades and teams."

In a village I learned one story of the station's service to farmers. Cotton planting season here is in April. For a long time the county station had been studying the experience of the local peasants and analyzing weather data. Hsi and the other forecasters had come to the conclusion that if cotton can be planted on a clear day when the soil temperature is above 12°C, and a good rain follows two or three days later, early sprouting and better growth results. They got busy trying to figure out when such ideal conditions might occur.

On April 6 they called all the amateur forecasters in the communes together to go deeper into the April weather picture. These forecasters were veteran peasants with long experience in analyzing weather changes. For example, over many years Chao Chi-wen of the Malu commune had been recording the day the swallows returned to the area. This year, he pointed out, they had arrived three days earlier than usual. "They're weather birds," he said. "When
they return early it means it's going to get warm early. I think we ought to plant the cotton three or four days earlier.”

Chu Ping-hsin of the Huating commune agreed. “There’s a saying that when the gullies are baked white by the sun by the third day of the third month (on the lunar calendar, hence April), even grass will turn into wheat. That happened this year. We should plant a few days ahead of time.”

Hsi again checked all the station’s data. A weak cold air current in north China, a strong warm air current in south China. This meant warm weather. They reported to the agricultural bureau, sent out a middle-term forecast to the communes and brigades, and called for preparations for early planting.

On April 11 the station was notified that a warm air current was moving eastward from the Tibetan plateau and would probably arrive in the Shanghai area on the 12th. This would bring clear skies. Then, as soon as it passed, a cold air current would intrude and probably bring rain. These were the ideal conditions for planting cotton.

Notice was broadcast to the county, planting was immediately done on most of its 8,670 hectares of cotton, and sure enough three days later rain came.

I was moved by the way Hsi Hsi-hsien and his colleagues had applied the mass line and put such effort into serving agriculture. When I mentioned this, Hsi just shrugged it off. “Oh no,” he said. “Sometimes we make poor forecasts too. There are many laws about weather we don’t understand yet. We hope we can learn through trying to serve farming better.”

**STAMPS OF NEW CHINA**

**Steel Makes Headway**

Advances in the country’s steel industry is featured in a set of five stamps issued by the Chinese Ministry of Posts and Telecommunications on July 22.

Stamp 1. Hot coke being loaded mechanically into an electric car. Red-orange, light blue, blue-green, ochre, gray and white.

Stamp 2. The flow of molten iron from a blast furnace. Vermilion, greenish yellow, bright purple and rose-red.


Stamp 5. Rolled steel products being sent to all parts of the country. Lavender, red, blue, lemon and white.

All stamps are of 8 fen denomination and measure 62 X 26 mm. Perf. 11.5. Color photogravured. Serial numbers: T. 26 (5-1 to 5-5).

**Learn from ‘Hard-boned’ Sixth Company**

The “Hard-boned” Sixth Company is a model unit of the People’s Liberation Army. It is famous for its fine work in political and military fields. To promote the movement to learn from this model unit and help speed up the modernization of the army, the Ministry of Posts and Telecommunications issued a set of three special stamps on August 1, 1978, the 51st anniversary of the founding of the army.

Stamp 1. A PLA man stands ready to repel any invaders of China. Yellow, vermilion, yellow-olive, salmon, gray-blue and indigo.

Stamp 2. While strengthening its revolutionary traditions, the army strives for more modern capability. Violet, yellow-green, red, bright blue and white.

Stamp 3. A military exercise carried out by land, air and naval forces. Red, blue, dull green, white and salmon.

All stamps are of 8 fen denomination. On the lower edge of each is printed, “Learn from the Hard-boned Sixth Company.” Size: 30 X 40 mm. Perf. 11½. Color photogravured. Serial numbers: T. 32 (3-1 to 3-3).
China's Eight-Point Charter for Agriculture covers soil, fertilizer, water conservation, seed selection, close planting, plant protection, field management and reform of tools. Formulated by Chairman Mao in 1958 to promote the development of agriculture, it summed up the rich experience of the Chinese peasants and laid down the principles for scientific farming. *China Reconstructs* carried articles on the first six points of the charter in August 1976; June, July and November 1977; and February and June of this year.

The importance of field management in the Chinese farmer's thinking is shown by the old proverb, "You're 30 percent there when the sprouts you see, but tending your fields is the key." Today field management includes three main aspects, irrigation and drainage, weeding and timely application of fertilizer, all done in proper relation to the weather, soil and growth of the crop. Field management, in fact, coordinates all the other steps in the charter.

With large-scale agriculture and the trend toward more scientific farming, field management is more important than ever.

The major concern is how to make it more scientific. The farming people are seeking ways to bring together the experience of centuries and modern scientific methods. They are trying to improve field management by better learning the laws of growth of different crops.

Field management enters the picture in determining, for instance, when to add more nitrogenous fertilizer as the winter wheat enters the tillering stage, when to stop water and fertilizer to prevent too much leaf and stalk growth, and when to start it again as the ears begin to develop. On the basis of past experience...
commune members know how many stalks and ears they can get per hectare according to the amount of seed sown. With proper field management they are able to achieve the anticipated results. Some jokingly call this "planned parenthood for our wheat".

To learn more about the growth of wheat, members of the Yuehtan production brigade, located in a dry riverbed near the city of Loyang in Honan province, make careful observations and keep daily records throughout the 200-day growing season and a summary after every harvest. They have developed an additional criterion, grading crop growth as weak, strong or flourishing, and take this into consideration when applying water and fertilizer. They have averaged above seven tons of wheat per hectare for three years in a row. This year the yield (two crops a year) has reached 12 tons, ten times that right after liberation in 1949. This method of stimulating and retarding plant growth at different periods is also used with rice, cotton and other crops.

Many areas in south China grow three crops a year — wheat, early rice and late rice. This demands extremely good field management. Wusih county in Kiangsu province is one of these high-yield areas. Since three crops are grown on 70 percent of the farmland, the commune members are busy all the time. Training of 40,000 commune members as agricultural technicians to guide field management has vastly improved it. "We grow our crops as carefully as one does embroidery," they say. Since 1971 when they got 7.5 tons per hectare, the countywide grain yield has increased an average of 6 percent a year.
SHASHIH on the Yangtze River in Hupeh province is a small city with a population of 180,000. Before liberation it was a market town covering only three square kilometers but today it has grown to 15 square kilometers. Since 1949 it has become an industrial city making chemicals, machinery, electronics, building materials, meters and instruments, textiles and light industrial products. Its total output value has risen 16 percent per year, a pace faster than any of the other small cities in China.

Located on the Chianghan Plain, Shashih is in a rich agricultural area with good land and water communications. This provides both raw materials and a wide market for the rapid development of textiles and light industry, which account for 70 percent of the city's production. Shashih's products serve the needs of 10,000,000 people in the area and are also sold in foreign markets. Textiles are the major industry in the city — cotton, silk, wool and synthetic fiber.

Shashih workers try hard to raise the level of mechanization and automation with technical innovations. For example, emulating the Shanghai, Nanking and Hangchow factories, the workers in a thermos bottle plant changed their manufacturing methods three times and finally set up nine production lines. This raised their annual output from 600,000 to 5,000,000 thermos bottles, increased the varieties from one to 27, and greatly improved quality. In a plant manufacturing locks, workers raised their output by 34 times through the use of electronic control and mechanical hands.

The city today is adopting and publicizing such new technologies as electronics, jet, computers, lasers, galvanization without cyanogen, aggregate and multi-position lathes, and high-speed metal cutting.

At the same time electronic equipment is being used in commerce. All of Shashih's 400 stores use electronically-controlled vending machines for candies, medicines, grain, liquids of various kinds and even cloth.

In the past China could not turn the thick, short fibers of second-quality wool into first-rate goods because she lacked the technology and equipment. The workers in one Shashih woolen mill, using a binding agent, hemp and second-quality wool, succeeded in making China's first carpet without weaving. It is now in mass production. All the equipment for this was made by the workers themselves.

Great progress has also been made in machine building. Last year the No. 1 Machine Tool Plant put out a 40-mm. universal radial drill which met an urgent need in the processing of bridge girders and boilers and in making heavy equipment for the chemical fiber, chemical fertilizer, iron and steel, and mining industries.
Eight-color rapier looms.

Workers of the Shashih Machine Tool Plant No. 1 discuss problems in making universal radial drilling machines.

Technician at the Optical Instrument Plant aligning lens for widescreen projectors.

The weaving shop of the Shashih Cotton Mill.
IT was after 8 o'clock in the evening. A grocery store on Peking Road in the town of Shashih on the Yangtze River in Hupeh province was closing. The clerks had just finished their accounts when a couple came in for a pound of brown sugar. The saleswoman took their money and gave them 38 fen change. But the man said, “I gave you a two-yuan note. You still owe me one yuan.”

“No, you gave me one yuan,” the saleswoman answered. She opened her cash drawer. Inside were a two-yuan note and a one-yuan note. She insisted that she was right and they began to argue. The store manager asked the couple to go to the office to settle the matter. When they refused, he too became angry.

At this moment a superintendent of the city’s grocery company happened to walk in. Sizing up the situation, he asked the clerk to recheck her account. The mistake was found and the one yuan returned to the couple.

The next day, however, a big criticism poster signed by the customer appeared on the front of the store sharply condemning the attitude of the store staff. Many passers-by stopped to read it.

Most of the clerks thought the criticism was correct and would help improve their work. But some of them said, “The mistake was not intentional. We’ve returned the money. This customer is just trying to make trouble. We should take the poster down.” A few even suggested writing a poster of their own to refute his charges. After all, everybody knew their store had been cited for its outstanding service.

But the leaders of the city bureau of commerce and the grocery company considered the poster and the reactions to it very important. They came to the store and held a number of political meetings, discussing what Chairman Mao meant by serving the people wholeheartedly.

The store’s workers reminded themselves again that the customers are the judges of their work and have every right to point out their shortcomings. “Whether
a criticism is right or wrong," they said, "we should welcome it." In the next few weeks they themselves found seventy shortcomings in their work.

When their political discussions were finished, the manager and the saleswoman who had waited on the couple went to see them and apologize. They were rebuffed. Finally after their third visit the couple were moved by their sincerity and invited them in for a good," one woman said. "But you come during working hours, so how does that help?" The manager decided on the spot to change the time to early morning or late evening. This drew applause from the crowd.

The meeting brought praise, criticism—and 93 good suggestions for better service. Today such meetings are held every two or three months by every store in the city.

Meeting to hear customers' opinions.

Serving customers who can't come to the store.

ONE day a man came into a Shashih department store because he had seen a pair of size 55 extra-large rubber shoes on display. He asked to look at them. Measuring one with his hand, he shook his head and said, "Too small."

"What size do you want?" the astonished salesman asked.

"About three sizes bigger," he answered.

The man had come from Puho across the Yangtze. "Why don't you bring the person here?" the clerk suggested. "We'll measure his feet and order a pair from the factory."

The man was embarrassed. "It's a girl with such big feet and so tall that she's too shy to come."

"Measure her feet then and we'll have a pair made."

The man promised to come the following Sunday. Two weeks went by and he did not appear. The store decided to find the girl. Two saleswomen, Chang and Yu, were sent to Puho to look for her.

They went to Puho early the next morning. For hours they inquired but couldn't find the girl. Finally a leader of the Puho commune told them she lived in the Huchang commune, 50 kilometers farther away.

Chang and Yu took a bus and got off at a spot near the commune.

They walked in the scorching sun, crossed a small river and finally reached the commune late in the afternoon. Yes, they were told, the girl's name was Hu Chun-chang, 17 years old. When she was seven she had already been as tall as a grownup. Unable to get shoes her size, she had to go around barefooted. Once a commune leader took her to town to see a doctor and buy shoes. There were no such sizes and, worse, she had been surrounded by a crowd of curious people.

When Chang and Yu met the girl they found her 2.3 meters tall and needing size 59 shoes. She was so grateful that the two had come all the way from Shashih that tears filled her eyes. Her father, a production team leader, thanked them profusely.

The store ordered three special pairs of shoes for the girl and the clerks had special socks and pretty clothes made and sent to her as a gift.
The portraits of Mao Tse-tung and Chu Teh hung in the back of the rostrum flanked by Party flags. The portraits of Mao Tse-tung and Chu Teh hung in the back of the rostrum flanked by Party flags. On the two side walls were the slogans, “Hold on to Truth” and “Correct Mistakes”. Above the rostrum was a streamer which read, “Advance triumphantly under the banner of Mao Tse-tung.” On the back wall was the slogan, “Work with One Heart and One Mind.”

Presiding over the congress, Mao Tse-tung spoke of “China’s Two Possible Destinies” in his opening speech and gave a political report, “On Coalition Government”. In an analysis of the international and domestic situation he pointed to two possibilities for the Chinese people after the defeat of Japanese imperialism. One was that the Kuomintang reactionaries, working closely with U.S. imperialism, would launch a civil war and drag China back to the old semi-colonial, semi-feudal society. The other was that under the leadership of the Communist Party the people would defeat the Japanese aggressors and build an independent, free, democratic, united, prosperous and strong new China. He called on the Party and the people to strive for this road. He put forward the political line for the Party: boldly mobilize the masses and expand the people’s forces so that, under Party leadership, they would defeat the Japanese aggressors, liberate all the country and build a new-democratic China. He urged the Party to maintain its fine style of work—integrating theory with practice, keeping close ties with the masses and practicing self-criticism. This, he pointed out, was the hallmark distinguishing the Communist Party from all other political parties and the
guarantee of victory for the revolution.

Vice-Chairman Chou En-lai summed up for the delegates the tortuous course the Chinese Communist Party had traveled since 1921 and pointed out that the achievements gained were due to the leadership of Mao Tsetung. He called on the Party to march forward united under the banner of Mao Tsetung. Commander-in-Chief Chu Teh made a military report, in which he explained in detail the military line and the strategy and tactics of the people's army and people's war.

The congress was democratic, united and harmonious. Delegates spoke freely, exposing and criticizing the harm done to the revolution by the “Left” and Right opportunist lines. They credited Mao Tsetung with guiding the Party to political maturity and steadily pushing the Chinese revolution to a new upsurge. They frankly criticized comrades who had made mistakes and helped them return to the correct line in the spirit of upholding the truth and correcting mistakes.

The congress adopted a new Party Constitution which clearly stipulated that the “Communist Party of China must regard the thinking of Mao Tsetung — the integration of Marxist-Leninist theory with the practice of the Chinese revolution — as the guide in every field of work.” It also elected a new Central Committee with Mao Tsetung as Chairman.

In his concluding speech “The Foolish Old Man Who Removed the Mountains” Mao Tsetung termed the congress one of victory and unity, and called on the Party, army and people to strive for victory in the national democratic revolution in the spirit of “the Foolish Old Man.”

During the congress, greetings came from Party committees in different parts of the country. Beautiful mementos were sent to Yenan from the anti-Japanese fronts and liberated areas. Most attractive were two scrolls. One, presented by Party members of central China and men of the New Fourth Army, was a scroll made of wool one meter wide and 14 meters long embroidered with “Hold High Mao Tsetung’s Banner to Win Complete Victory in the Anti-Japanese War and the Democratic Revolution” (Picture 2). The other was presented by the Party and Youth League committees of the Shensi-Kansu-Ningsia Border Region. It was made of rose-colored silk, one meter wide and four meters long, embroidered with the slogan, “Under the Banner of Mao Tsetung, Let the Party March Toward Victory and the Liberation of the Chinese People” (Picture 3).

With the armed forces guided by the political line of the Seventh Party Congress, news of victories in the counteroffensive against the Japanese invaders kept pouring in from all sides. Large areas of territory were recovered and liberated areas linked together.

On August 8, 1945 the Soviet Union under Stalin declared war on Japan. The following day Mao Tsetung issued a statement, “The Last Round with the Japanese Invaders.” On August 11 the headquarters of the Eighth Route Army issued seven orders. They ordered the people’s army to launch a general counteroffensive against the enemy, wipe out the Japanese and puppet troops who refused to surrender, destroy all enemy organs and reactionary forces, and build up the people’s political power. The orders were drafted by Chou En-lai, revised by Mao Tsetung and issued in the name of Chu Teh. (Picture 4 is the original of the second order.) The orders were broadcast by the Hsinhua broadcasting station in Yenan (Picture 5). The people’s army in north, central and south China launched a counterattack on the invaders and their puppet troops. On August 14 the Japanese imperialists surrendered unconditionally.

After eight years of hard struggle the Chinese people had finally won victory. Mao Tsetung wrote an inscription, “Celebrate the victory in the anti-Japanese war! Long live the liberation of the Chinese nation!” (Picture 6).
Festival Lanterns

LIEN HSIAO-CHUN

SOONER or later, anyone visiting China sees gay and colorful lanterns in almost every size and shape. At holidays—the Spring Festival, International Labor Day, National Day—they appear everywhere.

Decorative lanterns were made at least as long ago as the Han dynasty (206 B.C. - A.D. 220). In the Tang dynasty (618-907), thousands of them graced giant festivals. They became very intricate and ornate in the Sung period (960-1279). The lantern craftsmen of Kiangsu and Fukien provinces were especially skilled and many of their products were sold in the dynasty capitals.

Lanterns still play a happy role in Chinese life and are made in even more infinite variety. The frames are usually constructed of bamboo or wood, rice or sorghum stalks, wire, and sometimes even of the shells of gourds. Their shapes are endless: animals, flowers, birds, boats, famous personages, buildings, etc. The frame is usually of carved sandalwood or mahogany and the panels of glass or silk. The pictures—landscapes, birds, flowers or theatrical characters—are done in a style to harmonize with the grandeur of these lanterns. They are hung at the entrance and main halls of important buildings.

Kwangtung province is the home of many kinds of lanterns. One is the ancient-style gilded lantern, the mahogany frame topped with a carved dragon or phoenix painted with gold lacquer. In another type, rice stalks are made with superb workmanship into the frame. The body is covered with transparent paper painted with pictures.

Fukien province also makes many kinds of lanterns. One outstanding lantern artisan is 86-year-old Li Yao-pao, who is also skilled at paper-cutting. He can make a lantern with 165 corners; the cardboard frame is covered with glass thread held firm by an exquisite papercut.

Kiangsu province has a number of lantern making centers. Since the Ming dynasty, birds, animals, fish, flowers, fruit and melons have been popular shapes. The tradition persists today. For example, the bird-shaped lanterns of the city of Nantung have kept the old form but added new features in structure and color. These lanterns, made with wire frames covered with thin silk, though delicate looking, are very durable. Some look like real birds while others are like imaginary birds in fairy tales.

Shanghai is famous for its hexagonal flower-basket lanterns. While keeping the traditional style, they have taken a few points from modern lighting fixtures. The structure is simple but beautiful. Varieties of chrysanthemums are painted on the six panels.

Anhwei province is famous for a new square palace lantern made with pictures of wrought iron painted with black lacquer. Against a snow-white silk background, the designs stand out clear and sharp in a fine combination of ancient and modern.

Peking is known for its palace lanterns, square or hexagonal or round. The frame is usually of carved sandalwood or mahogany and the panels of glass or silk. The pictures—landscapes, birds, flowers or theatrical characters—are done in a style to harmonize with the grandeur of these lanterns. They are hung at the entrance and main halls of important buildings.

Some lanterns contain a simple mechanism in which the flow of air caused by the heat of the candle drives a small vaned wheel that turns figures around on the panels or moves them in some other way. One example is a lantern in which the Monkey King constantly strikes the White-boned Demon. In another, two proud cocks stretch their necks to challenge each other. Often the panels themselves revolve, each section telling a story.

In the winter of the cold north, lanterns are even made of ice. Jars are dipped in water, allowed to freeze, then the process repeated until the ice layer is thick enough. The jar is carefully broken and removed leaving a lantern of crystal-like transparency. Red candles are fixed inside. When strings of these lanterns are hung from snow-laden pine trees at night they turn the scene into a fairy world.

The 15th of the first lunar month is the traditional Lantern Festival. For days in advance, people search the markets for especially beautiful or ingenious lanterns for competition with their neighbors. Every home hangs lanterns and colored streamers in front of the door. In the streets and lanes strings of lanterns stretch along both sides. This is also the time of the dragon-lantern dances. A series of pictures is often painted on a number of lanterns, telling a story, or riddles are written in fine calligraphy.

Today the provinces of Kiangsu, Fukien, Kwangtung, Anhwei and the cities of Peking and Shanghai are famous for their lanterns.

LIEN HSIAO-CHUN, a member of the staff of the China Arts and Crafts Corporation in Peking.

Lanterns in the making.

DECEMBER 1978
Woven rattan lantern (Kwangtung province)

Square palace lantern with wrought iron pictures (Anhwei province)

Lantern framed with rice stalks (Kwangtung province)

Butterfly

Oriole

Cock
Dragon and phoenix lantern (Foshan in Kwangtung province)

Hexagonal flower-basket lantern (Shanghai)

Palace lantern with mahogany frame and painted landscape (Peking)

Bird or insect-shaped lanterns from Nantung in Kiangsu province:

- Kingfisher
- Crane
- Phoenix
The ulan muchirs are special traveling cultural troupes for the scattered settlements on the grasslands of Inner Mongolia. The name means “red propaganda team” in Mongolian. The first ulan muchir was organized in 1957. Today there are nearly 50 in the region.

Every banner or county has a troupe of 15 to 20 members. Each member is versatile in several things — they can all sing, dance and play more than one instrument. They have a rich repertoire of short and pithy items with simple costumes and props. Because literature and art, as Chairman Mao said, should serve the working people, the ulan muchirs tour the pastures and deserts day in and day out to perform, usually in the open, for the herdsmen. Wherever they go, they do ordinary work with the herdsmen and provide a variety of cultural activities — photo exhibitions, book rentals, films and slides, and training for local amateur artists.
The Spring and Autumn Period

CHIAO CHIEN

THE Spring and Autumn (770-476 B.C.) and subsequent Warring States (475-221 B.C.) periods roughly parallel the Eastern Chou dynasty, as the central power was known as after removal of the Chou capital from the environs of present-day Sian eastward to near today's Loyang in Honan province. The Chou dynasty king was still nominally ruler of the country, but some of the vassal states under the dukes were becoming more and more powerful. The entire period is characterized by wars between the powerful vassal states to expand their own territory, swallowing up the smaller ones in the process, and secure domination over the others. When one became strong enough to defeat the others its head would call a meeting of all states and force them to recognize him as the chief of all the dukes. During the Spring and Autumn period the states of Chi, Sung, Tsin, Chin and Chu successively claimed overlordship.

Axes and hoes made of iron were already in use by this time. These tools were superior to those of bronze, and — along with the introduction of oxen for plowing — made it possible to open up and cultivate more land. In addition to the "public fields" or chingtien which the slaveholding nobles held as fiefs from the rulers, they were able to open a lot more land which they called "private fields". Tribute to the rulers had been set according to the chingtien only, so the slaveholders kept the proceeds from this new land for themselves. The duke of the State of Lu found that the income paid him by the
slaveholders from the fiefs alone could not meet his needs, so in 594 B.C. he levied a tax on these private fields as well according to size. This, the beginning of land tax, signified a recognition of the private ownership of land.

In the following decades the power of the nobility within the vassal states grew stronger. In the State of Lu three great aristocratic families — Chisun, Mengsun and Shusun — seized and divided up among themselves the public fields held by the Duke of Lu and also brought the slaves who worked these fields under their control. They gave the land out to be tilled by laborers, who had to turn in the greater portion of their product, but were allowed to keep some for themselves. Thus the form of exploitation was changed from slave to feudal exploitation, the three families became feudal landlords, the slaves became serfs and the chingtien system gradually disintegrated in the State of Lu.

Toward the latter part of the Spring and Autumn period all through the states the slaves frequently sabotaged work and sometimes fled. With their fields left uncultivated, the slaveholders were compelled to find new ways of getting people to work them, and this led to a new form of exploitation. Thus, as it had in the State of Lu, the chingtien system broke down also in the states of Chi and Tsin.

Slave Revolts

The exploitation and suffering of the slaves were increased by the ceaseless wars for hegemony among the vassal states and the luxurious habits of the vassal rulers, who were continually having their palaces and gardens enlarged. When a ruler died he would be buried with great pomp. Even the duke of the small State of Tsai was buried with over 500 funerary objects, among which were bronze bells and tripods and other articles of value.

In the State of Liang large-scale construction for the ruler exhausted the slaves and led to a full-scale revolt. In 641 B.C. the Duke of Liang had trenches built around his palace, saying that they were needed in case of war but actually for his own protection. Unable to stand the brutal demands made on them, the slaves fled. The State of Chin seized this opportunity to invade and swallow up the State of Liang.

In the State of Cheng the slaves fled to the marshes. There they reclaimed land and armed themselves against a slaveholder attack. In 522 B.C. the Duke of Cheng sent an army to suppress them and met with resolute resistance.

In their revolts the slaves fought with weapons, poison, water and fire, and from the slaveholders seized arms as well as oxen and horses, clothing and furs. Though the slaveholders tried to defend themselves in their fortresses, they were unable to stem the tide of revolt. Frequent uprisings shook the slave system to its foundations and destroyed the basis for the rule of the slaveholders.

Science

As social production underwent a rather big development, the experience and knowledge of the working people, studied and synthesized, brought science and technology to a higher level. Mathematics became a special subject in schools for aristocrats' children. Calculation took a great leap forward when the multiplication tables were devised from experience gained in measuring land and figuring out numbers of carts, horses and people needed.

Already in the early Western Chou dynasty the mathematician Shang Kao had asserted that "in a right triangle, when its base is three and altitude four, the hypotenuse is five". The development of mathematics helped people solve more complicated problems. In 510 B.C. the duke of the State of Tsin organized all the other vassal states to build a city wall for the Chou dynasty king. According to the length, width and height, calculation was made of the total amount of earth and stone work, the materials and manpower needed and food required for the laborers, including that for their journeys to and from their respective states.

Astronomers in the State of Lu made a great contribution. They made numerous observations of fixed stars and left many valuable records. Between 720 and 481 B.C.
they noted 37 solar eclipses, of which, according to calculations made on the basis of later knowledge, 30 were accurate recordings. They found the dates for the summer and winter solstices and were the first to record Halley's comet when they saw it sweeping across the Big Dipper in July 613 B.C.

More accurate recording of the seasons and natural phenomena helped develop an improved yearly work schedule for agriculture. People already had a fairly good idea of soils and knew which crops grew well in different kinds, and they knew that underwater paddy fields brought increased yields. Sericulture was further developed.

Medicine made progress in this period. It already had several branches, and more than 100 kinds of plants, animals and minerals were used in treating illness.

**First Poetry Collection**

One of the outstanding literary achievements of this period was the *Book of Songs*, China's earliest collection of verse. It consists of 305 pieces created during a 500-year period from Western Chou to the mid-Spring and Autumn period. There are religious songs sung during sacrificial ceremonies, ballads about historical incidents and heroes, court songs describing banquets and hunting expeditions of the aristocrats, and love songs, most of these from the working people. It was said that the Chou court had officials who traveled over all the states every spring with bell in hand to collect folk songs. The collection provides a vivid social picture of the time—from the relative peace and stability of early Chou days to the increasing social unrest of the later years.

The *Book of Songs* was the beginning of the realist tradition in Chinese literature. The free forms of the poems preserve the characteristics of folk songs. The unadorned language has a beautiful natural cadence. The imagery is expressive, as in this poem from the State of Wei which compares the slaveholders to greedy rodents.

*Field mouse, field mouse,*  
*Keep away from our millet!*  
*Three years we have served you,*  
*But what do you care about us?*  
*Now we shall leave you,*  
*For a happier realm,*  
*A happy realm,*  
*Where we shall have a place.*

**Confucius**

The scholar Kung Chiu (551–479 B.C.)—known to the world as Confucius, the Latinized version of Kung Fu-tzu (Kung the Sage), his title of respect—is closely associated with the Spring and Autumn period. He was born in a declining family of the slaveholding aristocracy in the State of Lu (present-day eastern Shantung province). Since the first ruler of Lu was a member of the Chou dynasty royal household the state had preserved a large body of writings on the rites of the ancient Chou court. Confucius was an enthusiastic student of this literature. Deeply disturbed over the decline of royal power, with his philosophical thinking he tried to save the disintegrating slave system.

One measure he called for was "rectification of names", that is, things should be as their names define them—"Let a ruler be a ruler, a subject a subject, a father a father and a son a son", everybody keeping in his place, carrying out the duties of his place, and being subservient to those above him. Then, with no one making trouble for his superiors, the rule of rites could be consolidated.

Confucius emphasized the importance of "benevolence", the "love of all men". By "men", however, he meant the aristocrats, not the laboring people. His preaching of "benevolence", therefore, served the slave system.

He also preached that "everything is decided by Heaven" and that the will of Heaven was the will of the slaveholders. Thus the people should willingly obey the order of Heaven and the rule of the slaveholders. Confucius and his disciples traveled by cart from state to state trying to get a hearing for his ideas. His philosophy, reactionary in his own time because it tried to avert the development of feudalism, was later interpreted by the feudal ruling class itself in such a way as to be a tool for consolidating their rule over the people.

Before Confucius there were only official schools admitting aristocrats. He was the first educator in Chinese history to admit people from all walks of life to a large-scale private school which he set up. It was said he had 3,000 pupils from the different states, both aristocrats and commoners, of whom 72 became famous in his lifetime.

Confucius spent his last years editing the *Book of Songs*, *Book of History, Spring and Autumn Annals* and other collections of writings.
The chariot was already in use in China in the Shang dynasty (16th-11th century B.C.) for war and hunting. Luxuriously-decorated chariots were a mark of rank of the nobility. For a long time, though ancient books gave detailed descriptions of early chariots, it was difficult to know what they were like. Since vehicles of those days were made of wood, very few remains of them have lasted down to today.

The 1930s saw the first finds of Chinese chariots; the remains of those buried in the famous ruins of Yin, the Shang capital northwest of present-day Anyang in Honan province. Since liberation the remains of more than 20 chariots and some horses have been unearthed by the Institute of Archeology under its director Hsia Nai. Careful excavation has enabled archeologists to collect quite specific data on their construction and size of their parts.

Chariot excavations since 1949 include:

Shang-Yin (16th-11th century B.C.) at Taszukung and Hsiaomin villages, Anyang, Honan province.

Western Chou (11th century-771 B.C.) at Changchiao in Changan county, Shenshi province; Liulihuo near Peking; Paitsaopo in Lingtai county, Kansu province; Hsian in Chiao county, Shantung province.

Spring and Autumn (770-476 B.C.) at the cemetery of the State of Kuo in Shan county, Honan province.

Warring States (475-221 B.C.) at Liuliko in Hui county, Honan province; Chungchow Road in Yin dynasty chariot with remains of horses unearthed at Hsiaomin village near Anyang.
A chariot pit of the Warring States period excavated on the Chung-chow Road in the city of Loyang.

A chariot pit of the Warring States period excavated on the Chung-chow Road in the city of Loyang.

the city district of Loyang, Honan province.

Typical is the two-horse chariot unearthed at Hsiaomin village in Anyang. It had a box 130 centimeters in width — big enough for two people to stand side by side — and 74 cm. front to back. The box stood about 70 centimeters above the ground, so the users probably had to step on something to mount. It had a 3.06 meter axle and two wheels 1.4 meters in diameter. The 22 spokes radiated from an elliptical hub. The shaft was 2.56 meters long, with a 1.1-meter crossbar fixed at a right angle near the end. The shaft extended upward at a diagonal and the tops of the horses' collars were attached at either end of this crossbar. The skeletons of two horses were found on either side of the shaft and that of the driver lay behind the chariot and parallel to it. He had been buried with his master in order to serve him in the next world.

Finely-tooled bronze decorations for both horses and chariot made the ensemble a thing of beauty, and of course contributed to reinforcing the latter. The horses often wore bronze crests over the forehead. The most beautiful horse trappings found came from a Western Chou pit at Changchiapo. They included a muzzle-halter of decorated bronze attached to the crest with a chain of hollow bronze balls.

The remains of white leather reins were found with horse trappings from a Western Chou tomb in Kansu province. The fittings for four horses consisted of altogether 460 separate pieces of bronze ornamentation. Bronze horse fittings in the shape of flying fish were found in a tomb of the late Spring and Autumn period in the Harqin Zuoyi Mongolian Autonomous County, Liaoning province.

A muzzle-halter of decorated bronze.

WEAPONS were often found on or beside the chariot. There were spears and arrows in the box of one unearthed at Tszukung village in Anyang, indicating that it was a war chariot. Others had no weapons in them but quantities of bronze weapons were found in tombs related to the chariot pit.

Armor as well as weapons were found in a Western Chou chariot excavated at Hsi-an in Shantung province. Historical records say that in Shang and Chou times a war chariot usually carried three people, the chief warrior on the left, the driver in the center and an assisting warrior on the right. This is borne out by the placement of the armor in the Hsi-an chariot. The finely-crafted hooked halberd and bronze armor of the chief warrior were on the left, and a set of ordinary weapons on the right.

Shang and Chou dynasty war chariots were usually four-horse single-shaft affairs. The wars so vividly described in Tso Chuan, a commentary on the Spring and Autumn Annals*, written circa 4th century B.C. by Tsochiu Ming, were fought with such chariots. The number of chariots that a state owned was a mark of its strength. A strong state was known as "a state of a thousand chariots".

SINGLE-SHAFT four-horse war chariots were still used in the Chin dynasty (221-206 B.C.). The life-size pottery figures excavated near the tomb of Emperor Chin Shih Huang (259-210 B.C.)** included a large number of chariots of this type carrying three pottery warriors. At least 89 such chariots were found in pit No. 2. The short-lived Chin dynasty was succeeded by the Han dynasty (206 B.C.-A.D. 24) during which war chariots were replaced by more mobile mounted riders. Chariots for ordinary use were gradually replaced by lighter and faster two-shaft carriages.

Bronze horse ornaments in the shape of flying fish found in a tomb of the late Spring and Autumn period in the Harqin Zuoyi Mongolian Autonomous County, Liaoning province.

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* See page 50 in this issue.
Big Cleanup

Several days before New Year’s people begin to get busy. According to the custom, in factories, the countryside, government offices and schools people must do a more thorough cleanup than usual. On this day leaders and masses work together to clean up their surroundings in preparation for New Year’s.

In an office of the Peking Trade Bureau some people are mopping the floor, some are cleaning the windows. Everybody is in high spirits and working very energetically. Lao Qian says to Xiao Zhang and Xiao Wang, “When we have finished let’s rearrange our office.” “Fine,” answers Xiao Zhang. “We should put the map on the wall in a different place too.” “Let’s hurry,” says Xiao Wang. “When Xiao Li comes to see, the office will be all changed.” After he has mopped the floor Xiao Zhang finds that Lao Qian still has three or four panes of glass which have not been cleaned, so he runs over and helps Lao Qian.

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When they have finished cleaning they begin to rearrange the office. "Where should we put the document cabinet?" Lao Qian asks. "I think we'd better put it beside the bookcase," Xiao Wang says. "How about those desks?" "We could put them in a row near the window. That way the light would be good."

They have just finished rearranging the office when Xiao Li carrying tickets for an evening performance walks in. She takes one look and says joyfully, "Oh, how dean and neat! You worked very hard. I got the tickets. Let's eat supper quickly. After supper we'll go together to the performance."

Showing tickets for an evening performance walks in. She takes one look and says joyfully, "Oh, how clean and neat! You worked very hard. I got the tickets. Let's eat supper quickly. After supper we'll go together to the performance."

Notes

1. The particle zhe 着. Adding the particle zhe 着 to a verb indicates continuous action, as in Tā zài wǒ qiánmiàn zuòzhe 他在我前面坐着 (He is sitting in front of me). Xiao Li nàzhè jǐ zhǎng wángzhǐpiào 小李拿着几张晚会票 (Xiao Li is holding several tickets for the evening performance). Sometimes zhe 着 is also used when an action has been completed but the result of the action is still continuing. Bāngōngshí de chuánzhù duó kāizhē ne 办公室的窗户都已经开着呢 (All the windows in the office are open). Qióngshāng guānzhe liàng zhǎng dìtú 墙上挂着两张地图 (On the wall are hanging two maps).

2. Approximate numbers. Here are several ways to indicate an approximate number:
   (1). Two consecutive numbers used together, as in Hái yǒu sān shí bā mèi cā 还有三块玻璃没擦 (There still are three or four panes of glass not cleaned). Tā dàgāi yǒu èrshí qī bā suì 他大概有二十七八岁 (He is about 27 or 28 years old).
   (2). Jīr for “several” or “a few”. Xǐnǐn de qián jì tiān dàjiā hěn máng 新年的前几天大家很忙 (In the few days before New Year's, everybody is very busy). Zhě jì zhǎng zhuōzuǐ zēnme fāng 这几张桌子怎么放 (How should we place these several desks?)
   (3). Duō 略 for “more than”, Zhe běn zāzhī yǒu sì shí duō yè 这本杂志有四十多页 (This magazine has 40-some pages). Xiānzhài shì diān duō zhōng 现在十点钟 (Now it is past 10 o'clock).

For Advanced Students:

龙船节 (Lóngchuánjié Dragon-Boat Festival)

清爽江水一条翠绿（cuì lǜ green）的丝带（sī dài ribbon），蜿蜒（wānyán meanders）于苗岭（miáo lǐng Mountain）山下。五月下旬（xuàntián）十天，稻田（dào tián  paddy fields）里插（chā  stick in, transplant）上了新苗（xīn miáo seedling）, 夏忙已经过去，夏忙还没有开始, 在这时候，苗族（miáozú Mia nationality) 群众欢庆 (huāng qīng celebrate) 龙船节。

这一天，人们喜气洋洋地涌向清水江边。姑娘们打扮（dǎbàn dress up）得花枝招展（huāzhīzhāozhǎn as beautiful as flowers), 些 (dāi carry) 着阳伞（yángsǎn parasol）, 边走边唱。小伙子们 （xiǎohúxiū young fellows）们身穿雪白的上衣，（shuìbái jacket），周间叶（zhōujian tree leaves）吹（chuī  blow) 着小调（diào melody）。邻近（línjìn nearby）的侗族（Dóngzú Dong nationality）、汉族（Hánzú Han nationality）客人们也怀着（huáixīn cherish）兄弟般的友情（yǒuyóng friendship）起（qǐ）来参加盛典（shāngdùnlán grand celebration）。

龙船来了！数十艘（sòu measure word for boat）龙船披红挂彩（pīhóngguàcǎi covered with red streamers and hung with festoons）, 隆（lúng along with）江而下。每艘船上，三四十位龙船手（lóngchuánshǒu dragon boatmen）一样的服装（fúzhuāng clothing）打扮，只见（zhǐ）船首（chuánshǒu front deck）一起（qí） Qi 掐 ( lifting) 起 (fú) 流 (liú) 下 (xià) 子 (zi) (栏杆 (lián gān railing) 纺 (fǎng) 飞 (fēi) 向 (xiàng) 滨 (bīn) 蓝 (luán) 浪 (làng) 波 (bō)）上。龙船上的鼓手（gǔshǒu drummer）一般是老人，敲着鼓指挥（zhǔhuī direct）船手。而敲锣（luó gōng）的却是个娃娃（wá wa child）。

关于这一风俗（fēngsú custom），有一个古老的传说。很早以前，有一老人带着孙子（sūn zǐ grandson），在清水中捕（bǔ catch）鱼。一天，突然狂风大作，昏天暗地（hūntiāndàn sky dark and earth dim）, 孙子落入水中。老人悲痛万分，把这件事编（biān compose）成一首歌（shǒu歌）歌（gé）, 控诉（kòngsù accuse）江底恶龙（jiāngdǐ èlóng dragon) 如何兴风作浪（xīngfēngzuò làng stir up wind and waves）, 杀害了他的亲人。后来，有一位勇敢的青年杀死了恶龙。从此, 苗族便在每年战胜恶龙的日子, 在清水江（qī shuǐ jīng）划船（huá chuán row）壮观。如今, 人们把龙船节看作预祝（yùzhù wish in advance）丰收的节日，同时又看作赛马（sàimǎ horse race), 斗牛（dòu niú bullfight）和其它各种活动。

Dragon-Boat Festival

The Chingshui River like an emerald green silk ribbon meanders at the foot of the Miaoling Mountains. In the last 10 days of May the rice shoots have been transplanted in the paddy fields. The spring busy season is over and the summer busy season has not yet begun. At this time the people of the Miao nationality celebrate the dragon boat festival.

On this day many people stream gaily to the Chingshui riverside. The girls are dressed as beautifully as the flowers, carrying parasols and singing as they walk. The young men wear snow-white tunics and singing never ceases. On every boat there are 30 or 40 boatmen in similar costumes. With the rise and fall of the oars the boats fly like arrows on the blue waves. Some people of the Dong and Han nationalities in fraternal friendship for the Miao join the grand celebration. The riverside is teeming with people and the sound of singing never ceases.

The dragon boats have come! Several dozens of boats festooned in red are moving downstream. On every boat there are 30 or 40 boatmen in similar costumes. With the rise and fall of the oars the boats fly like arrows on the blue waves. The drummer on the boat is usually an old man beating the drum to direct the boatmen, but the gong-beater is a child.

There is an ancient legend about this custom. Long, long ago there was an old man who took his grandson to catch fish in the Chingshui River. One day a wild wind suddenly rose and the sky and earth became dark as night. The grandson fell into the water. The old man, grief-stricken, composed a sad song accusing a wicked dragon at the bottom of the river of killing his grandson by stirring up wind and waves. Later there was a brave young man who killed the wicked dragon. Ever since then, every year on the day of killing the dragon, the Miao people beat drums and row dragon boats in the river.
秋 江

北京