

## A Journey to Chiyuan

*Rewi Alley*

We went by train to Hsinhsiang from Chengchow, and rested a while before crossing the 140-kilometre plain to the county of Chiyuan. It was one of the very hot early days of summer. There had been little rain in the prefecture since last autumn, but due to ample irrigation, the crops were even better than those of last year. There are around six million people in the fourteen counties of the prefecture farming 533,000 hectares of land, 33,000 hectares of which is irrigated. Most of it is flat, much once alkaline. Now with the water in the water table near the topsoil being pumped out, the salts no longer rise to the surface. Then with all the improvements of the new day, plus its determination and spirit, much has changed, and heavy crops are now the regular thing.

There are two city municipalities in the prefecture, both industrialised—Hsinhsiang and Chiaotso. Foreign monopoly once exploited the Chiaotso coal, but now the place has greatly enlarged with many new factories to become one of the many rising industrial towns of China's hinterland.

### *Chiyuan County*

On our journey to Chiyuan over the good tar-sealed highway, we passed through several counties, Huochia, Hsiuwu, Poai and Chinyang, as well as Chiao-

tso, and towards evening came into the Chiyuan County centre, set amongst many trees in a basin under the escarpment of the southern edge of Taihang Shan. It is a county of 440,000 people, 81,000 households. Back in the bad years of drought and Japanese domination in 1942-3, 100,000 people died of starvation, and many more went off as refugees. The rivers that came down through mountain ravines from Shansi merely flooded and eroded the lands below, sweeping more silt from the farmlands into the Yellow River that forms the southern boundary of the county. Eighty-one per cent is mountainous or else rolling country, the highest mountain peak being that on Wangwu Shan, which is 1,800 metres above sea level. At the county centre the height is 183 metres. The main rivers other than the Yellow River are the Chi Shui, the Mang Ho, and the Chin Ho, the last two coming down through passes in the Taihang mountains from Shansi Province. In the bad old days, agriculture here was especially backward. There was no industry to speak of, the average yield of farmland was pitifully low, and hills were eroded and quite unproductive, long having been denuded of forest. Much of the Chiyuan basin was marsh. The people of today's Chiyuan have sought to remedy all of this at the grassroots. They have gone into the back hills and reforested 60,000 hec-

tares. When the trees are big enough, they will let the sheep and goats at present on 22,000 hectares of pasture graze in the forested hills, and turn to replanting the total hill area. Many horse chestnuts are planted, their nuts being good for making into pig fodder. There are also oak, ash, as well as walnuts, persimmons, apple and pear trees, and many apricots, peaches, etc. Quick growing timbers from these forests and those like poplars from villages have already supplied the county with all its building timbers so far necessary.

The county has 46,600 hectares of arable land. There are only about 2,000 more hectares that can be reclaimed through terracing. 21,300 hectares has been irrigated, there being water enough for 33,000 hectares when all laterals for distribution now being built are completed. In the old landlord days, there was but 4,000 hectares irrigated and that by wells.

### *Taming Rivers*

After Liberation, the people took a good hard look at their legacy, and in consequence first turned to the Mang Ho River, to bring it under control. They planned a canal from the upper reaches of the two rivers Chin Ho and the Mang Ho, bringing their waters together and running them around precipitous cliffs, in the way the Red Flag Canal, popularised now in Linhsien in the north-west of the province, in these last years has done. Here, however, some of the work carried through was even more difficult, the lads had to hang down from the tops of the cliffs by ropes. Controlling the Mang River was started in 1953 as the first stage. Then taking the Chin Ho over to the Mang was started in 1965, the work being completed in August 1968. The whole main canal, running over the many aqueducts and through tunnels, or around steep cliffs, is 120 kilometres long. Some of the water is taken into small reservoirs,

some runs away into laterals and then over the countryside, or in branch canals along ridges of rolling country, when it gradually descends to the newly terraced fields below. With the rivers controlled, and the back hills forested, summer floods have lost their terror for the lowlands. One in 1948 swept all before it, villages and fields. Bigger rains since have done no damage.

In 1949 the county averaged around 900 kilo. of grain and 187.5 kilo. of cotton per hectare. In 1971 the average was 3.1 tons for grain and 247.5 kilo. for cotton, irrigated and dry land taken together. But often in times of drought or flood in the old times, very little indeed would be harvested, and the people died. The only industry in those days was a small coal pit, and some blacksmiths who achieved fame by producing a plow share that turned the sod very well, much better than in other counties. Actually, it was the 2,000-year-old Han Dynasty type, which had survived here, along with the way of making it.

### *County Factories*

In the county today, there are over 30 county factories, 26 more run by communes, and 570 little ones operated by the commune brigades. The county factories are modern ones, well placed with all the facilities. They have production valued at over 45 million *yuan* a year. Running on the principle of using local materials where possible to fulfil local needs, the first one visited takes lead ore from the local county mine, refines it, and then makes plates for the miner's storage battery which operates his lamp. The factory turns out 180,000 such lamps a year, made in this plant, both for local and also for coal mines in other parts of Honan. The lead ore also contains gold, silver, zinc and mercuric oxide, all of which are extracted and refined during the process.

Here the factory buildings are well

spaced in an especially large compound, there being an awareness of the hazards of lead dust to workers' health. As a side line and to meet local demand, rubber tyres are made for the rubber-tyred handcarts so very common in all Honan rural areas. The workers had just finished building a large block of flats, in modern style, for living quarters. The plant employs 460 workers in all. It has a good machine shop, now busy constructing machinery and equipment for the various other factory shops. The struggle is for more mechanisation all along the line. The plant was set up in a very small way in 1957, but removed to its present location and greatly expanded in the 1958 Leap Forward year. When it started, only 70 tons of ore were treated a year. Now 390,000 tons are.

The county machine shops were busy when we arrived to see them making lathes and other machine tools for communes and commune brigades. It is amazing how many machine tools begin now to infiltrate into the countryside, making one wonder what the people of tomorrow will produce with the mechanisation that now so irresistibly comes to their aid in the struggle for better livelihood. The Chiyuan machine shops have 250 workers. At the time of visit 60 of them were out in the countryside helping with rural mechanisation in the summer harvest rush. Some twenty lads and lasses from commune brigades were in the shops as learners. The plant has 102 modern machine tools, overhead cranes, and a very well-set-out foundry and smelter. Workers have made many creative innovations, and the concrete floors of some of the work-rooms, where groups have met and had technical discussion, were seen to be covered with sketches and calculations chalked on them during the process. A total of 4,900 pumps for mechanisation were made last year, and 700 threshing machines for commune brigades. Some of the work is in repair of rural machinery

brought in, but now more and more the commune machine shops are taking care of this. The county also operates a Kangta-type school for middle school graduates and commune folk which has six classes, two of which concern themselves with the upkeep and construction of agricultural machinery, thus assisting commune mechanisation quite a bit.

### *Education*

Education has taken a prominent place in the life of the people in Chiyuan. There are 17 upper middle schools, and 805 lower middle and primary ones, with a total of 100,000 students in all, and having 4,300 teachers. There has been a good deal done to wipe out illiteracy amongst the older folk. Stress is laid on health education, the work centring around the county hospital which has 210 beds, and on down through commune hospitals, brigade clinics. There is a public health station in the county centre which deals with preventive measures, vaccinations, injections, etc. The mountains have produced over 100 kinds of herbal medicines which are collected by communes and sold. In birth control, average births per year are 1.5 per cent around the county centre, with an overall average of 2.1 per cent for the whole county. Before the movement for planned families came along, the figure was 2.5 per cent. All aids for birth control are distributed free, right down to the smallest production teams.

### *Iron and Steel Plant*

While in Chiyuan, we made a rather more complete survey of local industry than has been possible in quicker visits to other places. So we spent a whole morning at the local iron and steel plant, situated some way from the city, and using a lateral come down from the Mang-Chin Canal for its water supply. Actually, iron has been smelted in the mountain valleys

of Chiyuan for five hundred years, but it was only with the surge of the Leap Forward in 1958 that the first two modern furnaces were set up amongst grain fields outside Chiyuan city. Then came the Liu Shao-chi period in 1960-61, when he ordered all iron and steel works that did not show an immediate profit be closed down. So it was not until 1968 that the present plant began to take shape, a hundred-cubic-metre furnace installed, along with a battery of smaller sizes, including the two old original ones. In 1969 five thousand tons of iron and 99 of steel were turned out. In 1970, 10,200 tons of iron and 2,000 of steel. The present inhibiting factor to more rapid increase is that there is no rail connection between the iron mines in the mountains and the smelters, and road transport of the ore is too slow. There is a light railway connecting with the local coal mines, however, and there is plenty of limestone available around. There are 2,456 workers in the plant, more than the number needed for present production if there was more mechanisation. Four hundred are women. Yet it is always good to train for much bigger plants. Costs now come down rapidly each year, and the ability to expand becomes greater all the time. All workers live on the plant site, and were busy building a big new block of housing at the time of our visit. There are around 100 cadres in the administration, the leading ones being mainly middle-aged who have come up the hard way through actual practice. The plant has its own machine shops, and maintains a geological survey team in the mountains all the time, surveying and mapping new deposits of ore as they find such. Finds have been rich, good enough for long-term major development.

Light railways are now quite a feature of many Honan counties. In Chiyuan the people have built one that connects with two counties without coal, so that they are kept supplied with fuel, and the coal mines with business. The first lines

the people built of white native iron founded in Chiyuan, turning to steel later. Two trains run daily from Chiyuan to these counties, and passengers are carried. Speed is around 30 kilometres an hour. The county maintains quite a large repair works for the locomotives and rolling stock. A familiar sound in Chiyuan town is the shrill whistle of the little locomotives as they go along with their work. To have plenty of good, cheap iron available for immediate use means a great deal to the whole process of mechanisation in Chiyuan and the counties around. But steel producing, as with electricity, must go up if industry is to maintain its present momentum here and all over Honan.

### *Plastics Factory*

The weather decided to change the day we went to the Chiyuan Sohua Plastics Factory. The wheat harvesting had begun, but the first steady rain for months here soon changed country roads to mud. The folk at the plastics factory had rubber shoes prepared for us, so we went over their quite large compound with reasonable ease. We were met by a sturdy middle-aged woman, who has been the leading cadre in the factory ever since it was started in the Leap Forward of 1958, then with no equipment but one donkey, the 17 workers working by hand. By 1966 however they were turning out 10,000 pairs of plastic soles for shoes, as well as plastic pipes for local use. In that year work started to extend in earnest, more workers were taken in, and more mechanisation applied, which gradually built up production until now six million *yuan* a year worth of products are made. The main one now is the polyvinyl chloride that goes out into industry for making plastics. Other lines are chemicals such as caustic soda, hydrochloric acid, bleaching powder, and so on. Some 700,000 pairs of plastic soles were turned out last year, 100 tons of plastic sheeting, as well as the plastic

pipes of various sizes so popular in the hilly countryside when a farmer wants to bring down water from a spring to his home, or put in some small irrigation work that needs such. I wondered how the pipes were joined, and it was quickly demonstrated that by softening both ends to be connected with a blow torch, and fitting a joining length of smaller pipe between them, the join becomes completely tight on cooling. Workers here are practically all middle-school graduates, and take a deep interest in all technical processes, coming together for technical discussion in 'Chuko Liang meetings', named after Chuko Liang, a noted creative mind of ancient times, famous in the 'Three Kingdoms' novel.

In wages, workers get around 40 *yuan* a month, and have living quarters on the plant. Those who are married usually have their families in the old county city, not so far away, across the fields. There is a problem with the waste water, which is understood, and is being met. At present waste water cannot go into the canal irrigation system of the communes around. Raw materials except the salt come from the county which is not far away. The provision of a good serviceable shoe sole lifts a considerable burden from women's lives, for in the past they have always been making cloth soles, which would wear out speedily. With plastic, two pairs a year is sufficient. The cost is low enough for all to meet. To find so sophisticated a plant with all its overhead pipes of various colours, its complicated equipment so well set out, in a rural county town in the Taihang Mountain area is certainly a sign of the times, and too of the way new Chinese industry is being spread all over the land, based firmly on the people. The country girl at a control desk sitting amongst meters, gauges and what not is a changed country lass all right. She is no longer married off at fifteen or sixteen to become the slave of a demanding mother-in-law. She has become a creative person, in her own right, not getting married

until she is 25, and then to someone she knows quite well, and likes.

### *Coal Miners Then and Now*

We went out to the foot of the mountains, across downs rich in golden standing wheat, and looked at two of the coal pits being operated by the county. There were the same terrible stories of coal miners' treatment in the old days when some landlords operated one of the pits. Long hours and poor food, a management which would simply seal off a tunnel when it flooded and let miners become entombed. There was low production, and poor equipment. Now the whole place gives a relaxed impression. Coal either comes up shafts on trolleys or up an inclined slope that runs down to where coal faces are.

There are 2,030 workers, and the mine runs for three shifts a day. By 1957, it was gaining 130,000 tons of coal a year, in 1966 230,000 tons, which has now risen to 438,000 tons. By the end of this year, a new pit now having been dug and equipped will be bringing in another 450,000 tons a year, which will make the total amount gained near a million tons. Which is not so bad for a county project, apart from the national, state or provincial mines. The additional coal will be welcome, for now county factories begin to make more demands than the old production could meet, and all industry must move forward together. Miners' wages average 60 *yuan* a month, old ones getting around 90, and lads fresh from the schools, who work above ground in machine shops, etc. 30 *yuan* to start with. There is a miners' hospital with 72 beds. Amongst miners who have grown up and worked under old conditions, there has been some silicosis, and all found have been retired on full pay. The disease has not been discovered amongst workers who have come in after Liberation. The field extends over a 14-kilometre-long area, there being several coal-bearing strata, the

thickest being well over two metres thick. Galleries are lined with stone or concrete so as to make working easier, timbers being reserved for new workings near the actual coal extracting areas. More mechanisation is being worked out wherever possible, everything having to be done on the self-sufficiency basis as is the case with all other county and commune industry.

Workers have a big hall, where cinema shows and entertainments are held. There is a school for their children.

### *A Park of a Factory*

Not far from the county coal mines, still around 8 kilometres from the county seat, is the county machine building factory. Here a good many of the machines the coal mine needs are made, as well as machines for the communes. They have a specialty here, the manufacture of shapers for county or commune machine shops, and in the past two years have turned out 665 of them. One of the more common farm tools produced is the straw crusher and chaff cutter, 8,000 of which have been made to date. Of the 300 other machine tools workers have made for themselves and other county factories are planers and grinders of excellent up-to-date types. In 1971 the value of production was 2,400,000 *yuan*. It is expected that this will rise to be over four million *yuan* in this 1972.

Set on a very large area of land, the compound is more like a park than a factory at first glance. Some of the biggest shops stand out boldly against a background of the Taihang Mountains, but most are well separated, and in between trees. Living quarters are spacious for the 475 workers, all of whom have their homes in the communes around. Starting as an iron-working factory in 1958 in the Great Leap Forward, it gathered together many blacksmiths, and turned out simple agricultural tools. Then with setting up of the communes, it helped to equip such with their first machines. The

change to a machine-building plant came in 1964, when the biggest of the shops were erected. Most of the old workers have stayed on learning to handle new machines, having now been joined by many youngsters who have had middle-school education, both lads and lasses.

### *Born of Struggle*

From this factory we went to the county fertiliser plant set up in the past two years, and now turning out 3,000 tons of ammonia base material a year. In ancient times, some monks came to this spot and built a temple by a spring that gives the county its name. A spring that throws up a considerable volume of water. In Sung times and perhaps earlier they built a pagoda there which still stands, though the temples have now become farm houses.

Work was started on setting up the fertiliser factory here in July 1970. Though the main equipment was provided by the province, yet all the installation and making of parts had to be done by the workers of Chiyuan. All local machine shops helped well, however, and sent in skilled technicians to assist. Local people and cadres also came in to help with building operations. Even though buildings had not yet been completed, production started in February 1972, at the rate of 45 tons a day of ammonia bicarbonate, which now runs to 12,000 tons a year. Of the 280 workers, 58 are women. Most are middle-school graduates. The technician is a local man who was sent out to work in similar plants and get enough experience to be able to help here. All are learning how to make fertiliser, by making fertiliser. Water pumped up from the springs gives the plant a good water supply, and the waste water goes off into the canal system, bringing only good to the land.

Some idea of the early stages this plant went through, we saw near by where a phosphate fertiliser plant was being erect-

ed, and work was under way during the process. Workers temporarily lived with the commune farmers around, and production was going full steam ahead while buildings were being erected around the plant equipment. Workers looked very happy with the struggle of it all, for here they had been given a challenge and had met it triumphantly.

### *Old Pagoda and Modern Opera*

We went over to the old pagoda to have a look at its construction standing so sturdily after a thousand years. Both outside and all inside faces in each story are covered with small Buddhas, most in a good state of preservation. Standing in the domed room at the base, and looking up through the round aperture in the top of the dome, one could see Buddhas right to the top of the structure lit by the rays of setting sun striking through the light inlets all the way up. The old men who designed it must have been quite considerable artists in their way.

We attended a performance given by the local opera group one evening. There were two selections. One on education, on a struggle between two grandmothers over the way the granddaughter should be taught, and the other a Resistance War drama of 8th Route Army men and Japanese invaders, a thesis still very much alive in these regions, where the struggle went on between the people and aggression for so many bitter years. The acting and singing were both excellent.

One morning we set out to look at some of the brigades of the Chengkwan Commune, finally getting to one whose village bordered the mountain slope, called Peitsun. There was the faint smell of ripening wheat and harvest in the air, coupled with the freshness that came after a day's rain. The brigade had 640 families in it, 3,160 people in all, farming 373 hectares of land, 133 hectares of which was hill slope. There are 22 production teams, 20 working on agriculture, one on

forestry, and one on industry. In the bad old days, this was a noted poor place. A good portion of the land was marsh, called by the people 'Frog Swamp'. All of the good land was owned by five rich peasants. Poor peasants left their families to grow a little corn where they could, while they themselves went off through the mountains to Yangcheng in Shansi to do hauling and carrying work there. The carrying pole then was their real staff of life. In the famine of the early forties, 370 families went away to Shansi as refugees, while 540 of those who stayed at home died of starvation. After the big change came, the land was divided properly, and the big swamp drained, a 30-kilometre-long water course being made to carry off the water. Not 750 kilo a hectare could be averaged over wheat areas cultivated in 1949. By 1966, the area had extended, with the total of over 1,500 kilo a hectare. Then came six years of concentrated work helped by more advanced political understanding, so that the 1971 grain total was 5 tons a hectare for grain and 840 kilo of cotton. This period also saw a great increase in tree planting. Some 30,000 date trees were grafted on to the hill briar, that makes such a good stock for them. Also 20,000 walnut trees were planted, 9,000 persimmons, 3,000 apple, as well as some 80,000 timber trees. Planting trees on a rocky mountain slope is not so easy, as a hole has to be hewed out of the rock, and good earth brought in to give the tree a proper start.

We visited the two food-processing plants, one of them a flour mill, both operated by the swift waters of the branch canal that ran down from the main one up on the mountain slope.

### *School and Birth Control*

We called at the local seven-year school. It was the last day of classes before the wheat harvest holiday. Country schools in this part of China have three

holiday periods a year, those at wheat harvest, autumn harvest, and then for general festivities at spring Festival, the old Lunar New Year. With 24 teachers and 780 pupils it gives a seven-year course, five in primary and two in lower middle school. Besides the usual school subjects, politics and agricultural general knowledge are taught. All being related to practice. In politics, the meaning of Tachai, what working class internationalism connotes, and how Dr Bethune's work illustrated it. The lesson in determination shown in the essay on the foolish old man at Wangwu Shan, and what it takes to really serve the people, and the words and music of the *Internationale* and their meaning for ordinary people. After we heard about the school, the children put on a fine entertainment of dance and song for us.

With brigade leaders, we talked for a while on the way livelihood was bettering all the time, how a 250-kilo allowance of grain a head is now possible, how there were now 163 sewing machines, 85 bicycles, and 320 rubber tyred carts amongst the people with each of the 22 work teams having a horse cart, and the brigade now owning two new tractors, a four furrow plow and a new style disc cultivator. How for some years after Liberation, around 100 tons of grain a year had to be bought in to relieve the shortage, but how now there is a surplus, and all production teams have their grain reserves. We talked a while on how well the brigade clinic operates, and how well birth control ideas have spread. In 1965, there were over 80 births. In 1971, only 47, while nine old folk died in that year. So the present increase is relatively small indeed. All necessary contraceptives are provided free.

It was a pleasure to see canal laterals sparkling down the sides of streets here, and to look at the many trees that have been planted in village compounds and beside the commune roads. All of this, together with the new timber planted in

the mountain areas, will ensure that better and brighter homes will be possible to build in the future. What was the use of growing timber in the old days, when Kuomintang soldiers would come, commandeering carts and cut down everything to cart off to the city and sell or use as firewood for themselves?

We went out into the country to see the main trunk canal, the Tsengkan Chu, of the Chi Shui River project. Halting by the Hungwei aqueduct that carried a branch lateral over 840 metres of a river bed, with its high stone arches built by 12 commune brigades in 5 months, we went up into the hills and climbed up a steep slope to the main stream with its waters surging around the hillside in a stone-lined canal. To cut off a loop, and to give a more direct flow, a 200-metre tunnel is being made under the mountain, at the time of visit over half having been done. We stopped at a few of the villages and met some of the folk who had done all this work. Able, friendly people they were, youngsters so light on their feet, so lithe, yet who have helped to do all this almost incredible amount of stone work, succeeding in taking the rivers out of their valleys and making them run in new channels high up on the hillsides serving the once parched and barren lands below.

On the way home in the evening, we passed two small coal mines, sheaves busily turning over their pit heads, mines which were operated by different communes for their own fuel and industry.

### *The Old Foolish Man's Mountain*

One hot morning we set out to go to Wangwu Shan, the mountain of Chairman Mao's essay on 'The Old Man Who Removed the Mountains', and part of the old liberated areas where the Eighth Route Army fought the Japanese. Passing over ranges and through forested valleys, we got to the headquarters of the Hsin-yukung (New Old Foolish Men) Brigade of the Wangwu Commune. This



commune, because its villages are far apart on hillsides, has 42 brigades for its 21,000 people. They have 3,733 hectares of tillable land. For irrigation they have to use reservoirs, and at the time of our visit twelve brigades were working on a fairly big new one called 'Yushan' that will hold back 11,000,000 cubic metres of water. A thousand-metre tunnel will bring some of its water to the Hsin-yukung Brigade.

Brigade headquarters here are set in a wonderfully scenic spot. Under the peak of Wangwu Shan, there is an old temple called Yangtai Kung of the Kaiyuan period of Tang, which was around the middle of the 8th century. As stone tablets say, it was repaired at the beginning of Yuan and again in the Wanli period of Ming. Its main hall has three stories. Its pillars are of stone, with fine engravings on them, most dragons and phoenixes, children and lotus flowers, but many with every day life scenes, like the pilgrim tying his horse up under a tree, and so on. In the compound are some ancient cypresses, and a Soleh tree, one of the three ancient ones still existing in the county. It still carried a good deal of its blossom. I wrote these lines on the place:

*Once pilgrims climbed  
painfully up the steep North Peak  
of Wangwu Shan, to seek  
the favour of heaven in  
their distress; now they combine  
to build a reservoir, cut  
a thousand-metre-long tunnel  
through the mountain base to bring  
glittering water to Yushan fields.*

*For Wangwu Shan  
in Chiyuan is the Yushan  
of the fabled 'Old Man  
Who Removed the Mountains'  
a folk tale so deftly told  
in all its connotation, that  
it has entered the hearts  
and minds of the multi-millions,  
is read in school primers,  
memorised, recited, sung  
all over the land, raising*

*determination to do, despite  
each and every difficulty.*

*And today, I looked  
from the top balcony  
of an ancient tower near by  
built in Tang, and still  
with much of its glory  
of coloured glaze tile,  
seeing through cypresses  
over a great spread of  
rolling country in harvest  
colours, while down  
in the courtyard below  
there came bursting in  
a whole school of hill children  
so lithe, so alive; and I knowing  
that in tune with these and all  
the new understanding  
they now gain, so will  
man's horizon widen, mists clear  
and all surge forward again.*

The Yushan Brigade is one of 223 families, 1,056 people in all. It farms 116 hectares of hilltop or hillside land, irrigated so far by three pond reservoirs it has built to store rain water. One of these leaked, so was being given a coat of concrete over its whole floor space. At the time of our visit, lads and lasses of a production team were working hard at it. In addition to its two crops, one of wheat and the other of millet, there is an increasing harvest of persimmons, walnuts, dates and small fruit. The school of children who came to welcome us was a warm and lively bunch, as well fed and agile as hill children always are these days. The grain allowance per head is 228.5 kilo a year. They have 11 mules and horses, 166 cattle, and 900 sheep and goats, one big tractor and two small ones. Everyone takes part in tree planting at the proper seasons each year, and we went along one hill ridge which had persimmon, apricot, oak and date trees all growing well after the last spring planting. Across the valley below and coming out of the hillside was the exit of the water-carrying tunnel of the new reservoir, and the sound of explosions there showed that work was go-

ing ahead fast. On our way back over the 50 kilometres to the county seat, we passed through the village of a forestry brigade, where the foresters had started at home first, their family compounds being full of tall trees. The covering of the hills with green trees makes a wonderful difference to the countryside. Mostly planted between 1955 and 1958, the 2,000 hectares is a real picture today.

Coming out of this forested region, we stopped for a while to see the 648-metre-long New Yukung aqueduct that is 18 metres high over the lowest part of the river bed it crosses. The course over the aqueduct is 5 metres wide, widening to 6.5 metres as it emerges into the stone-lined canal. The same water from the Chi Shui River project we have seen already, 50 kilometres away from here, but by now with addition of the waters from the Mang River, down from Yangcheng in Shansi. The main canal itself is 120 kilometres long, laterals going on from it down to Menghsien County to the south.

### *Sewing Machines and Bicycles*

The Kangtou Brigade is a cheerful place out on the flat land to the east of Chiyuan town. A total of 1,780 people here farm 185 hectares of ground. Once, before the bad early forties, there were more folk here than now—1,900 in all. In one year, 1942, 900 were killed or died of starvation. A hundred and two families were wiped out. Many took to the roads as refugees. Some came back again; many never did. Three landlords owned 55 per cent of the good land, but on an overall average, never more than 1.5 tons a hectare of grain was gained, even in the best years. In 1971, the average was 6.3 tons of grain and 825 kilo of cotton. A feature of this brigade is the many new homes being built. In people's homes are 170 sewing machines and 180 bicycles, and 600 pigs are in the excellently kept brigade piggery. The seven-year school

has 430 children in it, with 13 teachers. The newly mechanised flour mill grinds 15 tons of flour a day. Good experimental work is being done on wheat seed, adapting the Hsinhsiang No 1 type to local conditions. There is a grain allowance per person of 240 kilo a year. People here are pleased with their clinic. The three brigade members who look after it first had a two-year course in the county Public Health school. Now since they have been in the clinic they go out in rotation to various training classes either in the county or else in the prefecture at Hsinhsiang. I asked about births last year. They said, less than forty, during which time there were four deaths. Births in 1965 were well over eighty. But the brigade leader had forgotten the actual figure for that stage. So we got back on to the subject of fertiliser. Forty-five cubic metres of compost is put out per hectare, along with 600 kilo of chemical fertiliser, and 300 kilo of cotton seed cake taken from the cotton-seed oil press after the oil has been extracted. The 67 hectares of cotton, of course, needs more fertiliser than the grain does. Stamped earth of old houses makes very good material for compost heaps so there is every encouragement given to members to build themselves new ones.

Listening to the folk talking here and looking at them as they came around to look at me, the first foreign visitor for a very long time, I could not but think back over the saga of the revolution, and what terrific struggles had gone into it especially here in Chiyuan. Liberated in 1945 from the Japanese rule and the old order, then suffering a come back by the Kuomintang for two years until 1947, then on to the early struggles to get mutual aid teams working, the lower, and then the higher forms of cooperative, and all that meant in fighting the class struggle, and to change old ideas of property and individualism. The fight to get hills forested, the coal mines working, wells sunk. The Great Leap Forward, and the coming

in of the people's commune, all of which entailed such long, patient work by the cadres who sought to change ideas, the foundations for county industry being battled for. Then two years of drought which brought home the fact that much more water must be sought for. The work that already had been completed at Linhsien further north around the escarpment of Taihangshan provided a wonderful example of what could be done in this. The movement for socialist education in the countryside, which first began to bring the ideas of Chairman Mao closer down to the people, followed by the storm of the Cultural Revolution, out of which came clarity on the two lines and the determination to solve in the spirit of the Old Man and the Mountains, some of the major contradictions that stood in the way of the people's struggle for more ample livelihood.

So were the people seized with the high adventure of taking hold of rivers and making them run where needed. The challenge came to folk already steeled in much struggle, and by now having the tools to better fight it with being available, the most important being the spirit engendered by an application of correct political theory which so swiftly changed into the material things necessary. One victory has led to a new one, one struggle to the other, like a river in high water bursting through one obstacle and throwing its increased weight against the next. One needs to have some background of the old, some understanding what people have done, in order to fully appreciate the present, in this rapidly changing Chinese countryside, and to have some idea of what the future can bring. One too must remember that all of this struggle has been done at a time when imperialism attacked in Korea, up from India, out from the occupied province of Taiwan, along the rivers of northern frontiers, and then for long years against the three countries of neighbouring Indochina. Ever too has it been important for villages to send out

some of their strength to build national projects such as highways, railways, major engineering schemes, to man the People's Liberation Army, and the new large scale industry. So one looks into the face of the youngsters who stop school to go out and help with the harvest, the older ones reaping, and the younger ones gleaning, with the realisation that here one is looking at the people who will build so much of the future.

For a pleasant interlude in the county centre, we paid a visit to the store where ancient artifacts are kept, after being sent in to the county by people digging them up during irrigation or recasting the land work. Most were funerary pots, the majority from Han times. Outstanding pieces have been sent to provincial or national collections, but there is still plenty to fascinate anyone interested in the fruit of man's hands over the centuries. The circus man with a performing cow. Acrobats poised in mid air, dancers and what you would. There was quite a wealth of stone-age artifacts, both in pottery and tools. The pre-historic period must have indeed been a long one, its legacy being so rich. There are some models of men working bellows for the smelting of metals that came from Han. Then, too, many of the iron weapons of that period. 'Some day when we have time, we will display them properly for the people to come and see. We are still too busy with basic things now to do more than keep them all safely,' cadres said.

### *Real Heroes*

And there are so many other things that do take up all the energies people possess. Three men and three women came in to talk with me, riding in by bicycle on a very hot day from various district hilly regions, the oldest all the way from the Yushan reservoir project which he was leading.

The assistant county Party secretary gave us first a complete run down on

work in the county on irrigation over the years. In 1953 after land reform had been carried through, a survey of all water resources was carried out, and many wells sunk, land levelled and much reclaimed on the plains. The next stage went on to 1958, during which time, work was started on Mang Ho conservancy, there being perpetual menace from that river as it meandered its way over the plains. Reservoirs were dug, and the river tapped for a first irrigation scheme.

In the third stage, that of 1959-64, the ideas of Liu Shao-chi had to be contended with. He said that too much irrigation had been done and work on it should be curtailed. A new survey of Chiyuan showed that there had not been too much, but much too little. Work on getting all the flat land irrigated was carried on with. But all done was of use only if there were good summer rains. In a big drought, if wells dried up, and reservoirs also, there would still be disaster. So from 1964 on to 1972, efforts were made to take the waters that flowed through Thaihang Shan, and with the resources of the county, put them to use in a total irrigation scheme. Considering the nature of the mountainous area to be tackled, it was an ambitious project. The county and communes put out their financial and technical strength, the brigades and work teams did the actual work. Some of the real heroes that came up from their ranks now sat talking in simple terms about the things they had done.

Tall and quiet, Chao Ching-jong is 42 years old. In 1954 he joined the North China geological survey team as a worker, learning much from the geologists with the team until he suffered an accident which injured his leg, and came home to recuperate. In 1965 he was fit enough to get around mountains again, and led workers finding the right stone for aqueduct building and canal lining. He later led in constructing one of the Mang Ho aqueducts, and is now the local peasant expert on the strength of rocks and stones,

much in demand for consultation at all work sites.

Then there is Kuo Tsui, who was a poor peasant living in the marsh lands of the Tungmatou Brigade. Returning from Shansi after 1945, having gone there as a refugee, he got his first chance to work on irrigation after the second liberation of the county in 1947. One irrigation job led to the other, he playing a more and more important role, as the whole strength of the people was brought into play to complete the big Mang-Ching scheme. Since 1970 he has been leading the work on the Yushan reservoir.

It was hard to get the men to say much. It was just that there was a job, and we helped with it, all said in the most casual matter-of-fact way. Sung Yu-wei, a 33-year-old man, is proud of his little home and his two children, but his face, scarred by a blast, shows that he has been in at least one tight corner. Known throughout the whole construction job as a worker hero always in the vanguard, hacking at cliff faces while suspended by a rope, using the 'five feet' of the worker doing precarious jobs in early cliff face work, hands, feet and bottom holding on to the little space blasted out, he has the same look as the old soldier who has been through many battles.

#### *And Women Heroes*

Then there were the women. Wei Yu-jong is a girl with considerable presence. Born amongst the hills, she knew from her earliest times what it meant to not have enough water around, so was glad to get the chance to serve the people to bring in more. But when she got to the work-site, she found that only the men were doing the heroic jobs, and all the women were expected to do was to carry away the rock. When the men were resting one midday break, she and three girls went to a tunnel and worked so well at the face that even the men said it was good. Encouraged by this, the women asked to be given a tunnel of their own to work at.

So they successfully did one 320 metres long. After that, they were well established as tunnel workers and Wei Yu-jong as their leader.

Hua Lien-fang the 'cement girl' started working on a cement kiln in 1966. Today, the county has a modern horizontal rotary kiln. Then, the old-type vertical ones had to be used. She changed the type that had been in use but did not always give the best results to one shaped like an inverted trumpet, wide at the top. It was entirely successful, producing better cement for some of the longest aqueducts, as well as for the millions of squares of cement board with which the laterals of the Chiyuan irrigation network are lined. Before irrigation work started in the county, local people did not even know how to cut stone.

They learnt to do so by cutting it, and building aqueducts. But over in the rolling country on the south of the central plain, there is no suitable stone, so that there the long branch aqueducts are made of the reinforced concrete made from the cement Hua Lien-fang's cement works has produced.

The gelignite girl is Niu Su-ching, who started making explosives in 1966. No longer the old gunpowder, explosives now turned out are much more highly sophisticated than they were. No, in the years when she and her group have been at work, there has not been any accident, and there has never been a shortage of explosives due to her group not keeping up with manufacture. At the beginning of the cliff side work, some explosive was sent up in bulk, but the paper for wrapping up the plugs got left down below. The men on the job tore up their clothing to make the covering necessary. There would not be that trouble now, she said. Charges are packed in nylon bags of the right sizes. It was interesting to hear the three women talking together in a matter-of-fact way in terms and on things that were so short a time ago right out of the

peasant women's ken. They had become the new professionals.

We went out to see the aqueduct of the 12th Branch Canal in the Chihchung Commune in the rolling country south of the central. It takes water at one cubic metre a second over a reinforced concrete aqueduct 1,150 metres long, with 104 slender pillars 20 metres high in the middle portion. The concrete was poured on the site, taking 308 tons of cement, 52 tons of steel, and 1,600 cubic metres of sand and gravel.

It will be some years yet before the work on the whole scheme is finished. It is the final stages that will need a lot of work, especially in the rolling country. Much recasting of the land needs to be done, levelling, and so on. Then all the thousands of small laterals put in especially over rolling country. The next two winters, however, should see the back broken on this task, with the whole system fully in running order by 1975.

#### *Factory through Many Troubles*

We went out to the Szeli Commune, 10 kilometres from the town, to visit the commune machine-repair shop there. Set up in 1954 it has come through many troubles, at first making but small farm tools. 'Twenty-four bachelors, one hammer and one anvil,' some laughed at them. Their material then was scrap iron collected; but with workers helping each other and the local people helping them all, they managed. In the Liu Shao-chi period of 1960-3 especially, it was ordered that commune factories should be either cut out or else reduced in numbers. This one was to have its by then 147 workers cut by two thirds. It however managed to register as a handicraft cooperative, and thus was able to keep going, though still doing what it did before, providing horse carts, hand carts, pumps, and all the time repairing the simple machinery that had gone out to the brigades and work teams. Recently it has built a new shop, and will soon move all of its 19 machine tools in-

side. Shaper, drill and the lathes were made in Chiyuan. Work in the wood shop is mechanised, with circular, band and buzz saws. I liked the big roomy compound. Workers can be busy at the smelter, then have a spell sitting under the shade of a persimmon tree beside, where a thermos bottle of hot water, a tea pot and cups set out on a table looked inviting.

Such commune factories are a start in the progressive mechanisation of the land, and in making a first bridge between agriculture and industry. Workers are very much at home in their own village, and the older ones can eat in the factory or at home near by as they wish.

The drastic reduction in the birth rate that is going on will make mechanisation more and more essential in the decades to come when there will not be many hands around. But anyway, mechanisation is well on the way.

This became more evident when we went out to see the machine shop of another commune. It was called 'Ke Ching', meaning 'take in wells', the present character for 'Ke' replacing one that meant to 'bow down to' as if in worship. A commune that runs for 25 *li* along the Taihang Shan foothills, mostly dry and stony, its 30,000 people divided into 41 brigades, farming the 4,000 hectares of land that they have seized back from the stony waste. There used to be many trees on this stretch, but they were all felled for the Japanese armies of occupation during the War of Resistance. Last year 200,000 more were planted, and now every brigade and work team has its tree nursery.

The commune is an unusual one in that it depends on the waste products of bigger industry, the turnings, filling, grindings, and scrap from county industry, for its raw material. It has put in an iron smelter and is producing at the rate of around 800 tons a year, so that it is able to supply other brigades with some pig iron as well as supply itself with enough for the agricultural machinery it makes, and the various kinds of pots and pans commune

folk use. There is no overlapping in Chiyuan. Each commune machine shop is allocated certain work to do in line with the general necessity. The Ke Ching Commune operates a small coal mine and a number of other small industrial efforts, though its main preoccupation is with the land and in finding ways and means to make poor land produce more. Getting stone removed and carrying in good earth is like a battle. Each *mou* saved a victory. Now that irrigation is no longer a problem progress in future will be swifter.

It was good to have spent a week amongst the communes, irrigation projects and factories of an old county, now become a new one. It is becoming something more than a rural county, for its struggles have marked it as a place to which people not only in China but also abroad will look to and gain inspiration from its down-to-earth, revolutionary struggles.

### *Pottery Kilns of Old*

We spent a very pleasant last evening with our hosts and their children, the old ones playing with the young ones, and the local star with the friend who had come with me from Peking. There was a lot of good spirit, fun and good technique too. Then the next morning after early breakfast, we were off again, going through industrial Chiaotso this time, on our way for a stop at the Tangyangyu Village of the Hsicheng Commune of Hsiuwu County. A picturesque place with its houses all the way up a ravine in the loess-covered hills. In the brigade office, we saw many specimens of the shards and pieces from the Sung Dynasty kiln site we had come to see. There was also a rubbing from a local stone tablet of Sung times with some of the history of the place. There are references to happenings in AD 1101 and 1104, but it seems that the heyday of the place was in or around the AD 1068-77 period. There were 300 of the 1,000 local families engaged on

making the pottery then. The main kiln has not been found yet, though there is a reference on a tablet to it. We saw several places where there had been kilns against the loess batter of hills, which had caved in. Sung shards were everywhere around. Then we came to two fairly perfect specimens high up against the batter of one loess cliff. Heat had changed the inside of the kilns to black glass. They were bottle-shaped, one 2.2 and the other 2.5 metres across the base, both 1.8 metres at the neck. Both were around 2.2 metres high, and both had around one metre of loess over their top.

It seemed that these kilns set out to make any style of pottery or indeed porcelain then in demand. We saw one cup of fine white material in the brigade office, which looked like eggshell porcelain, but had gone a little out of shape during firing. There was also Ting-type pottery, painted Tzechow types, 'Chao Tsai', a kind of stone or wood grain impression given by mixing black or brown colours with white, blacks and browns, and then even a shard of brilliant Chun of the Sung period. Most had been fired in ordinary saggars. Some in ring saggars of the Ting type. There were many wine cups, wine pots, small figures, and even a salt or condiment shaker. The local people are proud of the remains and they are well preserved. Modern kilns further down the valley towards Chiaotso still have construction not so very different from the ones seen at Tangyangyu.

It is wonderful how many old crafts can be found when they are looked for in the countryside. In Chiyuan, for instance, there was that of making inkstones from a certain strata of rock in the Taihang Mountains. We saw one with an engraving of the Panku Temple in the Taihang part of Chiyuan. The temple associated with the first of the Tangs, Li Yuan, who was a native of the locality just north of it.

There was not so much time in Hsinhsiang, after coming on a very hot summer's day from Chiyuan, seeing the kilns

at Hsinwu, and before going on to Chengchow the same evening. But yet we did get time to go through three of the now over three hundred factories of the municipality, and catch up a little of what is happening in industry in what was once a purely rural centre. The first plant seen was one that makes towels for export from the cotton yarn produced in the cotton mills here from local cotton. It has 1,435 workers, 80 per cent of them women. The plant was once in Shanghai, but was moved here in 1957, and since then has added to its plant and rationalised its production a great deal.

### *Where Brocades Are Made*

We next visited a silk-weaving factory where brocades for quilt covers are made. Started in the Leap Forward period of 1958, its 306 workers took another step forward in 1966, and greatly raised production. There were no well-trained technicians to depend on, so experienced and young workers put out their best, and made the adaptations needed. In both of these two textile factories visited, everything was spick and span, workers in white caps and aprons, air-cooling operating. Factory management in the third factory seen was also excellent. It made pump assemblies for rural communes and state farms, factories, etc. in the province. The shops were more than big, they were huge, so that the 588 workers had plenty of light and no crowding. Both pumps and motors are made, from small sizes up to big. More construction is going ahead to house a production line of even bigger types. The economy expands and industry has to meet the challenge.

We drove through to Chengchow after supper, in the late evening. Blue tubes of light carrying on their anti-insect pest work shone as they were fixed to telephone or power transmission line poles over the countryside, giving a festive effect. Finally, we crossed the four-kilometre-long Yellow River bridge, and were

soon back in the well-lit streets of modern Chengchow; our Honan tour ended. I went over what I had written about Chiyuan and add these lines:

*Tumbled cliffs  
of Taihang Shan, ever rose  
in haughty ramparts, seemingly  
against the advance of man; rock  
spattered ravines spewed flash floods  
each rainy season ripping over  
lowland farm and village, destroying  
crops, taking lives; but at last  
the people rebelled, then out of their  
own great strength,  
now released dragged rivers  
bodily from their courses  
emptying them into canals  
village heroes had hewn  
out of precipices, then with  
strong hands tearing stone from  
the mountains, building massive  
aqueducts that carried waters  
from one ridge to another, waters  
now placidly listening to the command of  
man  
as to where they should flow  
and how, and it was as if some  
gigantic fist had suddenly given  
the whole fabric of man and his environment*

*a twist that brought it back  
to constructive sanity, put it  
securely on the road to life, so that  
life changed and all over the land  
golden harvests stood proudly  
filling the air with fragrance, and  
the people once denied everything  
except the right to live  
pitiful, bitter lives with  
starvation and cold ever  
biting like mad wolves,  
now with a whole world of new  
freedoms giving meaning to their days;  
today farm folk mine coal,  
smelt iron, make steel, build  
one machine after the other  
rocks are ground to make cement  
farm girls turn out modern  
explosives, use them to drive  
tunnels through mountains.  
There was an old order  
doomed to die; then  
there was the revolution  
that buried it; now  
children of the revolution  
look into a future  
analyse and create  
ever better able to decide, as  
two roads open in front of them  
which one to take.*

