# CHINA'S HINTERLAND

-in the Leap Forward

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## PREFACE

It is not easy to write fully of so vast a thing as the leap forward in China which started in 1958, and ran on into 1959.

Not easy, because so much has been done in practically every sphere of creative activity, from education to widespread production; not only in the big cities and towns, but also back in the hinterland among the myriad hills and streams.

The theory of the movement that threw the responsibility for advance back on the people may be found quite clearly throughout the writings of Chairman Mao Tse-tung: oneness with the people, the determination to achieve socialism, the combination of theory with practice, the dialectical method—in short the Chinese application of Marxist-Leninist theory to local conditions, whether in the great population centers or in the sparsely settled valleys and highlands where minorities now so cheerfully rub shoulders with Hans in their common struggle for better livelihood.

It has been the writer's privilege for over three decades to live and travel throughout China. To see, therefore, the scope and daring of this movement was a fascinating and moving thing. One realised, before setting out, as one read reports in daily newspapers, that much struggle and work must have gone into its planning to produce the results that show up so brilliantly: China using its genius for group action to sweep forward in industry, to carry all the people in all their many walks of life on the crest of a wave, to cut down divisions between those on the land and those in the city, between the man in government and he who stands knee deep in water in paddy-fields, between students and workers, between engineers, scientists, doctors, educators and those with whom they work, between majority and minority; bringing to the people a sense of struggle for the common cause so clearly defined that even children understand.

Out of this struggle have come the strides into the future, the setting up of the people's communes with their great spate of inventions and scientific discoveries, the feeling that the new way works, that it gives the people the power to do anything they want to do. They can make the rivers flow over mountain ranges, raise the agricultural and

industrial production to heights scarcely believable — more than doubling steel production in one year. This strength is new in our world and charged with great meaning for peace-loving people everywhere, especially for those struggling to gain the independence which the liberation of a quarter of mankind shows is also possible for them.

With this increased power of production is a strengthening of the moral fibre of the nation, a growing belief in themselves among the people, an awakening to their own inexhaustible potential. The newly born country, as Chairman Mao has said, is as a clean sheet of paper which now can be written on anew. One feels a deep humility in attempting to record even this small part of so great an endeavor, hoping however that in the outline presented one can convey some of the victories of the human spirit that have been made, victories that are always a triumph not only for the Chinese people but for the good, peace-loving folk of the whole world.

Rewi Alley

Peking, November 1959.

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#### CHAPTER I

### KANSU

September 15th, 1958 "The Ming Tombs Reservoir," announced the airplane attendant and all the passengers went to the windows to peer down. This reservoir is of so much more consequence to them than the tombs of the thirteen Ming Emperors whose mausolea nearby look imposing even from the air. Hundreds of thousands of Peking's citizens as well as its political leaders worked on this reservoir at one stage or another throughout last winter and spring — a herald to the great leap forward — setting a pattern for the work being carried out all over the country. Now, a dam, standing between the two hills, holding back the newly made lake, seemed to those looking down like an exclamation of triumph.

Then one peered over Inner Mongolian plains as we swept across them until someone said, "Paotow ahead!" There in front of us, the high waters of the Yellow River glinting against the sun, was the rising forest of smoke stacks and the black haze dotting the blue that marked the new steel center, soon to be one of China's greatest. This was a different Paotow from the old famine-stricken, warlord-ridden city of my first visit three decades ago. Now it is an expanding base for the onslaught against erosion and aridity, for the use of nature's riches to arm the people in bending nature to their will.

Even across the Ordos desert one could see evidences of new construction, becoming more as we passed on over Ningsia. The new railway cuts through hills and valleys making a second trunk line to connect the northwestern railway system with that of North China. Suddenly Yintan Island in the Yellow River, with its neat houses and farm lands, appeared beneath us and then we were over the spreading new Lanchow and dropping down to its airfield.

Kansu Province, of which Lanchow is the capital, was once considered one of the poorest in China. It contains many rugged mountains, and much arid, desert land. Now in its Central Asian portion, oil has been found. Coal and iron too are in plenty and today indus-

trialisation is proceeding rapidly. From the airport to the city the road wound between huge heaps of earth. Sewers were being laid. Farmers, city men and women, students — everyone possible it seemed — were out digging the deep trenches. The Lanchow that is rising will be a monument to the people of the city, for it is surely a product of their own collective effort.

Back at the technical workers' school at Shihlitien across the Yellow River, with which I have been associated for many years, I found new buildings completed during the last year - a classroom block of four floors, a new auditorium, and work going ahead on making equipment for the leap forward. The crop of children who surge around the staff quarters is a fast growing one, and those I had left last summer have shot up like young bamboo. The hills at the back were beginning to show green after all the effort that had gone into planting trees on them, and the sunflowers and castor oil bushes, that are being grown almost everywhere in North and Northwest China on bits and corners of land around compound buildings, show up well. "What's new?" I ask one fourteen-year-old who grew up in Sandan. "Oh, the workers at the flour mill over the river have made an iron-smelter nearby and smelt iron as well as grind flour — a new Yellow River bridge is getting finished fast — is it true you went in the TU 104 jet to Moscow? What's it like? Why don't the Americans get out of Taiwan?" Then answering a shout from a friend down on the road below, he was off.

September 18th, 1958 The school these days is just an ordinary technical workers' school the like of which is now to be found multiplied in every center in the country. Its student body, climbing up to 1,600 strong, is a busy lot. Lads and lasses have their classwork and they have their practical training in the workshops. By meeting local orders for machinery they provide the total school budget requirements. This year's production includes 100 blowers for iron-smelters, 120 lathes for local small industry, 100 4-h. p. motors, 20,000 sets of ball bearings for carts, a set of towers and equipment for a small fertiliser factory, as well as other local industrial equipment. Students also go out to assist in setting up plants in other schools and institutions. A new order puts them to work constructing ten Bessemer converters for rural steel-smelting. Students come from many places, overseas Cantonese from various Southeast Asian countries amongst them, girls from Shanghai, local Kansu lads, with technicians and teachers from all over China. In all they make one more of the many new training bases necessary for the next step in the leap forward. Up on the hills at the back of the school one bunch of students could be seen this morning making terraces for new tree planting. A textile school down in Shensi has sent up a batch of its trainees to learn from our experience.

I ask about the 2,000-odd graduates and am glad to hear that they are welcomed wherever they go, that they are not frightened of difficulties and can always get down to the job. No matter where they came from originally, the stamp of this Northwest pioneer environment into which they have been integrated shows on them.

In an expanding economy like that of China today, there are many practical classrooms for the technical school students. Everyone wants their help, both in the cities and back in rural towns and villages. Some of the electrical section lads in our school, for instance, have not long come back from the county seat of Yungteng, where they have been installing electricity throughout the town and vicinity. They were much gratified by the reception the county folk gave them, treating them as honored guests while doing the job. I am impressed, too, by the fact that though one had always thought of one's own homeland of New Zealand as a progressive up-and-coming country, I do not know of a single steel works operating there, whereas in China today, most rural counties can boast of at least one. In schools here too, young folk are taught to be creative producers, rather than just consumers fairly content with the *status quo*, often just gaining knowledge because it is the correct thing to do.

September 19th, 1958 Last evening the staff compound was almost empty, for movies were being shown in the auditorium. A clear Northwest night, I climbed up one of the hills at the back of the house and looked over Lanchow. From away down by Tungkang to the east right up towards Hokou in the west, a matter of sixty kilometers, could be seen masses of electric lights. Work was going on through the night on the new Yellow River bridge just below us. Soon when the Yellow River power comes from the new dam nearby, there will be more power, more lighting going out from Lanchow all up through West Kansu. A different Lanchow from the old fortified city that one knew in the days of the War of Resistance - a Lanchow now of new universities and technical schools, new hospitals, new factories and homes, radiating its strength throughout the countryside and raising living standards speedily as only a socialist city can. longer a den of exploiting landlords and officials, entertaining each other to sumptuous dinners, protected by their soldiery, no longer a place into which the wealth of the farming people was raked unmercifully, but a Lanchow where even the schools can turn out new tools. population problem now. No famine either. Technical schools compete keenly for the students available each new term. As leaders in China say today, one does not count population by kou (mouth), as in other times, but by hands which can produce anything mankind is able to produce. Hands have built the great Lanchow oil refinery and hands

produce the richest crops the province has ever known. Hands and the new understanding that directs them, that can go on creating new livelihood without limit.

September 20th, 1958 The students are pleased with their smelter in the founding section. It used to produce 15 tons of smelted iron each day but now they have bumped up the total to 45 tons. Shifts work all around the clock on the castings for the machinery needed by rural iron and steel program. This is practical politics as well as practical training. The people, the whole 650 million, need steel and iron, need machines that in turn will bring additional food and clothing. This makes education relate itself to something definite, gives substance to both political and technical classroom work. In the struggle for socialism, peasants and workers of China are being welded together into one great force, and naturally the school is a good place to begin in. If the fight to industrialise is to succeed, correct methods of training are essential. The strength of China lies in its people, and when one sees what just one unit, a simple hinterland technical school, can produce to arm the countryside in its vicinity for their battle with nature, one is filled with joy at the way things are working out, at the way so many of one's own fond hopes of the past are coming true. The list of things that "every schoolboy knows" is increasing, I find as I talk to some today. America thought that China could not support herself with grain and would be forced to come to terms, one said indignantly. But in the past few years China has been exporting grain to other countries. Then isn't it true that America thought that she could halt China's progress by means of an embargo? Today China is exporting many of the items of machinery on the embargo list, and a whole nation laughs back. No one believes that last year's steel output will not be doubled this year, or that China will not soon overtake Britain in industrial production — as indeed she already has in some important items. All this is now elementary knowledge and can be quoted back to one even by primary school children.

September 22nd, 1958. Yungteng Last night the school had a mass meeting to arrange for militia training—a movement that is spreading all over the country, along with that for more production. This morning at five thirty, people were up and around sweeping, cleaning and scrubbing, for today there is to be an inspection by the health committee and summing up of the results of the health movement. I left my cottage in a jeep after breakfast, however, and was soon out on the new highway along which many new educational institutions are rising, and headed for West Kansu up the Lanchow-Sinkiang road that has supplanted the old Silk Road. A glorious sunny autumn morning with everything looking its best.

All along the way, one noticed, the hills were terraced for tree planting. Near the hill called Jen Shou Shan, "Mercy and Longevity Hill" as it may be translated, was a signpost pointing to the "Jen Shou Shan Red Flag Commune". I learned from the lad Chu Chung-hua, who was with me, that it was newly formed, of some 20,000 people, all hill dwellers, who lived from the terraced fields they tilled. It appears that this commune has had a good deal of internal struggle. Some of the old men said that trees would not grow on the hills, there was no way to bring water up to them, and there was always the necessity to care against offending the Dragon King, who could bring all kinds of misfortunes. The young activists, however, would not listen. They pointed to odd lone trees that grew singly on five barren hilltops overlooking the valley and said that if some trees could grow, they would be able to plant more. As for water, why not pump some up, for nowadays there were machines and there was power for the machines. As a result water now flows on the terraced land around the ridges, trees are growing and show green already, and the Dragon King with much of his "face" lost becomes an amusing folk tale rather than a dreaded reality.

Near Hokou I looked at a new bridge being constructed over the Yellow River and learnt that there were now no fewer than nine such bridges inside the limits of the Lanchow Municipality already in use, or being built. Two are for railways—the Lanchow-Paotow and the Lanchow-Sinkiang lines—while this one was for the city electric tramway that will run to Hokou.

Here the harvest this year is another rich one and it is a pleasure to see the groups of people out at work. In one place a primary school was marching out to reap, a girl in front with flag and the boys bringing up the rear carrying sickles. The children of West Kansu are always a delight to the eyes in summer and early autumn, the boys in their Peter Pan jackets, usually open at the front when the sun shines, brown and healthy. They crowd around to inspect the jeep when we stop at a railway crossing, interested in its brand, its performance. The long train of oil tankers returning to the Yumen wells takes guite a time to pass and the children are now quite "blase" about the sight. In the years one lived in West Kansu, the railway was a distant dream. When after liberation it really arrived, the country people would come and spend all their spare time staring at it. Now there are new tasks. Not far from Yungteng, a thousand or so farmers from one commune were marching along the road with a flag at their head, going to help in the iron smelting work. The good cooperative motto "All for each and each for all" has come into working reality. Yungteng itself has changed a lot. Many of the old, decrepit inns along the roadside have been pulled down and people are busy with iron-smelters. In the offices of the county government, the magistrate and all his assistants were out working with the

various new leap forward projects, seeing how they could be helped. The big, freshly painted stone lions at the gate were all that remained in the way of guards. But rural industry, when it came to actually seeing it in action in the new way, was an eye-opener. I had hardly expected anything quite so dramatic. First we went to the county machine shops. Though Yungteng has a population of 240,000, there were in the past no machine shops, only numbers of families of metal workers, mostly blacksmiths, each with its little forge. Then last June, when the call came to set up rural industry, naturally the first thing to do was to have a machine building works. One of the bigger compounds, where there had previously been a couple of truck transport inns, was taken over. Temporary buildings of wooden boards covered with tarpaulins were erected for the machine tools that came from big industrial centers and a start was made. At a time when industry is moving forward, it is not easy to obtain technicians and the best one obtainable here was a sixth grade worker (grades rise from one to eight). Each technical worker trained twenty others. City blacksmiths and metal workers were concentrated to help. At first rural implements to assist farm production were made: a deep plowing plow, small one-horse reapers for hill districts, drills for sowing, pumps for irrigation, and ball bearings for everything with wheels. The ball bearing project in Yungteng has made the whole county able to boast that all its vehicles are so provided. For the big, high wheeled wooden carts, a stout roller bearing is made, "GMC-type with our own adaptations," the factory manager said. Metal for the bearings comes from broken cooking pans and anything else of local hard "white" iron (really a low grade steel). The balls for ball bearing runs are put into a hand operated press, then polished and finally case hardened. From the walls of the factory there looks down a poster map of Kansu, with the legend "Hard work for three years, and then we'll change our Kansu." Everyone is certainly working hard enough. By the end of this year, the machine shop with its almost 300 workers — eighty percent local — will be 70 percent mechanised.

The main challenge now, however, is to produce iron and steel, one battlefield for which is adjacent to the rear of the factory, up against the ancient city wall. Hand operated blowers, machine operated blowers, blowers with motors attached, are all being turned out in quantity for the smaller iron furnaces that have grown up, row by row, during the past week.

It is a really amazing battlefield. In all some twenty acres of it. At its east end lie the parts that are being assembled for the modern 25-ton furnace that will soon be erected. Next comes a battery of ten furnaces that will give a ton and a half of grey iron daily. Being installed with these were blowers made at our Lanchow school. Foundations for a new battery of six similar furnaces were being laid alongside.

Nearby, too, were farm commune workers grinding up material for firebrick, others breaking up iron ore, or limestone. Old and young, bearded grandfathers, boys and girls from middle schools, all were at it. Stretching west almost up to the city gates were 600 furnaces already constructed. Some were tiny, operated with ordinary house bellows. Many of the folk, though living at home, now eat in commune restaurants and consequently there are a lot of unused kitchen bellows, which have been brought in by the people.

Electricians were running lines of wires and stringing out bulbs. Work has not stopped since this struggle began, night or day, and plenty of light is needed.

The Party secretary, who is directing, has not had more than three hours' sleep a night and is red eyed. There have, however, been enough people to make relays for those who wanted rest. All have had a good time, laughing despite the hard work. In a few days more than 1,000 furnaces will be running, tens of thousands of people will have begun their education in iron-smelting, in working together on basic essential industry. The provincial Party secretary came up from Lanchow and helped in one section of the struggle. Party functionaries are now becoming steel and iron experts almost overnight. Loudspeakers giving popular music are heard above all and there is a great air of doing everywhere. This furnace had been built wrong. It had to be pulled down and erected again. Leaders of various furnaces were called to see where the mistake lay. That furnace's crew had tried to install a pre-heater, but it had burnt out. There were plenty of mistakes being made, but much being learnt in the process.

I was pleased to see the local ore — a good hematite, usually running to over fifty percent iron. So far, coke has had to come from another county, Chingyuan, near Lanchow, but with the railway now connecting both places, this presents no problem. Better organisation in the rural areas enables people to leave their cooperatives and communes to take part in the struggle, while the excellent crops this year eliminate the food problem. The people looked the picture of health and a visit to the field clinic showed business to be very quiet on that front. I was told now this is the newest of three largest people's smelting areas at Yungteng. At Yaochieh, a modern coal mine has been established where an excellent steam coal is produced.

Yungteng, for the geographically minded, is the name of a county seat. The county itself, which lies 112 kilometers west of Lanchow, is situated on the stream that runs into the Yellow River at Hokou. It was once called "Pingfan", meaning "Pacify the Barbarians"—a name that modern usage has dropped—and has now reverted to the more pleasant Tang dynasty one of "Eternally Ascending". Inside a separate

city wall a mile or two east was maintained a strong Manchu garrison during the last imperial dynasty. The city has a large Hui minority, and is contiguous with the mountainous Tibetan autonomous county of Tienchu, as well as with the Chinghai provincial border. Its best arable land lies in valleys between the hills, that rise steadily westward to the high pass of the Wuhsiaoling Mountains. The county seat is over 6,000 feet above sea level, as compared with Lanchow's 4,500. In the western portion of the county, the people mostly eat oat and barley meal, as the area is too cold for the wheat that grows so well in the valleys of the eastern section. The western section is also more pastoral than agricultural.

September 23rd, 1958. Yungteng Today has been quite a day. Despite a heavy fall of rain in the night and the drizzle it had tailed off to, we set off for Yaochieh, crossing the Yungteng River, and climbing swiftly into the hills up a road that for a good way, ran in a water course. The sight on the road was like what one imagines those to have been in a gold rush except that many people were packed on top of trucks. There were long strings of carts, some with high school students and their baggage. Sometimes the girls were riding and the boys walking behind.

In hill villages we saw new reservoirs for villages in which water was once about the scarcest necessity most of the year. Coming down into the valley of Yaochieh, lying so snugly along the banks of the Tatung River, with Chinghai mountains rising high on the opposite side, and rich farmlands, orchards and villages spread around, was like coming into a bit of paradise. The morning had cleared, and the sun shone warmly on the rich child life, and the long files of farmers coming to the iron-smelting fields. The mountain sides were painted with patches of white cloud, the green trees and golden grain added to the colors. We first went to the Haichao site, for we had a passenger to deliver — a bright-eyed girl I afterwards learnt was head of the women's department in the county. There, too, we found the county magistrate, his bed and office under a shelter out on the side of the hill. He told us something of the general plan for iron and the immediate goal for this year. Soon 1,000 tons a day should be coming from the county's furnaces. would come the next step to increase this to 1,400. But the title of "1,000ton-a-day county" is the main laurel to be reached for. The political leader of an army regiment working furiously nearby came over. aim first of all, to train our lads to fight well; secondly, to make them capable irrigation workers, and thirdly, to see that they all become able to make iron and steel. Then when they are demobilised and go back to their villages, they will be better suited to help everyone." We met the colonel in command and a major who were also working with the soldiers on the furnaces.

We looked over the great spread of smelters — the little ones; ones cut into the hillside using the steep slope above us as a flue to draw their fire: then bigger ones for which the foundations were just being laid. Old buildings no longer useful were being pulled down to provide brick. Machines? Yes, these will come. We will make them from the iron we smelt. Surely, soon there will be crushing mills, all kinds of transport. But now every county in China is doing what we are doing. Even to get all the necessary machinery to us would take a long time. In the meanwhile we shall have tens of thousands of tons of iron smelted right here on the spot! The county magistrate told us that on the engineering estimates submitted it had been calculated that each furnace would take forty man-days to complete. But even the biggest so far have not taken longer than twenty. At Haichao we found that ore was being sintered before put into the furnaces. We climbed up to one hillside smelter operated by school students from Lanchow, who had come to help. They were looking a bit ruefully at the result of their first burning. It was mostly clinker, for the iron had combined with the slag. But they fished down amongst what they had raked out, and triumphantly produced some solid bits. No doubt they will soon succeed, I felt, as we went off. The magistrate said that in the whole of the county, there were now 40,000 people working on iron-smelting, and that this would keep up until the necessary results had been obtained.

Ten kilometers west, down beside the river, was the third smelting field. Most of the furnaces here were of the one to two ton capacity and were in production. They were connected with blowers that were operated by diesel or steam engines. One furnace blower by the riverside was operated by water-wheel generated power. Workers were getting into the swing of the thing and iron ingots were piled high around. Only good coke was used. At the smaller furnaces at Haichao, however, the use of steam coal from one of the local seams that cindered rather than coked halved the cost of production. I noted the intense interest everyone had in the job in hand. The manager's enthusiasm was infectious. As we walked around one furnace, a worker who had been on night shift was sleeping under a shelter. In his dreams he was working at the furnace still, as one could see from the movements of his hands which clutched and swung an imaginary iron bar, while his sleeping face set with determination. A peasant lad who had never before had such an exciting challenge, it was obvious that the work had caught his imagination.

This last field of iron workers is in a pleasant spot. Fruit hangs heavy on the orchard trees beside and the clear waters of the river sparkle below. The iron ore is local and of high grade. Only the coke

has to be brought in. Next year, when the spur of the railway from Hsiangtang on the Lanchow-Chinghai line is completed—it is only 15 kilometers up the Tatung River Gorge—coke can come by rail.

A visit to the coal mine that promises to be one of China's bigger ones, producing five million tons of coal a year, was interesting too. The manager was enthusiastic about his workers. He has one thousand digging and three thousand sinking the six new shafts. Before liberation, a couple of hundred farmers dug a little coal in native pits. Now the new shaft produces 200,000 tons a year and when, by October 1959, all new shafts are operating and the new railway is running to take away the coal, the first objective of five million tons a year will have been reached. There are also many valuable oil shales in the vicinity that will repay working later. "People elsewhere can learn a lot from Yungteng," the mine manager said, "they bring up their children well, keeping them tough and with such resistance they rarely get sick. Ninety-five percent of our workers come from this valley, and they are truly good." The new mine will be operated by the most modern hydraulic technique, he said. He also talked of the excellent firebrick that the old potteries of Yaochieh produced and of how good it was to live in so beautiful a place with its healthy climate.

After we had been at the mine a while, the county magistrate came from the iron-smelting to tell me something about the state of the county since the leap forward started. The figures are impressive enough. Seventy thousand *mou* of land irrigated before the leap forward, have now grown in this one year to 300,000 *mou*. Next January four counties will cooperate to carry a portion of the Tatung River over the hilltops and right down to the hills surrounding Lanchow. The project will be done by 100,000 farmers from the four counties inside the first four months of the year. It will irrigate no less than four million *mou* of hitherto barren hilltop land and the terraces below them.

The magistrate was full of good stories about young people. He told of three girls who had discovered a well in one barren hilly village where before they had had only brackish water and not much of that. Now eighty more new wells have been sunk and the people enjoy sweet water for the first time in their lives. He then talked of the success in making Yungteng a "1,000-catty county", which means that the average yield per mou is over that amount. A considerable result, seeing that the previous yield of many fields was not much above seventy catties a mou. The record yield for grain from one mou in the county is over 3,000 catties. As he rightly says, China cannot enter the machine age without solving the grain problem, which means solving the fertiliser and irrigation problems. There are some several thousand small industrial production units in the county, many of which are engaged in producing

fertiliser. Deep plowing is more and more becoming the rule. Vastly greater results go along with it, the farmers find. There is therefore an increasing demand for better implements.

Coming back down the road to Yungteng in the evening, the big modern cement plant along the railway west of the city showed up in a haze of white smoke. Its 800 workers produce 4,000 or 5,000 bags of cement a day by streamlined methods. Now the country folk no longer look on apathetically at developments as they would have done in the old days. They are making iron and steel themselves, and surely it's iron, steel and hands in control of them that make an automatic cement plant. The folk in Minchow down the Linhsia Valley have made the Tao River flow over hilltops, and now this winter those in Yungteng will make the Tatung River do likewise. Today, there is neither the wish nor the opportunity to settle down in ancient grooves. One challenge met, another rises. So economic change brings in moral change too. "All for each and each for all" is not just a text but a way of life. Now folk from the hill villages do not feel inferior in front of the dwellers in rich valleys. None are particularly respectful to city dwellers because of their higher standards of comfort. In Yungteng today they are all out on the iron-smelting sites in friendly competition, seeing who can do best in the great adventure of making something new collectively. It was interesting to see one little group in a hill village on the way to Yaochieh. They were preparing to get up on a horse-cart going to the smelting works - an old man with a beard, two women who might have been his daughters and a 15-year-old lad probably his grandson. Other folk from the village had gone off on foot, taking along bedding, wooden bellows and cooking pots. The boy was in trousers, as if for a state occasion, and was fiddling uncomfortably with his belt, proud to be off on the adventure. So much so, that he gave all the orders, saw grandfather properly seated along with the two women and then, with a terrific yell that accompanied a swirl of his whip, he urged the two horses into action. All were soon down the road and out of sight.

September 24th, 1958. Sandan We left Yungteng shortly after seven this morning, noting that all the way people were busy with iron-smelting or something connected with it. In one village there were 200 women making crucibles for white iron-smelting — the kind that here produces two catties of iron, and also the bigger ones that give four catties. Most of them seemed fairly elderly, and one guessed that work in the fields or in the smelting works was a bit difficult for them. So here they just made crucibles and piled them alongside the road for carts to collect and take away when dried. Every village had something piled outside, it seemed, for carting to the smelting works. All old

broken earthenware pots, for instance, had been collected and brought to the roadside so that they could be hauled off and used for grinding up to make refractory material. On the Wuwei side of the Wuhsiaoling Mountains, there were huge wooden feather-type bellows, much bigger than anything we had seen in Yungteng. They had been made in the villages and were waiting the highway in many places. Even in railway staff quarters near the Wuhsiaoling Mountains, I noted some women folk wheeling in iron ore through the gates. No doubt they have their furnaces too. In Kulang city a modern smelter had been constructed in a yard we looked down into from the road above. It was quite an aristocrat compared with those swiftly made of grey brick and plastered over with loess mud, which reared their heads by the hundreds in the people's smelting works we had just seen.

As we neared Wuwei — the old Liangchow, once capital of the Western Liang Kingdom — it was evident that a start had just been made on a big iron-smelting job. Carts and people were converging on a stretch of stony waste ground west of the city wall and a row of tall furnaces was beginning to grow, while foundations for many others were being laid. The big Ming dynasty bricks from the city wall were being brought over to the site by streams of carriers — city lads, lasses and farmers. A long train of la-la-che — carts with truck axles and truck rubber tyres, each pulled by three camels — was bringing in refractory brick. Then came a line of small donkey-carts mounted on what might have once been rickshaw wheels. These methods were new to me, evidently something that has evolved in West Kansu within the last year or two. Camels are even used for plowing now, I was told. Some still come in long pack trains complete with Tibetan mastiff trotting ahead, the bells of the first and last camels tolling as they go.

Inside Wuwei city a great change had taken place. Roads were macadamised. On point-duty at street crossings were neatly uniformed girls, with loudspeakers in their hands and red ribbons in their hair. A group of some 300 school children carrying poles on their shoulders like guns marched past out to the work site singing. With their ruddy faces and élan they looked like the revolution in action. Outside the city, on the footpath by the highway, were big rotary wooden blowers, with hand wheel drives. These, just completed, will do for the smaller furnaces making white crucible iron. In the jeep we talked about inventions and the youngsters who are making them. There is no end to stories that the leap forward has brought out on this subject. Once folk get the confidence they really can better things, there seems to be no limit to what they can create.

On the road were many surveying teams, and I learnt how a new road—"The Great Wall Highway"—is being built between Tunhuang and Lanchow. A new Silk Road, it will go around by Minchin rather