

FOR OFFICIAL USE ONLY

GEOGRAPHIC SUPPORT PROJECT

GUIDE TO LAN-CHOU



CIA/BI GS 66-21

March 1966

CENTRAL INTELLIGENCE AGENCY
Office of Basic Intelligence

FOR OFFICIAL USE ONLY

CONTENTS

	<u>Page</u>
I. General Description	1
II. Places of Interest	4
A. Industrial Installations	4
1. Lan-chou Petroleum Refinery	4
2. Lan-chou Chemical Works	4
3. Lan-chou Petroleum Machinery Plant	4
4. Lan-chou Woolen Textile Mill and Lan-chou Cotton Textile Mill	5
5. Tung-yung Machine Plant	5
6. Mining Machinery Plant	5
7. Agricultural Machinery Plant	6
8. Aluminum Factory	6
9. Lan-chou Power and Heat Plant	6
10. Hydroelectric Stations	6
11. A-kan-chen Coal Mine	6
12. Gaseous Diffusion Plant	7
13. Lan-chou Cement Plant	7
14. Lan-chou Waterworks	7
15. T'ao River Water Conservancy Project	7
16. Railroad Repair and Maintenance Shops	8
17. Other Installations	8
B. Cultural Institutions	8
1. Lan-chou University	8
2. Northwest China Institute of National Minorities	8
3. Academy of Sciences	8
4. Lan-chou Geophysical Observatory	9
5. Medical Academy and Hospitals	9
6. Petroleum School	9
7. Veterinary School	10
C. Sites of Cultural Interest	10
1. Habitats of Non-Chinese Peoples	10
2. Great Wall	10
3. "Green Wall"	11
4. Buddhist Shrines	11
5. Stone-Age Relics	11

Photographs
(following page 11)

- Figure 1. View of Lan-chou from hills just south of city
- Figure 2. Railroad bridge over Yellow River
- Figure 3. New construction in Lan-chou
- Figure 4. Residential section of Lan-chou
- Figure 5. Railroad yard in Lan-chou
- Figure 6. Road bridge over Yellow River
- Figure 7. Petroleum refinery at Hsi-ku, in western suburbs of Lan-chou
- Figure 8. Lan-chou chemical plant in Hsi-ku
- Figure 9. Lan-chou power and heat plant
- Figure 10. A-ka-chen coal mine a few miles south of Lan-chou
- Figure 11. Cement plant at Yung-teng
- Figure 12. Small machine shop in Lan-chou
- Figure 13. Northwest China Institute of National Minorities, in southern Lan-chou
- Figure 14. Yen-kuo hydroelectric site
- Figure 15. Cave temples near Lin-hsia

Maps
(following page 11)

- 52877 Lan-chou and Vicinity
- 53177 Kansu Province

GUIDE TO LAN-CHOU

I. General Description

See Maps 52877 and 53177

Lan-chou is the most important commercial and industrial city in Northwest China and one of the fastest growing cities in Communist China. It is the capital of Kansu Province and the seat of a number of governmental and educational institutions that serve the province and West China. The population has increased from about 150,000 in 1946 to an estimated 1,000,000 or more today. Most of this growth has occurred since the 1949 advent to power by the Chinese Communists. Formerly, Lan-chou was a sleepy desert city located about 400 miles west of the nearest railroad and was the jumping-off place for caravans traveling into West China or Central Asia. Today it is a bustling metropolitan area that occupies nearly all of the flat land along this stretch of the Yellow River -- land that was formerly in farmland and orchards. This population growth and accompanying industrial expansion were spurred by the linking of Lan-chou by rail with East China in 1952. Since that time, the importance of the city as an administrative, industrial, and transportation center has continued to increase.

Lan-chou is located at an elevation of about 5,000 feet above sea level on a flat plain 1 to 3 miles wide that extends for more than 20 miles along the upper Yellow River (see Figure 1). Barren eroded hills rise sharply above the plain and the river on both north and south. Summits to the north reach about 6,000 to 7,000 feet; hills to the south are lower but merge with the higher, more rugged terrain of the Kao-lan Shan that reaches elevations of about 10,000 feet. Grains, vegetables, and fruit are raised on some of the lower terraced slopes adjacent to Lan-chou, as well as on the few parts of the plain that have not yet been absorbed by encroaching urban construction.

Although located at about the geographic center of China, Lan-chou has traditionally been considered the frontier -- the last stop within civilization before stepping off toward the sparsely populated, formerly bandit-ridden western regions. Lan-chou has served as the frontier trading center for the vast interior hinterland, which is inhabited primarily by non-Chinese peoples. Since 1949 a movement has been underway to develop industries in the interior of China, away from the east coast. Lan-chou was logically one of the centers selected for such development because of its strategic location with respect to transportation routes. Nearly all transportation from or to West China funnels through Lan-chou, which thus controls to some extent just about

everything that arrives in the northwest. Before the arrival of the railroad in Lan-chou in 1952, most traffic used the highway. Today almost all traffic uses the railroad (see Figure 2).

Extensive changes in Lan-chou began not long after the arrival of the railroad. The city remained the frontier but was now the jumping-off place for railroad construction crews, geological and water conservancy survey teams, and economic planners. China began to consolidate control of the western half of the country, and as the railroad inched its way westward into Sinkiang, Lan-chou became more and more important as the gateway to the west. Today the main railroad link with West China is via Lan-chou, although a bypass a few miles to the north has been completed.

The discovery and development of petroleum resources in the west have provided an additional important stimulus for the growth of Lan-chou. The oilfields at Yu-men in western Kansu were already under exploitation in 1949, but new discoveries of oil were later made at Karamai in western Sinkiang and in the Tsaidam Basin in Tsinghai. In addition, geologic exploration indicated that other areas in West China could yield new deposits. A logical location for a large refinery to process this crude oil was Lan-chou, since all of the oil, in either crude or refined form, would have to transit Lan-chou on its way back to the east.

Electric power potential in the vicinity of Lan-chou is considerable. The upper Yellow River has tremendous potential for hydroelectric development, and two projects -- the Liu-chia and Yen-kuo -- that have been under construction for a number of years were part of the early multi-purpose plans for development of the Yellow River. Lan-chou also has abundant nearby sources of coal for thermal electric power.

Lan-chou is a likely place for the location of sites for the development of atomic energy and nuclear weapons. It is inland from the coast, reportedly convenient to sources of uranium and other raw materials to be used in production of fissionable materials, and has good transportation facilities, abundant water resources, and electric power potential. A gaseous diffusion plant is reported to be in the Lan-chou region, probably in the western industrial suburbs along the river.

The city has grown at a phenomenal pace. Before the arrival of the railroad, most of the city was confined inside ancient walls, 30 feet thick and about as high, on the southern bank of the Yellow River and was connected with the northern bank by a steel truss bridge constructed in 1909. Some expansion of the urban area had already taken place outside the old walls, but most of the surrounding plain was in cultivated crops and orchards. Today the old city walls have practically disappeared and the city has expanded in every direction until it occupies nearly all of the level land along the river. Industrial growth has been mainly to the west of the old town, along both the northern and southern banks of the river.

The urbanized area of Lan-chou has four major sections. The first is the old city, enclosed by walls that have been pierced in places to permit the construction of new buildings and wider streets that stretch east, west, and south toward the newer parts of the city (see Figure 3). The old walled city is compact, crowded, and crisscrossed by numerous narrow streets and alleys. Although primarily residential and commercial, this section may still house some government offices (see Figure 4).

South and east of the old walled city, where the plain widens, is a rapidly growing section devoted principally to educational and cultural institutions, residential and commercial housing, government agencies, and light industry. The street pattern in this and most other new parts of Lan-chou is less dense and is characterized by a number of broad, multilaned roads. The Lan-chou - Sinkiang Railroad skirts the southern edge of this area, and the main passenger station is located here. The Lan-chou Hotel, which probably accommodates most foreign visitors, is about a mile north of the station on a large traffic circle across from Lan-chou University. The Lan-chou Airfield is in the eastern part of this sector, adjacent to a large military area.

The main industrial section of Lan-chou is at Hsi-ku-ch'eng (also known as Hsi-ku), near the western end of the urbanized area, about 12 miles from the center of the old city. The principal large industrial plants here are located on a fairly large flat plain on the southern bank of the Yellow River. They include the Lan-chou petroleum refinery, the Lan-chou power and heat plant, and a chemical plant. Hsi-ku also has large residential areas for industrial workers. Both east and west of Hsi-ku the plain narrows considerably, then widens again. Industrial installations are located discontinuously all along the plain, together with residential buildings for the workers. The largest industrial development outside Hsi-ku is near the west freight station and yards, about a mile west of the old walled city (see Figure 5).

The fourth urbanized section of Lan-chou is north of the river, directly across from the old city and extending a few miles upstream and downstream where the plain widens a bit (see Figure 6). Most of this area was formerly in agriculture, and it probably still contains more cultivated land than any other section in the urban area.

The rapid expansion of Lan-chou from an inland transportation center with a few light industries to an important industrial center has been widely publicized both within and outside Communist China. Although Lan-chou is not a tourist attraction in the ordinary sense, it appeals to a wide range of interests. Even a casual visitor might find the construction projects of Lan-chou interesting, and travelers with backgrounds in city planning, industrial engineering, or related fields would undoubtedly be interested in the current expansion and in the plans for future development. For travelers whose interests lie in the fields of ethnology and archeology, Lan-chou is a logical place to begin trips to points of interest in the general vicinity.

II. Places of Interest

A. Industrial Installations

1. Lan-chou Petroleum Refinery

The Lan-chou petroleum refinery at Hsi-ku has the largest operating capacity of any refinery in Communist China (see Figure 7). The refinery is just off the main railroad and is served by a loop spur line which connects with a small rail net inside the complex. It began operations on a partial basis in 1958 and has been widely publicized in the Chinese Communist press. The refinery was designed so that it can be expanded with relative ease. Its wide variety of petroleum products include gasoline, kerosene, heavy oil, lubricating oil, and coal tar. The crude oil from Yu-men, which is refined at Lan-chou, is reportedly suitable for making high-grade aviation gasoline and lubricants.

Travelers with an interest in petroleum and refineries would have a plausible reason to travel to this plant, especially since it has received so much publicity in the past few years. Even casual tourists would be interested in visiting the installation, and as the refinery is the largest and most modern in China, the Chinese may well be anxious to show it off.

2. Lan-chou Chemical Works

A large complex of chemical works also is in Hsi-ku (see Figure 8). It was constructed with Soviet aid and probably went into partial operation about 1959. It includes chemical fertilizer plants manufacturing synthetic ammonia, nitric acid, and ammonium nitrate. Also known to be in the Lan-chou urban area and possibly located in the same complex with the chemical plant are a synthetic rubber plant, a chemical industry equipment plant, and a caustic soda plant. The synthetic rubber is made from alcohol, which is a product of waste gas from the Lan-chou petroleum refinery. Plastics and oil-proof rubber are also produced at the synthetic rubber plant. Another smaller chemical plant is reportedly located on the north bank of the Yellow River near the old city.

Although the Lan-chou chemical works has been less widely publicized than the petroleum refinery, it has received some acclaim and would be an attraction not only for engineers and specialists in the chemical field but also for general tourists. Agricultural specialists would be interested in the operations of the chemical fertilizer plant.

3. Lan-chou Petroleum Machinery Plant

In 1957 construction began on a plant that produces modern jet drills and other equipment for drilling oil wells. It is probably located near the petroleum refinery. The plant was built with the assistance of Soviet technicians and is equipped with Soviet-made machinery.

Petroleum engineers and other persons with a background in the petroleum industry would find this plant of interest for the opportunity it would afford to study Chinese drilling and pumping techniques.

4. Lan-chou Woolen Textile Mill and Lan-chou Cotton Textile Mill

These new plants, probably located in the western suburbs, are different from the Northwest Woolen Spinning Mill constructed during World War II and the cotton textile plant constructed in 1878. Construction of the woolen textile mill began in 1957, and the mill went into production within a couple of years after that date. In 1965 it was expanded to include new combing, spinning, weaving, and dyeing shops. An abundant supply of wool is available in Kansu and adjacent provinces -- wool that was formerly shipped to coastal provinces for processing along with additional amounts of imported wool.

Little is known of the cotton textile plant other than that it uses locally grown cotton. It was also reportedly associated with the Academy of Sciences in experimenting with mixing fibers and with substituting fibers of native plants for cotton. One of the substitute fibers was obtained from lopuma, a desert shrub of the dogbane family (Apocynaceae). Lopuma thrives under arid conditions and conceivably could be grown in marginal lands not now in use, thus freeing the better land now in cotton cultivation for the growing of food crops.

Persons with a knowledge of the textile industry would be interested in these mills, particularly the woolen mill. Anyone with a background in animal husbandry might also be interested in the woolen mill because of attempts there to improve the quality of the wool clip. Textile technicians, agricultural scientists, and economic botanists might be interested in the results of experiments conducted with various fibers.

5. Tung-yung Machine Plant

This plant was reported to be under construction in 1957, but the location is unknown. It was to accommodate a machine shop, an assembly shop, a heat treating shop, an electroplating shop, a repair shop, a metallic structure shop, a machine tool shop, and a material control room. Equipment was to consist of several hundred large machines made in Communist China, the Soviet Union, East Germany, and Hungary. The plant reportedly manufactured a cement-mixing truck among its products, but details on its operations are not available.

6. Mining Machinery Plant

This plant also was reported to be under construction in 1957, and although the exact location is unknown, it is probably in the Hsi-ku area. Five main workshops were to be completed by 1958, and the plant was

to have a separate power generating plant and sewage disposal plant. It was to produce drilling equipment and machines, ore and rock crushers, diesel engines, steel drill bits, and machinery to be used for geologic prospecting.

7. Agricultural Machinery Plant

Little is known of this plant, but it has been mentioned in the press. It probably produces small agricultural implements and repairs agricultural machinery.

8. Aluminum Factory

This plant is probably located on or near the banks of the Yellow River in the Hsi-ku area. It was reported to have begun production in 1959.

9. Lan-chou Power and Heat Plant

The thermal powerplant is in the Hsi-ku area and was reported to be under construction in 1956 (see Figure 9). It began production about 1958. Original plans called for a capacity of 425,000 kilowatts when completed, but the present capacity is probably much less. This powerplant provides the largest share of electric power for the Lan-chou area, but another older thermal plant in Lan-chou has a capacity of about 14,000 kilowatts.

10. Hydroelectric Stations

The Liu-chia and Yen-kuo hydroelectric stations, part of the overall Yellow River project, are currently under construction in gorges of the Yellow River about 50 miles southwest of Lan-chou. Both projects are well along in construction, with Yen-kuo further advanced than Liu-chia (see Figure 14). When completed, they will provide abundant power to the Lan-chou area. A road connects the two project sites with Lan-chou.

Casual tourists, as well as engineers, geologists, and others with professional interest in the construction and operation of hydroelectric stations, would be interested in a visit to these two projects.

11. A-kan-chen Coal Mine

This large coal mine is a few miles south of Lan-chou and is connected to the city by a railroad spur line (see Figure 10). The mine supplies most of the coal for industrial establishments in Lan-chou and would provide a visitor with a look at current operating procedures in a coal mine in China.

12. Gaseous Diffusion Plant

A gaseous diffusion plant for the production of fissionable material to be used in the atomic energy development program is reportedly located in the Lan-chou area, probably in the western suburbs. It is a large installation and reportedly has one very large rectangular building, 1,900 by 150 feet in size. It also must have some kind of water treatment facilities and a power substation. The installation is probably very closely guarded and not accessible for visits by outsiders.

13. Lan-chou Cement Plant

A few sources mention a cement plant in Lan-chou, but its location cannot be verified. The installation often referred to as the "Lan-chou Cement Plant" is the Yung-teng Cement Plant at Yung-teng (36°44'N 103°24'E), which is about 50 air miles northwest of Lan-chou on the Lan-chou - Sinkiang Railroad (see Figure 11). Construction of the plant, which was designed and equipped by East German technicians, was started in 1954. At this time the plant was publicized as the largest in the northwest. In early 1957 work on the powerline to the plant from the Lan-chou thermal powerplant was underway.

Visits to this plant from Lan-chou would require travel by railroad, which would afford an opportunity for a visitor to see the industrial development in the western outskirts of Lan-chou.

14. Lan-chou Waterworks

The new Lan-chou waterworks is the largest in all Asia according to Communist Chinese reports. It is in Hsi-ku, near the Yellow River, from which it receives its water.

15. T'ao River Water Conservancy Project

This is an ambitious scheme to irrigate the semiarid agricultural lands of southeastern Kansu by diverting water from the T'ao River, a major Yellow River tributary upstream from Lan-chou. The canal begins near Min-hsien, about 100 miles due south of Lan-chou. The project received much publicity in the Chinese press a few years ago, but little has been heard about its success or present status. The road from Lan-chou up the T'ao River to Min-hsien would facilitate travel to the head of the canal.

A visit to this project would be interesting for almost any visitor, but particularly for engineers, soil scientists, and agriculturists.

16. Railroad Repair and Maintenance Shops

Large facilities for repairing and maintaining railroad equipment are located in Lan-chou, probably west of the old walled city.

17. Other Installations

Numerous installations associated with processing food or manufacturing consumer goods are known to be located in Lan-chou (see Figure 12). They range from flour mills to glassworks, brickyards, vehicle repair shops, a paper mill, and manufacturing plants for thermos bottles, chinaware, and other small products.

B. Cultural Institutions

1. Lan-chou University

Lan-chou University, founded in 1946, is in the eastern suburbs on a major traffic circle adjacent to the Lan-chou Hotel and the Academy of Sciences. Instruction is offered in biology, chemistry, economics, geography, history, literature, mathematics, and physics. Growth in the university has been steady, but current enrollment figures are not available. In 1958 a visitor was told that the enrollment was 2,300 and the faculty numbered 700. This is the elite school in the region, although smaller schools also reportedly operate in Lan-chou.

Almost any individual with an academic background would be interested in a visit to Lan-chou University, especially a professional educator or someone with training in one of the courses of study offered at the university.

2. Northwest China Institute of National Minorities

The institute, which is located south of the old city at the base of the foothills of the Kao-lan Shan, has received a moderate amount of publicity in the Chinese press (see Figure 13). It is one of five minority institutes, the central one of which is in Peking. The institute covers a fairly large area and has numerous buildings. Tibetans, Mongols, and Turkic individuals are the principal ethnic minority peoples trained here, but at least 16 ethnic groups are represented.

Sociologists, anthropologists, and others with related training would have a professional interest in the operation and programs of the institute.

3. Academy of Sciences

The Academy of Sciences is on the same traffic circle in eastern Lan-chou as Lan-chou University and the Lan-chou Hotel. In 1958 it was in the early stages of construction and had only 2 research

buildings, 2 dormitories, and a library, but plans called for the construction of 35 buildings to house at least 1,500 employees. The major fields of interest of the academy are astronomy, biology, chemistry, electrical engineering, geography, geology, geophysics, hydrobiology, mathematics, petroleum engineering, physics, power electronics, and soils.

Scholars and scientists interested in any of the disciplines included in the curriculum would have reason to visit the academy. A good share of the field investigations conducted in Northwest China has been under the direction of this organization, and the results of the work are probably available at the academy, which is undoubtedly one of the principal storehouses of information on interior China. Best known examples of experiments and expeditions conducted by the academy include experimentation on the agricultural uses of loessial soils, petroleum exploration and development in Tsinghai and Sinkiang, and research on glaciers and frozen earth.

4. Lan-chou Geophysical Observatory

The Lan-chou Geophysical Observatory is located in a very remote spot in the northern outskirts of Lan-chou. It was constructed for the International Geophysical Year in 1957, but its present function is unknown. A visiting geophysicist reported that the observatory was a fairly good seismological station. In 1958 it had three buildings and nine seismographs. The director at that time was Chu Chang-hung.

The installation would be of interest only to geophysicists and seismologists.

5. Medical Academy and Hospitals

The Medical Academy is adjacent to Lan-chou University, but in 1958 it was reported to have no affiliation with either the university or the Academy of Sciences. Public health officials and other medical professionals would be interested in visiting this installation or any of the associated hospitals.

6. Petroleum School

The Petroleum School is in Hsi-ku, probably adjacent to or near the petroleum refinery. It presumably trains workers in petroleum technology for work not only in the refinery but also in field prospecting and production. It would be a logical place for anyone working in the petroleum industry to visit.

7. Veterinary School

Little is known of this installation, but it is reportedly located south of the old walled city. It is probably a training facility for specialists in the field of animal husbandry, which is important in interior China.

C. Sites of Cultural Interest

1. Habitats of Non-Chinese Peoples

Lan-chou is situated on the ethnic border between Chinese and non-Chinese peoples -- Tibetan, Mongol, Monguor, Turkic, and other groups. The Chinese Communists have released a considerable amount of propoganda about their work among the various non-Chinese minority groups, claiming to have improved their living standards, encouraged certain aspects of their cultures such as dress and folk dancing, and attempted to provide them with written languages. In many cases, local autonomous governments have been set up to give at least the semblance of self-government. In general, the Chinese Communist government has tried to create the impression that it has provided model treatment to its minority nationalities.

A visit to any of numerous minority villages, communes, or monasteries in the vicinity of Lan-chou would provide some insight into the Chinese Communist methods of operation concerning minorities. Social scientists could provide the most plausible reasons for wanting to visit such localities, but others could offer logical justification for interest in minority groups. In 1959 a British journalist was allowed to visit T'ien-chu, in an area inhabited by Tibetans about 120 miles northwest of Lan-chou. One of the leading centers of Tibetan Buddhism, the famous Labrang Monastery near Hsia-ho, some 90 miles southwest of Lan-chou, would be of potential interest.

2. Great Wall

A small part of the Great Wall of China is located in the hills south of Lan-chou; other sections of the Great Wall stretch to the northwest along the Ho-hsi Corridor, particularly in the Wu-wei vicinity. The historic function of the wall as a line of separation between settled agricultural societies and nomadic groups might provoke interest as to whether the wall still is a line roughly separating contrasting types of culture. The wall generally parallels the railroad to the northwest; travel by rail might facilitate inspection of the wall, although detailed examination of it would require leaving the railroad for short side trips.

Although the Great Wall is in disrepair in Kansu and is probably less of a tourist attraction than the section near Peking, it is still of interest to students of Chinese history and sociology.

3. "Green Wall"

The "green wall" is an extensive shelterbelt planted along the northern fringes of the Ho-hsi Corridor to prevent the encroachment of wind-driven sand on arable land -- an extremely serious problem in Kansu Province. This tremendously large project roughly parallels the Lan-chou - Sinkiang Railroad, but visits to most parts of the shelterbelt would require local transportation from the railroad. The Chinese have reported the planting of over 4 million hectares of trees since 1951. The first trees planted reportedly already form a dense canopy that has succeeded in reducing wind velocities and evaporation on the leeward side.

Soil and forestry conservationists and others interested in the utilization of natural resources would likely be interested in a tour of this widely publicized shelterbelt.

4. Buddhist Shrines

The most famous of the Buddhist shrines is a group of sculptures and paintings in the Cave of the Thousand Buddhas, near Tun-huang, several hundred miles northwest of Lan-chou. To reach this cave a traveler would take the Lan-chou - Sinkiang Railroad to Hsia-tung and then proceed by road to Tun-huang. Closer to Lan-chou are the cave temples at or near An-hsi, Wu-wei, and Lin-hsia (see Figure 15). These temples are also accessible by a combination of railroad and road. Although all of the caves are fairly remote from Lan-chou, travel to each would require transit through Lan-chou.

Archeologists and students of Buddhism would have a primary interest in these sites, but the Tun-huang caves are so well known that almost any traveler might wish to visit them.

5. Stone-Age Relics

New relics of the stone age reportedly have been discovered on the outskirts of Lan-chou, but the exact location is unknown. The relics consist of more than 700 vessels of painted and red pottery, as well as bone ornaments, stone vessels, and other objects. Archeologists would be interested in visiting these sites and viewing the finds.



Figure 1. View of Lan-chou from hills just south of city. The old walled city is in the central portion of the photograph, and the more recently developed suburbs are to the south and east. The Yellow River crosses the plain, from west to east, on the north side of the city. 1953

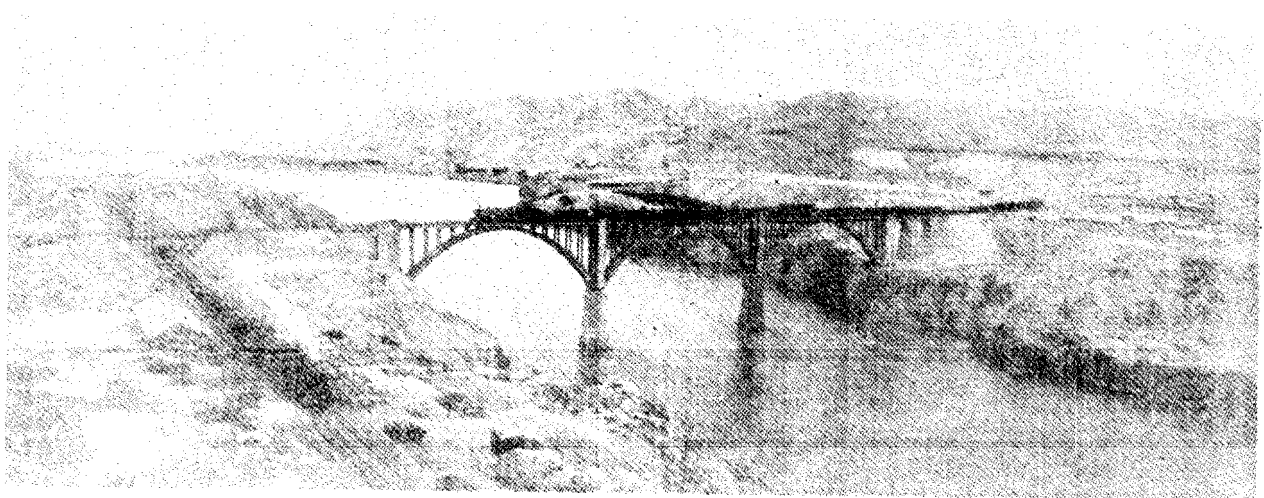


Figure 2. Railroad bridge over Yellow River. This bridge, a few miles east of the city, links Lan-chou by rail with Pao-t'ou. 1957

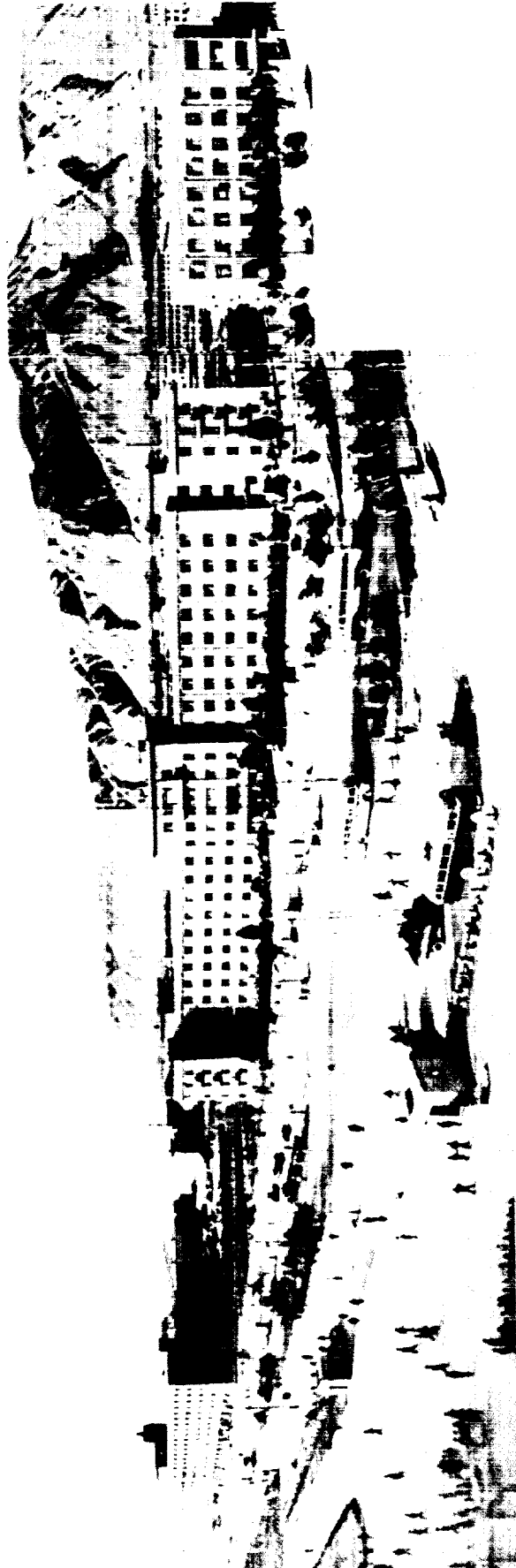


Figure 3. New construction in Lan-chou. Large commercial, governmental, and residential buildings dot the newer sections of Lan-chou. Wide streets are typical. 1959

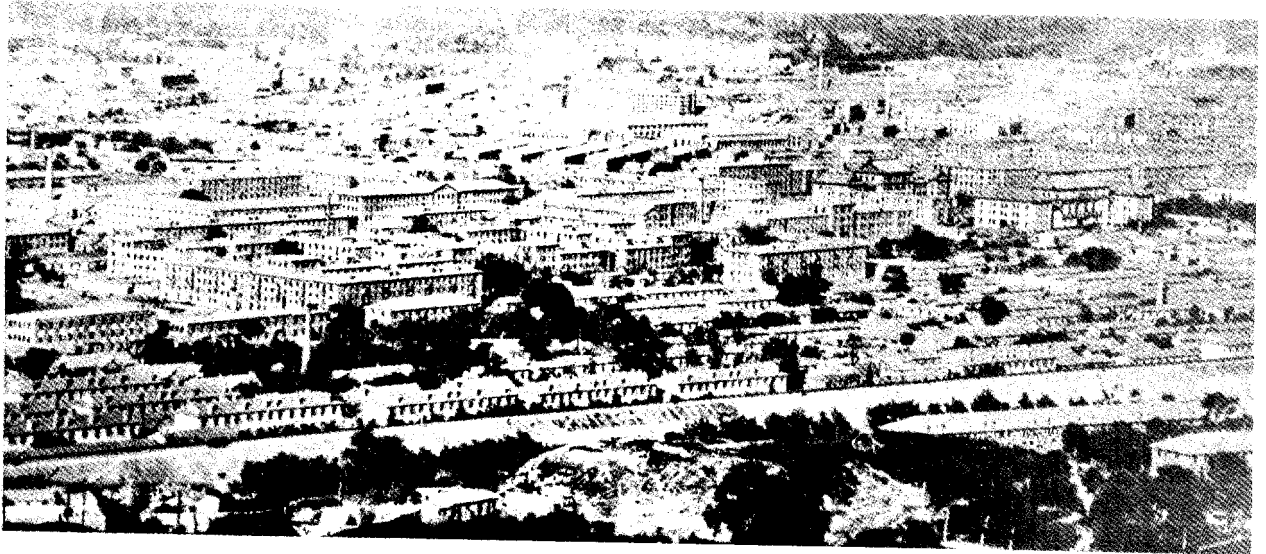


Figure 4. Residential section of Lan-chou. These recently constructed buildings are typical of the new residential areas in the city. 1959

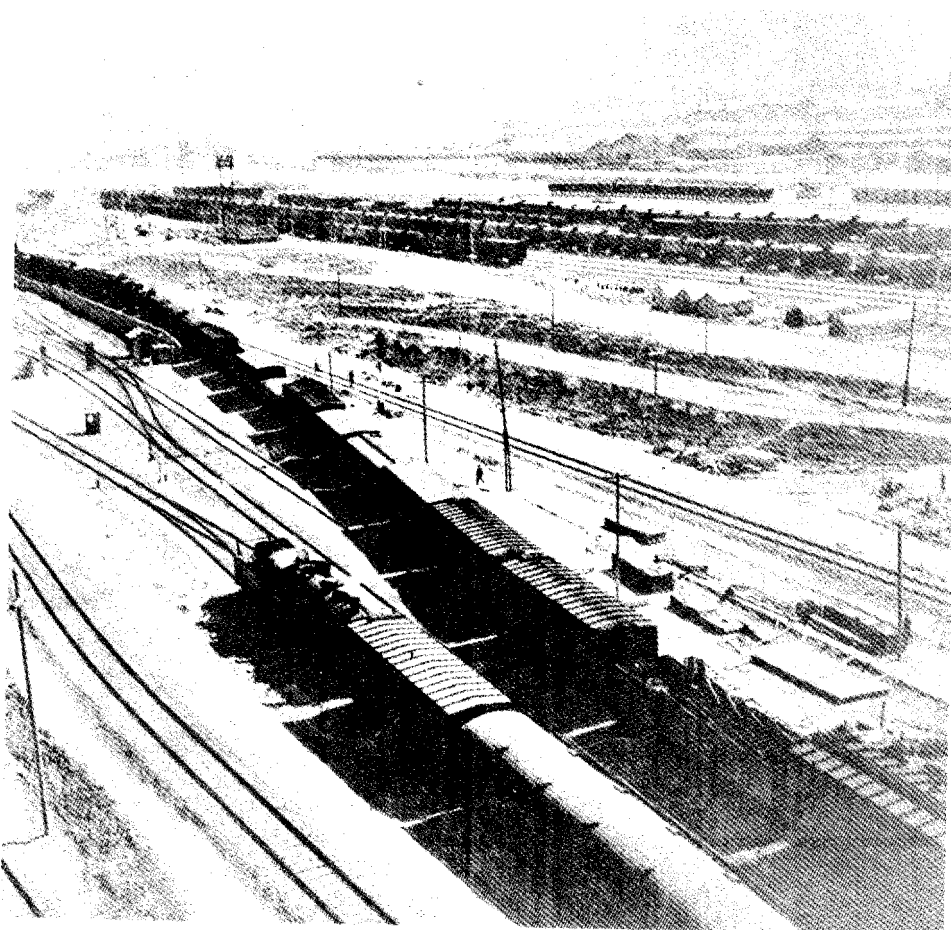


Figure 5. Railroad yard in Lan-chou. The main freight yard is located in the western suburbs. Tank cars are a common sight in Lan-chou. 1959

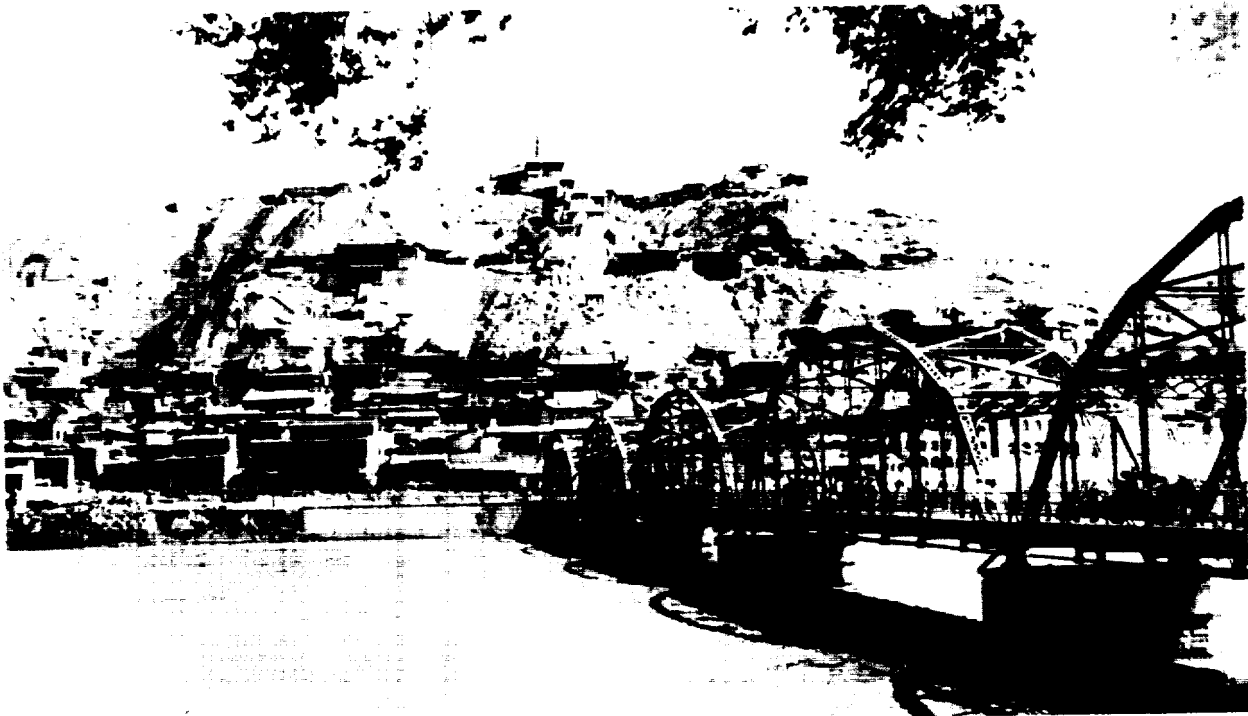


Figure 6. Road bridge over Yellow River. This bridge, originally constructed in 1909, links the old city of Lan-chou with the north bank of the Yellow River. 1956



Figure 7. Petroleum refinery at Hsi-ku, in western suburbs of Lan-chou. This is the largest refinery in China. 1959

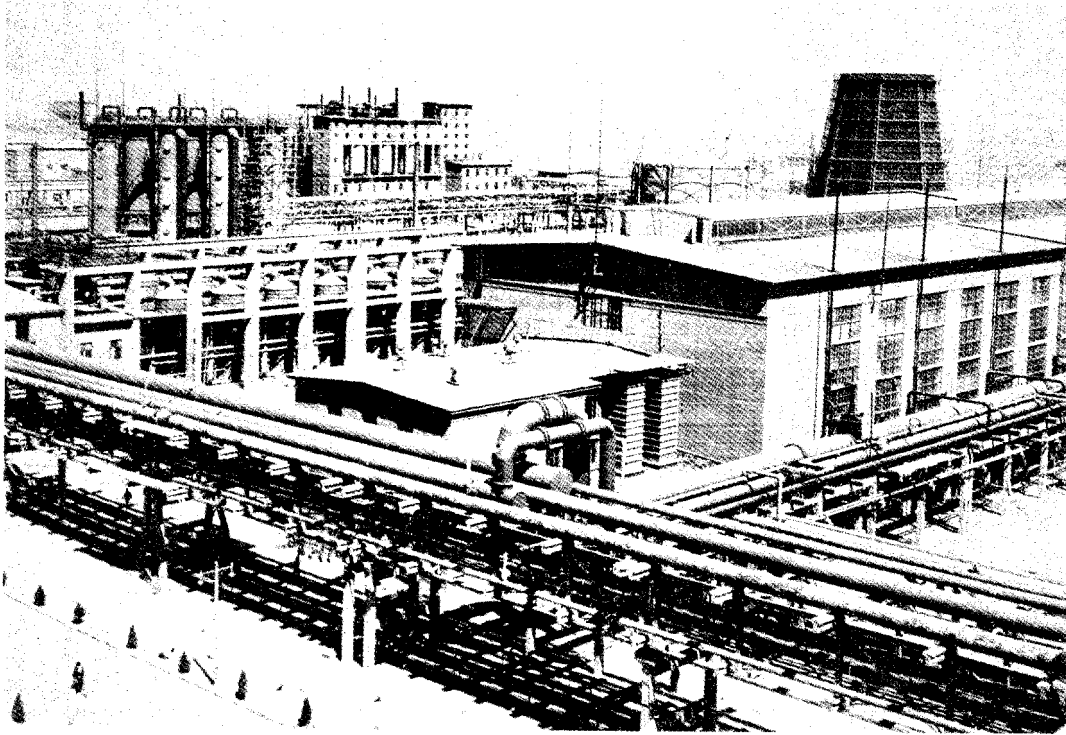


Figure 8. Lan-chou chemical plant in Hsi-ku. This large plant probably has been in operation since 1959. Post-1960

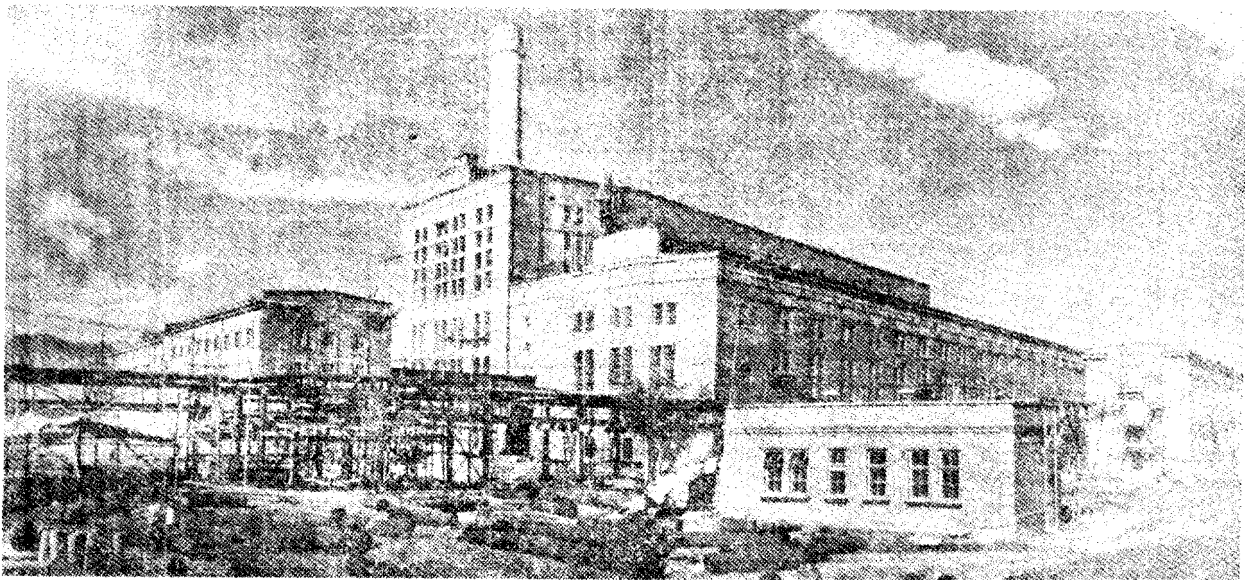


Figure 9. Lan-chou power and heat plant. This large thermal plant provides most of the electric power for industries in Lan-chou. 1957

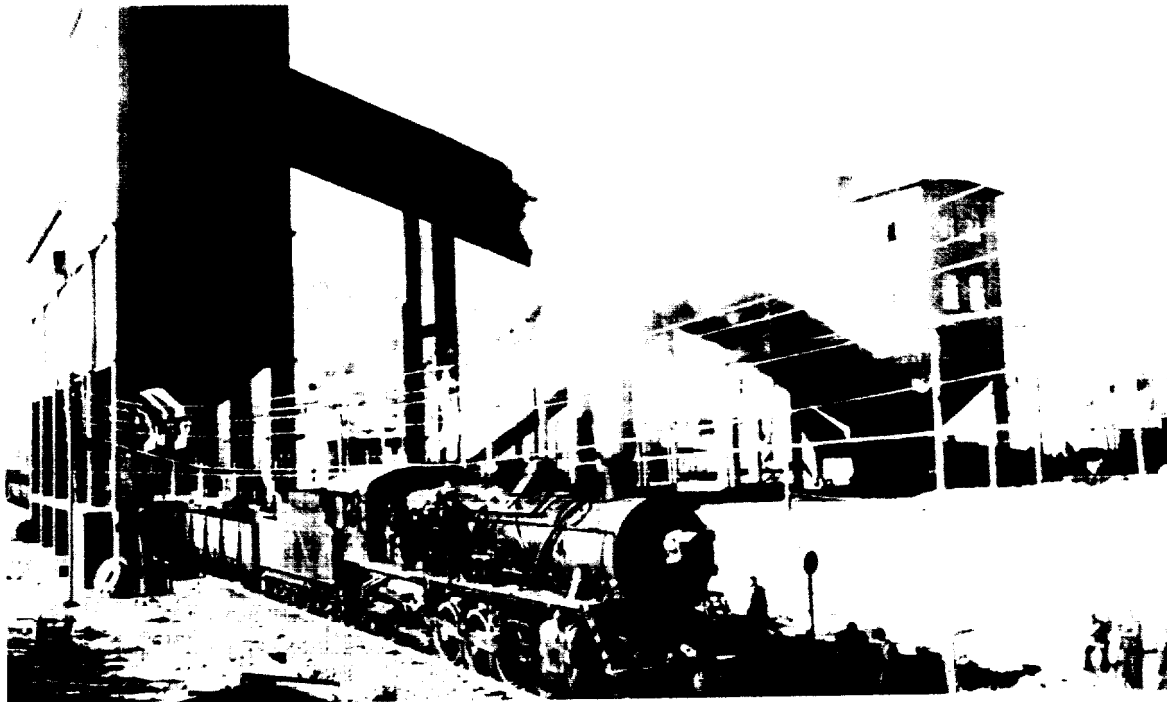


Figure 10. A-ka-chen coal mine a few miles south of Lan-chou. This mine supplies most of the coal for industrial use in Lan-chou. A rail line links the mine with Lan-chou. 1958

53240 3-66

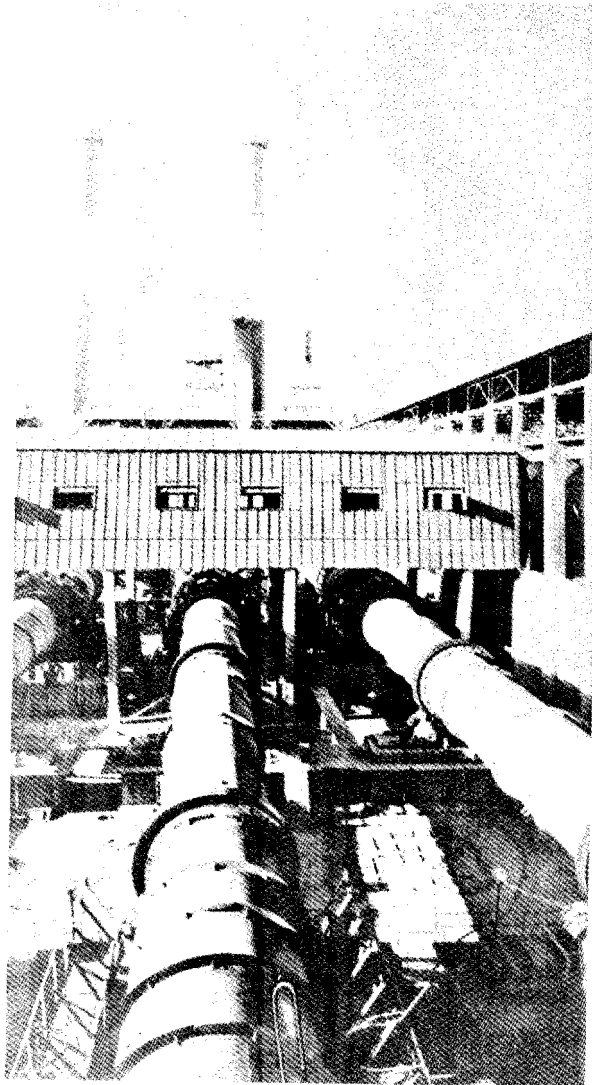


Figure 11. Cement plant at Yung-teng, about 50 air miles from Lan-chou. This plant provides a large share of the cement used by the construction industry in Lan-chou and surrounding area. 1959

53405 3-66



Figure 12. Small machine shop in Lan-chou. "Liberation Type" waterwheels, for use in irrigation, are produced in this shop. 1952

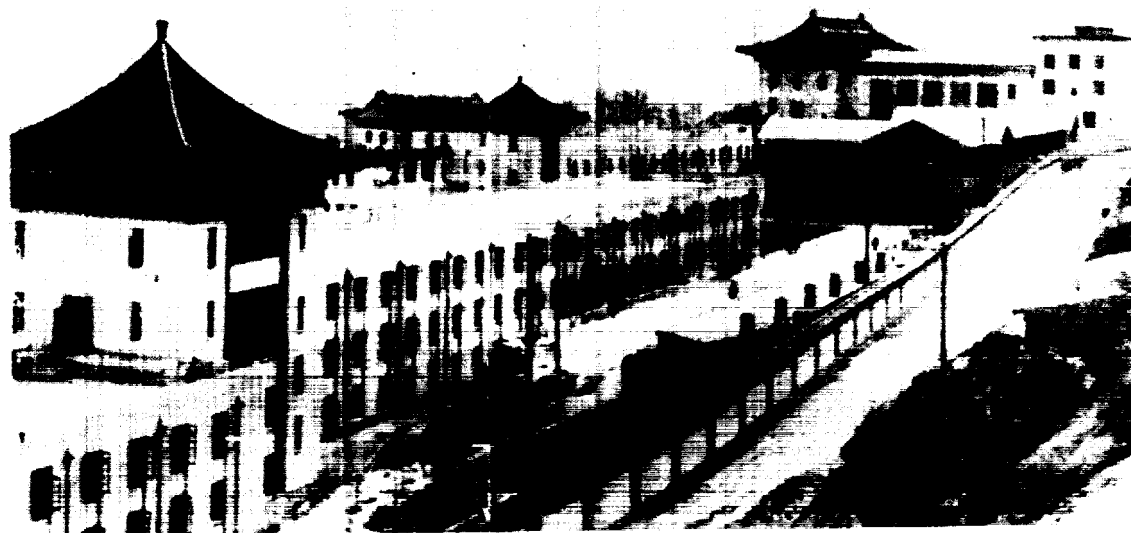


Figure 13. Northwest China Institute of National Minorities, in southern Lan-chou. Students from minority groups live and study in this large institution. 1957

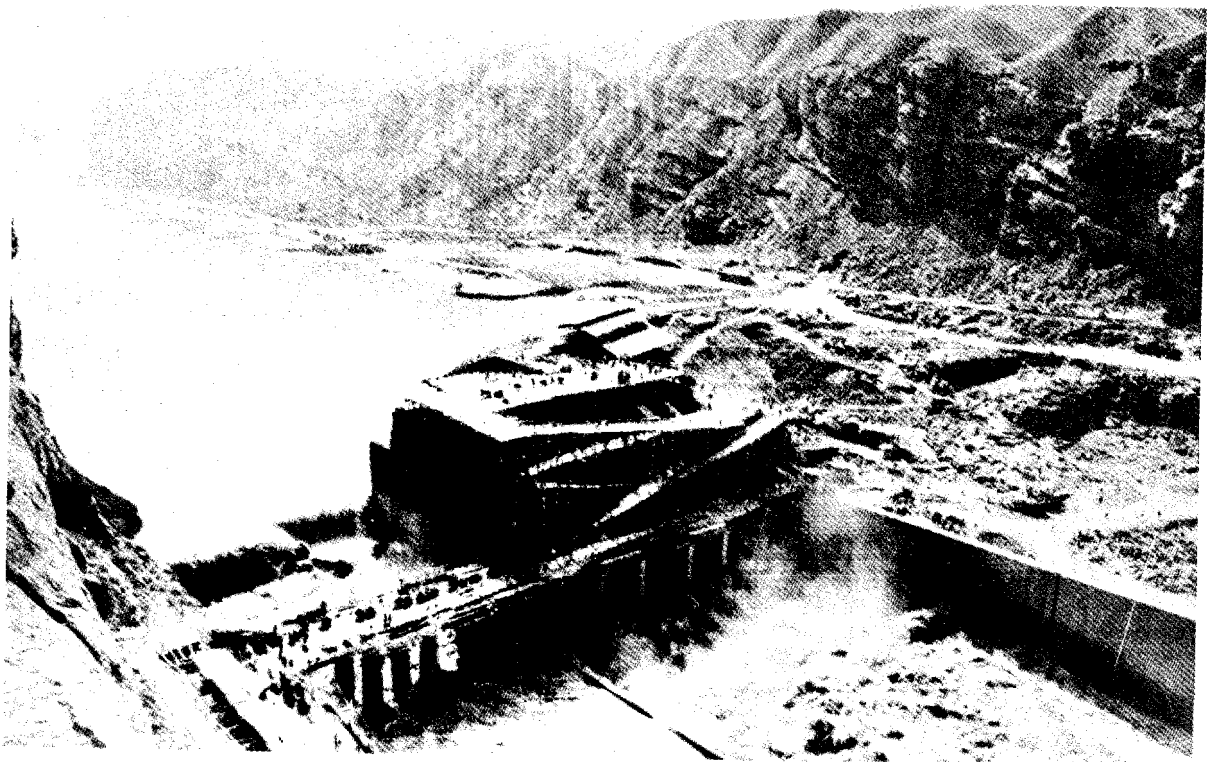


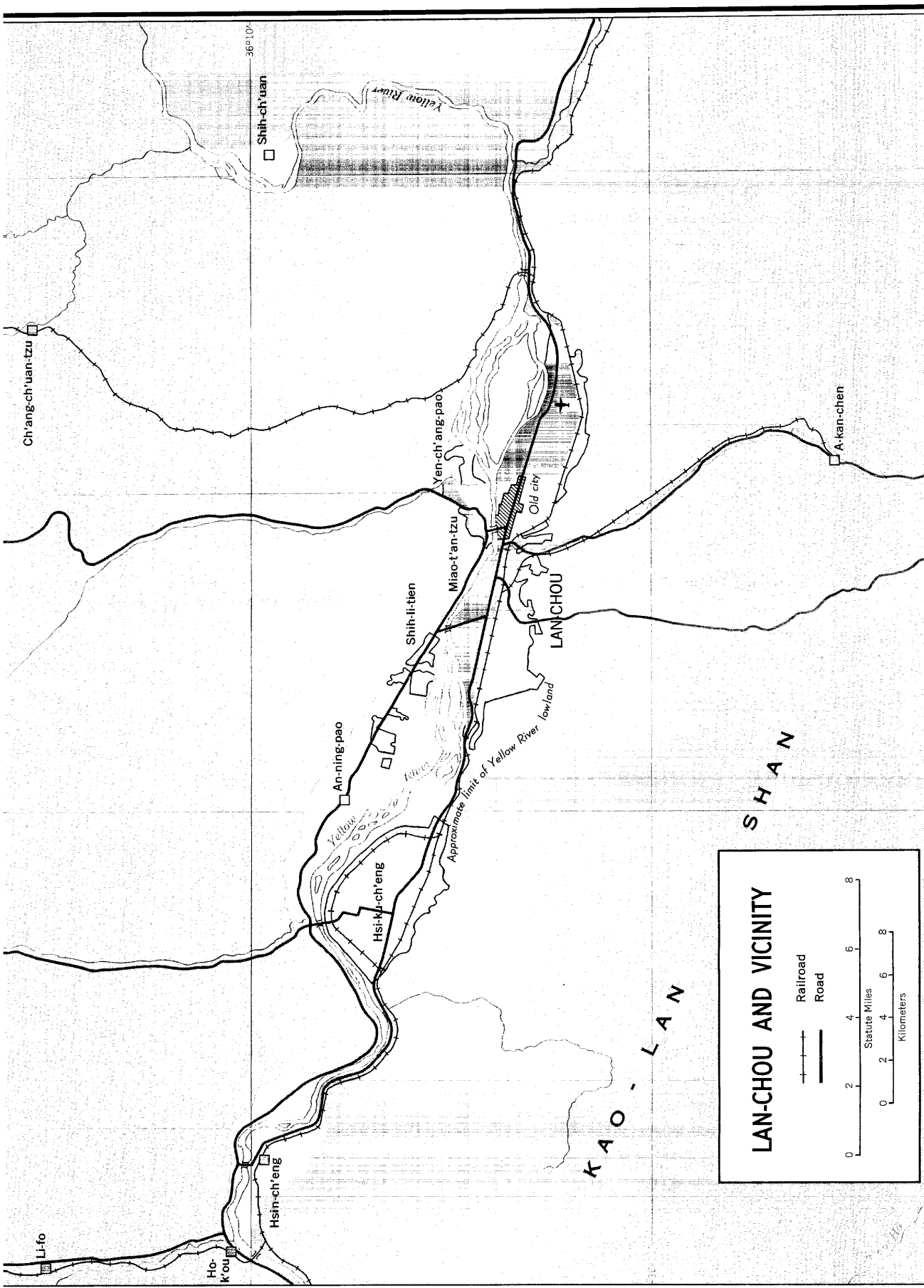
Figure 14. Yen-kuo hydroelectric site. The dam is one of the two large hydroelectric projects under construction in the Lan-chou vicinity. It is shown in early stages of construction but is now almost completed. 1959

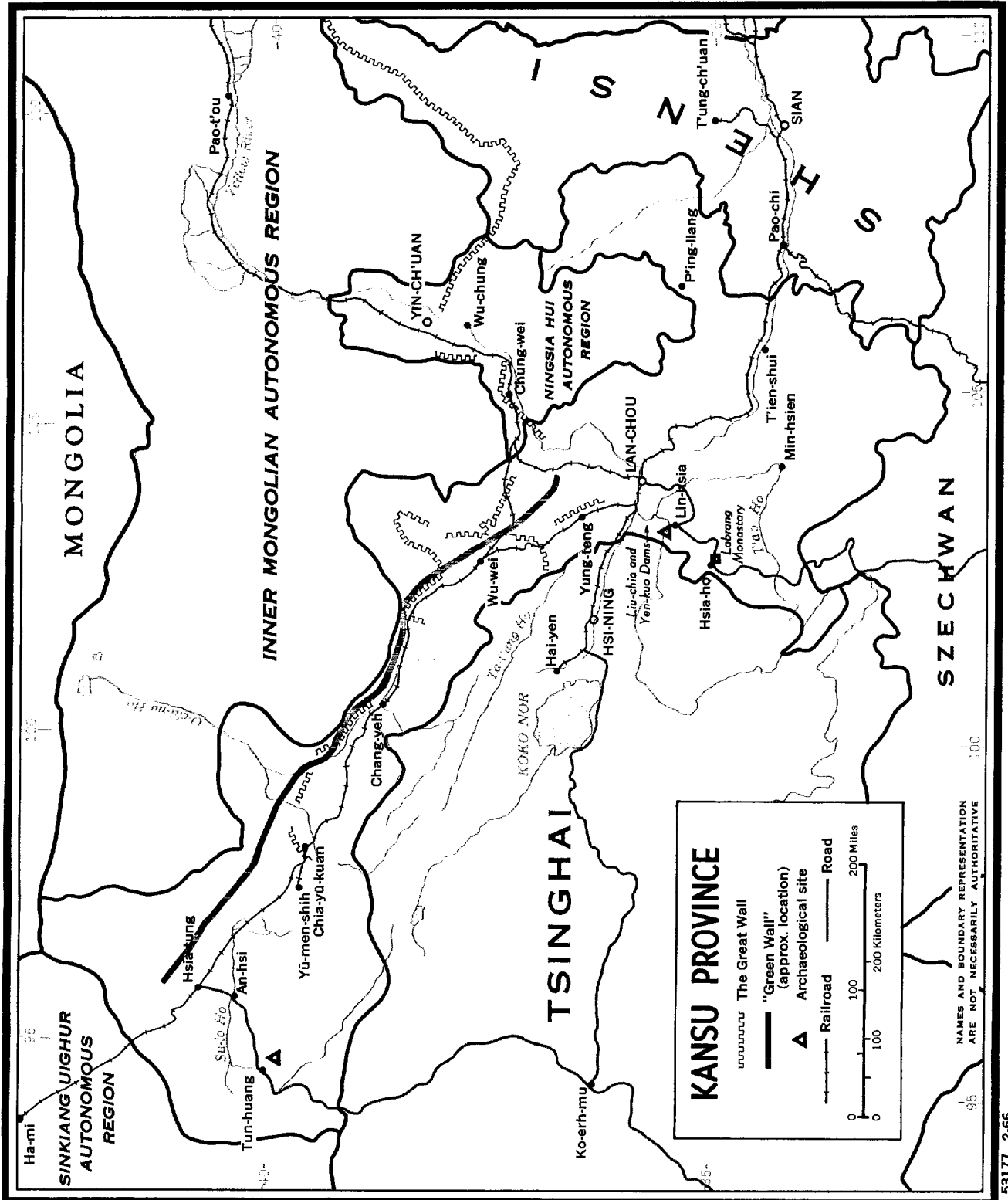
53242 3-66



Figure 15. Cave temples near Lin-Hsia. These grottoes of Pingling Monastery are similar to cave temples at other locations in West China. 1956

53243 3-66





53177 2-66

Approved For Release 2000/05/12 : CIA-RDP79T01018A000900090001-6

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

Approved For Release 2000/05/12 : CIA-RDP79T01018A000900090001-6

FOR OFFICIAL USE ONLY

DISTRIBUTION LIST

TITLE OF REPORT GUIDE TO LAN-CROU			DATE March 1966
REPORT NO. OS 66-21	PROJECT NO. 61.22167	CLASSIFICATION FOR OFFICIAL USE ONLY	CONTROL
NAME OF REQUESTER STATINTL	NAME OF ANALYST STATINTL	BRANCH OD/F	GRAPHICS See Contents
COPY NO.	RECIPIENT		DATE SENT
No. of copies 125	5DS4 Hqrs.		22 Mar 66
5	STATINTL		"
1	OD/ED -		"
2	STATINTL		"
1	Records Center Production File		
1	D/OBI		
1	SA/CR		
1	WPIC/REF, LmlJSA		
1	OD File		
1	<i>Correlated in OD</i>		25 Apr 66

FOR OFFICIAL USE ONLY

