THE PRACTICE OF ARCHITECTURE
IN THE PEOPLE'S REPUBLIC OF CHINA SINCE 1949

by

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Mei Wang

Submitted to the Department of Architecture on June 8, 1976, in partial fulfillment of the requirements for the Degree of Master of Architecture.

ABSTRACT

The objective of this thesis is a preliminary examination of the development of architectural concepts and practices in the People's Republic of China. As a developing socialist country, politics in China represents a pivotal point in coalescing architectural design and implementation with collective utilitarian needs at any given time. To understand the political background is a necessary prerequisite to fuller appreciation of advances in architectural development. Therefore, this thesis also summarizes the comprehensive political movements essential in precipitating the transformation in Chinese architecture.

The quintessence of China's architectural policy is encompassed in the so-called "politics in command", the collective spirit, and the practice of localized self-reliance. These three dicta offer an ideological framework for which architectural development is rendered responsive to the practical and ever-changing needs of a socialist society. Inasmuch as many third-world countries share dilemmas of natural, technical, and cultural limitations in development, this author feels that China may offer a viable alternative to the solution of some fundamental problems.

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Associate Professor of Architecture
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INTRODUCTION

In 1949, the Liberation movement established the People's Republic of China. The struggle within China then changed from one against feudalism, imperialism and bureaucratic capitalism to a struggle to carry forward the socialist revolution.

This thesis will focus on architectural practice in the People's Republic of China under the guideline of Chairman Mao Tse-tung's thought. The time period covered is from 1949 to 1975.

Background information is provided on the following two questions:

What should the practice of architecture be in a socialist country?

Specifically, what should the practice of architecture be in socialist China?

This thesis is based on the theory that architecture is one of the "superstructure" elements which supports the basic structure of a society. "Superstructure" is a Marxist term for the organization of the state, which includes government, education law, art, literature and the army. These superstructure elements function to support the developments of the economic structure (basic structure, or base) to assure that they are in line. Since the People's Republic of China is a
socialist country, the practice of architecture there should be directed toward the interests of the proletariat, as should the other "superstructure" elements of Chinese society. In this thesis, therefore, I review the status of Chinese architecture in the past twenty years and evaluate it in terms of meeting the needs of the proletariat.

In the first chapter, I review the situation China faced after its liberation, primarily the series of political and economic movements that were carried out throughout the country, as well as the thought reform movement for the architectural technicians (i.e. architects) during the period of 1949 - 1952.

China's First Five-Year Plan lasted from 1953 to 1957. The second chapter mainly discusses the adoption of Soviet architecture and Liang Ssu-Chen's National Form Revival style of architecture that were used during this period.

Many large-scale public buildings, factories and people's communes were either designed or built during the movement of Great Leap Forward, (from 1958 to 1960). The third chapter reviews the design concept behind these buildings.

The period from 1961 to 1966 was basically a struggle between socialism and revisionism in the sphere of the super-
structure. Architecture was necessarily one of the important elements of this struggle. Chapter Four focuses on the struggle between these two lines in the practice of architecture.

Chapter Five introduces the Great Proletarian Cultural Revolution with its unprecedented size, duration, intensity of struggle, and significance.

Chapter Six discusses the changes in the practice of architecture after the Cultural Revolution, (ie. the Post-Cultural Revolution period, from 1971 to 1975). This chapter focuses on the following issues: the Three-in-one Combination (ie. the cooperation among the workers, cadres and technicians in the design works); the revolution in architecture education, the planning and construction of urban and rural areas in the context of examining the relationship between political events and architecture in China.

The primary source of data for this thesis is the Chinese Architectural Journal (A.J.). This journal contains the most useful data on Chinese architecture that is available in the United States. Also, it is the only publication that enjoys great popularity throughout China, and is read by all the architecture technicians (architects), students, and construction workers alike. The articles in this journal are the best indicators of the whole picture of contemporary Chinese architecture.
Fig. 1

The People's Liberation Army entering Peking, surrounded by throngs of cheering citizen.
(picture from "Peking Diary" by Derk Bodde, 1950)
China's Liberation in 1949 followed after 20 years of almost ceaseless internal strife and over a century of incursion and occupation by foreign powers. The nation's production had been seriously disrupted by these civil wars, foreign invasions, warlordism and natural disasters. Therefore, the economy inherited by the new regime was in shambles. Since 1949, China has had to overcome poverty, backwardness and the exhaustion of the population.

The People's Republic of China was established in 1949. Since then, the struggle within China has changed from the one against feudalism, imperialism and bureaucratic capitalism to a struggle to carry forward the socialist revolution.

The period from 1949 to 1952 was not only a reconstruction and transition period for the economy but also for the ideology of socialism in China. A series of political movements were carried out all over the country at this period, such as the movement of Thought Reform, Sanfan and Wufan; Land Reform, etc. These political movements were of great help to the preliminary stabilization of Chinese society and paved the way for the socialistic movement to come.
"Thought Reform" began to be carried out in 1951 among the architecture technicians and the bourgeois intellectuals. Liang Ssu-chen, Chairman of the Faculty of Architecture and Engineering of Ching-Hwa University at Peking, published an article in March 1952 (during the period of Sanfan & Wufan movement) entitled "Whom Have I Served for 20 Years?". His article basically presented his awareness of the class struggle in China, his bourgeois ideological influence on architectural education, and his efforts to reform himself into a revolutionary intellectual.

The famous "Talks at Yenan Forum on Literature and Art" given by Mao Tse-tung on May 2, 1942 has been adopted by the Chinese as the correct guideline for the development of revolutionary literature and art. In this talk, Mao Tse-tung pointed out the problem of class perspective. For literary and art workers, the perspective should be that of the proletariat and of the masses. Mao's concluding remarks centered on two questions: "Literature and art for whom?" and "How to serve?". He also touched upon some related problems, such as the problem of "mass style", "the sources", and "the correct politics which literature and art are subordinate to". At the end of the talk, Mao also explained the need for Thought Reform in literature and art in the following way: "The problems discussed here exist in our literature and art circles in Yenan. What does that show? It shows that wrong styles of work still
exist to a serious extent in our literary and art circles and that there are still many defects among our comrades, such as idealism, dogmatism, empty illusions, empty talk, contempt for practice and aloofness from the masses, all of which call for an effective and serious campaign of rectification. 5

Mao further stated that since "all literature and art belong to definite classes and are geared to definite political lines, there is in fact no such thing as art for art's sake, art that stands above classes, art that is detached from or independent of politics. Therefore, proletarian literature and art are part of the whole proletarian revolutionary cause; they are, as Lenin said, cogs and wheels in the whole revolutionary machine." 6: In the period of Reconstruction and Transition for China, Thought Reform was begun in order to carry out the architecture revolution more effectively.

Since the country was in a poor and exhausted situation, much of the initial architectural effort was put in remodelling and redistributing the old buildings, such as the landlords' houses, temples, etc., rather than building new structures. The political movements such as Sanfan & Wufan Movement, Land Reform, and Thought Reform, as carried out in architecture were related to ideological and organizational reform.
Notes for Chapter 1

1. A summary of the important events in China's internal strife prior to liberation is as follows:

   (March 1926) Anti-communist coup by Chiang Kai-Shek in Canton; Peasant leagues arise in various parts of China.

   (July 1926) Northern Expedition begins, led by the Nationalists. Break of right-wing Nationalists; anti-communists terror in Shanghai and Peking.

   (July 1937) Outbreak of Sino-Japanese war.

   (April 1939) Renewed clashes between communists and Nationalists.

   (Jan. 1941) New Fourth Army defeated by Nationalists.

   (July 1946) The civil war begins.


2. Sanfan (Three-Anti): a/ against corruption. b/ against waste. c/ against bureaucratism.

   Wufan (Five-Anti): a/ against bribery. b/against tax evasion. c/ against stealing. the state's capital. d/ against inefficiency. e/ against stealing the state economic information.

   The Sanfan and Wufan Movement was carried out from November 1951 to the summer of 1952. This campaign help to expose and remove the corrupt cadres and bureaucrats.

3. Land Reform: The Agrarian Reform law of 1950 abolished the "land ownership system of feudal exploitation" and released the peasants -- The bulk of Chinese population -- from the bonds of landlords and rich peasants and thereby greatly increased the initiatives. The Land Reform was completed in 1952.

4. Thought Reform was carried out among writers and artists (including architecture technicians) in 1951.


China's First Five-Year Plan aimed at the industrialization of China and the socialization of handicraft industries and capitalist enterprises (picture from "The Pictorial History of Modern China").
1953-1957 THE PERIOD OF FIRST FIVE-YEAR PLAN

In 1953, the government instituted the First Five-year plan which aimed at the socialization of agriculture, handicraft industries and capital enterprises, as well as the industrialization of China. The goal of this Five-year plan was self-reliance, with the technical assistance of the Soviet Union. During this period, the main emphasis was placed upon the development of heavy industry in order to lay down a sound foundation for China's economic growth.

The convention of the First National People's Congress in September 1954 in Peking proclaimed China's new constitution. This constitution firmly established the working class as the leading political force, and set up a governmental system based upon an alliance between workers and peasants.

The earliest volume of the Architectural Journal (A.J.) available for this thesis was published in December 1954 (No.2).

The contents of this volume are as follows:

(a) Half of the articles (four out of eight) appearing in this journal were translated from Eastern European socialist countries, and especially from the Soviet Union. These articles introduced the activities and design concept in the architecture field of these Eastern European countries.
(b) Three out of eight articles discussed design and concepts of National Form Revival (The National Form Revival was started by Liang Ssu-chen) and the history of Chinese architecture.

(c) There was also one article from the masses entitled "We, the people, ask the architects to undergo criticism and self-criticism."

Although critiques of architectural bourgeois ideology were made both by the masses and by architects, the direction of the practice of architecture had not been properly determined. The National Form Revival proclaimed by Liang Ssu-chen caused a lot of waste and was largely dysfunctional (refer to fig. 3.). Also, the large-scale adaptation of Soviet architecture design concepts and construction techniques was alien to the practical needs of China.

The period of Liang Ssu-chen's National Form Revival ended with criticism in 1955. The editor's note in the Architectural Journal No.2 in 1955 reflects the new attitude prevalent after the critique of and struggle against architecture formalism and revivalism. In this volume, there were 3 out of 11 articles criticizing Liang Ssu-chen's National Form Revival and 4 articles examining factory dwelling plans and housing schemes based on the principles of thrift and function (refer to fig. 4.). The other 4 articles were reports on the decision of the 4th International Architecture Conference held in 1955 in Holland, which referred to discussions of design standards by a Polish
Fig. 3
A Typical Office Building of National Form Revival in Peking
Fig 4.: A typical design made after the critique of Liang Ssu-chen's National Form Revival. (from A.J. No. 2 1955 P. 42) It is emphasized on the low building-cost.
The editor explained that purpose for adapting these 4 articles was to help in understanding conditions and developments in foreign architecture.

The Sanfan Movement in 1955 was created to struggle against disloyal elements, particularly in the bureaucracy. By 1956, the Chinese Communists basically achieved the socialist transfer of ownership of production to collective cooperatives. At this time, a small group of people within the Communist Party felt that the construction of socialism in China had been achieved and that the struggle between the classes no longer existed, and thus that the people should put their efforts on modernizing production techniques and speeding up productivity. But Mao Tse-tung in his speech (on February 27, 1957) on "The Correct Handling of Contradiction Among the People" emphasized that the struggle between the classes had not yet come to an end in China and that efficient, modern, mechanized production alone will not lead to socialism. Mao explained that "This is because if one stresses only technique and forgets the class struggle, if one tries only to transform production methods and not production relations and consciousness, the productive relations and consciousness which will develop will be capitalist, will be bourgeois." 2.

The class struggle in China is by no means over. The class struggle between the proletariat and the bourgeoisie, between
"Technique in Command" and "Politics in Command" in architectural practice will continue to be long and tortuous. The only way for the proletariat to transform China in both the ideological field and in terms of political force is, according to their outlook, through continuous struggle, not only in the past and the present, but also in the future.

In order to speed up cultural and economic development, the Communist Party proclaimed the "Hundred Flowers Campaign" in May 1956, on the basis of recognition that various kinds of contradictions still exist in Chinese society. The bourgeoisie and the bourgeoisie intellectuals took advantage of this campaign to undermine the leadership of the Communist in China's route to socialism. At this time, there were even introductions on "Mies Van Der Rohe" (in A.J. No.5 1957 by Lo Wei-tung), "Walter Gropius" (in A.J. No.7 1957 by Chou P'u-yeh) and other architectural movements in capitalist countries. As a result of the tactics of the bourgeoisie, however, an overwhelming anti-rightist campaign was stirred up throughout the country. There are 19 out of 25 articles (in the Architectural Journal No.9, 1957) written by architectural workers, such as Liang Ssu-chen on countering the rightist elements in the Peking architecture field.

Generally speaking, during the period of the First Five-year plan, China went through several stages: the stage of
struggle for centralization (1953-1954); the stage of the drive forward (1955-1956); the stage of stabilization (1956-1957).
1. According to William Hinton's *Turning Point in China*:

"During that eight-year period China's whole economy underwent a transformation. The small holdings which peasants seized as a result of land reform were pooled into cooperatives and then into collectives of a socialist nature. Individual and small scale handicraft industries also joined together into socialist cooperatives. The private industrial and commercial holdings of the national bourgeoisie were turned over to the state at various levels in return for government bonds bearing interest at 5 percent and thus became socialist property. Simultaneously the huge holdings confiscated from the bureaucratic capitalists in 1949 developed as the socialist center of gravity of the whole system.


3. "Hundred Flowers Campaign"—let a hundred flowers blossom, let a hundred schools of thought contend is the policy for promoting the progress of the arts and the science a flourishing socialist culture in China.
A great leap forward appeared both in industry and agriculture at the beginning of the Second Five-Year Plan (1958-1962). Picture shows the people carried the Three Red Banners of "The Great Leap Forward", "People's Commune" and "The Road to Socialism" in a demonstration. (from "The Pictorical History of Modern China")
During the eight-year period of 1949-1957, China's whole economy underwent a transformation of ownership. By the end of this period, China was clearly a socialist country and its means of production had been socialized.

In 1958, China embarked upon the Great Leap Forward and began to communize the rural villages. Many large-scale public buildings, factories and People's Communes were either designed or built at this period (1959-1960). The Architectural Journal available for this period are the issues for 1958 and 1959.

But the so-called "Three Red Banners" -- that is "the Great Leap Forward", "People's Commune", and "The Road to Socialism" -- were strongly objected to by P'eng Teh-huai (Minister of National Defense). By 1959, at the Lu-Shan Conference, P'eng Teh-huai and his rightist line was criticized.

The three years of drought 1959 to 1961 caused a serious decrease in agricultural production. Meanwhile, the break in Sino-Soviet relations put heavy pressure on the Chinese economy. The Chairman at that time was Liu Shao-shi, who tried to insist on his political and economical route (refer to page 34).
of anti-socialism and tended to compromise with the Soviet Union through enlarging the influence of revisionism.

The articles in the *Architectural Journal* of 1958 and 1959 basically reflect the whole nation's striving for the success of the Second Five-year Plan. In the high tide of forming the people's communes in rural areas and of promoting the great leap forward in industrial production, a large number of articles in the *Architectural Journal* discussed the design for factories and public buildings or the planning for people's communes and cities. These subjects were emphasized in accordance with the general line of this period; i.e. to "Take agriculture as the foundation and industry as the leading factor", and to "Walk on two legs". These articles are discussed in the following subsections to give a further idea of Chinese architecture in relation to the political background of the country.

(A) FACTORIES

There are 37 articles (25.5%) in *A.J.* for 1958 and 14 (9.6%) in the *A.J.* for 1959's on factory design. Most of the projects described in these articles were designed and introduced by the design institute of local Municipal Construction Bureaus.
These articles usually begin by introducing the flow chart of production, then the master plan of the factory, followed by the construction details, arrangement of machines and finally, the advantages and disadvantages and also the experiences of the particular design scheme. During the period of 1959-1961, China met with great difficulties in factory construction and the Soviets unilaterally tore up their economic agreement with China, withdrew their advisors, took back their blueprints for factories and demanded immediate repayment of their loans. Liu Shao-chi favored capitalist, economically expedient solutions. China, facing this situation, insisted on the principal of self-reliance to counteract these difficulties and thus corrected its mistakes and repaid its foreign debts.

The policy of self-reliance (i.e. walking on two legs) in economical construction also means to give full play to the initiatives of both the central and local authorities and to utilize to full extent the existing coastal industries and to accelerate the construction of inland industries, to develop industries and agriculture simultaneously, to use primitive and modern techniques simultaneously, to construct large, middle and small enterprises simultaneously.

Meanwhile, the number of articles on construction increased from 10 (7%) in 1958 to 53 (40.8%) in 1961. (Articles on
construction dropped to 2.74% in 1959 due to the Sino-Soviet split. Most of these articles are focused on construction.

Generally speaking, the articles on factory issue during the Great Leap Forward gave emphasis to technical solutions rather than class struggle and workers' participation in the design process.

(B) PLANNING FOR PEOPLE'S COMMUNES AND CITIES

Accompanying the movement of the Great Leap Forward, the high tide of forming the people's communes brought the nation a further step forward in its transformation to socialism. Meanwhile, it also left a series of challenges for urban and regional planning.

There are 16 articles (11%) in 1958 A.J. on planning for people's commune, and 21 articles (15.4%) on urban and rural planning. The topic for planning was for the first time being widely discussed. This situation continued into 1959. People from different areas and different institutions proposed their ideas, experiences and schemes regarding the planning for their communes and cities.

It is very useful to compare the proposals and policies
made regarding people's communes in 1958 with the situation carried out in 1975. In this way one can see which ideas have been implemented, which failed to be carried out and why; and is planned to be done in the future.

What should a people's commune look like? According to Mao Tse-tung, (Honggi Magazine No.4, 1958) "We should organize the people who are engaged in factories, agriculture, enterprises, schools and the army gradually into a commune which is the basic unit in the forming of our society," According to Mao, in order to keep pace with the increasing development of modernized technology in production and the need for physical improvements, the transition to commune is necessary. This transition brings the following advantages:

(a) It promotes the industrialization of rural areas and decreases the disparity between urban and rural development.

(b) It increases the agricultural production by large scale technical improvements and mechanization.

(c) It provides a good enterprise to distribute both the production and the profit.

(d) Through popularizing the education in communes, it decreases the difference between mental work and hard labor.

(e) It provides military training and gives people the force and responsibility of the nation's defence.

Following this idea, the general layout for these communes in 1958 is explained in the article "The planning and construction of the Prefectural city of Hsinghwei County" (in A.J. No. 3, 1975), which points out: "Some of the planners were
influenced by the revisionist line of Liu Shao-chi and considered the old city too decayed to be improved. They were enthusiastic about building a new city through large scale tearing down of old houses and buildings in agricultural fields. The railways, broad roads, and canals they planned to build gave little regard to natural resources and the practical situation. Some were even against turning landscape and gardening into a productive activity." However, there were some articles that contained a proper consideration for the location of residential and industrial areas. ( refer to Appendix A-17 Page 157 )

Since the movement of the Great Leap Forward, every brigade has tried step-by-step to achieve the collective ownership of communes. Collectively-run machinery shops, day-care centers, schools, storage areas, toilets, co-ops and feeding sheds for raising pigs and sheep have been provided by most of the brigades. But some of the collective ideas seemed to be carried too far for the practical situation at that time, such as public kitchens, dining halls and bathrooms. Even in the latest articles in the 1975 A.J. we still find that these facilities ( kitchens and bath rooms ) ( see Appendix A-17 Page 160 ) are shared between a small group of families only ( 2 to 6 families ) or are even provided for each unit.

The experiences in planning and construction of Hsinghuel.
county is a good example of socialist alternatives for a developing country and its struggle for self-reliance. There are two articles on the planning of Hsinghuei County in Architectural Journal. One is in No. 8, 1958, the other is in No. 3, 1975.

The construction and planning of Hsinghuei County has always involved a two-line struggle, under the influence of Liu Shao-chi's revisionist line, some people took primary interest in building up the city through tearing down the old buildings on a large scale. But as the people voiced their objections to the grand scheme and its failure to take account of the actual conditions, the general layout for the prefectural city of Hsinghuei County was made more compact and rational in land use arrangement in 1958. However, references to the comprehensive plans of people's communes in 1958's A.J. seemed to place more emphasis on graphic details and less on class struggle than the ones in 1975. (refer to Appendix A-17, Page 157, 159)

Through these 20 years, except for some little adjustment of the location, the establishment of the industrial enterprises such as factories producing agricultural machines, nitrogen fertilizer, cement, farm insecticides, etc. and light industries producing textile fabrics, sugar, wine, tobacco and so on have been vigorously developed according to the 1958 plan. All of these enterprises could supply the material and technical conditions for promoting the modernization of agriculture. Apart
from setting up some factories in the city, more and more industrial enterprises have been established right in the communes for the convenience of obtaining raw material. This consideration also resulted in reducing the production costs, and limiting the city's expansion. Now the 20 communes in Hsinghuet accounts for 40% of the county's industrial production, while the prefectural city produced the rest.

Although the construction of Hsinghuet county was interrupted once more by Lin Piao's revisionist line in 1968, it continues to successfully rebuild the old districts, clear the wasteland, excavate the artificial lakes, build up the highways and parks, repair the roads and drainage system, etc. The most important reason for this success was that the masses were mobilized in the process of planning and construction, and the combination of leaders with the masses as well as the movement for self-reliance. The 1975 Architecture Journal also present several communes and brigades within this county. ( see Appendix A-17 ) These are good examples to show the realization of commune through a long term struggle.
Fig. 6.
People's Conference Hall at Peking.

(from A.J. No.9-10, 1959)
The period of the Great Leap Forward (1958-1960) witnessed the proliferation of massive monumental memorial and commemorative buildings much influenced by the Soviet architectural zeitgeist.

The natural disasters and calamities of 1959 to 1961 did much to dampen the aforementioned construction boom, as a cursory glance at chart A would indicate.

Accompanying the economic recovery (1962-1965) after the debacle of 1959-1961 there was a corresponding recovery in public construction culminating in the peak of 26.2% in 1965. The bulk of the increase in construction, according to A.J., was due in no small measure, to the burgeoning members of opera and music halls, primary and secondary school buildings, and hospital complexes.

The issues of A.J. in the early part of 1966 just prior to the Cultural Revolution contained no articles on public buildings. The resumption of public construction in the post Cultural Revolution era showed a predilection for public gymnasiums and stadiums both large and small, small and medium sized airports and rural health care units.
CHAPTER 4
THE STRUGGLE BETWEEN SOCIALISM & REVISIONISM

Fig. 7
Rural Housing Survey Made during the Period of 1961-1966
Socialism is a process, a transition from capitalism (or in China, the new democracy) to communism, rather than something which is given or fixed. Therefore, in order to consolidate socialism, the working class must not only transform the economic base of the society, but also the whole superstructure which serve the economic base.

From 1961 to 1966 was a period of struggle between socialism and revisionism in the superstructural sphere, as there were still many contradictions and many inequalities which had been inherited from the old society. The differences between the economic, educational and cultural opportunities available in the city and in the countryside, and such as the different pay scale for skilled and unskilled people, and for mental and manual labor. These inequalities generated individualism, opportunism and bourgeois ideology. These contradictions and inequalities are manifested in the superstructure. The question of which line (either socialist or revisionist) should be in leading the nation's development was a main topic of debate during this period.
The fundamental difference between the two lines is summarized by the phrases "technique in command" or "politics in command". This basic difference between the two lines exists on almost every important question of development and direction in every sphere, including agriculture, industry, education, culture, architecture, foreign policy, and military affairs. Liu Shao-chi's "technique in command" is based on the theory that "... the productive forces (land, technique, machinery, and labor power) determine productive relations (the arrangements men make for production), and the whole superstructure of ideology and culture that follows as a result." Therefore, Liu Shao-chi's "technique in command", rather than an absence of politics, reasserts the supremacy of bourgeois politics, while downgrading the supremacy of revolutionary or proletarian politics. Mao, on the other hand, perceived that the relation between productive forces, production relations, and superstructure is dialectical and in a state of flux, sometimes one aspect is decisive, at other times another. According to Mao, "Socialism is not simply a question of modern technique and large scale production; it involves the radical transformation of every kind of human motivation, and of human consciousness.".

The practice of architecture during this period (1961-1966), China faced the struggle between these two theories
("technique in command" and "political in command"). Much of effort was expended in ascertaining the correct alternatives to the "New Style for Chinese Socialism" which was raised by the Architecture and Engineering Minister, Liu Hsiu-feng, on September 10th, 1959.

The approaches of the articles from this period can roughly be divided into the following categories:

(A) The approach derived from studying traditional architecture theories, as seen in the article on "Pavilion. Corridor. Bridge." by Huang Shu-ye in A.J. No.6. The design of The Chinese Art Museum, which appeared in No. 8, 1962, deleted some expensive decoration elements' but still looks like a copy of the traditional palace (refer to page 106) This approach directs more attention to traditional construction methods and abstract theories than to the practical situation and the needs of the masses.

(B) The approach derived from surveying local dwellings and rural houses, as seen in the articles on "Tolk-Dwellings in Chiekiang Province" in A.J. No.7, 1962, and "A Brief Description of the 'Malan' Architecture of Chwan Tribe, Kwongsi" by Sun Yi-tai in No.1, 1963, (see fig. 8 & 9) Articles on "A Survey on the new Rural Houses in
Fig. 8
LOCAL DWELLING SURVEY

(DRAWINGS FROM A.J. NO. 7, 1962.)

SECTION

INTERIOR SECTIONS

DIAGRAM FOR LADDER.
Fig. 9
LOCAL DWELLINGS SURVEY
( PHOTO & DRAWINGS FROM A.J. NO. 7, 1962 )

VIEW FROM THE RIVER

VIEW FROM THE BRIDGE

1st FLOOR PLAN

2nd FLOOR PLAN
Miyun", and "Rural House with Reinforced Concrete Structure" in A.J. No. 10, 1961, which are examinations of new rural houses, and deal with practical problems such as the heating, ventilation and construction details. (see Appendix A-9)

Although the survey of local dwellings and rural houses placed more emphasis on single dwelling types and less on the collective concept of the commune, it did put a lot of effort to determine the people's living style and needs, and to try to provide these in the architecture.

(C) The third approach is to incorporate the advanced foreign technology and to examine their varied architectural designs, (such as the architecture of Cuba, the Soviet Union, North Korea, North Viet-nam, etc.). The articles in Architectural Journal appearing during this period (1961-1966) focused more on the technical solution of each country in solving their respective requirements. For example, close examination of the form of public buildings in China at this period revealed that with the incorporation of foreign technology was the concomitant inclusion of many Soviet forms in their design.
Western concepts in design had begun to wane by 1957, while the technical aspect of foreign architecture continued to exert influence until 1966. Since 1973, there has been no evidence of any article reported on foreign architecture in A.J.

Although none of the above approaches has completely matured, they have gone through a long period of practice and improvements. The second approach (B), which deals with needs, seems to be closest to what China follows now. The other two approaches are more or less close to Liu Shao-chi's revisionist line which over-emphasized the domination of bourgeois intellectuals and advanced foreign technology, and as a result, alienated architecture from the masses, reality and correct politics.

The question of whether to depend on foreign technology or to seize the initiative and create a new and progressive socialist China became very important later in the Cultural Revolution. Even in 1976, this controversy stands as a symbol for the difference between the two lines or roads for the development of China.

The attitude toward the traditional architecture during this period lacked systematic criticism. It was not until the movement of criticizing Lin Piao and Confucianism that the
framework of criticism based on the struggle between the Confucian and Legalist schools developed. Two school in ancient China represented two opposite political and ideological lines. The struggle between them has had a profound influence upon the development of ancient China's architectural engineering.

Generally speaking, the articles in Architecture Journal during this period (1961-1966) focus primarily on issues related to housing. Eighteen percent of the articles in the 1961 A.J. were on housing, 25% in the 1962 A.J., 28% in the 1963 A.J., 20.6% in the 1964 A.J. and 23.4% in the 1966 A.J. (refer to Chart A, Page 97). It is notable that the number of articles on construction and engineering in the 1961 A.J. is rather high, and that most of these articles are concerned with factory construction. This phenomenon could be explained by the influence of the Great Leap Forward. The recovery and increase of economic production led to large scale construction in public buildings at the end of this period (refer to Chart A, Page 97), therefore the proportion of articles on public building in the A.J. for 1963 and 1964 increased to 20% and 26% respectively.

At the end of this period, (1966) the struggle and conflict between these two lines (socialism & revisionism) became sharper, and the struggle influenced the direction
of the Architectural Journal. Articles on foreign architecture and on public building design dramatically declined in number, while articles containing political discussions of architectural practice increased to 17%. This situation reflects the radical change that China was undergoing.
1. In 1962, while Liu Shao-chi was advocating capitalistic economic expediency as the basis of solution to China's problem, Mao exhorted people not to forget class struggle and to use the models of Taching and Tachai respectively in industrial construction and agricultural production. In 1963, the divergent views manifested themselves most clearly in the Socialist Education Campaign and on cultural fronts. In 1965, Mao was instrumental in the publication of an articles criticizing the historical play "Hai-Jui is Dismissed from Office". which set the stage for the Cultural Revolution.


3. Ibid page 44. The dialectical relationship between productive forces, production relations and superstructure is, according to Hinton's Turing Point in China:

There are times "when new productive relations are needed to release and develop new productive forces, when changes must be made in the superstructure to bring about changes in the base, times when consciousness determines being rather than being determining consciousness. At such times massive political transformation is a prerequisite for further productive development."

4. Ibid page 45.
5. The Confucian and Legalist schools represented two opposite political and ideological lines. The struggle between them has had profound influence upon the development of ancient China's architectural engineering.

The Legalists advocated change and progress and attached great importance to farming and military affairs, so that there were speedy development on water conservation work and bridge construction in the period of Chin and Han dynasty.

The Confucianists, on the contrary, represented the reactionary classes and their declining political forces, pushed a political line of restoration and retrogression. They were hostile to innovation, sneered at production and despised the working people. Thus they seriously obstructed the development of ancient China's architectural technology.

Proceeding from their counter-revolution political aim, Liu Shao-chi, Lin Piao and their like mouthed such absurdities as: "Confucianism is the source of Chinese culture". According to China's socialist line, this serious distortion of Chinese history must be thoroughly criticized.
Big character poster first appear in Peking University on 27th May 1966. (picture from "The Pictorial History of Modern China").
CHAPTER 5

1966-1970 THE GREAT PROLETARIAN CULTURAL REVOLUTION

The first initiative of the Cultural Revolution was an article written by Yao Wen-yuan, a Shanghai cadre, entitled "On the New Historical Play, Hai Jui is dismissed from Office" published in Shanghai Wen-hui-pao (a newspaper in Shanghai). This article criticized those in authority in the cultural arena and started a nationwide debate -- on the play's attack on Mao Tse-tung and its defense of Marshall P'eng Teh-huai, who was a right-opportunist.

The second initiative was "the big-character posters" put up by Nieh Yuan-tze, a cadre of the Philosophy Department at Peking University and six of her colleagues on May 25, 1966. They asked why mass public debate on the question of Wu Han's play and the Peking Press had been suppressed at Peking University. These young teachers blamed Lu P'ing, president of the University and Secretary of its Party Committee, directly and by name, for diverting the struggle into an academic debate, and by 'guiding' the people from holding big meeting, not to put up big-character poster and by creating all kinds of taboos. They blame the president, saying 'aren't you supressing the masses' revolution by not allowing them to make revolution and opposing their revolution? We will never permit you to do this!"
The president's, Lu P'ing, immediate reaction to this critique was to mobilize a large number of students to label Nieh and her colleagues as the counter-revolutionaries who dared to attack openly the leaders of the Communist Party in their institute. However, a week later, on the instruction of Mao Tse-tung, Nieh's challenge was broadcasted throughout China and it was quickly taken up, first by students, then by workers, peasants and soldiers. Thus began a nationwide movement to make culture serve the people instead of nourishing a new elite.

The issues raised about architectural practice during China's Cultural Revolution were: Self-reliance, the Three-in-one Combination, on-the-spot design, and the educational revolution in architecture.

The Architectural Journal ceased publication from June 1966 to September 1973. Therefore, the only reference articles for the Cultural Revolution are only the ones in the A.J. for 1966 and 1973.

Articles in the 1966 A.J. emphasized "politics in command" workers' participation in the design process and the use of local construction techniques for rural houses.

Articles in A.J. No.1, 1973 emphasized that edifices built during the Cultural Revolution which was inspired
along the general line for building socialism. For instance:

(A) The article on "Design of the Peking Central Petro-
Chemical Works" showed the spirit of self-reliance, of
the builders who erected, within a short period of
several years, 15 refining installations. The article
also describes the general layout of the works and
some design problems of individual buildings and struc-
tures.

(B) The article on "Head-tower of the Nanking Yangtse
River Bridge" which was built during the Cultural Revo-
lution: The final design for head-tower was worked out
after synthesizing and improving the 58 various schemes
submitted in the competition. This article showed the
change of design attitude and process that has taken
place through the Cultural Revolution.

(C) The article on "Water Plant with 'flow-by-gravity'
Process" described the "three-in-one" combination
"on-the-spot design" which involved workers, cadres
and technicians, and was organized by the Revolutionary
Committee of the Wuhsi Architectural and City Planning
Department to help carry out the design revolution.
Fig. 11

ABOVE: WORKERS AT SHANGHAI CRITICIZING LIN PIAO AND CONFUCISM

BELOW: A HUNDRED THOUSAND PEOPLE AT FU-CHOU CITY CRITICIZING LIN PIAO AND CONFUCIUS.

( PHOTOS FROM A.J. 1974, No. 3 )
Other articles, such as "the Capital Indoor Stadium" and (in No.1, 1973) and "Design and Construction of a Big-Arched Godown in Prefabrication" also reflects the improvement in China's construction technology through the "Three-in-one" 'on-the-spot design' and the learning of politics.

The proletarian Cultural Revolution was a political campaign of great importance in the People's Republic. "It was unprecedented in size, duration, intensity of struggle and significance. The purpose of the Cultural Revolution was to smash the plot to restore capitalism in China and to wrestle back that portion of power which was in the hands of the capitalist clique. It was a movement from the bottom up to rid China of all revisionist thinking. Liu Shao-chi was expelled from the party and the government during the movement." 2.

"After Liu Shao-chi was exposed, yet another like him was rooted out and defeated, Lin Piao denied the class struggle and placed the importance of economic construction above all others. He opposed the new systems and practises that sprang up during the Cultural Revolution - young intellectuals going to the countryside, cadres participation in labor work and so on. Lin Piao attempted to seize the supreme power of the state" 3, and when he failed, planned an armed coup and to assassinate Mao Tse-tung. He failed in this
rebellion, and in September 1971, he died in an airplane carsh
while trying to escape to the Soviet Union.

During the Cultural Revolution, China accomplished the
Third Five-year Plan and started the Fourth one in 1971, which
was completed by 1975.

After the nation-wide seizure of power by the proletar-
iat, would the struggle of contradictions between the working
class and the bourgeoisie come to an end? Mao, having foreseen the
protracted and complex nature of the class struggle after the
establishment of the dictatorship of proletariats, gave an
negative answer by reminding the people:

"After the enemies with guns have been wiped out, there
will still be enemies without guns; they are bound to struggle
desperately against us, and we must never regard these enemies
lightly. If we do not now rise and understand the problem in
this way, we shall commit the gravest mistakes." 4.
Note for Chapter 5


3. ibid

Fig. 12

Tachai Production Brigade is the most outstanding example of rural residential construction. (picture from A.J. No. 6, 1974)
After recovering from three years drought (1959-1961), the Chinese economy has been advancing towards full development. The subsequent 13 years of bountiful harvests and the 190% of growth rate in industry (during the period of 1964 to 1974) have helped balance both the nation's finance and the price of commodities. As Premier Chou En-lai pointed out in his "Report on the work of the Government", (delivered on January 13, 1975 at the First Session of the Fourth National People's Congress of the People's Republic of China):

"We have overfulfilled the Third Five-year Plan and will successfully fulfil the Forth Five-year Plan in 1975. Our country has had good harvests for 13 years running. The total value of our agricultural output for 1974 is estimated to be 51% higher than that for 1964. This fully demonstrates the superiority of the people's commune. While China's population has increased 60% since the liberation of the country, grain output has increased 140% and cotton 470%. In a country like ours with a population of nearly 800 million, we have succeeded in ensuring the people their basic needs in food and
clothing. Gross industrial output for 1974 is estimated to be 190% more than in 1964, and the output of major products has greatly increased. Steel has increased 120%, chemical fertilizer 330%. Through our own efforts in these ten years we have completed 1,100 big and medium-size projects, and we have maintained a balance between our national revenue and our expenditures and contracted no external or internal debts. Prices have remained stable, the people's livelihood has steadily improved, and socialist construction has flourished. Reactionaries at home and abroad asserted that the Great Proletarian Cultural Revolution would certainly disrupt the development of our national economy, but the facts have now given a strong rebuttal...."

The Fourth National People's Congress proclaimed the New Constitution on January 17, 1975. This constitution is excerpted below: (As illustrated in these excerpts, the constitution specifies the proper relationship between the people and the superstructure of the People Republic of China.)
CHAPTER ONE : GENERAL PRINCIPAL :

ARTICLE 1

"The People's Republic of China is a socialist state ruled by the dictatorship of the proletariat led by the working class and based on the alliance of workers and peasants.

ARTICLE 2

The Communist Party of China is the core of leadership of the whole Chinese people. The working class exercises leadership over the state through its vanguard, the Communist Party of China.

Marxism-Leninism-Mao Tse tung Thought is the theoretical basis guiding the thinking of our nation.

ARTICLE 12

The proletariat must exercise all-round dictatorship over the bourgeoisie in the superstructure, including all spheres of culture. Culture and education, literature and art, physical education, health work and scientific research work must all serve proletarian politics, serve the workers, peasants and soldiers, and be combined with productive labor.
The Constitution, as a summary of the more than twenty years experience since 1949, has the clear aim of China ruled by a dictatorship of the proletariat. However, China must struggle toward this aim.

There has been always the question -- whether to pursue the road of socialism or to acquiesce to the return of capitalism -- this is a struggle between two classes, the proletariat and the bourgeoisie, and between two lines, the Marxist and the revisionist. Since the founding of People's Republic of China, the four major inner-Party struggles between the two lines have all centered on the question of which ideology should prevail. The Party is prepared for a protracted political struggle. As Chairman Mao points out:

"Socialism is a rather long, historical period. In this period, there still exist the classes, the struggle and the contradiction between the classes; there exists the struggle between socialism and capitalism, there also exist the possibility of restoration to capitalism, and we should be aware of these things.

"We should proceed in our socialist education.

"We should correctly handle the struggle and the contradiction between the classes."
"We should correctly identify the contradiction between the people and enemies.

"Otherwise, our society would turn to an opposite direction and revisionism would appear.

"From now on, we need to face this issue in a more energetic way, to try to get a clearer understanding of the guidelines of Marx and Lenin.

"Today the most important task of our thought struggle is to proceed and deepen the criticism of revisionism."

The continuous criticism of the old system and old ideas is, according to Mao, the struggle against sabotage by class enemies. The purpose of such criticism is constant vigilance to perfect the socialist system, and to be steadfast on the road to socialism.

The aim of the movement to criticize Lin Piao and Confucius, as initiated and led by Chairman Mao, was precisely to infuse all spheres of the superstructure with Marxism, to consolidate the dictatorship of the proletariat, and to prevent the restoration of capitalism, thus strengthening the people's adherence to a socialist orientation.

Corresponding to the movements of "Criticism of revisionism", and "Criticism of Lin Piao and Confucism", there has been
significant change both in the direction and in the practice of architecture in China. The Architecture Journal has resumed publication, after interruption from 1967-1972. The editorial content of these new issues has reflected the changes wrought by the Cultural Revolution. Specific changes are summarized as follows:

(A) "THREE-IN-ONE COMBINATION"

The emphasis on the "Three-in-one Combination" represents a major change in the practice of Chinese architecture after the Cultural Revolution. This kind of cooperation consists of construction workers, technicians, and revolutionary cadres, working together on an architectural project. The integration of cadres and workers in such a manner ensures that architectural activity is not only oriented towards benefitting the masses, but mass participation is crucial in such activity.

Lin Piao and Liu Shao-chi quoted the Confucian adage: "those who labor with their minds are superior to those who labor their hands" for the purpose of driving the laboring people to serve the reactionary class and thus according to Mao, to suffer oppression and exploitation willingly. The reactionary line supported by Lin and Liu was also aimed at introducing admiration of authoritarianism and the western..."
Fig. 13

THE "THREE IN ONE" ON-THE-SPOT DESIGN TEAMS

( PHOTO FROM A.J. 1974, No. 5 )
mode of industrial development. This line also alienated design technicians from the correct politics of the proletariat, the masses and practiced reality. In addition, such reactionary thinking led to the exclusion of workers and cadres from participating in the design and decision making processes. The reactionary line of Lin Piao and Liu Shao-chi represented a formidable threat to the construction of China's socialism.

In answering the call of Chairman Mao on November 1, 1964, the design technicians left their offices, went to the factories and work sites to formulate designs in close collaboration with cadres and the workers. The practice of involving workers with their practical experience, participating in the design process, has proved the superiority of "Three in one on-the-spot design", (see Appendix A-14) and further demonstrated the validity of the socialistic practices.

(B) THE CONTINUING REVOLUTION IN EDUCATION

The issues raised about education during China's Cultural Revolution are:

Who should run the schools?
Who should be admitted to colleges and on what basis?
What should students study?
Whom should education serve?
The May 7 Commune is an example of how the various conflicting considerations are resolved. Acting on Mao's May 7, 1966 Directive, (see Appendix A-15), the department of architecture and architectural engineering in Tungchi University, the Shanghai No.2 Building Company and the Shanghai Designing Institute of Industrial Building joined forces to establish a center to demonstrate their determination to implement the revolution in education. The workers, teachers and students named the experimental center the May 7 Commune which now has three specialities -- industrial and civilian building, architecture, and city planning.

"Prior to the Cultural Revolution, architectural education had followed much the same lines as those in the West and Russia. It was elitist, training people to rule rather than serve the people. Therefore, emphasis was placed on theory, not on practice. The six years' full-time study and two years' practical training was turning out students who were too bourgeois and self-seeking."

On 2 June 1966 at Peking University, the first 'Big Character Poster' appeared, criticizing the educational system and the Principal of the University. When Mao said it should be given national attention, thousands and thousands more appeared... On 5 August 1966, Mao publish his own poster.
'Bombard the Headquarters with Criticism' .... By the end of August, Mao's poster appeared in Shanghai and a revolutionary group was set up at Tungchi to further examine architectural education. Eventually their findings became the basis for the reform of all higher education in China.

Opposed by a conservative organization of 4,000, the Red Guards carried out a thorough investigation. Teachers and students completed a systematic survey of past students. They found, as they had suspected, that much of what had been taught was irrelevant and biased...

"By December 1966, the conservative element at Tungchi lost more and more of its strength, and the Red Guards took over running the University."²

"To get city back on its feet, the workers and students seized control of the newspaper on 4 and 5 January 1967. Then they took over the running of the docks, railways, banks, water and electricity. On 9 January they published their second Marxist Leninist 'big character poster' called 'Urgent notice to the People of Shanghai'³.

In June 1967 a Revolutionary Committee under the leadership of a 23-year-old student composed of University staff, students,
workers and PLA members was set up. Its primary task was to overhaul the whole ideological framework of the architectural education at the University. The University was closed while all staff and faculty members were examined by the Revolutionary Committee and sent out to gain practical experience by learning from the working people. (refer to Appendix A-15)

The resultant revision in curriculum emphasized the relevance of theoretical subjects with reality, and teachings are to be geared to the solution of practical design problems. In this way of uniting the dichotomy between theory and practice accelerated the completion of architecture curriculum in three years as opposed to the original six.

The entrance requirement for the University was correspondingly changed, to reflect the new emphasis. The traditional course of study in China was considered, by Mao and the red guard, to be irrelevant to the specific needs of a developing nation.

Although the University door was open to the offsprings of the workers, peasants and soldiers, but few were accepted. and after entry, these new "elite" often degenerated into seeking a better material life for themselves. They proved to be more enamoured with prospects of self-aggrandizement
by building gigantic edifices, monuments to themselves. They wasted massive amounts of time, money and effort while neglecting the pressing needs of the Chinese people.

No students are accepted unless they have completed a period of at least one year practical training working in the countryside, a factory, or the much sought after PLA.

Students can then apply to the University directly, or through the Local Party Authority or through their place of work. Academic and personal references are culled from all levels and acceptance is granted only if students deem capable of serving the needs of the people. Incredible acting ability would be needed to deceive the peasants or workers, and it would be virtually impossible to keep up a front for a whole year. This multifaceted selecting process is designed to minimize the chances of inclusion of those less firm in their ideological integrity.

Once accepted, all fees are absorbed either by the state or place of work and students are encouraged to return to their home villages or place of work as all-round architects and builders.

The exams are 'open book exams'. If a student fails (
which is rare) attempts are made to see if further improvements can be made with the teaching method. The assessment is not determined by the faculty unilaterally, but by a consortium of faculty, students, and workers.

"The three year curriculum is divided into two terms. The length of the term did not appear to be defined, as much of the work is practical." One month each is spent, respectively in agriculture and on in the PLA during the three years, furthermore, the students are encouraged not to become in the Chinese vernacular, "slavish bookworms" but to engaged in the sport and exercise to complement their academic accomplishments.

"First grade: Most of the time is spent on site studying building work.

"Second grade: Study in workshops while studying theory. One fifth on the time is spent on studying politics.

"Third grade: Students are now required to be able to design and build, and six weeks of this year is spent on site."
Fig. 14
A QUICK TRAINING CORRESPONDENCE CLASS FOR THE DESIGN
OF RURAL BUILDING GIVEN BY THE WORKER-TEACHERS OF THE
MAY 7 COMMUNE, TUNG-CHI UNIVERSITY

( PHOTOS FROM A.J.1975,NO.2 )
The main purpose of this sequential arrangement is to promote the teachers and students to partake in physical labor at the construction sites and to promote inter-group cohesion between the intellectuals and the workers. It would further prevent theoretical knowledge from being divorced from practical experience.

In the process of open-door education, the teachers and students at Tungchi University have successfully established short-term training class for workers on location to aid and abet the workers in their study of Marxism-Leninism and to dispense scientific knowledge in construction. (refer to A.J. No.2, 1975)

In the seven years since the inception of the open-door education, "the teachers and students at Tungchi University have designed more than 130 projects for the state, including 28 key construction projects. Total designed building floor space was 230,000 square meters, of which 170,000 square meters have been completed. Teachers and students also have undertaken 28 fairly important research items and most of the results obtained have been applied in production."

The May 7 Commune has set up an excellent example for administering the school with sound political ideology. It
engages both teachers and students into what Mao Tse-tung calls "the three great revolutionary movements -- class struggle, the struggle for production, and scientific experimentation". By broadening the horizon of political consciousness and bridging the gap between theory and practice, between mental and manual work, between cities and rural areas, between industry and agriculture, the open-door education has played a significant role in promoting and strengthening the cohesive forces between China's intellectuals and the working class, and to usher in an era where a new generation of revolutionaries who will buttress socialism.
The policy of urban and regional planning in China is based on the decentralization of population and industry on diversification rather than specialization, and on regional self-reliance in industrial and agricultural production.

There are several reasons for this dispersal policy:

(a) It is partly derived from practical conditions and needs. Although considerable roads and railways have been built, the transportation network is still insufficient.

(b) The decentralization of resources and industrial settings is undertaken in preparation for invasion which China considers a real possibility.

(c) Equally important is the aim of overcoming the three differences which persist in a society in transition to socialism -- the gap between agriculture and industrial development, between mental and manual work, and between town and country -- while equalizing the benefits of economic growth between regions to make a wide variety of productions and services easily available to all areas.

Before asking, "How is the decentralization process to be achieved", one must analyze China's planning system, its political-administrative structure, its character in operation
and other organizational aspects.

6(C)-I PLANNING SYSTEM

"The administration of Chinese cities falls under a hierarchy of local government, starting with municipal administration which covers the entire urban area. Each city is then divided into a number of districts. A district might cover anything from 250,000 to 500,000 people. Within each one there are a number of street committees, the smallest unit of state administration, each covering between 50,000 to 100,000 people. Below the street committee is a network of Neighborhood Committees, large voluntary organizations composed of local people and without specific administrative functions. Neighborhood committees cover between 2,500 and 12,000 people. Factories also have their own administration, largely independent of the local government structure, which is responsible not only for the plant but often for workers' housing, health services, nurseries and recreational facilities."

According to Nick Jefferey's "Administrative/political Structure for planning", town planning is the responsibility of the City Construction Bureau, which is one of several permanent offices attached to the municipal administration. The Bureau prepares a Development Plan for a 5-10 year period based on a long-term general plan. Detailed plans are then prepared on
ADMINISTRATIVE / POLITICAL STRUCTURE

CENTRAL GOVERNMENT

AUTONOMOUS CITIES

FACTORIES

PROVINCES

AUTONOMOUS REGIONS

CITIES

FACTORIES

PREFECTURES

URBAN DISTRICTS

FACTORIES

COUNTRY DISTRICTS

COUNTY DISTRICTS

TOWNS

FACTORIES

URBAN DISTRICTS

PEOPLE'S COMMUNES

PRODUCTION BRIGADES

STREET COMMITTEES

NEIGHBORHOOD COMMITTEES

RESIDENTS' COMMITTEES

RESIDENTS' GROUPS

FROM NICK JEFFERY
"ADMINISTRATIVE / POLITICAL STRUCTURE FOR PLANNING"
the basis of the development plan. Once the plan is established, its execution is the result of interaction between the various units of the central administration, and the industrial, housing, health, and education bureaux of the municipality, which are the lower units of a local authority and the individual agencies, factories, schools, etc. Except for small works, the actual construction is carried out by a centralized organization. Development agencies must submit applications for approval to the City Construction Bureau. Despite this, there generally seems to be very little effort to integrate new building into the urban fabric.

Shanghai is an Autonomous City and can be used as an example to explain the political structure of planning which shown in Chart 2. "Under the Shanghai Autonomous City are: 10 Urban Districts (total population: 570,000); numerous state factories and institutions and cooperative distribution services (e.g. Futan University of Science and Art, 3300 employees; Tungchi Technical College, 1169 employees; Shanghai Machine Tool Factory, 6000 employees, some housed by the factory; 5th Working District of Shanghai Harbour, 3000 employees, some housed by the Docks Bureau); 10 County Districts which include 45 satellite towns with an average population of 50,000, and 120 People's Communes (e.g. Sing Chiang People's Commune contains 11 production brigades, which contain 85
production Teams, among which are eight small factories. State ownership does not extend to communes, and appointment of state cadres didn't appear to extend to brigades and teams, but the Revolution Committee here was described as under the leadership of Party Committee. The Brigades have Revolution Committee leaders, the teams have heads; and both the brigades and the teams are responsible for accounting their production and finances. The Commune runs its own school and health system.

Under the Shanghai Urban Districts are Neighborhood Committees (e.g. under Yangpoo District is the Kuang Kiang Workers' Residential Area, with a population of 92,000, and which runs 14 collective workshops with 1700 employees). The Neighborhood Revolution Committee was described both as the 'grass roots of state power' (some cadres are appointed), and the 'basic level of people's power' (all Party branch leaders were residents). The tasks of the Neighborhood Committee were said to be:

(1) To implement policies from upper levels of the government and from the Central Party Committee, e.g. building a park;

(2) To organize the study of Marx, Lenin and Mao;

(3) To organize the masses for housing and social work;

(4) To organize and manage workshops, primary schools, nurseries and clinics.
Under the neighborhood Revolutionary Committee are Residential Committees of approximately 60 modern housing blocks and 6000 residents each. These were described as 'self-governing mass organizations under the leadership of the Neighborhood Revolutionary Committee. "In this case, 20 Residents Groups (one for each block) would occasionally meet together and elect their third of the the elected members of the Residential Committee. The tasks of the Residential Committee were said to be the following:

1. To implement tasks such as hygienic programs;
2. To take the demands of the people to the Neighborhood Revolutionary Committee;
3. To organize social work visits;
4. To push propaganda about family planning;
5. To recommend to the Housing Bureau on housing for new couples;
6. To run old people's places of study and recreation.

The bureaux in Shanghai are at both the municipal and the district level; those engaged in production, distribution and planning are only at municipal level. Education, health, housing and some public service have district bureaux as well. Within the counties and districts, even within the communes, are state factories under various municipal bureaux of industry; these factories may provide, and account for as production
costs, much of the social needs of reproduction such as housing, education, health, and also cultural activities

6(C)-II OPERATIONAL CHARACTERISTICS IN PLANNING & ORGANIZATION

What type of operational planning in this complex structure really works? According to Nick Jefferey's "Administrative / Political Structure for Planning" in A.D. March 1974, Page 147:

There are two major characteristics of operation in planning that can be identified:

(a) Policies are made and decisions taken under the leadership of the Party, which is both vertical and horizontal (the latter being the 'unified leadership' of policy and administration through Revolutionary Committees).

(b) Decisions are subject to a 'two way' flow of proposals from above and below, with considerable 'leeway' in proposals. 'The keynote of planning is to grasp the policy of the party and mobilize the masses, and it is emphasized that planning is to be in the service of proletarian politics.'
Take Shanghai Machine Tool Factory as an example. Most of the state factories receive the state plan proposal (from the Industrial Bureau, on production quotas and purchasing), mobilize the workers and technicians to consider innovation and productivity, report back to the state, receive the plan, mobilize the workers, and produce. This was done as reported at the Shanghai Machine Tool Factory through production brigades or teams under the Revolutionary Committee, and the workers' sections. At the Hangchow paper mill, proposals have been returned with increased costs. This was the case when the water pollution incurred was of great social cost to the peasants and fishermen (and compensation cost to the factory). A process was developed by workers and technicians to produce fertilizer from the waste, and has been partly implemented even though in strict accounting terms constitute a loss.

The Revolutionary Committees at different levels, and especially in factories, were organizations that appeared during the Cultural Revolution (and after the Cultural Revolution). These committees were described as 'basic units of proletariat power' (they included workers), and as providing 'unified leadership' (they included political and administrative cadre). The Revolutionary Committees have members responsible to the masses (Responsible Member) and Standing Members. The latter make up a Standing Committee which meets

-77-
more often. At the Hunan porcelain factory, the Revolutionary Committee is a provisional power organization, and an executive for the Party Committee, of the 15 members including the 'young, the middle aged, the old, and women', was said to be elected from the masses. In the Shanghai Machine Tool Factory, the Revolutionary Committee members were said to be recommended and elected by the masses (of employees).

6(C)-III THE ELEMENTS OF CHINA'S STRATEGY IN STRIKING A BALANCE BETWEEN TOWN AND COUNTRY.

The Main Lines of China's dispersal redistribution strategy are:

(a) decentralizing industry from the large cities and constraining the future growth of these cities;

(b) allowing smaller cities to expand, but only to a certain size;

(c) setting up multiple growth points by establishing small-scale rural units and at the same time trying to counter the social and cultural dominance of the city.

The realization of a dispersal policy has been a complex process. Agriculture, which has been looked upon as the foundation of the economy, has been re-organized, collectivized, and modernized with mechanization. As a result, the countryside can support and employ far more people, and the negative
pressure of rural impoverishment, which is so often a cause of urban migration, has been avoided.

"In industrial development three strands of policy have contributed to the strategy of dispersal. First, industry, particularly noisy industry, has been moved out of areas which are already overdeveloped. Second is the policy of developing industry around cities which before 1949 had little or no industrial base. The third policy, which has gained increasing importance since the Great Leap Forward in 1958, has been the development of small-scale production. The neighborhood factories run by urban housewives are part of this policy." 6.
6 (D) HOUSING

According to the reports of Graham Tower's "City Planning in China", Rosemary MacQueen's "Housing & People", and Architectural Journal (1973-1975). Chinese city planners are confronted with two major tasks. One is to develop new areas to accommodate industrial expansion the other is to inject vitality into old overcrowded urban residential areas, by improving the fabric and facility in such areas, which were often slums of grossly inadequate construction, and lacking the most basic utilities.

In most Chinese cities, the development of new residential areas goes hand-in-glove with the development of industry. (see Appendix A-16) Housing sectors are constructed to serve the factory and as such they are usually in close proximity, so that most workers live within ten minute walking distance from their jobs in the factory. The control of the new housing areas are then transferred to the factory administration, which then becomes responsible for management and maintainance, and for providing the necessary facilities and other aménities.

In Shanghai, the system is rather different in that the municipal authorities maintain control of the new housing areas, and their administration falls completely under the jurisdiction of Street Committees. Shanghai has rehoused about
Fig. 16
RESIDENCES OF SAN-CHIANG FISHING PRODUCTION BRIGADE AT HSINGHUEI COUNTY.
2,000,000 people since 1949 in seventy-five comprehensive developments. The developments vary in size, but most new areas incorporates nurseries, primary schools, health clinics, public canteens and restaurants, as well as providing such services as barbers' shops, clothes' repairers, grain stores, basic retail stores, vegetable markets, and department stores. Large projects, those housing more than 2,000 households, also include hospitals, secondary schools, post offices, banks, specialized shops, cinemas and community centers.

In transforming the old residential areas, the Chinese have, out of necessity, preserved as much as possible. The immediate improvement was to provide sewage, running water and electricity to areas which lacked these services, and to pave the narrow streets and alleys which upon raining deteriorated into muddy tracks. Gradually the worst housing would be supplemented, sometimes by piecemeal infilling, sometimes by complete redevelopment of the slum districts. Every effort was made so that whatever buildings that could be saved would be rehabilitated. Shanghai for instance, has rehabilitated 40,000,000 sq m of housing (the equivalent of the city's entire housing stock,) sometimes by refurbishing the same building two or three times.
Overcrowding has been eased by moving families out into new residential areas, or into rehabilitated buildings. Even with such measures there is still a long way to go before the problem is eradicated and the people readily admit that an enormous housing problem still exist. Although standards are still low by western criterion, there seems to be little public pressure for the quantum leap improvements of housing facilities. Most families seem content with the incremental betterment of the accommodation they have. There are no intolerable long waiting lists and applicants are rehoused reasonably quickly. This lack of discontent is partly because, bad as things are, there has been a swift and steady improvement in housing standards, and in part because standards are more or less equal for everyone.

Throughout this process, the architectural workers were inspired by the model agricultural commune of Tachai and their unyielding revolutionary zeal as manifested by their total self-reliance from production of building materials, design process and the final construction of new collective living units by commune members themselves. The successes of Tachai is a microcosm of the exciting political transformations taking place in all sphere of Chinese life as the people in China are making concerted efforts not to sacrifice the individual for the collective or vice versa but rather to seek
new ways of integrating the individual into the collective to the mutual benefit of both. The growth of common ownership of land and large scale municipalization of housing has been of invaluable help to development of the program. It is the neighborhood and/or factory that organized the facilities for the community, such as the nurseries which provide child care facilities for families at eminently low rates, and youth club and social center for children of school age. "Communal meeting rooms are established for reading, studying and recreation for the older, retired members of the community. In return the responsibility of the senior citizen are: looking after and organizing reparation of flats; caring for younger children, and bringing their rich experience to help the administration of the local committees."
Note for Chapter 6:

1. Peking Review, January 2, No.1, 1976 page 15

2. Sam Webb "China the Road to Wisdom Has No End" A.D. April 1974, page 218

3. Ibid

4. Ibid

5. Graham Towers "City Planning in China" A.D. July 1973 page 430

In the world today, all culture, all literature and all art belong to definite classes and are geared along definite political lines. Accordingly, in the People's Republic of China, which is a socialist country, its architectural practice is directed toward the interests of the proletariat and is part of the whole proletarian revolution.

Through constant re-evaluations the architecture of People's Republic of China has found the right way to serve the people. Socialism is a process; it is a transition from capitalism to Communism rather than something which is given or fixed. To make architecture serve the needs of people includes not only raising the standards of architectural quality but also popularizing appropriate architecture. Let the architecture popularize what is needed and can be readily accepted by the workers, peasants and soldiers themselves, and then let architecture help them to advance from their present level to higher standards.

In the period of Reconstruction and Transition (1949-1952), the first task was resettling the poor and the exhausted masses and implementing the Land Reform and Thought Reform to assist in the preliminary stabilization of Chinese society and to pave the way for the socialization movement to come.
The nation's first Five-year Plan (1953-1957) was a transitional plan of ownership through the socialization of handicraft industries and capitalist enterprises, as well as the industrialization of China. Liang Ssu-chen after his self-critique of his bourgeois ideology, still led China in the wrong direction with the National Form Revival in architecture which was neither functional nor thrifty. After the critique of Liang Ssu-chen's National Form Revival, the architectural practitioners tried to focus on practical needs. However, they were still influenced by foreign architecture, (even by architectural movements in capitalist countries) The capitalist supporters and intellectuals took advantage of the Hundred Flowers Campaign (in 1957) to openly oppose the leadership of the Communist Party, which led to an over-all anti-rightist campaign in China.

During the Great Leap Forward (1958-1960), China strived for the successful completion of the Second Five-year Plan. In the high tide of forming the people's communes in rural areas and promoting the great leap forward regarding industrial production, a large number of factories and public building were built during this period, and many proposals were made to build people's communes. Although the Great Leap Forward met with natural disasters, heavy economic pressure resulting from Sino-soviet Split and the struggle between the two political lines within the country, it led to a victorious struggle in latter periods of China's road to socialism.
The period between 1961 and 1965 was basically a struggle between revisionism and socialism within the superstructure. The difference between the two lines of thought -- Liu Shao-chi's "Technique in Command" and Mao Tse-tung's "Politics in Command" became more obvious. The issue of housing received primary main emphasis from architectural workers during this period.

The Proletarian Cultural Revolution was a political campaign of great importance in the People's Republic. Unprecedented in size, duration, intensity of struggle and significance, the Cultural Revolution attempted to smash the plot to restore capitalism in China and, from the bottom up, to rid China of all revisionist thinking. The issues brought to the "design revolution" were "self-reliance" and "Three-in-One" combination on-the-spot design (i.e. a design team consisting of workers, technicians and cadres, working together throughout a whole process).

Through criticizing Lin Piao and Confucius, the practice of "self-reliance", "Three-in-One" combination on-the-spot design and the revolution of architectural education were carried further during the Post-Cultural Revolution Period, (1971-1975). The urban and regional planning as well as the rural communes presented during this period are in a more mature form.
The reason for examining architectural practice in China, rather than on the architecture form, is because the practice more clearly shows the struggle for socialist architecture in China during the different periods of its history since 1949.

The class struggle in China is by no means over. The class struggle between the proletariat and the bourgeoisie, between "Technique in Command" and "Politics in Command" in architectural practice will continue to be long and tortuous. The only way for the proletariat to transform China in both the ideological field and in terms of political force is, according to their outlook, through continuous struggle, not only in the past and the present, but also in the future.
Appendix A-1

CHANGES IN THE ARCHITECTURAL JOURNAL

The earliest volume of Architectural Journal available for this thesis is No. 2, 1954. The journal was not published during the Cultural Revolution (from 1967 to 1972), but publication resumed in 1973. The changes both in the content and editorial approach of this journal reflects the practice of architecture and the political influences in the People's Republic of China. These changes may be summarized as follows:

(A) CHANGES IN COVER.

Only the title, volume number and year were printed on the covers of the Architecture Journal during 1954, 1955, and 1957. The type set of the characters of the title was different from those published after 1957.

During the period of the Great Leap Forward, (from 1958 to 1960), pictures of factories, public buildings, sketches of houses, interiors and plans for cities appeared.

In the struggle between revisionism and socialism, (1961-1966), more issues on housing, public buildings and surveys of traditional architecture appeared on the cover consistent with the contents of the journal during this period. Some of the
sketches that appeared on the cover were rather abstract and unnatural. The architectural form of the public buildings of this period reflected the strong impact of the Soviet Union, coincidental with the development model which China followed before 1966.

The covers during the period after the Cultural Revolution contained photographs of factories, construction sites, urban and rural housing, and public buildings built during or after the Cultural Revolution. These photographs show the fruits of Chinese economy which became fully developed during the past 13 years.

An overall impression from these covers is that factories, instead of being hidden away from sight, have been looked upon as a sign of the country's economic development. Large scale housing (such as the housing for a productive brigade of a factory) and public buildings are considered of greater value than private, individual projects, and are consistent with socialist values.

(B) CONTENTS

In No. 2, 1954, fifty percent (4 articles) of the articles were translated. All of the translated articles introduced the architecture of European socialist countries and criticized the capitalist architecture of West Germany. The other articles
discussed the National Form Revival, criticism and self-criticism among architects. (see Chart A)

In the 1957 edition of the Architectural Journal, there are a total of 40 articles (35.4%) containing theoretical discussions on architecture and on political issues. Twenty-three out of these forty were on anti-rightist issues, primarily in the issues of July, September and November, which correspond to the Anti-Rightist Campaign in June, 1957.

Thirty seven articles (26.3%) in 1958's A.J. focused on factories, and 16 articles discussed the planning and design of the people's commune. These articles all corresponded to the Great Leap Forward.

In the issues of 1961, fifty-three articles (39.3%) focused on construction and engineering. Most of the constructional problems discussed were relevant to building factories.

In the volumes for 1962 and 1963, more articles (25% in 1962, 28% in 1963) were on housing issues, including dwelling surveys of various locales, and on rural and traditional architecture. The theoretical discussions tended to focus on traditional architecture.

There was growing attention to public buildings during the period of 1961 to 1964 (8% in 1962, 19.8% in 1963, 26.2% in 1964), and similar attention is found in the translated articles (3.7% of translated articles in 1961, 5.4% in 1962, 9.5% in 1963 and 10% in 1964 focused on public buildings)
This reflected the struggle between the Revisionism and Socialism that was occurring in China at this time.

In 1966, only the volumes from January to May were available, (Mao's instruction on Cultural Revolution was in the June, 1966 edition). The theoretical discussion of political issues rose to 40.6% while the number of translated articles dropped to zero (and it has remain at zero since that time). The importance of workers' participation in architecture began to be realized.


The volumes published after the Cultural Revolution have no translated articles and a large portion of the published articles are evenly distributed among various topics, with the emphasis that "Politics should take command". The articles reflected the experience of workers, and especially those who worked on urban and regional planning.

(C) AUTHORS

Before the Cultural Revolution, most of the articles were written by individual intellectuals or technicians, and some of them were translated articles. But after 1966 (and the Culture Revolution) more articles were written by groups, some even
by worker-peasant-soldier authors, and with abundant practical experience, scientific and technical research, and Marxist-Leninist-Maoist study.
**Appendix A-2**

**CHART A**

**QUALITATIVE & QUANTITATIVE CONTENT ANALYSIS OF ARCHITECTURAL JOURNAL FROM 1949 TO 1975**

<table>
<thead>
<tr>
<th>POLITICAL PERIODS</th>
<th>PERIOD OF RECONSTRUCTION</th>
<th>TRANSITION</th>
<th>THE GREAT LEAP FORWARD</th>
<th>STRUGGLE BETWEEN REVISIONISM &amp; CONSERVATISM</th>
<th>POST-CULTURAL REVOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO. OF ARTICLES IN ARCHITECTURE JOURNAL</td>
<td>ARCHITECTURAL JOURNAL</td>
<td>AMOUNT &amp; RATIO OF TRANSLATED ARTICLES</td>
<td>IMPACT FROM THE GREAT LEAP FORWARD</td>
<td>STRUGGLE BETWEEN REVISIONISM &amp; CONSERVATISM</td>
<td>CRITICISM ON LIN-PAN &amp; POLITICAL PERIODS</td>
</tr>
<tr>
<td>NUMBER</td>
<td>8</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>AMOUNT</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>RATIO</td>
<td>33%</td>
<td>40%</td>
<td>38.5%</td>
<td>37.5%</td>
<td>37.5%</td>
</tr>
</tbody>
</table>

* Amount & ratio of translated articles is compiled from the total number of articles and the percentage figure thus obtained do not conform to the summation of the selected categories listed below.
Appendix A-3
RESOURCE DATA OF CHART A

CHINESE ARCHITECTURE JOURNAL:

The volumes listed below are the ones available at the university library collections of Harvard Yenching, Rotch, and Stirling (Yale University).

1952 -- No.2
1955 -- No.2
1957 -- No.1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.
1958 -- No.1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.
1959 -- No.1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.
1961 -- No.8, 9, 10, 11, 12.
1962 -- No.1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.
1963 -- No.1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.
1964 -- No.1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.
1966 -- No.1, 2, 3, 4, 5.

(The publication of Architectural Journal was ceased during the period of Cultural Revolution.)

1973 -- No.1.
1974 -- No.1, 2, 3, 4, 5, 6.
1975 -- No.1, 2, 3, 4.
THE COVERS OF ARCHITECTURAL JOURNAL : (1954 - 1975)

The dimensions of the covers are $8\frac{3}{4}'' \times 12''$, with the single exception of the 1954 issue ($8\frac{3}{4}'' \times 13''$). Some of the covers were not included because the technical difficulty in photo production.

The covers of Architectural Journal during the First Five-year Plan (1953-1957) were simplicity itself and devoid of any graphic design.
Vast majority of the covers of the Architectural Journal during the Great Leap Forward (1958-1960) were illustrated with pictures of public buildings. (issues No.5,9,12 of 1958 and No.1,4,9-10,11,12 of 1959)

Factories (issues No.2,5, of 1958)

Housing (issue No.4,7,8,10,11, of 1958 and No.3,6,7,8 of 1959)

It is interesting to note that the covers of No.1,13,4, in 1959 exhibit more abstraction, and that the covers of No.3,5,6,8, 10,11 in 1958 are graphic sketches.
In the struggle between socialistic and revisionistic lines (1961-1966) the covers of Architectural Journal were devoted primarily to the housing issue (1961, No. 8, 12, 1962, No. 1, 2, 3, 5, 6, 9, 10, 1963, No. 2, 3, 4, 9, 1964, No. 1, 2, 4, 7, 8, 11-12) most of these covers were graphic sketches.

The remainder were of public building (1961, No. 9, 10, 11, 1962, No. 8, 1963, No. 8, 11)

It is significant to point out that both traditional & minority architectural forms were given prominence.
In the period following the Cultural Revolution, the shift in national mood for practical needs were correspondingly reflected in the covers of A.J. in giving special prominence to public buildings, brigade construction & factories. Absent were the esoteric graphic designs and sketches which adorned previous covers, supplanted by the more utilitarian, photo re-productions of actual public and governmental constructions.
Appendix A-5
A Weaving Factory Design During The Great Leap Forward (1958-1960)

(From Architectural Journal No.10, 1957)
A Factory design during the Great Leap Forward.

(from A.J. No.12, 1958)
Appendix A-6 A Layout of People's Commune

The planning of Tsingpeo County and Hongqui (Red Flag) People's Commune (from A-10, 1978)

A people's commune is an organization which controls the industry, agriculture, commerce, education, as well as military and administrative affairs of the area under its jurisdiction. Picture shows the master plan Tsingpeo County (below) and the Hongqui People's Commune (right).

People's commune is an organization which controls the industry, agriculture, commerce, education, as well as military and administrative affairs of the area under its jurisdiction. Picture shows the master plan Tsingpeo County (below) and the Hongqui People's Commune (right).

People's communes use their accumulated funds to buy fertilizer so as to increase production.

Commune members receiving their share of grain.

(Photos from 'A Pictorial History of Modern China')
Appendix A-6  A Layout of People's Commune

The planning of Tsingpso County and Hongqui (Red Flag) People's Commune (from A.J. No.10, 1958)

A people's commune is an organization which controls the industry, agriculture, commerce, education, as well as military and administrative affairs of the area under its jurisdiction. Picture shows the master plan Tsingpso County (below) and the Hongqui People's Commune (right)

- industry
- power plant
- fishery
- residential point
- proposed new residential point
- commune center
- river
- road
- commune boundary
- county boundary
A Comprehensive Plan of Hongqui People's Commune of Tsingpso County.

River
Existing residential area
Greens
Future Residential area
Industrial area
Warehouse area
Farm land
Residential Point
Fishery
Hills
Woods
Roads (inter-province)
Roads (inter-county)
Boundary of industrialized area
Cemetery
Sanatorium

(LEFT) People's communes use their accumulated funds to buy fertilizer so as to increase production.

(BELOW) Commune members receiving their share of grain.

(photos from "A Pictorial History of Modern China")
Planning of Hsiao-tsao Residential Point of Hongqui People's Communes (scheme 2)

1. toilet  2. dining hall, laundry room & bathroom  3. nursery
4. agriculture machine shop  5. stores  6. office, auditorium
   and recreation room  7. clinic  8. home for destitute old people.
9. elementary school  10. kindergarten
11. open-air theater  12. parking lot  13. information gallery
14. dock  15. transformer  16. athletic field
17. water supply station.

Residential Units

Appendix A-8
A Survey on Minority Dwellings.

A Survey of "Tibetan Dwellings on the snow-Glad Mountain & Meadows"
-- by Hsu Shang-zhi and others.
(From A.J. 1963, No. 7.)
Appendix A-9

Rural Dwelling Design
(1961-1966)

Student's Work:
"A Rural Dwelling Design"
(from A.J. 1963, No.11.)
A SURVEY ON THE NEW RURAL HOUSES IN MIYUN

( BY THE RURAL HOUSES DESIGNING GROUP OF PEIKING BUILDING DESIGNING INSTITUTE. A.J. NO.10, 1962 )

SECTIONS & PLANS

COURT PLANS
1. hall & kitchen
2. bed room
3. shed for pigs.
4. court.

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A SURVEY ON THE NEW RURAL HOUSES IN MIYUN
(BY THE RURAL HOUSES DESIGNING GROUP OF PEIKING BUILDING DESIGNING INSTITUTE. A.J. NO.10, 1962.)

CONSIDERATION FOR VENTILATION AND SUNNINESS.

JOINT DETAIL OF THE WINDOW FRAME.

HEATING SYSTEM
STOVE - KHON (BEDS) - CHIMNEY
RURAL HOUSES WITH REINFORCED CONCRETE STRUCTURE

( BY THE RURAL HOUSES DESIGNING GROUP OF PEIKING BUILDING DESIGNING INSTITUTE. A.J. NO.10, 1962 )

AREA: 56.78 - 96 M²
CONCRETE: 7.8 - 10 Kg/M²
REINFORCEMENT: 8.25 Kg/M²
THE RENEW PLANNING OF CHENG STREET, I-MIAO DISTRICT, SHANGHAI
(fig. from A.J. No. 11, 1958)
Appendix A-10
Public Building during the Cultural Revolution

"The Capital Indoor Stadium"
(from A.J. No.1, 1973)
HEAD-TOWER OF THE NANKING YANGTSE RIVER BRIDGE

The Nanking Yangtse River Bridge, built during the Great Proletarian Cultural Revolution, is a double-decker rail and road bridge. The span from tower to tower is more than 1,500 meters long.

A competition was held for the design of the bridge head-tower and 58 schemes were submitted during the competition. The final design was worked out after synthesizing and improving the various schemes. The final design takes the “three red banner” as the motif symbolizing that the Chinese people, holding aloft the red banners, are marching forward under the leadership of the Chinese Communist Party.

ABOVES: sculptures and the head-towers of the Nanking Yangtse River Bridge.
BELOWS: schemes submitted during the competition of the bridge head-tower design.

(photos from A.J. No.1, 1973.)
Appendix A-11

Planning of Living Quarters during the Cultural Revolution
The Living Quarters of Nanking Mei San iron plant was constructed during the period of Cultural Revolution under the direct supervision of a consortium composed of cadres, workers, and design technicians. (the so-called 'three-in-one' approach.)

from Architectural Journal No.1, 1973
Appendix A-12  The Construction of Factory during the Cultural Revolution.

The construction of the Peking General Petro-Chemical Works was started among hills in the high tide of the Great Proletarian Cultural Revolution. Inspired by the general line for building socialism and following the spirit of self-reliance, the builders erected, within a short period of several years, 15 refinery installations which have been put into production. (photo from A.J. No.1, 1973)
Between 1964 and 1974, China's industries had made rapid progress and laid for China a solid foundation for economic development.

The population has been increasing 60% since the founding of the People's Republic while the grain harvest has been increasing 100%. With the population 800 million, China now is not only self-sufficient but has excesses in food supply.
"THREE IN ONE" COMBINATION

In the editorial of Hongqi (Red Flag), No. 5, 1967, Chairman Mao Tse-tung has pointed that, in those places and organizations where power needs to be seized, the policy of the revolutionary "three-in-one" combination must be carried out to establish a provisional organ of power that is revolutionary and representative and has proletarian authority. This organ of power should preferably be called a revolutionary committee.

The "three-in-one" combination is composed of leaders of the revolutionary mass organizations truly representing the broad masses, representatives of the People's Liberation Army units stationed in the area, and revolutionary leading cadres. In the practice of Architecture, the "three in one" combination is composed of architecture workers, technicians and cadres, and the relationship among the three cooperating parties is carried through from the design process to the working site, and includes the later feedback.

The reason for the integration of revolutionary cadres and revolutionary masses into the architectural process is clearly pointed out in Mao's essay.
"Some Question Concerning Method of Leadership":

However active a leading group may be, its activity will amount to fruitless effort by a handful of people unless it is combined with the activity of the masses. On the other hand, if the masses alone are active without a strong leading group to organize their activity properly, such activity cannot be sustained for long, or carried forward in the right direction, or raised to a high level.

Articles published in the Architectural Journal after 1973 such as:

"Grasp Firmly and Make Good Use of Criticizing Lin Piao and Confucius, Do a good job in 'Three-in-one Combination' on-the-spot Design ",

"Ten Years of Upholding 'Three-in-one Combination' on-the-spot Design ",

"Symposium about the Design Revolution ",

"The Reactionaries Want Capitalist Restoration! We Workers will Square Accounts with them! ",

"Is it to 'Add sand' or to 'Pick out Sand'." written by workers, revolutionary cadres and engineering technicians reflect from different perspectives the abundant fruits borne in the design revolution.

For a further understanding of the 'Three-in-one Combination, it is very helpful to read the experiences of different groups of people who have participated in the 'Three-
in-one Combination' on-the-spot design. These experiences are described in the excerpted articles below:

(I) Join in the Design Revolution Enthusiastically

by Lo Chen, a bricklayer of the construction company at Yueh-Yang area of Hunan Province.

The great instructions of Chairman Mao regarding the design revolution has brightened the correct line of design, which integrates the broad workers with both the cadres and the engineering technicians in order to march in the socialist direction.

We have a deep impression of the history of our struggle to participate in the design revolution. Workers like us used to be looked upon as the "stupid, low class people" by the anti-revolutionary ruling class of the past. Lin Piao and Liu Shao-chi, the "agent" of the landlords and the bourgeoisie in our party, proclaims such theories of Confucius as "mandate of heaven", "those who labour with their minds are superior to those who labour with their hands" for the purpose of driving the labouring people to serve the reactionary ruling class as slaves forever, and to cheat the labouring people who suffering oppression and exploitation
willingly. The reactionary line tried to introduce the admiration of the authoritarianism and of everything from the west. This line also alienated the design technicians from the correct politics of the proletariat, the masses, and reality. It also closed the designing door upon us, made us become nothing but the slaves of the working drawings. The reactionary line of Lin Piao and Liu Shao-chi brought a tremendous threat indeed to the construction of our socialism.

In answering the great call of Chairman Mao on November 1, 1964, the design technicians walked out from their office buildings, went to the factories and working sites to work out the designs with us. And the practice of our joining in the design revolution has proved the value of "Three-in-one" on-the-spot design. Our company once undertook a project of 10,000 tons cooling system and storage area, with about 10 hidden drainers underneath the main storage. The original design for this drainage system was by digging a deep well and providing a set of motors to exhaust the drainage water. Thus, it would have required a back-up motor for and two operating workers. During the construction, we found the east ground of the main storage area was lower in level than the hidden drainers. Thus taking advantage of the nature of eastern slope of the piping in the drainage system would certainly speed up the construction. We brought this suggestion to the on-the-spot conference. After the surveying the
area with the technicians, the design was changed. This improvement has reduced both the time and cost of the construction and saved at least 5,000 dollars a year in maintenance costs.

There were also some other experiences, such as in the projects for the machinery house and the slaughterhouse. Some foundations were 5 meters in depth and some were in belt or linking foundations. In reviewing the construction design, we made our suggestion according to our experience to adapt the point (columnar) foundation. Then we went through the study with the technicians and improved the original design. This improvement has saved the Nation 27,000 dollars, reduced the materials needed, and simplified the construction. We also tackled more complicated technical problems such as the anti-acid treatment for the metal surface of a drying machine in a wood machinery house and the appropriate weight for the material splitting from the inner surface of a spray furnace at a paper factory.

We workers rely neither on "superstition", nor on "genius" to solve a problem. The "three-in-one" combination, through integrating and experimentation the intelligence of workers and technicians is the best tool we have in mounting the historical stage of the superstructure. In criticizing Lin Piao and Confucius, we realize our duty as archi-
Architecture workers, to do a good job in "Three-in-one Combination" on-the-spot design, to integrate the workers with intellectuals to combine the theory with practice, and to preserve the principle of building up the country through diligence and frugality in architectural design.

(II) "Is it to 'Add Sand' or to 'Pick Out Sand' ?"

--- A letter from Worker Chang Teh-Jen Concerning the Workers' Expulsion from the three-in-one Design Revolution.

This letter was first published by the People's Daily News, on March 28, 1974, and was re-published in the Architectural Journal (issue No.2, 1974)

(People's Daily News) 'EDITOR'S NOTE:

The participation of the workers, "adding sand to the intellectuals", is a new dictum emerging from the proletarian Cultural Revolution, and should be supported enthusiastically by all revolutionaries.

Today, in criticizing Lin Piao's and Confucius' doctrine of "Restrain Oneself and Restore the Rites", we should go further to discern the struggle between the classes and between the two lines. We should be aware of whether it is to "Add Sand" or to "Pick Out Sand".
During two years of this design research team's existence, we inaugurated a short term (40 days) design class, the intellectuals introduced their theoretical knowledge while we gave our practical experience. We tried to integrate theory with experience. In the design process, workers proved their function of "adding sand" by offering many heuristic working drawings. In deference to the intellectuals the research institute ignored the contribution of the workers. They thought that the workers, lacking diploma and a degree, should not remain at the institute. They used the pretext of upholding the quality of the institution to dismiss the workers. Thus, 70% of workers were dismissed and the "three-in-one Combination" program was actually discredited. Some workers were righteously indignant and declared: "We came here to add sand but like sand we are picked out again."

I was one of the dismissed workers, but I refused to comply the wrong guidance and insisted upon remaining on the team. I realize that, being an ordinary worker, I need to learn politics and to improve myself in the professional field to meet the needs of the revolutionary design. I have the confidence and determination to effect a synergistic fusion with the revolutionary intellectuals. We shall learn together, work together, and insist on the road of Chairman Mao's Proletarian Revolution.

Chang Teh-Jen
worker at Nankin Oil Factory
Editor Comrade:

I want to report to the party about the expulsion of workers from the architectural design group which, in my judgement, reflected the struggle of the two lines in the field of design.

In order to improve the design team, and to promote the workers' impact, our section resolved to adopt a scheme of "Adding Sand" into the design team. In 1971, our section invited a group of veteran workers from other oil refineries throughout the country. These workers are progressive in politics and possess broad practical experience. The "Three-in-one Combination" design team of the First Oil Company was composed of cadres, technicians and these experienced workers.

These workers were soon to be ostracised and expelled by the other members after their participation in the design team. When confronted with professional problems, we the workers were considered to have no concept of the design and were supposed to follow the intellectual's pronouncement. We did not receive equal treatment in politics, and were not allowed to attend the meeting.
According to our investigation, there were originally 96 person sent in the research institute in November 1971. This group was composed of 5 cadres, 78 workers, and 13 technicians. Now, three years later, 4 cadres and 56 workers were sent away but most of the technicians were permitted to stay.

The leaders of the institute undermined the importance of workers' participation in revolutionary design. They not only viewed the workers' suggestions with disdain but were also imical to the workers' needs. (Workers even met unwarranted difficulty when they wanted to send their children to kindergarten. Some workers did not know how to draw and were criticized by the technicians who said disparagingly "If you know nothing about drawing, then what are you doing at here," 70% of the workers had been expelled. Comrade Chang was among those sent away. Comrade Chang considered the act of dismissing the workers from the design team as contrary to Chairman Mao's revolutionary guidelines, he insisted on staying and protested by posting two wall posters. But the party committee at this institute slighted comrade Chang's vociferous protests, some members even said: "If you have a different opinion, you can talk to the leader. Posting the Wall poster is too serious."
The fact of the matter is that this group of workers did make many concrete contributions to the surveying, project discussion and the design review. Some even designed independently by applying their abundant experience to the design processes. Sometimes they described the situation of the working site and tried to achieve a mutually beneficial working relationship with the technicians. They introduced many workable schemes, and about one fourth of the workers could make preliminary design and work sketches, and one third of the workers could perform calculations while other workers contributed heavily in surveying, making the schemes and the eventual construction.

As the movement of criticizing Lin Piao and Confucius spread, the party committee of this institute begin to realize its mistake. It is not only a manner toward the socialist new thing, i.e. participation of workers in architectural design; but also a struggle between the two lines. The party committee decided to mobilize the masses, to expose the contradiction and solve the problem, and to insist on Chairman Mao's proletarian revolutionary line in their design revolution.

PEOPLE'S DAILY NEWS
(March 28, 1974)
In the design field, if the thought of proletariat does not take over, the thought of bourgeoisie will try to take advantage of the situation.... Being a leader, I realize that the duty which the party gives us is to carry the design team in a correct direction. In the process of this design revolution, I have learned and I realized that main factor in a mistake is the leadership. Therefore, we ceaselessly try to reform and improve our thought while we lead the design team to change the objective environment....
APPENDIX A-15

THE CONTINUING REVOLUTION IN EDUCATION

The great proletarian Cultural Revolution in education erupted from a bulletin board at Peking University on May 25, 1966, when Nieh Yuan-tze, a woman philosophy instructor, accused the university president of being an obstacle to China's development. —By 'guiding' the masses not to hold big meetings, not to put up big-character posters," she wrote in a defiant big-character poster "and by creating all kinds of taboos, aren't you suppressing the masses' revolution, not allow them to make revolution, and opposing their revolution? We would never permit you to do this!"

A week later, on the instructions of Mao Tse-tung, her challenge was broadcast throughout all of China and was quickly taken up, first by students, then by workers, peasants, and soldiers. Thus began a nationwide movement to make culture serve the people instead of nourishing a new elite.

The issues raised about schools during China's Cultural Revolution are: Who should run the schools? Who should be admitted to college and on what basis? What should students study? Whom should education serve?
The question of who is to run the schools in the people's Republic provoked an intense struggle. There were those who viewed education as the royal road to officialism and the good life, essentially to serve the interests of a few, and those who sought to make the schools serve the interests of the vast majority.

Admissions policies came under attack as part of the same struggle. Who should go to college? Should entrance exam be based on "book learning," favoring those whose social background made it easier to get good grades? Or should admissions be geared toward workers and peasants, based more on practice knowledge, on attitudes toward manual labor and on the students' willingness to meet the needs of their communities and their co-workers?

And what should the content of education be? The old elite wanted to shape the education in the image of the old society: rote memorization, imported western curricula, requirements divorced from any practical or social purpose. The revolutionaries, believing that practice and not the printed word is the fundamental source of knowledge, called for education to be more closely linked with China's needs in farm and factory.
With much confusion at first, then with increasing clarity, millions of students, teachers, workers, and peasants -- many of whom were communist party members -- set about transforming China's schools at every level. One of the sharpest lessons to emerge from the profound upheaval of the Cultural Revolution is that what is taught in school and who gets educated depends on who runs the society. Hence the recent campaigns to topple the influence of the elitists Confucius and Lin Piao. Hence also the current campaign to strengthen the rule of the working class and spread socialist values among the people.

Running the school with the door open is playing its part in the struggle, drawing both teachers and students into what Mao Tse-tung calls "the three great revolutionary movements -- class struggle, the struggle for production, and scientific experiment." It is broadening horizons, reducing the gap between town and country, between industry and agriculture. By strengthening the roots of China's students and teachers among the working class, it is helping to raise a generation of revolutionaries who will buttress socialism.

The following articles are summarized from the Peking Review, January 1976, No.1,2,3, the authors were a party worker, a worker-peasant-soldier-student, and a teacher. Together these articles illustrate some of the major aspects of the revolution.
of architectural education.

(I) An Example of Open-Door Education

by Cheng Shih-yi
Peking Review, 2, January 1976, No.1, page 15
This is the first of the three articles written respectively by a Party worker, a student and an associate professor of Tungchi University in Shanghai on various aspects of the revolution in education there. -Ed.

More than 2,000 students attend Tungchi University in Shanghai, a polytechnic university where civil engineering and architecture are the major studies.

Chairman Mao pointed out in his May 7, 1966 Directive that while students' "main task is to study, they should also learn other things, that is to say, they should not learn book knowledge, they should also learn industrial production, agriculture production and military affairs. They also should criticize and repudiate the bourgeoisie. The length of schooling should be shortened, education should be revolutionized, and the domination of our schools and colleges by bourgeois intellectuals should not be tolerated any longer. Acting on this directive during the upsurge in the great Cultural Revolution in 1967, The department of architecture and architectural engineering in our university, the Shanghai No.2 Building
Company and the Shanghai Designing Institute of Industrial Building jointly set up a centre to gather experience for educational revolution. To show their determination to carry over the revolution in education according to Chairman Mao's important May 7 Directive, the workers, teachers, and students called the experimental centre the May 7 Commune which now has three specialities -- industrial and civilian building, architecture and city planning.

In the course of the Great Cultural Revolution, teachers and students rebelled against Liu Shao-chi's revisionist line and vehemently criticized it. They broke through the confines of the university, integrated with the workers and peasants and vigorously launched a revolution in education. Open-door education is one of the new things emerging from this revolution.

Open-door education's main purpose is to promote the teachers and students to take part in physical labor at construction sites so that they would not be divorced from labor and the workers. This helps the working class to educate and influence them with the Marxist-Leninist viewpoint and with its thinking and feelings.

Linking theory with practice, as Chairman Mao's teaches, -- "until an intellectual's book knowledge is integrated with
the practice, it is not complete, and it may be very incomplete indeed" -- is another goal of the open door education....

Take industrial and civilian building for instance. Students majoring in this are first required to take part in building a house and get a lot of perceptual knowledge in this field. At the same time they learn the basic knowledge of house building. On the basis of practice, they are asked to design relatively simple civilian buildings. After this, they concentrate on learning theoretical knowledge so their perceptual knowledge can be developed into rational knowledge. Then they take part in building one of the projects they have designed and test in practice the correctness of the theory they have learned. During the entire study period, the students study while working, and first designs simple and then complicated civilian buildings. Afterwards they switch their subject of study to industrial buildings. Thus, theoretical study is carried out on the basis of practice and the principle of linking theory with practice is implemented throughout the teaching.

In the process of open-door education we have set up short-term workers' training classes at work-sites, helping the workers to study Marxist-Leninist works and scientific knowledge in construction.... In one case third-year teachers and students of the industrial and civilian building speciality set up short-term training classes at an industrial base where
building work was in progress. Nearly 400 workers enrolled. They were divided into 13 classes according to their trades and taught different subjects with remarkable results....To train worker-designers, we have joined efforts with building teams and are designing an institute to organize a workers' designing group composed of veteran workers with rich practical experience. Studying while working, these workers have become technicians with both practical experience and designing ability.... These arrangements have further solidified ties between teachers and students on the one hand and workers on the other, and helped the teachers and students learn from the working class and remould their world outlook....

In the seven years since open-door education was introduced, teachers and students have designed more than 130 projects for the state, including 28 key construction projects. Total designed building floor space was 230,000 square meters, of which 170,000 square meters have been completed. Teachers and students also have undertaken 28 fairly important research items and most of the results obtained have been applied in production.
I am 26 and was born in a worker's family. In 1968 I finished junior middle school and, in response to Chairman Mao's call for "young people with education to go to the countryside to be re-educated by the poor and lower-middle peasants, "I settled in the countryside. Later, I was selected to become a construction worker. In 1972 the workers nominated me to attend the May 7 Commune of Tungchi University.

The Party leadership and comrades impressed upon me that after I started at the university my task was not only to study well but also to help run the university and use Marxism-Leninism-Mao Tse-tung Thought to transform it...

Education is a component of the superstructure and has always been an instrument of class dictatorship. For thousands of years, schools were monopolized by the exploiting class. This state of affairs had not fundamentally changed in China before the great proletarian Cultural Revolution. In those days the revisionist line of Liu Shao-chi was dominant and schooling was seriously divorced from proletarian politics, productive labor and the masses. Workers, peasants and soldiers

-137-
could not attend university as they could not meet the requirements in "examinations", "grades" and other restrictions....

After the Cultural Revolution got under way, the proletariat seized the leadership in the educational departments and began changing the old universities according to the image of the proletariat.... Some people consider that the management and the transformation of the universities is the task of the university authorities. Students should merely study well. This is wrong. The leadership does play a crucial role in the management and transformation of the universities, but the worker-peasants-soldier-students are an important force....

How do we take part in managing and transforming the universities?

Take part in the leadership. Chairman Mao has taught us: "The Chinese Communist Party is the core of leadership of the whole Chinese people. Without this core, the cause of socialism cannot be victorious." For the worker, peasant and soldier, students to take part in managing and transforming the universities, they also must be under the party's centralized leadership. To bring into play the role of worker-peasant-soldier students in managing and transforming our universities under unified leadership of the university Party committee, they have representatives in the party organizations and revolution-
ary committees at the university and at the departmental level, with three-in-one leading groups made up of old, middle-aged and young cadres, teachers, members of the workers' and People's Liberation Army (P.L.A.), Mao Tse-tung Thought propaganda teams and students.... Representatives of workers -peasants- and soldier-students make up one-sixth of the university Party committee. There are also mass organizations like students' associations at both the university and departmental levels through which the students manage their own affairs and educate themselves. There is a Party branch, a class committee and other respective organs at the university or departmental levels. Thus the management and transformation of university by worker -peasant-soldier-students is guaranteed organizationally and as far as leadership is concerned.

Student representatives keep close tabs on development in the revolution in education and can forward students' demands and opinions at all times to the departments concerned. Leading organs and mass organizations at various levels meet regularly to discuss and study opinions and suggestions from students and staff workers, accepting those that are correct to improve their work....

At any time, any student can tell or write the university leadership their opinions, demands and suggestions on the
work of the university. The leadership pays great attention to these opinions and frequently convenes forums or speaks directly with students and hears their opinions.

Big-Character Poster, this new weapon created by the Chinese people, was fully put to use during the Cultural Revolution. We worker-peasant and soldier-students frequently use this form to make known our views on the revolution in education....

(III) Three-in-one Teachers Contingent

by Fu Hsin-chi
Associate Professor at Tungchi University.

According to the Party's policy that "education must serve proletarian politics and be combined with productive labor," the first group of worker-peasant-soldier-students were enrolled in 1969. Lessons were given at the work-sites and teaching was integrated with the designing of the projects and actual construction. I began taking part in teaching activities at a work-site for the first time.

A 1947 graduate of the civil engineering faculty of Tung-chi University, I have taught architecture here more than 20
years. However, after I got to the work-site, a whole series of problems confronted me in combining theory with practice in teaching....

In the past, I always had taught inside a classroom. Once the bell rang and class was over I took over my things and left. At the work-site, I continued with my old habits. I lectured several times on the construction of eaves for sloping roofs. Each time I covered the blackboard with drawings and thought I was being very conscientious. However, the students were dissatisfied. They said: "You're just drawing on the blackboard but the work-site is just outside the door. Why not go out and have a look?" I felt the students had a point there but I was not at home in the building site and was afraid of making a blunder and making a fool of myself.

A member of the workers' Mao Tsetung Thought propaganda team taking part in the teaching said to me: "You need not be afraid. It may be strange to you at first but it will be familiar the second time. This time I will set you an example." He took the students along to work at putting up the sloping roof, nailing the battens and putting the tiles on. He taught roof construction as they worked. The students were very satisfied with this way of teaching:...
Making a class analysis of the original body of teachers, the university Party committee saw that we teachers either were from the old society or trained before the Great Proletarian Cultural Revolution when the revisionist line held sway in the old schools and colleges. The majority of us were willing to serve socialism and integrate with the workers and peasants, but we had been quite deeply influenced by the bourgeoisie, thus for us, theory was divorced from reality, our world outlook was fundamentally bourgeois and our ideological remoulding required time. In order to carry the proletarian revolution in education through to the end, it was necessary to infuse new blood into the original body of teachers.

The university Party committee invited workers from production units to teach at the university and at the same time asked comrades from a design institute to teach designing. Worker-teachers have a rich store of practice experience, the original teachers have more book knowledge and the designers are experienced in their special work. Each had what the other lacked and they formed a new force with more than 280 original teachers, 14 worker teachers and 10 designers of engineering projects; in addition, there are more than 100 part-time worker-teachers who have at one time or another taught in out "May 7" Commune.
In my contacts over the past few years with worker-teachers, I have profoundly felt that their consciousness in class struggle and the two line struggle is high. In teaching, they firmly implement Chairman Mao's instruction on the proletariat running education, support newborn things, i.e. newborn things resulting from the Cultural Revolution, and continually criticize and resist bourgeois and revisionist trends.

In order to effect the change from theory that is divorced from reality, we link what we teach with typical projects....

Because of the influence of the old education in the past, I had frequently used the "Knowledge" I had acquired to win personal fame and gain. I worked before liberation for a private building firm, actually I was selling my "Knowledge" in the service of a capitalist. After liberation, when the revisionist line in education held the dominant position, this "Private ownership of knowledge" concept of mine was throughly changed. I thought the fame and gain was the result of possessing knowledge and felt very pleased with myself. The Cultural Revolution swept away old ideas and also washed away my "private ownership of knowledge" concept.
We old teachers, besides diligently remoulding our world outlook, now pay attention to imparting political-ideological education to the students, putting politics in command of professional work. We take the students on visits to workers' residential quarters, to see the old shanties workers lived in before liberation .... The students thus make an investigation of residential buildings and also get a lesson in class education. Thus when they are designing buildings, they will not regard it merely as technical work but will do it with class feelings and wholeheartedly serve the people. At the same time we use ourselves as examples of victims of the revisionist line to educate the students .... I took my students along to the building I had designed and spoke of the lesson I had learned and criticized the revisionist line. The students were given a memorable lesson on line struggle in education.

There are over 30 other old teachers like myself in the original body of more than 280 teachers. To varying degrees, most have made progress under the teaching of the Party through taking part in the Great Proletarian Cultural Revolution, criticizing the revisionist line and going to building sites and villages to be re-educated by workers and peasants....
Appendix A-16

Rural Housing in Post-Cultural Revolution Period.

"Ta-chai Production Brigade" (from A.J. No.6, 1974)

1.residential area
2.nine years' elementary school
3.hospital. 4.day care center
5.agriculture machine shop.
6.water pool for running water.
7.reception station
8.guesthouse. 9.auditorium.
10.co-op. 11.post office
12.restaurant. 13.bookstore.
THE POOR CONDITION OF PEASANTS' CAVE DWELLING BEFORE LIBERATION.
HOUSE FOR 1974 GOING TO COUNTRYSIDE STUDENTS
Sha-shih is an ancient city in Hupei Province. Before Liberation, under the reactionary rule of the Nationalist Party, its production was extremely backward and the people there were in dire poverty. It was a consumer city, dirty, declining and all in a mess.

Since liberation, under the guidance of Chairman Mao's revolutionary line, tremendous changes have taken place in Sha-shih. The city had a population of only seventy thousand at the time of liberation, but now it has increased to one hundred and forty thousand. The total industrial output gained in 1973 was 37 times as much as that gained in the early days of liberation. Now its industries range from textiles, printing and dyeing, mechanical engineering to electronics, light, chemical and building material industries. It is no longer the consumer city that it was; it has become a producer city.

With the development of production, a general reconstruction of residential buildings and municipal establishments has been carried out and new buildings have been going up. As a result, the city looks entirely different now. At present, together with the deepening of the movement of criticizing Confucius and repudiating Lin Piao, production and construction in Sha-shih is getting more and more prosperous with every passing day, and the situation is excellent.

Practice has proved that the merits of small cities lie in the fact that they help the reasonable utilization of natural
resources, improve the general industrial layout and give powerful support to agriculture. Besides, the setting up of small cities can help to narrow down the difference between town and country, and between workers and peasants, and is advantageous to the combining of town with country, and workers with peasants. It is good for both production and the protection of environmental hygiene, and gives much convenience to the residents. What is more, it is in conformity with the policy of getting prepared against war.

The following points are what the author has derived from the planning and construction of Sha-shih:

1. In planning the development of a small city, its economic conditions should first be analysed and take into consideration. Its population should be kept under strict control. Meanwhile, organize the street committee to provide more facilities, such as public dining halls, day care centers, market, groceries, etc. The growth rate of population at Sha-shih has now decreased to 2.99%.

2. As to the general layout of the city, it is considered advantageous to divide the city into several functional zones. The division of the city should be based on its actual conditions in order to have better control of industrial pollution. As to the old factories built before the Liberation, they are better arranged now. There has been a strategy for improving the city transportation step by step. During the reconstruction period, the east-west oriented avenue were fully utilized. At the period of Great Leap Forward, the East industrial zone was rapidly developed. The Peking Road was built parallel to the old ones at this period to meet the need of transportation. The old avenues then turned to be used as residential roads.

Sha-shih is a port city and is in linear development along the Yang-tse River. The new transportation belt is built also along the river to avoid adding traffic load to the downtown district. The original part of the city has been fully utilized and gradually reconstructed.
3. The development of a city should be planned with the view of serving and giving powerful support to agriculture in mind. Therefore, in carrying out the city's capital construction, much thought should be given to the question of how to economize the use of land. As little encroachment as possible should be made upon the farming fields and certainly not on the better and more fertile lands. With such policies as industry giving support to agriculture, the combination of workers and peasants and the combination of town and county are all dealt with.
REGIONAL PLAN OF HUAHSI PRODUCTION BRIGADE

1. culture center
2. community meeting rm.
3. food manufactory
4. bamboo manufactory
5. youth dining hall (for educated youth settled down at the countryside.) and temporary day care center.
6. hydroelectricity station
7. elementary school
8. seed storage 9. tractor garage
10. metal machinery
11. agriculture machinery
12. fertilizer storage
13. yard for grain drying
14. grain threshing yard
15. youth activity center.
UNIT PLANS:

UNIT OF TWO BAYS
56 m², for 3-4 people

UNIT OF THREE BAYS
84 m², for 4-6 persons

UNIT OF FOUR BAYS
112 m², for 6-8 persons

HOUSING CLUSTERS ARE SUROUNDED BY RIVER.

YARD FOR DRYING THE GRAINS.
A New Village in the Houdun Brigade
(photos from A.J. No.4, 1975)
GEOGRAPHICAL LOCATION  SCALE : (1/80,000)

SITUATION IN 1958

factory  //  road
administration office  
culture center  
education institute  
institute for children  
hospital  
gymnasium  
park  
service  
enterprise
PLAN FOR CULTURAL PARK (1958)

1. People's Auditorium (built)  
2. Exhibition Hall (plan to build)  
3. Library (plan to built)  
4. Agriculture Exhi. (build)  
5. Children's swimming pool (built)  
6. Swimming Pool (built)  
7. Youth Palace (Plan to build)  
8. Fine Art Center (plan to)  
9. Tea House (built)  
10. skating rink (Plan to)  
11. Gymnasium (Plan to)  
12. Athletic field (plan to)
1. Cultural Park (above)
2. People's Auditorium (left)
3. Exhibition Hall (left below)
4. Socialist Laboring college. (below)
Planning for the Prefectural City of Hsianghuei County in 1958

[Diagram with various symbols and labels for the city plan, including industry area, rivers, canals, public buildings, service centers, cultural parks, green areas, residential blocks, village for overseas, high school, hospital, direction for future development, roads, bus stops, and tree-bordered boulevards.]
POPULATION DENSITY OF THE PREFECTURAL CITY OF HSINGHUEI
(1958)

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<th>Committee</th>
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<th>Population</th>
<th>Area (ha)</th>
<th>Density (population/ha)</th>
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<tr>
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<td>5306</td>
<td>20.30</td>
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<td>9026</td>
<td>34566</td>
<td>173.59</td>
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</tr>
</tbody>
</table>

**TOTAL POPULATION**: 34,566
**TOTAL FAMILIES**: 9026
**AREA**: 173.59 HA
**AVERAGE DENSITY**: 199 person/HA

ROAD SECTION
THE REGIONAL PLAN OF THE HSINGHUEI COUNTY

river & lake
farm land
road
orchard
Industry area
warehouse
residential area
garden
plan for industry
plan for warehouse
plan for residential
plan for road

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OLD HOUSES REMODELING AT THE PREFECTURAL CITY
OF HSINGHUEI COUNTY

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"The Planning and Construction of a New Village in the Huahsi Production Brigade

Plan of Huahsi Production Brigade (before 1963)

- village
- road
- pond
- river and port
- cemetery

- pigsty
- poultry farm
- fishery
- brick kiln
- science research center, fertilizer factory
- cemetery
- cultured pearl center
- vegetable farm
- orchard
- cesspool
- underground irrigation pipes

Existing Plan of Huahsi Production Brigade

by The Investigation Group of the Revolutionary Committee of Chiangying County, Kiangsu Province.

(from A.J. No. 3, 1975)
A New Village in the Hou-chuang Production Brigade.

(from A.J. No.4, 1975)
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