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HOUSING AND URBAN DEVELOPMENT

IN CHINA

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**Including a Report on a Seminar and
Technical Consultation with the Ministry
of Urban and Rural Construction and
Environmental Protection
People's Republic of China
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HOUSING AND URBAN DEVELOPMENT IN CHINA

EXECUTIVE SUMMARY

Although the population of China is 1.008 billion and represents one quarter of the total population on earth, it is not a highly urbanized population. Only 20.6% of the people live in cities compared with 79.2% in the United States. During the past twenty-five years, most of the urban growth has occurred in the largest cities, which are very important to the national economy. In fact, the top 220 cities which contain only 10% of China's population account for 75% of total industrial output by value.

Concentration of the new urban population in the largest cities has created inequalities in terms of services and tension within China. To reduce tension and to create a more equitable distribution of public services, the government has adopted several major goals. A principal goal of urban planning is to restrict the growth of large cities and to stimulate medium and small-sized cities. In the vicinity of supercities, such as Shanghai, the government has established satellite towns to absorb the new urban growth. Rural-urban migration

is discouraged (through a system of residence registration) in order to limit urban growth to natural increase in the population. Population increase in general is being controlled with highly successful programs in family planning.

For much of the past thirty-five years, state investment in urban housing was relatively low, averaging 9.7% of total investment in fixed assets. But over the past five years, the rate of investment has increased dramatically, averaging over 25% in 1981 and 1982. This level of investment puts China on a par with many developed countries. The investment is made by constructing new, high-rise apartment buildings and by upgrading conditions in existing housing stock. In large cities where land shortage is acute, the apartment buildings may be ten to twenty stories high, in small cities they are generally four and five stories high.

The government's goal for the year 2000 is to create a separate dwelling unit for each household averaging 8 m² of living area. To meet this goal, some 1.411 billion m² of building area will have to be constructed at a cost of 19.24 billion yuan (\$8.86 billion US) per year. This figure is almost double the annual investment in housing for the period 1979-1983 when enormous increases in the housing stock were created.

The Central Government will not assume total responsibility for meeting this goal but will encourage other agencies to become active in creating housing. Already the central government's share in

housing activity has declined: from 1980 to 1982 the government's share in housing investment dropped from 32.4% to 19.3%.

Responsibility for new housing will be borne by state-owned and collectively owned enterprises who will create housing, not only for their own members and employees but also for the general market. The enterprises have increased their share of the housing supply market from 62.7% in 1980 to 71% in 1982. Private funds will also be mobilized on an increasingly large scale and the government has begun to experiment in four major cities with the sale of condominiums to private individuals. Funds to pay for these apartments are provided by remittances from relatives overseas, or by savings of individual households. For the time being, however, private ownership represents less than 5% of the housing market.

Housing is a basic necessity of life, heavily subsidized by the government. Most households spend between 1% and 5% of their income on rent. Rental charges average less than five cents per square meter and are inadequate to cover maintenance costs let alone depreciation costs. Government subsidies are not always sufficient to maintain housing structures and consequently there is serious deterioration in housing stock.

Because of its large population, labor costs in China's construction industry are relatively low and material costs are high. A 1981 estimate showed that of 80% of total building production costs, labor accounted for only 7%, machinery 4%, miscellaneous 2% and building materials 67%. Given this ratio, it is obviously much cheaper to

create new housing by rehabilitating old housing stock than by building new structures, because of the large quantities of labor and small quantities of materials involved. The process is being adopted, as we saw in the city of Shanghai, but the general preference among urban planners continues to be urban renewal - demolition and clearance of old housing to make way for new apartment buildings. Construction in general, and housing construction in particular, are segments of the economy which have been unfettered by the new economic reforms in China.

The reforms which have been introduced in the past five years have had a profound influence on the potential for foreign trade and investment in four special economic zones - Shenzhen, Zhuhai, Shantou, and Xiamen. This spring the number of special economic zones was increased by fourteen, including major ports such as Shanghai and Guangzhou (Canton). The new economic zones will make selective use of new scientific achievements to narrow the economic and technological gap between China and the developed countries. Shenzhen is the most spectacular and successful of the economic zones to date.

Thirty-story high-rise towers, mirroring high-rise development in Hong Kong, have sprung up overnight to accommodate the 300,000 residents who flocked into the tiny town during the last four years.

The economic reforms include a myriad of new ideas to encourage individual initiative and to increase productivity. Incentives and bonuses to productive workers represent new directions for Chinese society and they are having a major impact on productivity. The chief

constraints to advances in the economy can be summed up in one word - technology. At the close of the Seminar in Beijing, leaders from MURCEP underscored the need for technical training programs to improve the capability of its personnel. They urged further technical exchanges such as the seminar we had just presented; they proposed technical assistance in the areas of housing management and municipal management; they suggested planning studies that would lead to strategies for foreign investment including feasibility studies for joint ventures with overseas partners in upgrading and preserving historic properties and neighborhoods.

1. INTRODUCTION

A nine person delegation visited the People's Republic of China May 13-27. Mr. A. Massoni, who as Executive Director of the American Society of Consulting Planners led a group of urban planners to China in the fall of 1981, organized the seminar under the auspices of Technical Support Services, Inc. (TSS), Washington, DC. The delegation of professional urban planners, housing experts, and community and economic development specialists, included representatives from the three major international agencies who provide assistance in the urban sector: UN Habitat, the World Bank, and AID.

The host government agency was the Ministry of Urban and Rural Construction and Environmental Protection (MURCEP). MURCEP is

responsible for all central and local government policies relative to planning, residential and commercial construction, public works, preservation and environmental protection. MURCEP invited TSS to structure a comprehensive technical exchange seminar on the subjects of urban redevelopment and urban conservation. The seminar was held in Beijing from May 15th to May 21st; during the second week of the visit, participants were taken to see examples of the problems, which MURCEP must resolve, in Shanghai Sozhou, Guangzhou, and Shenzhen.

The Technical Seminar in Beijing

The technical papers presented at the seminar in Beijing covered a wide range of topics, but the common theme was urban development, housing construction, rehabilitation, and conservation. (The list of delegates and titles of their technical presentations are given in Appendix A.) Case studies illustrated major pitfalls which best North American planners and highlighted some major successes in urban redevelopment.

Mr. A. Massoni, leader of the delegation, reviewed developments in urban planning over the last three decades in the United States. Urban renewal programs in the 1950s and 1960s produced new, affordable housing in inner-city locations, but the programs drew criticisms because of weaknesses in urban design, financial management, and architectural design. The urban renewal programs were replaced in the 1970s, Model Cities programs were

consolidated into the Community Development Block Grant program and the Urban Development Action Grant program. Mr. Massoni gave Reston, Virginia as an example of the new towns approach, popular in the 1970s, where a single developer was responsible for a well planned, large-scale, mixed-use development without assistance from the federal government Department of Housing and Urban Development.

The emphasis on large-scale development projects could be seen in most major American cities in the 1960s, but nowhere more vividly than in New York. Mr. T. Kingsley, former Assistant Administrator for the New York City Housing and Development Administration, revealed the major difficulties in New York's Housing and Redevelopment programs ranging from land acquisition and clearance, through construction and rehabilitation, to rent controls and rent subsidies. The introduction of computerized systems, however, permitted regular reviews and an evaluation process to determine where projects were failing and how they might be rectified.

Weaknesses in the design of urban renewal projects of the 1960s were illustrated in Dr. Young's case study of St. Louis, Missouri. Pruitt-Igoe, a large-scale high-rise housing project, was notorious for its inappropriate physical design and for the social crises which it generated. Less well-known is the change in approach to planning which occurred in the 1970s. Planners in St. Louis adopted an infill strategy which underscored

conservation, adaptive reuse of older buildings, and preservation of each neighborhood's social vitality through small development projects.

The concern for preservation of the nineteenth century cores of American cities was illustrated in Dr. McQuillan's presentation. Conservation activists united with municipal planners and local politicians to breathe new life into a derelict and crime-ridden section of Seattle, Washington. An important lesson of the 1970s in cities such as Boston is that historic districts provide an excellent base on which to anchor new construction projects: residents are drawn back to the inner city, visitors are attracted to the historic core, and these provide the economic base for the creation of new financial enterprises nearby. Historic preservation and urban rehabilitation have been key factors in the revitalization of the inner-city core.

Mr. LaNier distinguished between the concepts of redevelopment and revitalization. Redevelopment is a physical concept covering deteriorated structures, revitalization is a socioeconomic concept involving community services, incentives, and social programs which reinforce community identity. He reviewed the contribution which the historic preservation movement in the US has made to urban revitalization, and gave illustrated examples of imaginative urban rehabilitation approaches in Washington, DC. He also discussed the relevance of shelter upgrading experience in LDCs to the task of urban redevelopment and revitalization.

Several technical papers also gave examples of urban planning and urban rehabilitation in the Third World. Mr. S. Reeve and Ms. C. Carr explained the planning strategies for developing secondary towns in Kenya. Local authorities in Kenya, with limited financial resources and few trained personnel, must bear responsibilities for providing infrastructure and other needs. But the secondary towns are important in the development of regional economies because of close rural-urban linkages and because they diffuse growth in centers other than the primate city, Nairobi. The emphasis in this case study was on management assistance to improve the capacity of local authorities to handle their responsibilities.

The problems faced in Kenya are quite different from those in Indonesia. Mr. Kingsley reviewed some of the difficulties in planning a national urban strategy for an island archipelago. Weaknesses in the traditional master-plan approach were analyzed and realistic alternatives involving time-phasing of project implementation were explained. An important factor in this case study was a proposal for training native personnel and thereby building a continuing capacity for planning and forecasting within the Indonesian government.

The integrated development plan with time-phased projects to achieve urban rehabilitation was also a key element in the presentation on Zanzibar by Messrs. LaNier and McQuillan. This UN Habitat-financed case study represents an example of planning

economic revitalization and urban upgrading in an historic area. Zanzibar demonstrates how historic preservation provides an economic base for infrastructure upgrading, residential rehabilitation, and new economic project development to stimulate the local economy.

Several of the technical presentations focussed on housing finance and bilateral aid programs for urban upgrading. Technical presentations by Ms. Pamela Hussey of USAID explained not only the various shelter programs of the Office of Housing, but also new approaches in determining allocation of financial resources within the urban hierarchy. She spoke about technical assistance programs to help train urban management and housing management personnel in developing countries. Ms. Hussey used a case study on the shelter programs in Botswana to illustrate the effectiveness of the Office of Housing programs. Mr. Hildebrand traced the origins and growth of the UN Center for Human Settlements (UNCHS) since 1978 and explained the various bilateral programs which are available through this organization to assist the provision of low-income housing and shelter upgrading.

Discussions following each paper were so lively among the American delegates that any reserve which existed among the Chinese delegates quickly vanished. The result was a remarkably frank exchange of experience on planning for urban growth and conservation. The American delegates explained that urban rehabilitation has proven much cheaper than new construction

because the cost of materials can be greatly reduced. In China, labor costs are extremely low and material costs account for a very high proportion of construction costs. Consequently, given that the redevelopment of older buildings is much more labor intensive (and less material costly) than new construction, if urban rehabilitation has proved cost efficient in the west, it should prove doubly so in PRC. The MURCEP officials participating in the Beijing seminar seemed not to require convincing on this point; but later visits to sites in Shanghai, Guangzhou, and Shenzhen indicated that provincial planners may not be fully aware of these advantages. The report which follows is drawn from comments made by Chinese officials at the seminar and Chinese planning officials in the cities visited by the delegation. Some notes are also included from magazine and newspaper articles commenting on the most recent policy changes resulting from the National People's Congress which opened a few days after the delegation arrived in Beijing.

2. URBAN GROWTH

China is not a highly urbanized country but the rate of urbanization is increasing. In 1949, the population of cities and towns was 57.6 million (or 10.6% of the total population); in 1982 the corresponding figures were 206.6 million urban residents (20.6% of China's total population). Much of the increase in urban population has occurred in the largest cities. In 1982 there were 20 "supercities" having over one million population

each; 28 cities having from 500,000 to one million; and 71 medium-sized cities with populations in the 200,000 to 500,000 range. These cities are extremely important in the national economy - the top 220 cities (representing only 10% of the total national population) account for 75% of total industrial output by value.

A. Policy

A large proportion of urban growth in the last thirty-five years occurred in cities with populations over 500,000. The concentration of population and industrial activity (50% of the nation's industries are located in these top 48 cities) has created disequilibrium. The provision of basic services - housing, energy, water, communication systems, not to mention land which is very scarce - creates tension. Similarly, these concentrations create massive problems of congestion and environmental pollution. In addition, these cities are highly vulnerable to natural disasters such as floods. Consequently, national policy in urban planning aims to achieve equilibrium by redirecting urban growth away from the large cities.

- A fundamental policy in urban planning is to restrict the size of large cities, to develop rationally medium-sized cities, and to develop fully small-sized cities.
- In the vicinity of the supercities, a policy of stimulating satellite towns has been implemented.

- Rural-urban migration is discouraged in order to limit urban growth to natural increase.
- Population increase in general is being controlled through successful programs in family planning.

B. Implementation

Government efforts to redirect urban growth by stimulating medium- and small-sized cities is monitored closely through land-use controls. All urban plans for cities larger than one million must be approved by the State Council of the central government. New projects, particularly those involved with heavy industry, are located in small- and medium-sized cities. The laissez-faire approach to urbanization and industrial location has been abandoned as the central government seeks to raise the standard of living, the economic activity, and the cultural life of all regions of the country by offering incentives to economic development in the small regional urban centers. In the initial phases of this new strategy, regional urban centers which are well served with transportation lines and basic urban infrastructure, or have access to natural resources for raw materials, may be selected for growth. The decentralization of new industrial projects to regional centers which act as growth poles is a key element in the redistribution of urban growth.

Associated with the stimulation of small urban centers is the policy of creating satellite towns around the supercities. The new policy was exemplified in a briefing by Mr. Gu, Director of Urban Planning in Shanghai. Shanghai's population today is almost 12 million compared with 11 million in the early 1970s. The city has grown by natural increase only, since migration to the city is forbidden. (Shanghai's population declined during the Cultural Revolution and many of those sent to the countryside have not yet returned.) Seven satellite cities were established within a radius of 20 to 80 kilometers from the center of Shanghai and five industrial areas were created around the periphery of the city to absorb the increased urban population. Each new town had a specialized industrial base, e.g. Jiading was designated for metallurgical industries and scientific research, whereas Wusong was built for iron and steel production. These satellite towns range in size from 5,000 to 80,000 and taken together with the city of Shanghai, they form a new regional unit of industrial production.

Rural-urban migration is discouraged in China and is effectively controlled through the resident registration system. Anyone wishing to change his residential registration must have permission to do so, and permission is seldom granted. In addition, rural industries are being developed to encourage people to remain in rural areas. The China Daily reported on May 18, 1984 that 4 million jobs for rural workers

had been created in Jiangsu Province - nearly as many as those provided by urban industry in the province. The rural industrial enterprises paid 1.1 billion yuan in taxes for 1983 - one eighth of the provincial government's revenues. The report continued: "Farmers no longer want to leave the countryside and migrate into large cities now that others in their families are working in industrial enterprises in their townships . . . The flooding of rural people into cities have [sic] been curbed."

The government encourages workers from large urban centers to migrate to the satellite towns and small country towns by offering facilities such as more housing space, better quality housing, and higher standard facilities in education, health, and public services.

An important strategy in the government's effort to control urban growth is to reduce the rate of natural increase. Family planning is part of a national strategy to curb population growth, and there is evidence that the strategy is very effective. Statistics from Shanghai and thirteen other large cities show that the rate of natural increase has dropped from 51.3% in the 1950s to 36.4% in the 1960s and 12.3% in the 1970s. This represents a major achievement in curbing the growth of the supercities.

The damoclean sword which hangs over the heads of Chinese

planners trying to curtail and redirect urban growth is agricultural mechanization. China is almost 80% rural. As more and more farm workers are displaced through agricultural mechanization, a reservoir of non-agricultural workers of staggering proportions will quickly develop and may indeed overwhelm planners trying to stem the tide flowing blindly to large- and medium-sized cities.

3. URBAN PLANNING

Before the organizational reforms of 1982, the State Capital Construction Commission and the State Urban Development Commission were separate entities, but both were responsible for the development and administration of housing. In May 1982, the two commissions were merged and housing became one of the responsibilities of the newly created Ministry of Rural and Urban Construction and Environmental Protection (MURCEP). The Ministry has responsibility for, among other things, formulating new policies and regulations concerning urban development and housing, the implementation of these policies through long-term programs and the review of urban planning throughout the country.

Administration

MURCEP is a branch of the central government. Its function is to review policy, introduce new policies where appropriate, and to oversee the implementation of policy.

by the provincial and municipal authorities. (For a list of subordinate units and departments within the Ministry, see Appendix B.) The actual implementation of housing and urban development programs is conducted by the provinces (and autonomous regions) and by the special municipalities (such as Beijing, Shanghai, Tianjing, etc.). In cities there are Capital Construction Commissions and Real Property Management Bureaus which take care of the housing issue. (Some cities have a special institution, the Unified Housing Development Office, which coordinates and provides leadership in housing development activities.) The Real Property Management Bureau has its own hierarchy within each city, the lowest level being the subdistrict or neighborhood level. At the Municipal level, the Bureau contains several institutions with specialized functions: the Housing Maintenance Company, the Housing Construction Company, the Real Property Company, the Building Materials and Equipment Company. The Provinces and autonomous regions have a similar hierarchical structure responsible for smaller cities and county towns.

Urban planning at the national level is quite sophisticated. There is a strong emphasis on comprehensive, integrated planning. Planners are required to establish an optimum size for each city and to determine its main function and character before allocating space for various land-uses. They are attempting now to integrate socio-economic planning with physical urban planning. Although ministry officials in Beijing were sophisticated and highly trained

they emphasized the need to raise the level of expertise among planning officials in the provinces and cities who are responsible for drawing up local urban plans and for implementing new policies.

4. URBAN HOUSING

Since the founding of the People's Republic of China, investment in urban housing by the state amounted to 9.7% of the aggregate investment in fixed assets for the same period. But over the past five years, the rate of investment has increased dramatically averaging 21.3% per year of the total investment in fixed assets by the State. In 1981 and 1982 the figure was over 25%. This represents a major change and puts China on a par with many developed countries in terms of housing investment. Corresponding figures in 1974 for other countries were: USA 14.7%, United Kingdom 18.9%, Japan 20.9% and USSR 23.6%. From 1949 to 1982, about 900 million m² of urban dwellings were built; 40% of that total was built between 1979 and 1982. In 1981, some 97 million m² and in 1982 over 1.7 million m² were built. The increase in housing construction continues unabated and we were impressed by signs of massive housing urban construction in every city we visited.

Despite the enormous increase in production over the past five years, housing officials are faced with two major problems: (1) improving living standards in existing housing stock, (2) meeting the demand for new housing units from a rapidly expanding urban

population. With approximately 2 million pairs of youth reaching the age of marriage each year, if only 5 m² per person were allocated, the demand generated for newlyweds alone would be for 20 million m² per year !

A. Housing Policy and Goals

Accurate data on the standard of housing is difficult to obtain, but one expert estimates that one third of the total urban households are sub-standard because of overcrowding or inadequate facilities (Liu Hui, "China's Urban Housing Situation and Its Present Housing Policy"). Establishing the norm is problematical, but at the moment it seems to be around 5 m²/person.

New housing in Chinese cities is in high-rise apartments. Because of the land scarcity the apartment buildings average 5 to 6 stories in large cities, and 4 to 5 stories in small cities. Very large cities like Shanghai, Beijing and Guangzhou have ten- to twenty-story apartment buildings. The average size of an apartment is 50 m² but some large suites range as high as 80-120 m². The most common apartments have two rooms; one-room and three-room suites account for about 30% of all apartments, and four-room apartments form only a small percentage. New apartments often have a kitchen, toilet and balcony, whereas older apartments have a small stove and sink in one corner of the living room and a small w.c.

Bathing facilities are usually shared.

In the past, those in need of a dwelling applied to the local Real Property Management Bureau. Allocation of housing by the Bureau was made on the basis of the housing available, the number of allocations, and the urgency and the need of the applicant. But in the last five years, with more and more agencies involved in creating housing, allocations are made by collectives, factories, and state enterprises to their employees, in addition to individuals who agree to pay for their own housing.

Although the number of agencies and branches of government involved in building new housing has multiplied, the rules which govern their management remain standardized or "unified." In some cases the government controls housing directly because various departments become involved in the business of leasing and managing the properties. In other cases, the government exerts indirect control on leasing and maintenance through the financing units which created the housing. However, whether directly or indirectly controlled, all building administrations must observe the national policy on building standards, allotment standards, rental standards, etc.

The national economic development program has set some housing goals for the year 2000. The goal is to create a separate

dwelling unit for each household averaging 8 m² of living area or the equivalent of 14.5 to 16 m² building area for each resident. (Additional space is required for day care, educational, health and other public facilities.) According to this objective, families of 2 to 5 individuals will have dwelling units containing 16 to 40 m² of living space with self-contained kitchen, toilet, closet space, balcony/foyer, cooking gas, and heating. This goal will be achieved in two stages: from now until 1990 the average living space will be increased to 6 m² thereby reducing overcrowding; from 1990 to 2000 the average space will be increased to 8 m². These goals will be achieved partly through new construction and partly through the renovation of existing but obsolete residences.

Using these estimates and taking into consideration the existing and projected urban populations, the Chinese will have to create 1.411 billion m² of building area which they estimate will cost about 19.24 billion yuan (\$8.86 billion) per year. This figure is almost double the annual investment for the period 1979-1983 when enormous increases in the housing stock were created. Not surprisingly, a frequently cited constraint in achieving these objectives was money!

B. Housing Finance Institutions

Before 1977, urban residential buildings were created with investment from the state, the central government. But since

1978, in order to increase housing development, the government has mobilized the resources of local governments, collectives, state-owned enterprises, and private funds. Local governments were encouraged to create housing from funds which were allocated to them for investment in factories or mining enterprises. State owned enterprises and collectives were urged to assume responsibility for housing their employees. Private individuals were encouraged to build their own homes (with labor assistance from their local work units, for example) or to purchase a unit in an apartment building. A house built or bought with private money is privately owned and can be sold or inherited. Buildings may be owned privately by individuals or enterprises, but the land is always owned by the state (or in rural areas, by the commune).

The share of the annual investment in housing development in the last few years when the housing stock was being expanded rapidly, show some dramatic changes. The proportion of total investment by the central government dropped from 32.4% in 1980 to 19.3% in 1982; the share of local governments dropped from 12.9% to 5.3%. The state-owned and collectively-owned enterprises assumed most of the responsibility. Their combined share of investment in housing rose from 52.7% in 1980 to 71% in 1982. (In 1978 the percentage was miniscule.) Private funds invested in housing over the same three-year period increased from 1.9% to 4.3%.

Before 1978, housing construction had been classified as a welfare service provided by the state from the national budget. The economic reforms which followed had a powerful influence on housing finance and further reforms were announced during our visit in Beijing. Already, experimental sales of condominiums had been carried on in four major cities; by the end of 1983, 1,619 government built apartments were sold to individuals in Zengzhou, Changzhou, Shashi, and Siping. The new policies were affirmed by Deng Ziaoping in talks with other Chinese leaders reported in the China Daily, May 16, 1984. He affirmed that housing should become a profit-making industry contributing to the national revenue and he supported the notion that residents should be allowed to buy their houses. Payments could be made in a lump sum or in installments over a period of ten or fifteen years. Once these new measures are adopted, he indicated that rents should be changed to reflect housing prices so that people would feel that it was more rewarding to buy housing than to rent.

It seems widely accepted that rents are now too low. Ideally, income from rents should at least cover maintenance costs which average about 22 fen/m². With depreciation included the cost would come to 38 fen/m². In actual fact, the average rent is only 10 fen/m² (just under five cents per square meter) and represents only 1-5% of the average income. Consequently, maintenance costs are frequently borne with government subsidies since rental income is rarely adequate to cover costs. Rents do vary from place to place, even within

cities, despite standardized regulations to control them. But in some instances the rent is so low and government subsidy so inadequate that little or no maintenance is carried out and there is serious deterioration of the housing stock.

C. Housing Rehabilitation

Although government policy acknowledges the importance of urban upgrading as a means of resolving the shortage of adequate housing, the impression which we obtained is that the only approach well understood by urban planners in the cities beyond Beijing is urban renewal - demolition of old, single-story structures and construction of new high-rise apartment buildings in their place. Nevertheless, we were taken to one urban rehabilitation project in Shanghai which demonstrated the potential that exists for housing rehabilitation. This was the "lane-house project."

"Lane houses" were a common house type in Shanghai. A side street off the main street had six small lanes branching off on either side. These lanes were 3.8 meters wide, were bounded by 25 meter brick walls which gave access to tiny courtyard in front of the two-story building. Each story housed at least three and sometimes four families in units that had been intended for only two families. Exterior stairwells gave individual access to the six upper story units in each building, and also provided cooking space for the charcoal fires.

The renovation of these 1920s buildings involved replacing the wooden facades (with brick) and interior wooden columns (with stressed concrete pillars). The number of exterior staircases was reduced from six to two and the released space was used to create individual kitchens and bathrooms for each unit where none had existed previously. Finally, the roof was raised by slightly more than half a meter so that a loft space was created on the upper floor, thereby increasing the living area of the upper units by as much as 50%.

The rehabilitation was accomplished without significant social dislocation - a rare achievement. Residents shared living accommodation with their neighbors or relatives during the period of renovation and stored their furniture under awnings strung across the lanes. We were told that such housing represents 50% of the housing stock in Shanghai and shelters 53% of the population. Although this renovation was only a pilot project, the potential for successful urban rehabilitation in Shanghai (and other cities) is very impressive if housing officials can be persuaded to attempt this form of upgrading.

D. New Construction Projects

Urban renewal projects in China over the last thirty-five years have created neighborhood communities housed in new high-rise apartment buildings. "A neighborhood usually has

about 10,000 people with a total floor area of about 100,000 to 200,000 square meters. The gross residential density of neighborhoods is about 14.5 to 22 square meters per capita which can be broken down into: 8-11 m²/person for residential buildings (generally four to six storied apartments), 3.5 - 5.0 m²/person for community buildings, 1-2 m²/person for planted areas, 1-3 m²/person for roads and 1 m²/person for other uses." ("Housing in China's Urban and Rural Areas," China Building Selection, 1983, No. 2, p. 6.). The buildings assigned for community uses include such services as nurseries, kindergartens, schools, banking offices, post offices, restaurants, shops, police substations, and real property management substations.

In recent years, one of the significant features in house building is unified development and construction through comprehensive planning. Once the investment funds from the national and local governments, from state enterprises and communes, and from private individuals has been pooled, the development of the project is highly coordinated. The government requisitions the land, residents are re-housed before demolition is begun, and the site is surveyed and levelled. Infrastructure lines are installed - roads, water supply, sewage, electricity, gas, heating, and communications - "according to unified planning." The apartments are then built using mechanized technology and labor as efficiently and as rapidly as possible. The Tuanjiehu Residential District in

Beijing, which we visited, is typical of the unified comprehensive planning approach. Some 79 organizations pooled their resources before construction was begun.

(a) Tuanjiehu Residential District, Beijing

Tuanjiehu is located in eastern Beijing. The project was begun by the Beijing Municipal Government late in 1976 and completed in January 1981. The project occupies 40 hectares of land, contains 109 apartment buildings, and houses almost 34,000 people in 8,000 apartments. One third of the apartment buildings are 11 and 12 stories high; the remainder are 5 and 6 story buildings. In addition, the project contains four elementary schools, four middle schools, kindergartens, and ancillary buildings for medical facilities, markets, shops, and repair services.

The apartments range in size from one to three bedrooms (45 m² to 65 m²); the bedrooms provide double service as a living room and a bedroom. Approximately 55-60% of the apartments have two rooms, 25-30% have three rooms, and 10-15% have a single room. The apartments which we visited contained two bedrooms, a very small kitchen equipped with gas stove and refrigerator, and a water closet. Bathing facilities are communal. The rent charged for these apartments varies according to the area

of the apartment. The usual rent is 16 fen/m² per month (7 cents/m²) which comes to about \$3.31 for a 45 m² apartment. This represents between 3% and 5% of one's monthly income.

(b) Dong Hu Residential District, Guangzhou

This is a new project in which construction is not yet completed. It is a good example of urban renewal and of a joint venture project with Hong Kong developers. (Guangzhou is only three hours by train from Hong Kong.)

The site occupies 31 hectares and housed between 500 and 600 inhabitants in very poor housing before redevelopment. With urban renewal the old housing was demolished, a pond was filled in, and a total of 71,000 m² of living space has been created. The project houses 880 families, or about 3,000 people, although the final figure will rise to about 4,000 people when the last two high-rise towers are completed.

The project was built by Hong Kong developers in a joint venture with the government. The Hong Kong investors keep 50% of the project for sale to Hong Kong residents, who have relatives living in Guangzhou, or to Japanese businessmen wishing to have an apartment in this city; the other 50% goes to the government who disposes of their

units in several ways. Some apartments are sold to state owned enterprises who then rent the units to their employees; some are rented to former residents of the area who were dislocated during construction and who wish to rent; some are sold to private purchasers who paid a deposit before construction began and who have sufficient savings to cover the total payment by the time construction is completed. (These private buyers can get 4.8% interest on their savings in the bank, but they cannot borrow from the bank!) The sales price is about 700 yuan/m² (\$322.50/m²). Thus, a 100 m² apartment would cost 70,000 yuan, or well over 100 times the annual income of a single individual. (A 34-year old, college-educated engineer might earn 60 yuan per month.)

The sale of homes to private purchasers and to foreigners and joint ventures of this kind are still in the experimental stage. In the construction of the project, the government installs water and sewer lines to the project; the Hong Kong developers provide all the capital necessary for development. After construction the users must pay a user's fee. The government charges foreigners 5 yuan/month (\$2.30 US) for sweeping and keeping common areas of the project clean; there is an additional charge of 5 fen/m² per month (\$0.023 US) for maintenance of the building fabric. Foreigners may not rent to Chinese residents; Chinese residents may rent to others only if

their home is an old one which has been handed down in the family from generation to generation. But in newly built apartments, private owners may not rent to others; they are allowed to own only one home and the size of the home may not exceed 20 m²/person. The size of apartments in the Dong Hu complex ranges from 50 m² to 140 m².

Materials and Costs

Because of its large population, labor costs in China are relatively low and material costs are high. One estimate in 1981 showed that of 80% of total building production costs, labor accounted for only 7%, machinery 4%, miscellaneous 2% and materials 67%.

The principal materials used in construction are clay bricks, timber, steel, and cement, and the quantities consumed are very large. In 1980, for example, housing construction absorbed 7 million tons of steel (18% of the total steel output), 10 million cubic meters of timber (20% of annual timber output), and 30 million tons of cement (37% of annual output). Any saving of these resources will represent a major saving in construction costs. More than 80% of new structures are built using clay bricks and concrete walls. Clay bricks have been, and will continue to be for a long time, a principal building material because they are durable and labor intensive. The brick can be produced easily in small, labor

intensive workshops all over the country. Even hollow bricks, which reduce the dead load of structures and improve the thermal characteristics of buildings, are relatively easy to produce.

The costs of housing production varies from one part of the country to another according to material costs. But in the Dong Hu project in Guangzhou, estimates of construction costs for the Hong Kong developers was available. In the apartments built for the government, the finish quality was lower than in the apartments built for foreigners. In the government apartments the costs were 250 yuan/m² (\$115/m²) whereas the foreign-owned apartments cost 280-290 yuan/m² (\$129-134/m²). In the Tuanjihu project in Beijing, construction costs were 130-150 yuan/m² (\$60-69/m²) for the five- and six-story buildings without elevators; in the taller buildings which required elevators the costs increased to 250 yuan/m² (\$115/m²). In Shanghai, city officials estimated that new construction with urban renewal cost 180 yuan/m² (\$83/m²), whereas the renovation of existing buildings cost only 90 yuan/m² (\$41/m²).

F. Role of Construction in the National Economy

Construction in general, and housing construction in particular, are segments of the economy which have been unfettered in the new economic reforms in China. For the last five years, housing has been encouraged as a key element in

the expansion of the national economy. Premier Zhao Ziyang in his opening speech to the Sixth National People's Congress (reported in the China Daily, May 16, 1984) singled out the construction industry as a pacesetter in economic growth. He encouraged all departments "to be bolder and speed up the use of foreign capital and the import of advanced foreign technology." He declared further that: "The reform in the building industry should center on quickening the pace of construction, reducing costs, improving quality, and increasing the return on investments." Evidence of the success of these reforms was cited in another article in the newspaper that same day.

A 34-year old construction worker in Beijing had earned 200 yuan (\$92) in one month by working 15-hour days over several weeks. With the incentive bonuses he received, his monthly income was 3.5 times that of a college-trained engineer of the same age. This particular worker was employed under a contract system which paid his regular wage plus a large bonus if the work specified in the contract was finished early. The contract bonus system was begun in 1978; at first there was a limit on how much money one worker might earn, but now that limit has been removed. The contract bonus system and the new system of greater responsibility for local managers has greatly increased productivity in the construction industry.

The reforms in housing finance outlined above remove the

burden of providing shelter from the central government and simultaneously stimulate other producers in the production of housing. The net effect of this decentralization is being felt throughout the economy as local producers (enterprises, collectives, and local governments in particular) assume that responsibility.

5. RURAL HOUSING

China is, of course, an overwhelmingly rural country and the standard of living traditionally has been much lower than in cities. But in the last five years, economic prosperity has come to rural China and with it, a housing boom. In the past ten years, newly constructed rural residences amounted to 2.7 billion m², averaging 12.5 m² of useful floor area per person. Some 19% of peasant families live in houses which have been built in the last ten years.

Traditionally, most peasants built their single-story homes with wood, adobe, bamboo, and straw. Each home had a small, walled courtyard in front. But with the new prosperity filtering into rural areas, peasant workers are building new homes for themselves using new materials, and new designs to reflect changing family structure and family needs.

Brick, steel, prefabricated concrete, tiles, and glass are now the most common building materials. Of the rural housing built over

the last decade, about 54.8% were built of wood and brick, and 2.4% of brick and concrete materials. The demand on the nation's dwindling timber resources is still very high, but peasant builders are learning new building techniques where structural concrete is used as a wood substitute, and steel is used for items such as window frames.

New housing designs are being incorporated which on the one hand reflect traditional styles, but on the other hand are less expensive, structurally safer, more attractive, and better suited to peasants' needs than traditional buildings. Although the courtyard is retained in the designs, additional living space is no longer created by constructing single-story buildings around the three sides of the courtyard, or adjacent to the original structure. New designs emphasize two-story structures in order to conserve scarce farmland. Often now, parents live on one floor while married children have separate quarters on another floor. Gone are the multigenerational compounds with living spaces arranged around three sides of the courtyard/compound.

Efficiency is an important concept in the new designs. For example, the design for courtyards incorporates biogas converters and solar stoves. The southwest corner of the courtyard usually has a latrine and animal shed alongside the biogas converter. Manure which has fermented in a methane gas tank becomes more fertile than before and the methane gas drawn off is a considerable source of energy. Approximately 7 million peasant

families have methane gas installations. An 8 to 10 cubic meter tank can emit 1.2 litres of methane gas per day - enough to provide lighting and cooking for two meals per day for at least six months of the year. Solar energy is also being used to heat water, but is not widespread. Most rural houses have only the simplest of water supplies - a well, dug in the kitchen or courtyard, operated by a hand pump.

With a huge population and limited arable land, everyone must pay very careful attention to rational land use. Collectives which were careless about this in 1979 and 1980 have had their knuckles rapped. A 1982 national regulation specifies that collectives should construct only on old village sites, on hilly or unproductive land.

Since 1978, the principle has been to mobilize the peasants to build their own homes.. Most peasants purchase building materials out of their savings and then supply their own labor or call upon relatives and friends to help. In some cases, groups of families formed a building cooperative whereby they pooled their capital and labor to build a house for each family member. In other cases, communes and production brigades helped their members with low cost loans, building materials, labor and transportation services. Many communes and brigades now make their own bricks, tiles and concrete, and in some instances are experimenting with new materials such as compressed cinders.

6. HISTORIC PRESERVATION

China is a country with an ancient culture and very long history. Evidence of the historical development of the country is found throughout the countryside and the central government is concerned about protecting these cultural relics which reflect the evolution of their civilization. As early as 1961, the central government began to designate sites which are important from the national perspective. Some 169 sites were placed on a primary list, and 62 sites on a secondary list of places to be protected. (In addition to the central government, local and regional governments designate sites which they consider to be important from a regional and from a local perspective.) The historic preservation process has passed through a number of stages in the last two decades: at first individual buildings, then groups of buildings and the environment surrounding these groups, were designated for historic preservation. Now entire cities are included in the designation process.

In 1982, the central government promulgated a list of twenty-four cities to be protected. This list included Beijing, Changde, Datong, Nanjing, Suzhou, Yangzhou, Hangzhou, Shaoxing, Quanzhou, Jingdezhen, Qufu, Luoyang, Kaifeng, Jiangling, Changsha, Guangzhou, Guilin, Chengdu, Zunyi, Kunming, Dali, Lasa, Xian, and Yanan. The governments in each of these cities are in the process of drawing up preservation plans and measures for the protection of historic sites. In addition to these nationally important

cities, there are many small- and medium-sized cities which are recognized as historically important. It is estimated that eighty percent of these cities have historical and cultural characteristics which should be preserved.

Chinese planners operate under three general principles when they first consider a city for historic preservation. First, the city is evaluated in terms of the historic sites and structures to determine whether the city should be preserved in its entirety. Second, the city is examined in terms of its ongoing development to determine the direction in which future development should take place. By doing so, conflicts between preservation and new construction projects can be avoided. Third, historic preservation must consider not only the physical structures, but also the living culture and spirit of the city. Following from these general principles, the government has identified a list of points to be borne in mind by urban planners.

- Historic buildings and sites which have been designated by the central and provincial governments should be given immediate protection from destruction.
- Archeological and historical sites, especially in the small- and medium-sized cities, should be protected because they contain important relics. Cities such as Jianling and Qufu, which have played an important role in the history of the country, contain many important relics which must be preserved.

- The physical framework or layout of the city, including the axis of the city and the road system, should be preserved.
- Characteristic residences, including some neighborhoods which reflect the lifestyle of the city, should be set aside for preservation. By the same token, distinctive perspectives, including bell towers and other towers, should be given priority for preservation.
- Sites where historic events have occurred, and artifacts from those sites will also be preserved.
- Because of its varied environment, China has a great variety of ecosystems, some of which are quite distinctive. Plants which are distinctive to a city may thus be preserved. For example, the peonies of Luoyang and the cypresses of Qufu are very famous in both cities and should be protected.
- In some cities, there are historical legends which are passed down over thousands of years and which contribute to the special character of a city. The sites where such legends are placed should be protected.
- In a similar vein, placenames should be preserved, especially those which evoke historical events.
- The arts, cultures, local customs, local products, local cuisine

should also be preserved because they contribute to the distinctive character of a city.

It is evident from these guidelines that planning for historic preservation is not concerned exclusively with the physical components of the city - the buildings - but also with the distinctive cultural attributes of each urban center.

A major concern in preservation planning is the accommodation of new development projects in the small- and medium-sized cities which contain valuable historic relics. Since the Revolution in 1949, these cities have not experienced much industrial expansion. But with the current modernization drive, these cities come under great pressure for expansion. Planners try to ensure that new economic activities located in these cities are compatible with the character of the historic town. But this aim will not be achieved easily. Furthermore, the expansion of an historic city outwards from the center means that historic sites are located in the urban core where pressures for change are greatest. Some planners have proposed the creation of an entirely new urban core, well away from the historic sites, so that new economic development can proceed unhindered. The danger with this approach is that the historic centers will become fossilized and will be devoid of economic vitality.

Debate also focuses on which characteristics of the city are to be preserved. In the past, the tendency was to preserve only one

aspect of the distinctive features or buildings within a city, and some planners continue to argue that it is better to preserve the unique features of a city. For example, some planners would argue that Xian became important during the Tang Dynasty and consequently, only the structures from that period need to be preserved. But the viewpoint has gained ground that cities are ongoing entities which continue to develop and, therefore, a wide range of characteristics should be preserved if the essence of the city is to be maintained.

Historic preservation at the local level is accomplished through the coordination of two agencies: the Historic Relics Bureau, which is part of the Ministry of Culture, and the Urban Construction Bureau, an agency of the Ministry of Urban and Rural Construction and Environmental Protection (MURCEP). The Historic Relics Bureau receives funds from the central government to cover costs of preservation projects, and institutes such as the Academy of Urban Planning are engaged to conduct research on specific sites and projects. The Urban Construction Bureau is responsible for execution of preservation projects such as the Liulichang Street project in Beijing.

Liulichang Street

Liulichang Street, or Street of the Glazers, is located close to the Imperial Palace in central Beijing and was the center of an artists' colony. Centuries ago, scholars travelled to the capital

each year to take the Imperial examinations which gave them access to administrative positions in government. But those who failed the examinations could not return home and lose face; they remained in Beijing and joined the artists' colony. For several centuries Liulichang Street thrived as a center of calligraphy and painting.

The street is about one kilometer long and almost all of the structures were built of wood. The structural style was mostly that of folk architecture, in contrast to the high style of imperial architecture in the Forbidden City. Some buildings were reputedly destroyed during the Cultural Revolution and plans were begun as early as 1972 for the reconstruction of the street. This historic strip was to be rebuilt in two phases; in Phase 1 some 500 meters along the street were to be rebuilt, creating 38,000 square meters of space, allocated in fifty-four shops to be leased by the government. The street is designed for pedestrian access only and much of Phase 1 is substantially completed, construction having begun in 1982.

It is not entirely clear how many of the buildings were destroyed during the Cultural Revolution and how many were demolished since Phase I began two years ago. Planners on the site explained that some structures were rebuilt using detailed descriptions from documents in the imperial collection, and based on the recollections of old people who once knew the street well. The new structures now being built are made of reinforced concrete and

brick, in contrast to the wooden materials of the originals. Despite the attention being lavished on the external decorations of the building, the effect of the new structures is not quite convincing. The visit to Liulichang Street created some apprehension that demolition in the last two years may have taken a larger toll of the original buildings than would at first appear, and that the preference of planners was the duplication of buildings in "durable" materials rather than in the restoration of the historic structures themselves.

7. NEW ECONOMIC INVESTMENT OPPORTUNITIES

The economic reforms which have been introduced over the past five years have had a profound influence on the economy and on the potential for foreign trade and investment. Four special economic zones were created in Shenzhen, Zhuhai, Shantou, and Xiamen to attract foreign investment, particularly from Hong Kong and Macao. This spring, the central government decided to create 14 new economic zones. Premier Zhao, in his address to the National People's Congress (China Daily, May 16, 1984) declared that these port cities will "form a line along China's coast serving as the forward position for the country's opening to the outside world." He urged his colleagues to "make selective use of the new scientific and technological achievements so as to accelerate our modernization and narrow the economic and technological gap between China and the developed countries." The new economic

zones are designed to play a key role in that transformation.

Shenzhen is one of the great success stories in terms of the new economic zones. Four years ago it was a town of 10,000; today the resident population is 300,000. This figure does not include over 100,000 construction workers who have as much new building presently under construction as has been built in the past four years. Within two or three years, the population of Shenzhen will reach 600,000. Wages are high; the average annual urban income was 1,500 yuan (\$691 US), and even local peasants earn 840 yuan (\$387 US), which was 2.7 times the national average. The construction is spectacular and the apartments are built in high-rise towers 20 stories or 30 stories tall, as if to mirror the image of Hong Kong. By the end of 1983, Shenzhen had concluded 2,500 contracts and agreements with foreign businesses, drawing \$1.8 billion in investment (China Daily, May 21, 1984). The city has the raw appearance of a boom town. The vegetation cover has been stripped, the red earth has been gouged where superhighways will run, and the towering apartment buildings surrounded by scaffolding bespeak the pell-mell pace of construction. It is incredible that this new urban center which spreads out as far as the eye can see was a modest settlement of 10,000 people only four years ago.

The new economic zones created this spring are located in some of the largest and oldest ports, and include Shanghai, Guangzhou, and Tianjin. Shanghai, the largest city and once the most important

port in China, is a natural choice for one of the new economic zones, notwithstanding its fabulous, lurid, reckless, exploitative, western-dominated, turbulent history. Shanghai has received official sanction to attract individual foreign investment projects valued up to \$30 million each without having to seek approval of the central government. The port facilities of the city, combined with production in satellite cities constitutes a mega-industrial region, offering excellent opportunities for foreign investment projects which can tap the natural resource base, skilled labor pool, and voluminous market.

Guangzhou (Canton), though smaller than Shanghai, offers similar opportunities. The designated economic zone is in the Huangpu District, 35 kilometers east of the city center. It has good highway and railway conditions, excellent harbor facilities capable of handling 1.6 million tons of cargo per year, and it is the nearest large Chinese port to Europe, Africa, the Middle East and South Asia. It is suitable for the development of industries such as electronics, foods, precision instruments, high quality chemicals, and clothing. For the past 15 years, nearly 100,000 foreign business people have been coming to Guangzhou twice each year to attend the Chinese Export Commodities Fair (Canton Trade Fair), which has now been converted into China's largest year-round international trade center. Guangzhou's history as a major trading port can be traced back over 2,000 years. In 714 AD, the Tang Dynasty officially sanctioned Guangzhou as a foreign trade center.

Zhanjiang, a city in the southernmost area of China, may have two economic zones within its orbit: one on Donghai Island, which is close to the offshore oil deposits, and the other at Chi-Xia. Zhanjiang is one of the largest ports in China and handles up to 11.4 million tons of cargo per year. Oil refining based on exploitation of the estimated one billion tons of oil in the South China Sea, would be a logical development. Chi-Xia, on the other hand, expects to concentrate on small- and medium-sized industries requiring high technology. Zhanjiang is about 500 kilometers southwest of Guangzhou and has a population of over 4.6 million within its 10,000 square kilometer hinterland.

Tianjin is another major port which will become a new economic zone. As in the other zones, new enterprises will pay no taxes during the first two years of operation and will pay a 15% income tax thereafter. No taxes will be levied foreign firms which remit their profits overseas, while the rate of taxation will be reduced for those enterprises based exclusively on overseas investment. Likewise, the municipal government is empowered to improve projects involving less than \$30 million investment. The vice-mayor of Tianjin went on to explain that the local government can also approve hotels, exhibition centers, and other non-industrial projects, regardless of the amount of investment (China Daily, May 17, 1984.) Already Tianjin has attracted \$53.4 million in joint ventures, compensation trade, and leasing. This figure does not include \$11.82 million in loans extended by the World Bank and foreign governments between 1979 and 1983, and

\$277.67 million worth of technology and equipment imported for 353 industrial projects during the same period.

Although the opportunities for foreign investment are largely concentrated in the economic zones, the economic reforms instituted across China effect the quickening economic pace everywhere. These reforms include the introduction of a new tax system for enterprises as a source of revenue for government, a new contract system for workers to increase productivity, and new operational powers for managers to increase efficiency.

In his address to the National People's Congress, Premier Zhao said that a central task in the reform of the urban economy will be to eliminate the practice of making no distinction between well run and inefficient enterprises, and between employees doing more work and those doing less (China Daily, May 16, 1984). Thus, in the fourth quarter of 1984, the final switchover will be completed to a system whereby enterprises will pay taxes rather than hand over a share of profits to the state. Consequently, it is hoped that state revenues will keep pace with the needs of economic development.

The state-owned enterprises will reinforce the new "economic responsibility system" whereby factory management assigns quotas to workshops. They in turn enter into contracts with workers; piece-rate wages are paid and workers receive rewards in proportion to output values and profits (China Daily, May 21,

1984). The contract system has several advantages: (1) workers can be dismissed and promoted according to the quality of their work - the capable and diligent are well paid while the incompetent and the idle are poorly paid or dismissed; (2) employees are free to chose work that is best suited to their skills and interests; (3) the employers can chose workers by tests thereby improving the quality of the labor force. Already, in Jiangsu Province output expanded by 4.5% under the new contract system in 1983-4; in the preceding two years output had declined by 3% per year.

Associated with these innovations are new operational powers granted to plant managers. The case of Bu Xinsheng was cited in the China Daily for May 14, 1984. As manager of the Haiyan shirt factory in Hefei he was given power to fire workers who failed to meet output and quality standards. Under the old system egalitarianism and the "iron rice bowl" went hand-in-hand. But now "anyone in the factory can have his 'rice bowl' smashed when he or she does things detrimental to the prestige of our products," he said. The newspaper goes on to explain: "This way of doing things, which a few years ago would have been condemned as capitalist, has worked. In 1983 the factory yielded 5.2 times more profit than in 1978 before Bu Xinsheng became its director." The new reforms emphasizing job responsibility and aiming to increase productivity extends to peasant farming as well as to industrial production. The reforms are permeating all economic activity in China.

8. CONCLUSION

Each day in China seemed packed with new experiences and it was particularly encouraging to hear the Chinese participants in the seminar discuss professional issues so frankly. There was a genuine spark of enthusiasm which produced a number of responses from MURCEP hosts on follow-up activities to the seminar and site visits in Beijing, Shanghai, Suzhou, Guangzhou, and Shenzhen.

MURCEP identified three broad interests to develop as follow-up activities.

A. Further Technical Exchanges and Seminars

- 1) One of the first suggestions was that the technical seminar be expanded into a three-week institute which would focus on specific aspects of urban upgrading and urban rehabilitation. The institute would be arranged for senior housing and urban development officials of MURCEP in the central office in Beijing and for officials at the local government level in regional centers.
- 2) Chinese officials indicated that they intended to send a delegation in early 1985 for short-term technical training in North America. En route, the delegation would make stops in countries where there are important AID, Habitat, and World Bank projects. The members of

such a delegation would be experienced housing and urban development professionals with a fluency in English.

B. Technical Assistance and Training

- 1) Technical assistance in the areas of housing management, financial management, and information systems management. They expressed particular interest in the application of computer technology to solving their management problems at the local and national government levels.
- 2) Specialized courses lasting two to three months and organized at universities or technical institutes in China. These courses would be taught by North American experts familiar with computerized systems and would be targeted for the central ministry and local government personnel.
- 3) Donor sponsorship of selected Chinese officials for short-term and long-term training programs for urban and housing development. These training programs would be made available for senior officials within MURCEP.

C. Project Planning and Development

- 1) Planning studies that would lead to strategies for investment. These would include feasibility studies of

selected development projects, especially joint ventures with bilateral donor agencies and foreign investors which focus on urban upgrading, housing rehabilitation, and the preservation of historic structures and neighborhoods. Urban upgrading in one or more selected historic towns similar to the Habitat study on Zanzibar was cited as an example of what they had in mind.

The seminar in Beijing revealed how anxious the Chinese hosts were to incorporate new approaches and concepts in resolving problems of shelter provision and urban development. The site visits revealed something of the scope for technical and financial assistance in resolving those problems.

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- Mr. Albert L. Massoni, Delegation Leader and Director of Planning,
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"The History of Urban Renewal and Redevelopment in
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"An Evaluation of the New Communities Programs"
- Ms. Carolle Carr, Project Officer, The World Bank, Washington, DC
"Kenya Secondary Towns Project: Institutional Support
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"AID Shelter and Urban Policy Directions"
"Management of Self-Help Housing in Botswana"
- Mr. G. Thomas Kingsley, Senior UN Advisor, Jakarta, Indonesia
"Managing a City-Wide Housing and Redevelopment
Program: The New York Experience"
"Indonesia's National Urban Development Strategy
Project: Building a Mechanism for Practical Spatial
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"Urban Redevelopment and Revitalization"
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