

Opening Remarks

Mr Han Guang

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Your Highness, delegates, friends and comrades, the colloquium which opens today under the auspices of the Aga Khan Award for Architecture in Beijing is devoted to the evolution of housing construction in rural areas. This event has great significance. The solemnity of the occasion is underscored by the very presence of His Highness who has come personally in order to participate. I wish to extend, on behalf of the State Capital Construction Commission which I represent, our warm greetings and best wishes to His Highness and the delegates to this scientific conference.

The construction of dwellings in rural areas constitutes an important activity in the development of man's habitable environment. In modern times industrial progress has been accompanied by an increase in overcrowding of cities and a myriad of other difficulties. Under such conditions the disparities between cities and the countryside become even more glaring. Moreover, this phenomenon is particularly striking in developing countries. People today are more aware of regional planning, and economists, sociologists, architects and planners in China are exploring the ways to accomplish a more balanced development of cities and rural zones. In this context the construction of dwellings for rural use is a relatively new and important problem which has drawn the attention of the whole world. This conference on "The Changing Rural Habitat" is an opportunity to pursue these issues, and to stimulate others to take up the problem of rural housing.

China is a populous country of nearly 1 billion inhabitants, of whom 800 million live in the countryside. We need to clarify the living conditions of this sector of the population, and the Chinese government is resolutely committed to a concerted development of rural areas. We began by analyzing the existing differences between small towns and the villages in order to improve the rural environment, housing conditions and life in general. The government will continue its efforts in this realm.

After the founding of a New China, the State has relied on overall economic gains to aid people in building new dwellings. It has

intervened in radical ways to correct the inadequacies in housing which were inherited from the former regime, as well as the notorious differences that existed.

Presently, the government is building hospitals, schools, stores and all the necessary public facilities across the country. Water supply and hygiene in general have been vastly ameliorated, and the overall physiognomy of the landscape has undergone enormous transformation. However, we have rather neglected the rural economy in recent years and now we must encourage production by farmers and agricultural laborers.

The countryside, since the creation of the People's Republic of China, has only been a subject of minor interest. During the last few years, however, the rural economy has prospered and the income of those who work the land has increased remarkably.

Dwelling construction has entered a new phase of development. In actual fact, 1.9 billion square metres of housing has been built between 1978 and 1980 across China, and 15 million rural households moved into new residences. The rhythm of housing construction is accelerating in the cities as well as the rural sectors. The masses of the population are requesting that improved housing be given maximum priority.

The supervision of building construction must be enhanced, and plans must be drawn in relation to well-defined programs. The State has the important task of providing building materials to rural inhabitants. Initial achievements in the field of architecture must contribute in the long run to the modernisation of China, and its future as a balanced, highly civilised power. It is as important to build modern cities as it is to shape a modern rural environment. This is why rural dwelling construction is such an important aspect of the socialist development of China.

Nevertheless, it will not be sufficient to rely entirely on the government. The country as a whole must stimulate individual and collective enthusiasm for these tasks. It is crucial that we base ourselves upon the achievements of the farmers and unite with them. While the State offers aid in the form of indispensable building

materials, our policy is to rely upon a method of self-help assisted by the State. Thanks to a unique national programme, people are urged to depend upon their own forces in order to build their house.

We are conscious of the vast extent of our territory, the diversity of national groups, the natural conditions of each locality, of our economic level and of various customs. In order to support building programmes in the countryside, we must take existing local resources into account, as well as preserve the original qualities of each site and the architectural characteristics of different cultures that compose our society.

Contradictions, linked to the dual problem of scarce cultivatable land and large population, have become even more acute with rapid demographic increases. Consequently, during the planification of rural zones for development we carefully undertook the protection of agricultural land against misuse. This was done in the long-term interest of the farmers.

Although the rural habitat has undergone unprecedented transformations compared to pre-1949 China, we still remain a country on the road to development. In comparison with the rest of the world, the level of our rural habitat and of living standards generally is below what we are aiming to attain. There are gaps to fill in our programme for rural planning.

This symposium on the specific problems of rural housing construction will undoubtedly contribute in significant ways to our project, and it will offer our Chinese colleagues who work in this field a rich opportunity to learn from others. We hope that all our friends, professors, and experts will have precious comments to make on our endeavors, and that we shall be able to reinforce this with future cooperative efforts in the realm of scientific exchange and mutually beneficial development. I wish success to the conference, and a pleasant stay here in China to all our visitors.

*Professor Yang Tingbao**Vice-minister, Jiangsu province**President, The Architectural Society of China.*

Your Highness The Aga Khan, Ladies and Gentlemen. Today marks the opening of a scientific symposium under the auspices of the Aga Khan Award for Architecture devoted to the evolution of dwelling construction in rural areas.

I would like to take this opportunity, in my capacity as representative of the Architectural Society of China, to express my best wishes and warm welcome to Your Highness and all of the delegates here present.

This is the first time that a symposium is being held in China devoted to the development of rural housing construction. Such scientific activity is of great significance, and we are honored that Your Highness has come in person to preside at the meetings. We would like to express our warm thanks to you and to the delegates.

Our industrious inhabitants have acquired over the centuries an immense amount of experience in the field of rural building techniques. There are numerous examples of buildings which reflect excellent techniques, utilisation of locally-available materials, and ingenious means of execution. A unity between function and architectural expression was economically and rationally achieved, one which took account of the diverse life-styles of the local people and the natural conditions. Architects have been careful that popular rural housing should be built with modesty and good taste, with respect for traditions, and of course, economically.

In spite of the historical development of ancient Chinese society, rural areas remained isolated, which explains their poverty and backwardness over many centuries. During the last 30 years since the founding of the People's Republic of China, the life of the Chinese population in general has progressively improved, in the wake of developments in agricultural and industrial production. Architecture and the built environment of rural areas generally have become important concerns in the creation of basic structures for rural living.

China is a populous country, rich in resources, with a variety of geographic, climatic and economic conditions. The number of agricultural producers alone is 800 million, which



Photo: C. Little/Aga Khan Awards.

explains why the government is so vigilant in matters of architecture and construction of rural dwellings. It has given special priority to building large quantities of housing and public facilities, as well as improving the quality and security of these.

How is one to solve this tremendous problem of rural construction?

We must first and foremost study and eventually solve those questions related to industrialisation (which is also, by the way, a source of pollution), to the scale and the rational organisation of plans for living units, to the materials and other necessary resources for rural planning and construction, to the role of tradition in rural architecture, as well as to the question of innovation. Today, we shall have the opportunity to discuss together with the world-renowned specialists gathered here these extremely interesting and compelling issues. Our own specialists are particularly receptive to such exchanges of scientific points of view, for they feel that working sessions will ultimately lead to great insights for the future. And for this opportunity we are all most grateful to our visiting experts and scholars.

Historical developments and progress in our era, reflected in the rapidity of industrialisation, social advancement and environmental issues are contemporary phenomena to which the world is paying greater and greater attention. Architects are not the only ones discussing these problems; so too are the sociologists, economists, psychologists, environmentalists, planners and engineers, all of

whom have undertaken research in the field of the social conditions of housing. Architects must extend their range of knowledge, raise their scientific awareness, and adapt themselves to the realities of today.

The Architectural Society of China held its Fifth National Assembly last year (1980), during which representatives discussed problems of architecture, of humanity and of the environment. It was in the spirit of "a thousand flowers blooming and hundreds of schools competing" that an animated debate took place. Thus, the Chinese delegates who participate in the present symposium will certainly benefit from discussing the theme "The Changing Rural Habitat", by frankly expressing their individual scientific points of view.

During their stay delegates will visit rural constructions dating from antiquity to present-day China, in Beijing, Xian, Xinjiang province and elsewhere. I trust that each and every one of the experts will contribute to an understanding of these edifices.

This kind of exchange of ideas will aid in the advancement of human civilisation, of progress and prosperity. It will be a symbol, like the evergreen pine or the blossoms of spring-time, representing the friendship among different peoples, but also the ways in which scientific inquiry regenerates education, particularly architectural education.

Even though I am an 80-year-old man, I rejoice and I am honored to be able to participate in this symposium. I wish this reunion the greatest possible success.

Opening Remarks

His Highness the Aga Khan

I want to begin by saying, quite simply, how delighted we are to be in China. China is a nation we constantly read about and discuss. But for most of us, myself included, it is the first time we have actually seen and visited this fascinating country. For that privilege we are indebted first to our hosts, the Architectural Society of China and especially its charming and most gifted President, Mr Yang Ting-bao.

I know that Mr Yang and his executives in the Society have taken immense pains to make the visit a success — in numbers we comprise a dauntingly large delegation — and I speak for all our visitors when I say how immensely grateful we are for the Society's unstinted help and warm welcome. I would also like to express my deep personal appreciation to the Government of the People's Republic of China for the generous hospitality they have extended to myself, to my brother, Prince Ameen, and to my staff. I should also mention the helpful and friendly introductions I received before arriving from the Ambassadors of China in France and the United States.

This is an historic occasion. The people gathered here represent a unique concentration of intelligence and expertise in the topic that is to be dealt with and on the questions that will be raised and must be answered. The place — the People's Republic of China — will provide the stimulus to encourage the innovation so desperately needed to solve the problems of rural peoples all over the world, but especially of the poor among them — and it will also supply the kind of perspective that only a country with millennia of history behind it can inspire. Finally, the occasion coincides with — and is indeed a response to — the increasingly urgent demands on the part of rural peoples in the developing world not only for a longer, happier and healthier life, but for achieving it without violating the regional differences, obliterating the traditional cultures, and destroying the natural environment that make that life worth living. In many parts of the world, I venture to say that the rural population has suffered either neglect or the uncertain ministrations of national and international bureaucracies.

Things will change, and no doubt they will



*From left to right Vice premier Gu Mu, H H the Aga Khan, Han Guang, Yang Tingbao, Han Suyin.
Photo: C Little/Aga Khan Awards*

change radically. It is the responsibility of people like yourselves — the planners and designers of our built environment — to mobilize your intelligence and your technologies to ensure that they do not change for the worse. For if the events of the twentieth century thus far have taught us anything at all, they have taught us that technologies unguided by intelligence and compassionate understanding invariably create more problems — and more insoluble problems — than they remedy.

The subject of this seminar is the changing rural habitat. The word “habitat” refers, of course to places where people live, but especially in recent parlance it has taken on the additional meaning of suitability — that is, it has come to mean the places where people ought to live. Here we will be concerned with both its meanings as we seek to reach an understanding not only of what is, but what ought to be. For obviously, if we are to plan for the future, we have first to decide what it is we are planning to achieve, and I believe that the solutions and conclusions we come up with will be equally applicable to all of the developing world.

We chose to deal particularly with the rural habitat largely because the attention of professionals in both West and East has hitherto been so concentrated on — even distracted by — the problems of our ever-growing and ever decaying cities that the plight of the rural poor has thus far been almost entirely ignored. In the industrialised West, the latter problem might be said not even to exist, comparatively speaking, and this may be part of the reason behind its neglect elsewhere in the world. It has not received, in my view at least, the level of attention, the input of thought and creativity, which it demands, and indeed must receive.

A few statistics taken from a development report compiled by the World Bank in 1979 can demonstrate the point. According to that report, four-fifths of the population of the non-industrialised world live in rural regions — less than a quarter of the population in industrial nations live in the countryside. Seventy-three per cent of the labour force is in agriculture in low-income countries, as compared to a mere seven percent in the industrialised nations. Of those rural peoples of the Third World, easily half survive under condi-

tions that most of us cannot even contemplate: fully seventy-two percent can have no access whatsoever to a safe water supply. No one is so deprived in the industrialised nations. The implications of this fact alone for the levels of health and life expectancy in those countries need not be spelled out — suffice it to say that most of the people in those regions cannot expect to live beyond the age of fifty at best — fully twenty years less than the rest of us can expect to enjoy — and that there is only one doctor per ten thousand people to serve this sick and suffering population. In a survey carried out some years ago by my own organisation in the Indo-Pakistani subcontinent, we discovered that those who had a net disposable income were many times more wealthy in the urban area than in the rural countryside.

All nations aspire to develop policies which will better the social and material welfare of their peoples. China is not only the world's oldest civilisation, it identified its major national problems (and often found solutions for them) long before most of today's nation states had even been thought of. As a country with a vast rural population it is in the vanguard of those who give the highest priority to the welfare of its countryside, and it has done so with courage and originality. This fact alone, it seems to me, makes the choice of China for a seminar on the rural habitat a most felicitous one.

The problem of the rural habitat is an almost overwhelming one for the developing countries of Asia and Africa. Their enormous rural populations make it inconceivable that a similar process can take place with them as occurred a century or more ago in the much smaller nations of the industrialised world whose cities managed to absorb — however painfully — the people who flooded in from the countryside. The great cities of Asia and Africa are already at the point of collapse beneath the unrelenting pressures of immigration from the rural hinterlands. Somehow ways have to be found to make the countryside itself a more desirable place to live in, which in turn demands an ability to earn more and to save enough, as individuals or families or communes to begin the process of self-generated economic growth and thus social

well-being. The Aga Khan Award for Architecture seeks to identify and premiate all successful efforts in the resolution of man's built environment, and clearly the fate and future of the rural habitat must be of prime concern to us.

As the Imam of a Muslim community which lives in twenty different countries around the world I have seen for myself the immense importance of meeting the needs of those sections of my community which live by the land. For the past ten years or so they have received priority in all our social and economic development plans.

As patron of the Aga Khan Award for Architecture, and as successive seminars took place in different countries, I quickly became aware that the problems of the rural habitat were general throughout almost all of Asia, Africa, the Near and Far East. The priorities which architecture in its broadest sense would bring to bear to resolving those problems would be influenced not only by religious faiths, but just as much by tribal cultures in Africa, for example, and by the different national, historical and ideological forces which dominate man's environment across the globe.

Unless change takes account of rural life in all its aspects, unless it respects the past and the heritage of rural areas and peoples, unless it recognises the intricate ties between the physical and the social environment, it will fail to achieve planning and developing goals for each nation. It will also fail to provide attractive alternatives to migration and thereby fail to stem the tide of people flooding into the cities adding to the already almost insurmountable social problems the urban areas are facing.

I am hopeful that this seminar will have a very particular significance for the Aga Khan Award for Architecture. Two village development projects have already won Awards in 1980. Without any prompting on our part, therefore, rural change has already pressed itself upon our attentions. Yet if the Award is to continue to recognise excellence in rural projects, it must develop improved criteria for their evaluation and these criteria can become of great use to individuals and agencies

throughout the world. This would be the most important result of our meeting.

We hope, indeed we expect, that all of you who have prepared case studies and each delegate who contributes through discussion and criticism during the next few days will also help significantly to generate the development of those criteria. The seminar is also important for the Award because it symbolises its ongoing search, a process of "reaching out". In one sense the seminar is reaching out by opening up new areas related to architecture and planning but not commonly recognised, let alone rewarded. In another sense this seminar will reach out by drawing upon extensive experience and valued counsel — particularly from China — on a set of problems which extend beyond any national or cultural or religious boundary.

Our central purpose here, then, is to increase understanding of the rural habitat and, from that understanding, to devise appropriate strategies for change, both for our colleagues in planning, architecture and other related fields, and for a wider audience of decision makers and concerned people everywhere. To achieve this end we have chosen to present and to discuss both case studies and papers on selected technical problems. The case studies have been drawn from a variety of cultures ranging geographically from Africa to Southeast Asia. They portray a variety of situations, since we believe that there is no single answer to guide our planning for rural change. Ideas about modernisation are often in conflict and theories are almost always untried. Local cultures and ecologies vary. This is why we have chosen first to present specific experiences through the case-study approach, and specific aspects of technology through the technical papers, and then call upon you all for whatever wisdom you can provide.

To guide that discussion and to lead it toward valid generalisation, we suggest that you keep three aspects of rural development and a number of questions that result from them in mind: the aspects are technology, expertise and ideology. Let me ask some of the questions: what technologies should be employed in changing the rural habitat? What

materials and techniques of building were used and how valid are they still in terms of cost and availability? Whose expertise was, or should be, employed in the building and planning processes, and how should the use of that expertise relate to traditional crafts and their development? Where experts are drawn from many backgrounds, and often cultures, how can an amicable and fruitful working relationship be guaranteed? In terms of ideology, what were the reasons for the changes that were initiated? How were these rationales perceived by the different actors in the building and planning process? Finally, how do cultural values and social expectations become modified through contact with the outside, urbanised world, especially as revealed through the processes of changing the rural habitat?

Following the seminar itself we shall visit Xian, China's ancient capital and centre of culture, and then venture forth to travel parts of the Silk Route of Western China to experience life at first hand in some of the rural areas of this great country still harbouring the culture of the Islamic civilisations of the past

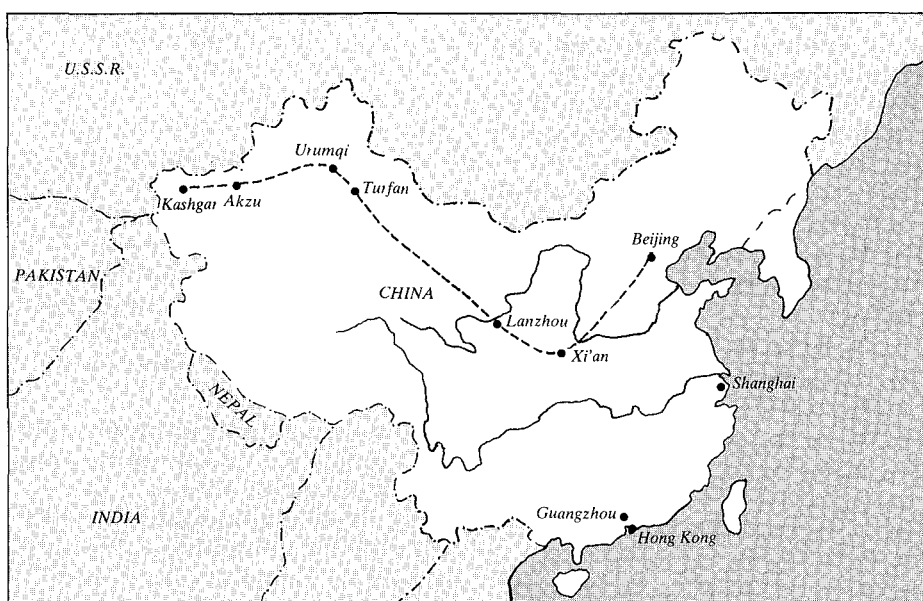
We have much to learn from that journey. We also have much to share with China, for we both have the obligation to understand our past, to respect and preserve it, and to learn to recognise the appropriateness of architectural innovations we introduce into it. As a prime civilising force for thousands of years, China's cultural heritage is rich and fascinating. Its significant Muslim heritage will also enrich our knowledge of Islamic culture in general and provide a dimension of which few of us have hitherto been aware.

Many of you have joined me earlier in the quest for cultural appropriateness in architecture, and especially in the architecture of the Islamic World. Many others are joining us for the first time to provide their expertise in the area of rural development. I trust that all are committed to gaining a heightened understanding of architecture in all its manifold forms. Most important of all, perhaps, by your diversity and talent you can indicate to the rest of us how best to achieve an appropriate physical environment in rural regions and how to guide the relentless process of change.

In a few days' time delegates from the

industrial nations of the North will be meeting once again with the developing countries of the South in Cancún, Mexico. This is not the first and certainly not the last attempt to re-dress the balance between rich and poor nations. I am deeply convinced that money by itself will not solve our problems.

The nations of the South themselves must identify their own priorities — of which the imbalance between urban and rural development is surely the foremost — and establish the human and professional infrastructure which alone can make outside financial assistance, or indeed local resources, both meaningful and productive.



The Silk Route across China

Han Suyin

Let me ask your indulgence, because I am neither an architect nor an expert in anything, and yet I have been given the honour of coming here to make a speech on something which concerns us all, and that is the house we live in, the space we occupy. It is a very important subject indeed, and I was extremely moved by the speech of His Highness the Aga Khan which put so well all the emotional, psychological, cultural, social implications of the simple word "habitat". Habitat is not only for the body, it is not only an economic factor, it does not depend only on material things: it is also our concept of space and of ourselves. It is also the way we handle the world in which we live, this is the meaning the word habitat has for me. For as the world grows smaller, and yet larger, as man's dimensions of power enlarge and yet pettinesses are still with us, we can do a great deal of harm if we do not understand that we are bound to live together finally in that same house, the Earth, the planet which is ours and which we cannot destroy. And so today it gives me particular pleasure to be able to come and say a few very uncultured words, yet to exchange with you, perhaps, these words so that in a way I shall feel that I have also contributed a very minute share to this most magnificent, most significant, most important assembly.

I would like to go back a little into the past to make a few remarks about the great explorations which led men to know each other, men of various communities and cultures. For it is only with a spirit of exploration and innovation that we can move forward: it is the ongoing process which His Highness mentioned. This ongoing process is not new; it started a long time ago. However, today I wish to address myself to the one which went on between the countries of the Near East, the Arab, Turkish, Persian and other cultures of that region, and this land, China, which at that time was known as Sirghe or "the country of silk". There have been many records of mutual communication between these areas, both by land and by sea: over land by the Silk Road, that great artery of communication across Asia which existed two centuries before this era; and communication by sea, when the great galleons sailed from Persia and from Arabia to China. China sailed to Zanzibar and

to the coast of Africa, where Ming Dynasty porcelain can still be found. As a result of this, there was cross-fertilization of ideas and things which is today one of the objectives of this very seminar.

There were no barriers. Language was not a barrier, for man can always communicate in spite of differences of language, as long as there is goodwill, as long as there is commerce and trade, and man's extraordinary curiosity which keeps pushing him to discover his own universe. The earliest records in China of that era date from the Tang Dynasty. Of course there were records long before these of trade and commerce, since silk from China was known to Rome way back 2,000 years ago. The records I particularly want to speak about are those of the Tang Dynasty (618-907 A.D.) that came to power in 618 after a long period of war and tumult. China's great particularity is its extraordinary coherence and unity between periods of tumult during which it appears fragmented, but always comes together again. Thus the Tang dynasty once again ruled over a united China which had already been unified by language and culture way before the Tang Dynasty. One thing that the Tang Dynasty lacked was horses. There were only 5,000 horses recorded for all of China when the Tang emperors took power. Now, the Tang were great horsemen. In Xian one can see the frescoes of those times, where many horses are to be seen. Where did the famous Tang horse come from? It came from the Muslim world, and within 50 years there were 700,000 horses recorded in the archives of the Tang Dynasty. Not all came obviously from the original 5,000, but many of them were brought over the Silk Road. Horses were a great object of commerce. Moreover, the records of those days speak of the 'great horses of Heaven', for perhaps at that time it was considered that Heaven resided somewhere in the west.

Many things then were exchanged besides horses. There were also soldiers who were recruited, as well as guards for the palace, and this also you will see in your peregrinations throughout China in the Tang paintings and statues. A testimony to a free exchange of people who went and hired themselves to the Tang Imperial Court as palace guards and soldiers.

We see also from that time onwards many patterns and decorations chiefly from Persia, which are also important; for instance, the grape pattern. And why do I mention the grapes? Especially because they came to China from Persia, and in my native city of Chengtu only two years ago I found a little box with a typical Persian pattern of grapes, which had been handed down from that far off time. The mirrors of the Tang Dynasty have a vine pattern of them as well, and this also was imported. In Sinkiang province you will find near Turfan, a valley there called the Valley of the Vineyards, where the seedless raisins which you know well from the Near East are also grown. And so, all of these things were already articles of trade, commerce and communication many years ago. There are records of handicrafts from the settlements where artists, weavers and spinners from the Near East came to this area. Silk and brocades from China exported to Arab countries are also recorded as having been sent across the Silk Road.

City development was also affected, for many cities in China had their settlements of traders and merchants and handicraftsmen from all over the rest of the Asian world. For instance Yang Chow which is at the junction of the Grand Canal with the Yangtze River was known as the jewel city of the world in the eighth century. It had a very large Arab settlement of 200,000 to 250,000 people. It was very famous for its metalwork, silver crafts and felt hats. The habit of wearing fedoras or felt hats, which afterwards spread to the west, came to China from Arab countries. In Luoyang city there were a million inhabitants in the eighth and ninth centuries, and there was a large Arab community of 100,000 people in Luoyang. There were 2,000,000 inhabitants then in Xian, and a very large foreign population from all parts of the world who attended the universities, who studied in the monasteries. There was also a large population of Islamic people who wanted to worship at the mosques there.

Literature also was affected. There was a great deal of exotic literature which appeared in the ninth century, and which was very much appreciated. Even today there are apparently

still, according to some scholars, but not others, what is called Pusaman, a form of "song-poem" said to have been inspired by Persian tunes, and which is still discussed among scholars today. There were great tales and legends, especially legends of benevolent millionaires from the Far West doing good deeds. So this seems to have been a pattern which has been followed until today

Finally, to touch the women's hearts, there were cosmetics. I have found a poem, apparently from the Tang Dynasty, in a book written by an English scholar (I have not found the Chinese original) that talks about the grapes, the watermelons packed in snow, the date farms, the roses, and also cosmetics. It says how bad it is that the women of China are now putting on cosmetics, a habit they have learned from the West. Much can be said just on this little item of commerce and trade across the Silk Road, by the Arab galleons and Chinese galleons that circulated in the Indian Ocean during those centuries. Chinese knowledge spread abroad, for instance, with the discovery of smallpox in inoculations. I found records of this when I was studying the Mediterranean Sea. Inoculations were done in hospitals during the period of the Arab empires, and these inoculations, apparently learned from China, prevented a great deal of smallpox.

And so my friends, this past is a past which today still haunts the imaginations of many men through its greatness and beauty. I am sure that this seminar is in the tradition of communicating this great past and we should be very proud that we are participating.

Your Highness and my Chinese friends, Mr Han Guang, Mr Yang, you have spoken in a way that inspired me to mention what has been done more recently. To speak of present-day China, to speak of what has been accomplished, is also to open many minds. It is quite true to say that China has tried to do much for its rural populations, much more than many other countries. In fact, all that has been written in the last fifty years in China by Chairman Mao Zedong, Premier Zhou Enlai and many other leaders of the Chinese Communist Party, has always reflected a thorough understanding that it was the



Photo C Little/Aga Khan Awards

majority of the population, some 85% living in the countryside, which had the right to a better life. They believed the distance between city and village must be reduced, and we have seen the enormous efforts here to try to make this come true. In other words, it is to elevate the economic situation of the countryside, to improve the life of the peasantry by supplying hospitals, doctors, schools in all the villages and the communes of China, by trying to make it possible through an enormous amount of effort to develop an infrastructure of water which would make life secure where it was most insecure. People like myself who have lived in old China, before 1949, and who were midwives like myself in the Chinese countryside for three years during the Sino-Japanese war, who can tell you how miserable, how dreadful and inhuman was the life of the peasantry then, and how happy many of us were that so much was done for the people of the Chinese countryside after Liberation in 1949. This goodwill always remains despite the fact, of course, that when one does anything there will always be errors. It cannot be avoided. There is no blueprint for develop-

ment in the Third World, and one has to proceed by trial and error, by experiment

I will not speak very much about what has been done because my Chinese friends, the architects of China, are far more able to do so than I am. All I should like to say is that China and the Third World are today racing against time. The race is pressing upon us because our populations are increasing but the quantity of land does not increase. Therefore, the whole question of rural habitat must be rethought. Otherwise, if the old ways of constructing houses continue, more and more land will go for housing, and there will be less land for cultivation. This is the problem in China, and all architects are very much aware of it. Only 13% of China's land is cultivable at present. Very little indeed. China has only 7% of the world's total cultivable land, and yet she feeds almost 25% of the world's population on this relatively small amount of land. These are enormous problems. A great deal of effort has been made in the last few years to tackle these issues. There is the effort of re-housing which must be planned, because without planning, there would be a considerable difficulty with

arable land being taken up by houses. When one puts money in the pockets of the peasantry, as is happening now, and farmers in some areas even get quite wealthy by Third World standards, then of course there is a resurgence of the old traditions in dwelling which reflects a social and a psychological phenomenon.

The phenomenon is this one: on the whole, the peasantry does not like to live in high-rise housing. The old courtyard type of house, which is 2,500 years old and is so beautiful is preferred, but it takes up a lot of space. If you tell a peasant to go into high-rise buildings of two storeys, three storeys, four storeys, he doesn't like it. How can he be persuaded to change? In other words, it is not only a question of rebuilding individual dwellings or groups of these, it is a total rebuilding of the countryside which is before us. One of the things which has to be done therefore is the concentration of scattered villages into towns where all the amenities will be located and where a larger population can be accommodated than in scattered villages. Can this be done? How can it be done? Much depends upon transportation, because the peasant who has to cultivate his field cannot live too far away. He cannot be obliged to walk two or three hours to his field. Thus, we must have enough trucks to take him to the fields under cultivation and then come back again to his residence. Such are the problems involved in changing the rural habitat. I will not speak further on this subject because I am quite sure that the architects of China have a great many excellent ideas on how to solve this problem.

Let me now turn and say a few words about the future. Just as the past conditions the present, the present conditions the future. The future, in fact, is already with us without our knowing it. When I was in America recently, I met my friend Alvin Toffler, who has written a book called *The Third Wave*, and it frightened me a great deal. It also elated me. The idea of a "third wave" is that another revolution is coming which is called the Knowledge Revolution. The significance of the Knowledge Revolution is the following: with computers, with the micro-electronic processes, with the silicone chips, with audio-visual means and television, with all the

technologies of bio-genetics, everything is going to be changed very soon. Actually it is beginning, of course, in the affluent world in such a way that very soon we shall not recognize our world anymore. For instance, schools will no longer need to have the children assembled in schoolhouses. There will be small communities with a few families bringing their children together to look at a television screen for fun and for education. Television universities will make it unnecessary for children to be bussed or to walk to school. Offices will become redundant. Those great office buildings which you see in New York today will be empty of secretaries; the computer will take over. Already businessmen in London and Paris are going around with their computers and talking to their wives on their computers, sending messages while travelling all over the world. It will not therefore be necessary to have large offices anymore. (I wonder whether the computer will be more competent than women secretaries, but people assure me that it is already). Moreover, people will be able to work at home, which ultimately will make the big cities redundant. There will be no more need of these enormous cities which are indeed, as His Highness the Aga Khan said, very often near collapse. In some countries, many are surrounded by slums, slums that are inhabited by starving populations from rural areas. In other words, the best kind of habitat will be small village towns, scattered evenly all over the world, with parks and other amenities, housing a few thousand people. This is the dream of the future of the 'third wave' or the Knowledge Revolution.

Is this possible, is this feasible? It is happening already in certain countries. It is going to hit the Third World very soon. Perhaps in thinking about rural habitat we should think about this. One way in which China's education problem — and there is an education problem in China since 62% of China is under 29 years old — can be solved is by television. There is not time enough to train the teachers to go into school and to teach the children. It has to be done by television, since television can reach every village.

This new Knowledge Revolution in front of us, which is so widely discussed in the West

and especially in America, does not fill me with dismay, although it's coming so quickly. It also fills me with hope. I hope that with bio-genetics it will be possible to use less land for cultivation. Already it is not necessary to use land to cultivate many things: these can be cultivated practically in air. Field crops can be multiplied twenty times by manipulation of genes. Life therefore, and the machines of today, will all have to be altered, and in the course of this alteration, it seems to me, the rural habitat may possibly become "the" habitat of a future in which man will refuse to live in those enormous beehives of congested cities where things are running down. He will want, in fact, to live in the countryside where there will be much more fresh air, where industrial factories and agriculture will be linked together in small units everywhere.

And so having said this today, you will forgive me if I seem to be talking nonsense. If it is nonsense, then some of the books on electronics, on computers, on bio-genetics are also talking nonsense, but I don't believe so. I think we are entering a period of a "great leap" in knowledge, and I think that architects can lead in this realm by imagining both the future as it will come and by making provisions for it. I wish again to thank His Highness the Aga Khan for asking me to come here, and I wish to thank you all for listening to these remarks.