Glocal Approach Toward Architecture of the Future

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1 Framework for Contemplating Architecture of the Future

Architecture of the Future is not a style

When we try to contemplate the Architecture of the Future in somewhat concrete terms, it is clear that we are not trying to predict a particular architectural style of the future as such. Rather, we are led to the issue of a framework of thinking in terms of world view and methodology within which architectural design of the future will be created, or an approach towards Architecture of the Future on the part of architect.

The approach involves both deductive an inductive thinking. On one hand, deductively, the issue is that of in what sort of context architecture is going to be created in the civilization of the future, and what are the inevitable trends prevailing in the future which will give direction to architectural creation. On the other hand, inductively, we have to think what architecture could achieve in order to improve human civilization of the future, and create environments which are conducive to legitimate human needs and aspiration.

The issue that we can identify in the context of the future world in relationship to architecture are twofold.

One is the prevailing and ever advancing **globalization** in every aspect of human life, mainly due to the proliferation of information and the development of electronic communication media.

The other is a need and want of reevaluation and reinstatement of the threatened existence and role of **locality** or actual **place** which provides the **field** for actual human activity and local culture.

We will have to pay considerable attention to the challenge and response between the two paradigms, with the recognition that **global paradigm** is rendering an overwhelming challenge against **local paradigm**.

Therefore we need to carefully evaluate the situation and give direction to both, particularly to the **local paradigm** which at the moment seems to lack confidence, to be weakened and fighting a near losing battle. However, if one allows oneself to be optimistic about the future, the dialectic process between the two extreme paradigms of global-universality and local-particularity, may prove to have potentially positive and activating energy as well, in terms of invigorating architectural creation.

Thus, assessment of and manipulation of the interrelationship between global and local paradigms can be considered as having a vital importance on the world of the future, and providing us with a strategic framework of thinking towards the coming millennium, particularly when one tries to speculate about the future of architecture and the built environment.

The conclusion of this discussion may be almost disappointingly simple, and a matter of common sense. That is, when one wants to contemplate and arrive at the **Architecture of the Future**, one will have to employ a **GLOCAL APPROACH**, sublimating **global** and **local** forces.

In order to keep a balance with invisible **global** forces (monetary systems, etc.) and a variety of electronically created virtual realities, it may be that in the coming century, human energy and willpower can be positively exercised to reinstate **locality**, that it can be substantiated by actual sense of **place** and local **culture** which has been unduly neglected and underestimated. This sens of balance, when it is put into practice, can hopefully be conducive to and culminate in what I would call the **GLOCAL APPORACH.**

2 How do we Appraise Global Phenomena?

Realtime Information

It is very clear that in the realm of information, the whole earth is linked by electronic media and as McLuhan put it, has become a village. For example, economic and financial systems have constructed global networks which behave as a single market. Sophisticated knowledge and informa-

tion industries such as fashion, science and technology, with their universal qualities, are instantly made into the common property of urban and intellectual society.

Architecture as Fashion

In the same way, design or visual forms of architecture tend to be swiftly disseminated via magazines and quickly and indiscriminately reproduced and copied all over the world, irrespective of whether it be in a middle eastern desert or a monsoon region, that is dissociated from ***fudo***, the climatic and cultural context of the place.

Oneness of Global Environment

It is not only in the realm of information that the earth is a village. The issues of environment and ecology are also significant. When air pollution takes place in a country, the resulting acid rain can kill plants in the neighbouring countries. Using certain hair sprays can contribute to the enlargement of the ozone hole in the South Pole and threaten the whole of mankind. In short, we now have to recognize that phenomena which used to be regarded as somebody else's problem are now inevitably ours too. Literally everyone has become everyone's neighbour.

Glocal Village

It is envisaged that in the coming millennium, due to the further development of electronic media and highly developed transportation systems, what we now call Nation State will become obsolete. Rather the local community where people conduct their daily lives, and know each other by sight, may be directly connected to a virtual global community, enjoying meaningful feedback. This can be termed a GLOCAL COMMUNITY.

The Beginning of Modern Architecture in Japan

Internationalism in the architectural movement was dressed in an appealing garment of "universality" (which in fact meant universal in the West only). In that period when Internationalism prevailed, Japan was vigorously advancing itself with modernization in the realm of technology, industry, economic and social systems, and became militarily strong enough to take part in the First World War. Japanese concluded mistakenly that this meant being part of the (Euro-American oriented) international arena. The idea settled with naive pride that Japan had at last joined in the universal situation shared by techno-industrially advanced counties of the West. To Japan which was proud of catching up with the modern industrial technology of the West, to create architecture making full use of it meant being universal-international, modern and advanced. Hence Japan accepted Modern Architecture without questioning its local relevance. In other words, Modern Architecture that had developed in the wholesome context of Western civilization was imported simply as "Western technology"-. Therefore there was no serious query into the cultural and climatic (***fudo***) aspects, the question of **Youkon-Western** Sprit and the **Wakon-Japanese** Sprit. This is the context in which the Japanese Modern Architecture Movement was started.

Sadly, even in uncolonized Japan, anything which came from "the West" was regarded as superior. Local peculiarities were looked down upon and neglected. It is said that Corder, a British architect who used to teach in Tokyo University, once seriously suggested to students that they should reevaluate Japanese traditional architecture and try to reflect it to their design but this was flatly refused by students.

Even more so the colonized non-Euro-American regions of the world such as Asia, traditional architecture and other cultural assets were treated like a pair of worn out slippers, by the colonialists themselves and by the local people.

Thus, while in post World War I Europe, there prevailed the attitude of trying to dilute national and regional identity, proclaiming internationalism in order to reconcile themselves with the tragic memories of the war, in Asia under the repressive colonial rule, the attitude of being ashamed of things local as retarded, became the confirmed trend.

Emergence of Equity between East and West in the late 20th Century

Regrettably this kind of biased situation was ubiquitous in the non-West regions of the world throughout most of the 20th century. However now, towards the end of the millennium, things are beginning to change. Phenomena which have contributed to East-West equity., though not in themselves cultural, include acquiring and assimilating modern industry, technology and socio-economic systems, Japan being one of the main players of World War II, Vietnam virtually defeating the invincible United States, and the remarkable economic development in NIES Asia in recent years. These are of course aspects of he infrastructure of civilization, but nevertheless they have played a role in giving confidence to the non-West as a people and as an individual.

3 Reinstatement of Locality

Reevaluation of Local Culture

In the 20th century, the evaluation and esteem of local culture was dangerously low. For one thing, the truth is that a local culture is like the air one inhales, so that it can't be felt and appreciated by its own very people. One example is the Katsura Imperial Detached Villa which is now appreciated as a national treasure just because it was rediscovered by the famous German architect Bruno Taut in the 1920s when he happened to visit Japan.

Stability as a Condition for the Progress of Civilization

In contrast to mobility which is so much esteemed in the contemporary world, I would like to call attention to the notion of **stability** as a condition for the progress of a civilization in relation to the idea of **place**.

Comparing the roles of farming people and hunting people in the context of the progress of civilization, it can be detected that it is usually the farming people that gave continuous contribution to the creation and progress of civilization. The origin of civilization was due to settlement in a place for faming, and it gradually developed into cities where not only accumulation of material wealth but also information took place continually. One of the characteristics of information is interaction and self-increase, and that is exactly what happened in the city, which became the content t of civilization. However, if the settled life continues as a self perpetuating civilization for a long spell of time, what awaits it is stagnation and deterioration.

Structure of Creation as Consumption in Civilization

If I am not afraid of over simplification, hunting and nomad people, on the other hand, roam usually in the fringe areas of settled civilization but don't create autonomous high civilizations of their own.

Civilization to them is something they avail themselves of when necessary by usurping from neighbouring settled civilizations. Whenever aggressive energy accumulated within it, like Mongols attacking China and Europe, they conquer a great area by their superb mobility, assuming and consuming instantly whatever is convenient and appetizing of civilized world.

That is to say that the position of hunters and nomads are rather those of usurper and consumer, and essentially not that of creator. Admittedly, the agriculturalist are often the usurper – like the white Americans taking over the lands of the Indians, the colonial British the lands of many African tribes, etc. However, nomads' role was that of external energy to stimulate and promote the mixing of the plural civilizations they encounter. They have been a sort of intermediary of different civilizations, and functioned as a catalyst to advance a civilization.

Tat is to say that from civilization point of view, hunters and nomads are the "media" itself. And therefore

When they complete their function, they disappear from the scene and only the content that had been brought by them remains in the civilization they contacted.

The reason why I raised this issue is because I feel that it has some relevance to the contemporary situation where exposure to mobility, media and hunting around of ideas, is overly valued as compared to activities based in actual space, such as sitting down and conversing, community life and contemplation, which could lead to substantial self fulfilment and genuine creation, rather than a sophisticated concoction of superficial ideas, employment of tourist oriented exotic culture and application of localness in terms of ***fudo*** and culture.

Informational Black Hole Japan

The analogy of interrelationship between agricultural based settled civilizations and nomadic mobile civilizations illustrates the complementary relationship between stability and mobility. It also illustrates complementary relationship between collection and dissemination of information in global arena, and creation and generation of information in a specific Place.
The message here is that if one endeavours only in collecting as much information as possible and neglect generating information, there will be no essential progress.

It seems to me that when one talks about the coming of Information Society in Japan, it very often emphasizes the aspect of collecting and utilizing information rather than creating it. And on top of that since Japanese society which is almost entirely run in Japanese language constitutes one autonomous intellectual market, there is hardly any incentive to emit information in other languages to the global community, and hence Japan is regarded as an informational Black Hole. It is really unsatisfactory since Japan has potentially so much to offer to the world.

Desire for Actual Experience and Value of Place

It is true that in the contemporary world exchange of information can exist without having mobility. Due to supply of information through telecommunication, the printed media and the internet, one can avail oneself of all the information one needs even sitting in a capsule space. However, as the availability of those image experiences and virtual realities increases, so does the desire to experience the actual content of the information. A good example is that at one time decaying Sumo Wrestling revived and prospers due to popularization of television dissemination of the game. One can find many similar examples. As this phenomenon illustrates, desire for actual experience can be satisfied only through actual place embodied by space.

The very value and importance of locality therefore is to provide the actual space for human activities.

Fudo **and Genius Loci**

When we talk about locality, and try to express the concept of special characteristics of it, there are words like ***fudo*** or ***funsui***. These words or concepts involve both physical and non-physical aspects such as climate, geology, fauna, artefact like building, kind of people and temperament of people who live there, hence culture too.

When we say ***fukei*** (landscape), in our minds we mentally visualize and imagine people in the scene, and there is an intuitive and subjective assessment of the environment by the person who is looking at the ***fukei*** and the landscape.

To evaluate and to love a ***fudo*** is to taste and appreciate the environment, and this is what we used to do, from the advent of human history till the beginning of this century, when we were living in harmony with Nature.

There is a word in Latin, genius loci, which can be translated as spirit or essence of place. This is a kind of personified or deified version of ***fudo*** which tries to express friendly relationship between Man and Place, or man’s feelings of respect to a Place. In either case, until Modern Architecture came into being and prevailed sine the early part of this century, architecture and fudo was inseparable. In other words it was assumed that (traditional) architecture represented locality or ***fudo***.

Modern Architecture indifferent to Locality for *Fudo*

The Modern Architecture movement, under the name of internationalism and universality, took it for granted that architecture could be governed by architectural design indifferent to ***fudo***, making extensive use of factory mass produced materials such as steel, concrete and glass, and emphasizing the functional approach.

Certainly the theme of Modern Architecture has its validity in terms of technology and industry in the Euro-American context, the West, and its emergence was timely in a sense that it provided a break from the depressing yoke of their own cumulative civilization, bringing in a fresh breeze.

However, when the same theme was indiscriminately applied in the regions where no such conditions existed, especially in the colonies of non-industrialized regions whose expected and forced role was to provide raw materials, and at the same time provide a market for the industrial products of the colonial masters, the confusion and misunderstanding caused by being given the "new goodies" was considerable. Modern Architecture was handed down under conditions which were irresistible and accepted as advanced by the non-West. There was no reflection as to whether Modern Architecture was relevant to the locality or not, although many of the pre-modern colonial styles used pay due respect to local climatic conditions and resulted in interesting hybrid solutions.

To quote an example from my own experience, two decades ago, in North Borneo, I saw a curtain-walled skyscraper in the middle of the jungle. It was shining and beautiful in its own right. However, it was designed by a foreign firm of architects. The materials including structural steel, concrete, glass, air conditioning machines and everything except some wooden finishing were imported by generously spending foreign currency which at the time was rather a rare commodity.

There was a clear lack of design philosophy and methodology with which to try to accommodate the tropical monsoon climate, nor was there any intention of trying to make use of local materials.

Mind controlled local people aspiring to be modern were enforcing presumptuous values and, at the same time exploiting their own people, and losing their culture. The alarming aspect of it is that the parties involved are completely unconscious of what they are doing. This is exactly the problem of Modern Architecture in the 20th century.

4 Global Ecological Balance

Population Explosion and the Emergence of Ecumenopolis

One of the most significant phenomena of the 20th century is drastic global increase of population. The world population which was under 20 billion will reach 70 billion at the end of the century. Due to urbanization, urban area is expanding endlessly. Transformation takes place from Metropolis to Megalopolis, Megalopolis to Ecumenopolis which covers the whole earth in the form of a network of urbanized region.

The theory of Ecumenopolis was proclaimed by C. A. Doxiadis, the founder of the Athens Centre of Ekistics in the late 1950s. His claim is that it will not be impossible for the earth to have population of 200 billion, and that unless we start to prepare a comprehensive global land use plan now, it will be very difficult to maintain global ecological balance.

Forty years have passed since and now we are realizing the dangers, the consequences of global warming, contamination of atmosphere and ocean, and enlargement of ozone holes above the poles. Facing all those phenomena, we are compelled to reevaluate our value system regarding ecological environment.

Incongruity of Civilization – Squatter Slums

During the latter half of the 20th century, mass production and mass consumption, a resource consuming type life style prevailed in industrially advanced counties, which set a precedent to the aspiration of material desires in the

developing countries as well. This is resulting in the increase of energy consumption and waste disposal on a global scale.

Regarding urbanization, one characteristic is that it is taking place in a concentrated manner in the developing nations where very often more than a quarter of the whole population is crowded into the primate city. The problem is that urbanization is not necessarily taking place because of abundant provision of employment in the city. It is rather due to lack of support factors in the countryside, the so-called push factor. As a result the majority of urban population is semi-employed or unemployed and ends up living in squatter slums which often occupy more than half of the city's population. And the living conditions in those settlements are non sustainable, lacking in the basic needs such as sanitary infrastructures. It is pointed out that regarding this critical urban situation, the level of awareness among architects is very low and the role and contribution of architects is minimal. This is one of the important fields where the architect of the 21st century is expected to be actively engaged.

Concept of Zero Emission

The concept and practice of zero emission being proposed by UNU which was initiated by Gunter Pauli is important in the global context. In order to create condition in which Anthropos (human being) and Earth can co-exist in a sustainable manner, we need to minimize the minus load to the global ecological balance by saving consumption of resources and energy and reducing emission of wastes. In order to achieve this end, we need to reconstruct comprehensively the system of industry, economy and society. To begin with, in the context of industrial production, a system in which the waste material of an industry serves as an input to another industry, and thus creates productive linkages among plural number of industries, or product design, production process, design of facilities and buildings, resource conserving life style may be attained. This idea is practical and persuasive, and extremely relevant to the idea of sustainable and ecological city and architecture of the coming millennium.

Sustainability of Global Environment and the Role of Architecture

In order that the Global environment be sustainable, the global urban habitat of man, the Ecumenopolis, must be sustainable. Then the buildings and infrastructural facilities which constitute the greater part of the physical elements of cities must be sustainable. This is a very simple deductive logic one can follow. Therefore this is the fundamental value judgment in the attitude involved when one contemplates Architecture of the Future. Although we say that we will have more diversified value systems in the future, sustainability of local-global environment and diverse local culture are two basic values which underlie various phenomena and also will gain more support in the coming millennium.

Socio-Cultural Aspect of Sustainability

The concept of sustainability includes idea of energy saving, resource conserving, zero emission oriented being taken for granted. However, it doesn't mean that the concept only covers aspects of industry and technology. The way the human mind works, the human psyche and consciousness, value judgment at socio-cultural aspect, socio-economic and political systems which stem out of them, they are all related to sustainability. For instance, the characteristics of the areas which escaped from fire caused by the great earthquake of Kobe-Hanshin Region was attributed to the existence of active community in that particular areas. Ultimately, for the survival of man, linkage, relationship between man, sentiment and ethos of individuals, that is to say the way association and community seem to be the most critical factor.

Role of Professional in Creating Environment

For the professionals who are involved in the creation of cities and architecture, it is becoming more and more important to be interested in and be involved in the process of development in the local community of actual

residence. This is the basic way people can exercise their professional ability, in the reality of their daily lives. Of course it is equally important to practice the role of expert in planning and design by making use of their global value judgement and universal knowledge and know-how.

However, what is expected of them in the coming century is, wherever they work, they are to understand and digest the nature of ***fudo***, history and culture, that is to say, obtain inspiration from the ***genius loci*** and render contribution to create relevant architecture and city. This is a kind of common sense which is easy to say but difficult to practice in reality.

Glocal Approach which makes Common Sense of Common Sense

The process of creation mentioned above has been practiced almost unconsciously by good architects for all time, but has been somewhat missing among superficial modern architects. It is legitimate to ask questions, such as why are you urging such common sense things as the method of approach towards the Architecture of the Future. However it is a truth that "common sense" may not be universally appreciated. The **global approach**, in short, has in it **global vision** and based on **local relevance**.

5 Conditions for Sustainable Architecture

Meaning of Sustainable Architecture

There are roughly two meanings in the notion of Sustainable Architecture. The one is buildings which physically last long, require little maintenance, and save in energy, utility and disposal costs. These are the aspects of gentleness to nature and that of small load to the environment, hence contribute to the sustainability of the whole earth. This is the aspect of what sort of impact the human deed of constructing buildings renders to natural environment and ecology. These are largely engineering aspects.

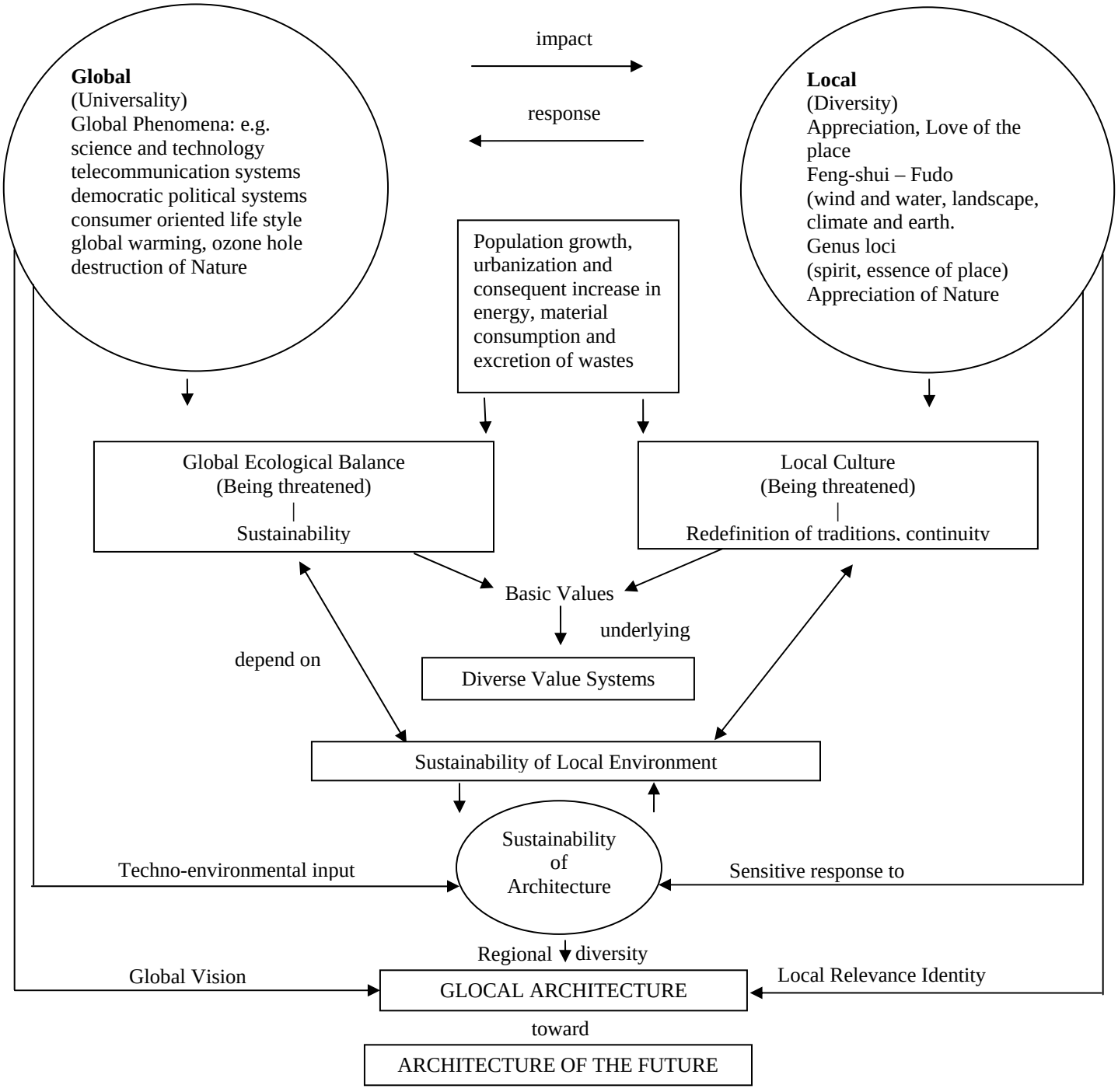
The second aspect is the way architecture and environment ought to be, in fostering man's spirit and soul, and make man as a spiritual being sustainable. That is to say that architecture should not only be justified for giving little negative impact to global ecological systems by being resource conserving and energy saving, but also it has to be beautiful and enjoyable. In other words, architecture is not a simplistic product of physical engineering, but also it should have beauty and something metaphysical which could work on human soul. Again this statement is common sense, that which has been repeated in history. Even in the coming millennium, the architect is never going to be a mere technician.

Reevaluation of Vernacular Architecture

Let me touch upon vernacular and indigenous architecture. It seems that in English, the former is to do with language and the latter with animals and plants. However, I take it that the two words mean the same when we talk about architecture, and I have decided to use vernacular. Vernacular architecture cannot be separated from the climate, or ***fudo***, including native materials, traditional structural systems, the history and culture of people who has been living in the locality. The majority of the vernacular architecture is, as B. Rudolfski put it, "architecture without architects."

Until Modern Architecture conquered the world, architecture was mostly rational, functional, hence resource conserving and energy saving in the regional/local climatic or ***fudo*** context. Architecture embodied the local characteristics or a place. It was a fruit selected through the long process of trial and error, of evaluation by the eyes of aesthetic value judgement existing in the local culture. Therefore, vernacular architecture, buy its nature, had built-in sustainability, both physical and cultural. In that sense, we ought to have a meek attitude to learn from the vernacular.

If we expect architecture to play a role of the "primal landscape," the dependable psychic and symbolic mean of man in the locality, then it seems natural that architecture



The scope of "Glocal Architecture," and its relation to the themes of "Architecture of the Future"

maintains a live relationship between the climate or ***fudo*** of the land.

Future of Tradition

Due to drastic development during the 20th century, in many parts on the earth the aspects of ***fudo*** has been transformed. Especially in Asia where the phenomenon is the most acute, we fear that the "primal landscape" which is supposed to be given by the ***fudo*** is rapidly disappearing. However, we cannot merely stick to and lament the loss of tradition in a sentimental manner. The past of the tradition may be fixed and frozen, but the present and future of it is a dynamically alive thing with continuity and prospect of progress.

Feedback between Environment and Cultural Value Judgment

The realm encompassed by the dynamism of architectural tradition includes the most advanced know-how, technology and materials obtained from global networks of information and material flow. These assets are naturally made available to local people. However, the selection of these are very often dictated by principles of market economy only and devoid of cultural value judgement. In such instances, tasteless and unsustainable buildings.

The issue here is that the cultural value judgment is in a state of feedback relation with the local environment. Therefore, if the environment is destroyed, there is no feedback process to take place. In this context, sustainability of culture is closely linked with that of the environment. This is one of the reasons why we are so much concerned with protection of the natural and man-made environment of Asia.

Conservation of Architecture and Environment

Conserving architecture and environment is closely related to continuity of the local culture. A city is a kind of memory apparatus of a civilization. It is something like visible DNA of it. The importance of conserving vernacular architecture which is inseparable from ***fudo*** is there. By the effort of slowing down the speed of change which is very often too rapid in the developing regions of Asia, inheritance of memories will be easier, hence the possibility of brewing a local identity. Tradition involves group memories which tends to have a built-in resilience.

Therefore, even if the environment is destroyed to some extent, if a small group of people who maintain the culture and some part of environment is left, the tradition can survive. In this sense regions which have been transformed by the global mentality of development could be revived. The Asian reality is that we desperately need to rekindle the remaining fire of environment and cultural assents and make positive feedback between **local** and **global** possible.

Technological Input and Sensitive Dealings with Local *Fudo* and Culture

From the scope of 21st century, we cannot eliminate science and technology. Rather those global forces will increase. One thing we learnt from this century is that if we follow the logic of science and technology, and lose Socio-Cultural judgment, we may invite total catastrophe to human society. But our eyes are still attracted to Giant Technology and dreaming of constructing hyper skyscrapers of a few thousand meters and cities built deep in the earth. In Japan when we talk about Architecture of the Future, we tend to visualize that sort of technological futurism.

Admittedly, this kind of pictures attracts the attention of the general public and the interest of capital and industry, and has something exiting about it. However, the fearful fact is that, unlike 50 years ago, technologically speaking this kind of picture can be materialized if there is enough capital.

This **giant technology** is a product of the 20th century, and in a way architect's endless dream, but we should not forget that these technologies are the ones which contributed to the destruction of global environment. Hopefully, in the coming millennium, we will have more advanced environmental technology which will heal the environmental destruction. And we will realize how much the cost amounted to. Then, local based individuals and communities with global vision will start creating architecture and cities in a manner that is sensitive to local climate, or ***fudo*** and culture.

When creating architecture, there will be sensitive input of environment technology. This will evaluate specific characteristics of ***fudo*** and feed it in the process of design. Technology will enhance tradition and vernacular aspects and add something to it as a supplement, to make it work better. Technology is to be effectively utilized to make architecture sustainable both physically and culturally. The objective is not to test and realize possibility of a particular technology as such. Again, in this sense too, the 21st century is going to be one of more of common sense.

Global and Local, the Challenge and Response

Global phenomena e.g., informationalization, economic and financial systems, science and technology, consumer-oriented life style etc. are basically challenging masses of waves which will continue to come toward us any way and they tend to have characteristics of inevitability. This overwhelming situation requires conscious, strong-willed and persistent efforts on the part of the local community and individuals, culture and ***fudo***. Otherwise the local paradigm will not survive, community may disappear, individuals may be engulfed as mere molecules in the sea of the global paradigm,

However, the tension between global and local, the challenge and response between them, the dialectic, is a potentially rich and creative process, which could open a new horizon towards the future. This is what I call the GLOCAL APPROACH.