Comment

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There are a lot of people researching within the frames of conventional scales from the nation-wide level to the municipal level, or looking at single architectural objects. But I am working on the scales which are above and below that. I mean, the supra-macro scale, supra-national scale and on the other hand something which is inside the informal scale, that is to say, out of the conventional system. That is what I'm working because less people work on these scales, and it is impossible to work in all kind of scales because there are a lot of people working within conventional scales, and they have a very good work, specially, in the analysis of the modern and contemporary periods. So, because it is quite difficult to manage so much information and nobody can know every scale, I tried to sandwich the conventional scale with supra-macro and supra-micro scales.

First let me begin with the research done on the supra-macro scale, although recently I have centered more in the supra-micro scale, or the action in small scale, which has been my actual criteria.

I'm now doing with students several fieldwork activities like this. This is related to the aging and shrinking Japan in rural areas where we can find this kind of traditional Japanese house and where our main activities are centered (Fig.1). Also, we carry on activities in slum areas in the center of Jakarta and I'll talk more about these small activities tomorrow. I would like just to mention that I'm always organizing tea ceremony's events, and I talk about this because there was a presentation about "tea rooms" today. I think that tea ceremony, originally, in the feudal period in Japan was a strategic activity that existed in the frontier of diplomatic negotiations, in order to avoid collisions. That is in the origins of the Japanese tea ceremony. Now it became a formalist activity and we have to follow rules, and I don't know the tea ceremony rules but I know about the origins of tea ceremony. Thus, by keeping with the origins of the tea ceremony, we hold a tea ceremony every year here in this old house in order to gather people: both local people, students and people coming from the city. Also, in the slum area we have built a small building where we can celebrate tea ceremony.

Fig.1 Fieldwork activities in super-micro scale in rural areas of Japan and urban areas of Jakarta

Tea ceremony is a very good activity that serves as a meeting point for the formal and the informal. Normally, it is quite difficult to create a space, an intimate space to gather the formal and the informal sector, but the tea ceremony has a style which is quite suitable and strategic in that meaning.

Today I would like to talk more about the large scale analysis and mainly about two topics: mainly the variety in the sense of scale because it was an important topic of today's presentations. First, Andrea Urushima talked about the differences of planning culture or design culture, by saying that it is not enough to be bi-lingual, but instead one must be bi-cultural when trying to intervene in spaces in collaboration with other people. Planning and design culture is an important reference for me because my former research topic was about the European urban and spatial strategy at the supra-national level.

In the conventional type of planning organiza-

tion, nation states have the competence of spatial planning, urban planning, and territorial planning, and also at the lower level, municipalities have the competence of urban planning, but the European Union doesn't have any planning competence. However, at the European Union level there is a need for a common strategy on how to develop Europe, so they need to think and debate about an environmental or spatial strategy for that. Thus, at the European Union, they tried first to study the differences between several planning cultures specially in terms of territorial planning, and finally, they realized that there are at least four different categories of spatial planning culture or territorial planning culture: the land use planning approach in England; the comprehensive integrated approach in Germany, in the Nordic countries, and in the Baltic countries; the regional economic approach in France, and the urbanism tradition of Mediterranean countries.

This kind of analysis was quite useful for them to identify their own planning culture and compare it with other planning cultures. Now, the planning cultures are more mixed because they know each other well and they understand the variations in planning cultures, and they have delineated a common spatial strategy. What I want to say is that the difference of the planning or design culture becomes especially important when people have the need to work together. Nowadays, they know the differences and it is not necessary to integrate different cultures. However, it is important to understand each other's different cultures of planning.

The main topic of my comment relates to the sense of scale. I made a research about mega-cities, and finally, I'm now working in the informal segments with field activities but before that what I did was to compare spatially, or the physical form, of mega cities, I mean cities with more than 10 million inhabitants. Do you know which cities are included here? Do you know where is Tokyo? (Fig.2) It is of course here. And we also have Sao Paulo city. We made these graphics following the distribution of population and it is easier to identify cities by their proximity to the sea. For example, this is Tokyo, and Sao Paulo has no direct connection to the sea. By looking at this, we can see that although Tokyo is famous for its high density, when compared to cities like Manila or Dhaka in the Southern part of Asia, Tokyo has in fact not such a high density.

Nowadays we have a discussion about compact cities in Japan. At the moment of urban shrinkage,

the debate points to the validity of more compact cities that can work and function better. And as a model, the European city has been used as the ideal model of a compact city. Copenhagen and Barcelona are famous examples of compact and walkable cities. When we talk about compact cities normally we imagine cities with high density, but the European cities are quite small and if we compare to Asian cities we have completely different scales. So, what is the compactness of cities? Its definition varies according to different cultures and this is a very important point, especially when comparing Asian cities with cities in other regions.
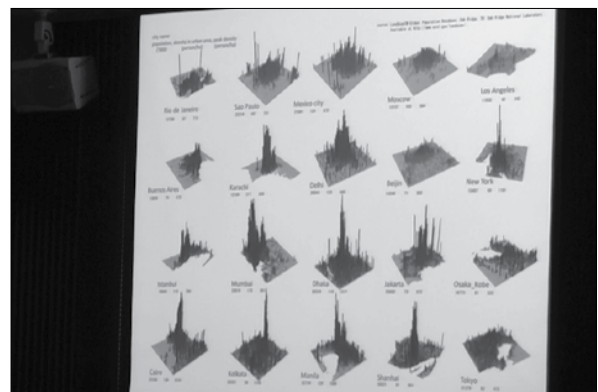

Fig.2　Urban forms identified by population distribution patterns of Megacities across the world

Today's topic links to the role of information technology and information science, and I think that information science can help us in that sense, in getting to definitions which can be largely accepted. This is a comparison of Tokyo and the Randstad in the Netherlands. Normally, historians tend to compare cities with cities, but if we understand better the scales, we can realize that it is impossible to compare European cities with Japanese cities. Here you can clearly see that Tokyo has the same dimension of a city region in Europe. This is Amsterdam, Rotterdam and many other cities which combined have the same scale of the Tokyo metropolitan area. By comparing them side-by-side it is possible to see that. The Randstad megalopolis is famous for its "green heart", a heart which is surrounded by cities. But in the case of Japan the whole Tokyo, in terms of scale, could fit inside the "green heart" of Randstad. And in terms of the green areas, the "green belt" of Japan is comparable in scale to the "green heart" in Randstad. So, Japanese cities are more comparable with city regions in Europe.

In today's presentation about Sao Paulo done by Roberta Fontan with the use of GIS thematic mapping, there was a discussion about what is urban

and rural. In thinking about urban and rural, especially in Asian countries, we must remember that the cities in Asian countries are always surrounded by paddy fields. This is the land cover of Jakarta and we can see the red part of the urbanized area and the purple part refers to the paddy fields (Fig.3). Another example of other Asian cities is Bangkok where we can see here again the red urbanized area surrounded by a purple area. So, in different cities' land cover diagrams, we can see that Tokyo also has a paddy field although now it is becoming more urbanized, in the same way as Jakarta and Mumbai.
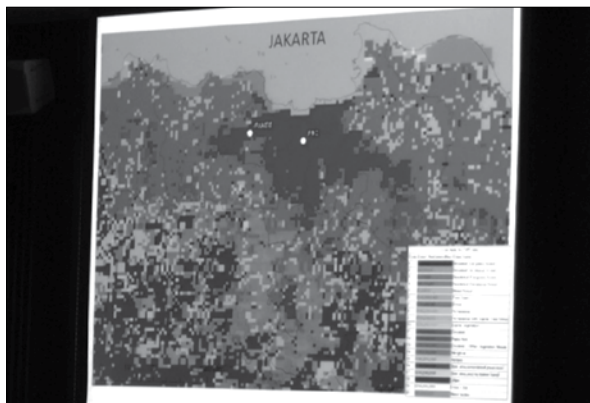

Fig.3 Paddy fields extensively surround the central urbanized area of Jakarta.

If we look at Mexico City, a Latin-American city it is not surrounded by paddy fields. Neither is Copenhagen. What is important to say here is that paddy fields are a very productive agricultural land. So, the population density in paddy fields is equivalent to the suburban density of American cities which means that it is quite difficult to distinguish urban and rural areas under these conditions. I think that it is a tragedy, especially in Asian countries, to introduce an European urban planning methodology which is based on a clear distinction of urban and rural areas.

Terry Macgee named these areas as *Desakota*. *Desa* means village and "Kota" is city so it is impossible to distinguish "Desa" from "Kota", and there is only one term that describes these areas which is *Desakota*.

In Japan also in the moment of the high economic growth people in the rural areas around cities -- if we can call them as rural areas -- had one of the family members who started to work in cities and the family started to have an urbanized lifestyle. Since in these rural areas the density was quite high there was no need of a special urban infrastructure in order to live an urbanized lifestyle.

So, it was quite easy to urbanize spontaneously, and a scattered type of urbanized area has begun to appear around large cities. So, it is possible to see that the process of urbanization is rather different from the urbanization occurring in other regions of the world. I'm not sure about what is happening in Latin-American cities but I have to say that European cities tend to reach a population of less than 10 million inhabitants, usually counting with around 2 or 3 million inhabitants. And although a city with 2 million inhabitants can be considered a big city, still, in China or India this is considered to be a small city.

Thus, the sense of scale varies in different cultures. Historically, Greek pattern cities can be found almost everywhere in the world. In several books of architecture and urban history circulating across the world, we can see these figures of Chang'an in China and Miletus in Greece. But just looking at the plans we get confused because we think that they have the same scale. But when we superpose a square of one km to one km, which represents a walkable distance, this is the area of cover in the case of Miletus (almost the entire city) (Fig.4). And how about the case of Ancient Chinese cities? This square is very small and covers a few blocks of the city. In the way the figures are included in the books, with similar expression, we get confused by the scales. However, the scale of the ancient city in China is the scale of a city region in ancient Greece or Rome.
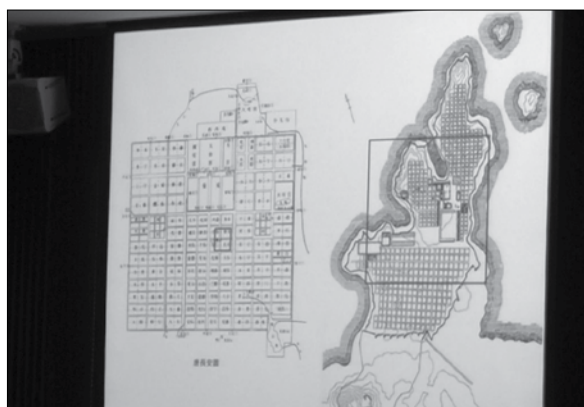

Fig.4 The plans of Chang'an and Miletus are often printed side by side with different scale reference which leads readers to confusion.

But we are all human beings so we share something in common. For example, one square kilometer is a daily walkable distance and it is not different in Europe or in Japan. And nowadays we have Google Earth which is a very practical tool to compare different cities because it has a common

basis of expression for maps which is very different from what was used in historical textbooks. In historical textbooks, scholars were using the plans of that time so it's quite difficult to compare. But now with Google Earth, we can compare Medieval cities in Italy, like Siena with the Piaza del Campo in its center, with Tokyo, New York and Paris. Now it is possible to compare like this but without Google Earth it used to be exhausting. So, Google Earth was a revolution in this sense. I remember more than 15 years ago when Google Earth first appeared that I showed it during my lecture of urbanism in the University of Chiba and everybody was really surprised. Now everybody knows it. And it is interesting to compare different areas: for example, Tokyo Disneyland has the same scale of the airport of Doha. A square of one kilometer per one kilometer in the past could be considered to have a city scale but according to some ideas of contemporary architectural thinking, it can be considered as the scale of a single piece of architecture, such as an airport. So, this kind of standard expression offered by Google Earth is possible thanks to the development of Information Technology, and with the help of the information technology we can produce more knowledge. I belong to the Graduate School Frontier Sciences now and my background is architectural design. In our Graduate School there are three divisions: Transdisciplinary Sciences, Biosciences and Environmental Studies. I am in the division of Environmental Studies where there is a department of Socio-Cultural Environmental Studies which has a transdisciplinary approach following the basic concept of our Graduate School. In the department of Socio-Cultural Environmental Studies there are professors of architecture and others from different specialties from water technology, sociology, anthropologists and historians. It is transdisciplinary and we also collaborate with the spatial information center, that use spatial information technology, they are specialists of information technology. We started with this organization because we can help each other a lot and develop new ideas. But the cultures of information technology, architecture and social sciences are very different and at this moment a creative collaboration is still not possible, I must say that this is a great challenge.

I show you one attempt of one of my undergraduate students here. His approach was quite unique and he tried to analyze the Earth from the view of an extraterrestrial intelligence. So, they can observe from far away only by looking at data, the texture of the surface of the Earth and the projection pattern of landscapes like this (Fig.5). And how can extraterrestrials analyze? If this is the only information they have, what can they analyze? He mainly considered two factors: the number of building blocks (many blocks in red and less blocks in blue); and the density (dense has a dark color). He then tried to compare different cities with the use of data from the Open Street Map. He compared nine cities and you can see that Tokyo and Manila have red color that means that there are a lot of blocks. And it gets darker when the density is high, for example Paris is higher compared to Stockholm or Jerusalem; and Manila, Tokyo, Los Angeles is partially high (all high but here with more blocks). By doing this, it is possible to see the difference. This could be one methodology to compare with the same type of expression completely different cities. And there are many possibilities to develop in this direction for the comparison of cities. For example: compare Tokyo with London, Tokyo with more projections and London with less projections, more flat and the density is lower and also in the case of London there is a central high density and lower density that surrounds it. But in the case of Tokyo it is more random (there are parts with high density, lower density, and a mixture of high and low density).
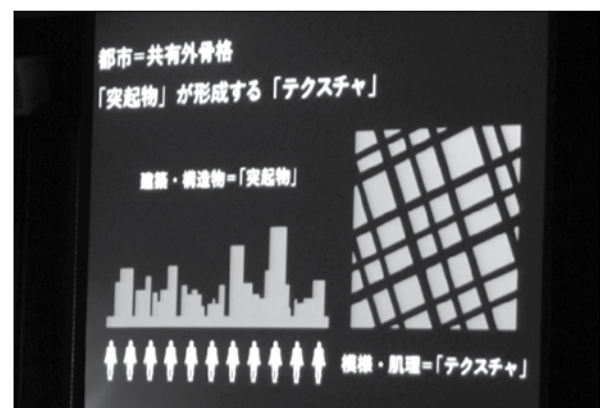

Fig.5 The Earth from the viewpoint of an extraterrestrial intelligence (based on data, texture of the surface and landscape projection).Created by T. Igarashi