

Notes on a Method of Sustainable City Planning

著者	Ishigami Takashi
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Notes on a Method of Sustainable City Planning⁽¹⁾

Takashi Ishigami (Professor, Center for Business and Industrial Research, Hosei University)

About two years ago, an argument over the development project for a certain large-scale public land in the Tokyo metropolitan area became a big topic of the day. In short, the summary of the argument was debate between of respecting the original plan or redesigning a new plan. Although the plan was reexamined in accordance with the change in economical and political circumstances, after all, it aroused a fresh interest in the administrative process of local government and consequently gave us a rare opportunity to discuss the pros and cons of the subject.

Setting aside such concrete cases under special circumstances, I would like to consider what a planning of development project in general ought to be. This note is a consideration to a method of planning a sustainable city from the following three viewpoints: adaptation to environmental change; a scale and period of development; and an object of a project.

1. Environmental change and information force

Today, the social economy and the technological environment surrounding us are always in the process of big change. In such situations, the more minutely a future plan is drawn at a point of departure, the more likely it is to be a desk plan. The reason is that the plan embodies only the up-to-date information at the time of planning, and that the more detailed the plan is, the more fixed it often becomes on the whole. Therefore, not to mention that a plan should be prepared under excessively careful consideration, it is also necessary to be flexible and include a system to incorporate a future change in the environment into the plan. In other words, it is desirable to maintain the core of the plan or a consistent concept while fleshing out the plan by reexamining one part after another: planning should be dynamic as well as flexible.

(1) These notes were originally presented for a discussion at the International Urban Design Forum held in Nagoya on October 6-9, 1997

In the information theory, there is a law of requisite variety (W. Ashby⁽¹⁾) which means that only variety can break variety. A city is considered sustainable when it is likely to withstand various changes in the environment which will occur in the future. In view of this flexibility, a city should have a large degree of variety. How much information can be installed in the city during a long period of urbanization it will be a criterion in determining the strength of the city. I think that a plan for urbanization should be primarily provided with a core mechanism which continues developing as a self-organized system by interacting with the environment like the second cybernetics (M. Maruyama⁽²⁾).

2. Planning scale and development process

In general, the larger a development project is, the longer it takes to complete it. When the whole project is heading solely for the final piece of drawing, each component is next door to some troubles even if it is available for its own purpose. In case of the plan requiring more than ten years, any behaviors during the period will be desired to pursue the objective of the development. A process is not only means but also an objective. In case of a city development project including housing, in particular, it is important to maintain and gradually extend an extremely small completion form on a so-called human scale, besides the necessary infrastructure. This gradual process is also significant in the sense that real-time information on the environment should be embodied in the project.

A human being completes the process of evolution as a creature in the womb before his or her birth. Regarding it as a process of preparing an initial plan, it suggests that a plan include all the experiences and reconsideration over an extraordinary long period up to that point.

As it is said that 99% of a person's ability is postnatal, all the designs are not given at the beginning. He or she keeps growing in a gradual manner while absorbing various experiences through the involvement with his/her environment since the birth. This growth process itself is the human being. A 5-year-old child is harmonious and entertained in his/her own way, and similarly a junior high school student and a high school student have their own completed forms at their ages, and what is more, they keep growing gradually with their identities maintained. In this way, a process of birth or growth of a human being gives us a variety of hints as to what our planning

(1) Ashby, R. (1952) *Design for a Brain*, John Wiley & Sons

(2) Maruyama, M. (1963) *The Second Cybernetics: Deviation-amplifying mutual causal process*, American Scientists, 51

should be.

3. From land planning to places planning

The city development projects have been generally progressed in such a way that each specialist draws a picture as he/she likes on imaginary space or land under a certain land use policy determined at a higher level: that is to say, a birds eye plan. However, people who actually live there do not necessarily have the same outlook or viewpoint as those of the designers. Because people have their personal histories or memories on each of the trees or street corners there, recognition of the space can be said to be extremely personal. This relationship between the environment and people, which the affordance theory (J. Gibson⁽¹⁾) is now clarifying, should be positively adopted in the planning process.

This leads to a shift from a project for abstract land to that for concrete and individual places. The project just right for people would be completely prepared only after the place is observed with devoted eyes for a space characteristic (climate) and a time characteristic (history), both being irreplaceable and unique for the location. This may be realized by the gradual progress in the project with the local residents involved or by support and application of natural self-growing power. C. Alexander says that a succession of constructions on different places should be conducted so as to heal a city. J. Jacobs uses an expression of nourishing a city, and R. Glatz uses a word of urban husbandry. These expressions mean precisely that the basics of the city planning is to respect human beings first of all.

Though I have discussed only three subjects relating to planning, one of the other major problems is what the main constituent should be in city planning. It is possible to say that city planning depends on the skill of balancing private space and public space and the successful interaction between them. There are a lot of problems as to the method of managing commons including a public part of a private space.

The tragedy of the commons (G. Hardin⁽²⁾) commons will certainly go to ruin is famous and often true, but a lot of exceptions appear now and then in the world. Looking at the case where commons are properly maintained, there are elaborate rules, namely, the product of human wisdom. And we can see the reliable relationship among members there. These systems

(1) Gibson, J. (1979) *The Ecological Approach to Visual Perception*, LEA

(2) Hardin, G. (1968) *The Tragedy of the Commons*, Science, 162

and trustworthiness are part of the communities precious asset. Above all, it is an asset of trust that is rapidly running short today. There has long been an issue out of the collapse of communities.

Now, it is becoming a fundamental subject in the city planning to reform a community or create a new community. Then, what means should be taken for that purpose? There is an opinion to provide a city with such an identity that the residents are proud of, or it may be greatly effective to offer more opportunities to naturally meet different people in the community. In order to direct these activities, it is now necessary for us to reform the urban structure into a compact or human scale.

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