Visualization of regional landscape and planning
– An interactive learning field for students and residents –

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Abstract: Landscape Act was founded in 2004 in Japan. It is the first act to encourage planning and management of overall regional landscape by local governments. Planning landscape should not only control the height and color of buildings but draw the vision of region that guides the community to encourage the repair and rebirth of deteriorated landscape in our changing world. We have organized workshops, surveys and other activities to improve landscape in Ena City, Japan. The process is distinguished by its collaborative management by four universities and simultaneous progression in four districts. Birdseye illustrations and landscape catalogue were introduced as visual media tools for describing images. These methods activated the discussions among local residents, facilitated by students. A chain for creative learning for students, local residents and administrations formed through the multi-stage practical activities for landscape improvement.

Keywords: Landscape Plan, Deterioration of Landscape, On-site Learning, Subjects of Landscape Improvement, Birdseye Illustrations, Landscape Catalogue, Visualizing Landscape Image

1 Introduction
This is a report about sequential learning and repair of landscapes that we have promoted in Ena City, a provincial city with a population of 53,000 and area of 504 km², in the middle of Japan.

As to the current situation of the Japanese landscape, it is being transformed, damaged and deteriorated in our changing world, because people have not found any new breakthroughs for the difficulties. The young people who have grown up and live in such landscapes should create the landscape for the next generation, but they don’t seem to have a stable stance on landscapes. How can we teach them landscape planning and design? Meanwhile, local community members are losing their former power of self-government and landscape maintenance. Excessive dependence on administrative agencies has taken away their ability to preserve and pass on the local landscape. Administrative offices have also experienced changes, such as a big trend of consolidation of municipalities in recent decades, stricter regulation of organizations, sectionalism, excessive services for citizens, and paternalism. Depopulation and economic recession reduce the energy in all aspects.

Under these circumstances, the repair and rebirth of landscapes is needed for such social aims as the well-being of individuals, a sense of community, a peaceful society, stable livelihood, and healthy growth of children. This is different from aiming for attractive and beautiful photogenic views. We need it for the recovery of humanity.

The authors, with such an awareness of the issues, have been active in landscape survey, planning and design in the provincial city of Ena since we met this field by chance a few years ago. The activities did not follow a pre-planned process. We keep thinking while running and acting with the people we encountered. It could be said that there was a sequence of connecting the main sectors (i.e., residents, students and authorities) in order to repair landscape deterioration and to provide with them learning chances. Of course, we ourselves have learned the most.

2. Deterioration of landscape
The Landscape Act¹ was established in 2004 in Japan. It seems to have encouraged the interest in landscapes all over the country. The operation of the act is left to local governments. Out of about 1700 municipalities in Japan, 562 have started landscape planning under
the act so far. The act has an advantage of enabling the making of a spatial plan for views, which cross different land use areas, while existing systems and tools are vertically divided according to land use. But in reality most of the plans are set up as very vague aims for the whole area or as controls on height and colors of buildings in very limited zones. We already have some tools to preserve and improve the historical townscape, outstanding natural landscape or cultural landscape and urban centers. On the other hand, landscapes that are difficult to evaluate using these explicit features, such as ordinarily urban and rural areas, have considerably deteriorated without being noticed under the economic recession and transformation of the industrial structure. The phenomenon can be represented by the keywords of "sprawl", "middle-landscape", "hollowing out", "cultivation abandonment" and "forest dilapidation". We have not yet used the act to the maximum to solve the deterioration of the landscape, but it may be said that the act provides a chance for local governments to take the lead in discussing landscape. Our activities started when a municipal officer of Ena City requested us to help in developing a landscape plan.

3. The subjects facing some problems
Do people with problems make the landscape deteriorated or does the deteriorated landscape make people depressed? It may be said that both are true. Each of the three sectors concerning our activities faces a problem.

Local residents
Planning with citizens’ participation, and/or community-based planning has long been the mainstream, but in reality most of the activities have been supported by subsidies and assistance from local governments. People who undertake community activities are limited, so that gaps in residents’ attitudes and interest level have increased. Leaders are aging. The economic recession, which is notable in provincial cities, causes activities to be discontinued. Under such conditions, the residents tend to demand explicit and remarkable landscapes such as historical or unified in color and height. For example, the Akechi district in Ena city, with 6000 people, succeeded in promoting the area as “Taisho-village” in the 1980’s. Taisho is an era of modern Japan from the 1910’s to 1920’s. Many tourists visited Akechi to enjoy the atmosphere of the Taisho era. It is a kind of theme park that boomed in the bubble economy, but today, the number of tourists has greatly decreased. To spite of this change, residents still maintains the illusion of identifying their townscape as Taisho-village. Our survey makes clear that there are few structures built in the Taisho era and the townscape is composed of various types of buildings. Residents tend to understand that their town has a notable character, in the context of commercialism. This means that there is a separation of the image of the landscape and the life of local people.

Students
Today’s university students were born and raised in the period of stagnation economy called the "lost decade". In addition, they grew up under a more relaxed educational program that respects the freedom and personality of each child. This program may be a failure, as the policy is already being reviewed. This program has produced not only declining academic standards, but also many over-indulged youth. Of course, there are nice aspects: they are friendly, carefree and good at evading conflict. They can easily have a friendly talk with residents the first time in the survey or workshops. They can always freely and easily choose what they like amidst the overflowing information, because they were brought up in an information-intensive society, but they have much less chance to experience the real field. There are some educational programs on-site but they just trace the surface and imitate. With these trends, their way of seeing landscapes is very poor. For example, when they look at the scenery, they cannot imagine a water system or farming work, or the physical activity of farm-product processing that form the rural landscape. For them, the view of the landscape is just a picture.

Local Administration
The big changes in recent decades in local administration of Japan are the large-scale merger of cities and towns, and decentralization. These idealistic policies and trends have not yet borne fruit. Exceptional Local Government Bonds for mergers make regions rich, but this is quite temporary. The merged municipalities widely combining district centres and hilly rural areas makes it difficult to draw a vision for the region as a whole. The shortage of budget and manpower prevent the decentralization from working well. The general trend of improving public services for citizens sometimes leads to unnecessary humility or is used as an excuse for administrators not to concentrate on the work they should accomplish. However, there is a basic flow to confirming the partnership with residents and various support policies for active sectors that should be welcomed for the field of landscape planning and design whose approach varies largely in places.

4. Multi-stage practical activities for landscape improvement in Ena
Under the above situation, we have been continuously active in the southern part of Ena City since 2009.
Our activities are as follows: support for the development of the landscape plan based on the Act, design survey of townscapes and making guidelines for them, reversing the decline of the local Akechi line railway, making design concepts of open spaces, supporting local small businesses, holding a summer school for students, research for graduation and masters degrees. These are shown in Fig.1. There is no space to introduce each activity here, so we introduce some visual media expressing the local landscape image and the learning influences in the three subjects.

4.1 Drawing the regional landscape image as a vision
In the process of discussion on the landscape plan in Ena, we were going to utilize the merger as an advantage, in that the different parts of the new city, each with its own character, could play complimentary roles in cooperation. Therefore, we decided to develop the landscape plan by the unit of the pre-merger jurisdictions. In 2009, four universities performed field surveys and workshops with residents concurrently in four areas. Those are two areas of small local capital cities, and two rural, agricultural areas. The characteristics of the landscape and the problems were different from but the common workshop programs had introduced. We started by identifying the present landscape resources and problems, then sorted them visually, talked about the future images of their life and landscape in the area, and finally proposed some actions to improve and sustain the social and special environment and the views. In the process, there was a continuous exchange of the discovery of aspects or values in the landscape from different perspectives. In other words, the residents explain the views that students noticed from the naive eyes of strangers, about their background, history, and functions. Occasionally, almost-forgotten memories and narratives were drawn out. The environmental values and problems, of which local residents were not conscious, were in this way brought into the landscape planning. We were able to grasp part of their local image by getting place names not listed on maps and some vocabulary they use in talking about their home and life. However, these fragments of images were not necessarily structured nor clearly visualized as a landscape for them. The members of the university tried to read the structures of their image of the region and visualize it in a map showing the route and elements as a clue to recognizing the region. This result made it possible for the residents to imagining their own area as a landscape. The map was finally expressed as a “regional illustrated image” (Fig.2). The regional illustrated image is the expression medium that integrated the different modes of the landscape image, such as the frame structure of the space, an overall tone,

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Fig.1 Multi-stage practical activities for landscape improvement in Ena City since 2009
landmarks, small elements with text and details. This is considered to be a future vision of the region, as well as the image of the landscape. The other visual medium we call a “landscape catalogue” were also developed. That is a collection of elements of landscape or townscape with common styles. Design guidelines tend to provide shape and color regulations, but this sometimes results in formal control only. We think the landscape catalogue gives the image of the elements intuitively as a basic tone in design (Figs. 3,4). These visual fruits of the workshops in four areas help the local residents to share a common image of their landscape.

4.2 Learning through the activities of three subjects
Local residents learning
Generally speaking, local residents do not necessarily recognize their living environment as a landscape. Taking photographs and talking about the photographs taken by them and by students through the workshops will give them an opportunity to have eyes for landscape. They become aware of the actual situation of the townscape, of which they had just a vague image like historical features, after they see the results of a strict survey of building facades by universities members. The actual situation that became clear seemed to gradually give them both a
sense of crisis and pride. For example, the ordinary living environment of the life that has been unconsciously handed down is becoming considerably impoverished. The fashionable facilities made as symbols in the near past cannot keep such important value now. On the other hand, even after a long absence, they remember the places they visited for school excursions and find the place gave them a really attractive scenery experience, and feel attachment and pride there. Such awareness leads them to refresh their way of seeing their present environment. Of course, how this sense leads to future action depends on the person. Some people try to start a challenge and other people remain in the existing situation or only talk about past glory. We could find cases of the former type of people starting a small local business, such as opening an accommodation that utilized an old farmhouse with thatched roof, a cafe in the community space in front of the local railroad station. Local residents themselves develop new activities utilizing regional landscape resources that support both their livelihood and landscape. The practice can expect a steady effect in the restoration of the deteriorated landscape.

**Students learning**

“There are accumulations of the lives behind the scenery.” “It is complicated and not so simple.” At first it is a big learning experience for the student to know this concretely. They may be surprised to have to learn such things expressly. However, the reality looks like that. Products, services and the related information are innumerable, and they receive them on appearance, without the background or context. This habit makes their sense extremely naive, so that their evaluation of scenery and the improvement ideas are not subtle. Such an evaluation and suggestion are criticized by residents who live realistically as "It is easy to say, but it is nearly impossible to realize". This experience itself is valuable for them. The students concerned with activities as staff members of universities continuously encounter this kind of shock so that they can develop and mature their stance and imagination concerning landscapes. The students finishing the summer school were only just realizing their over-optimistic recognition. It is left to each student whether he or she makes use of the experience in another field. However, it will be better than not to experience it once. Anyhow, students can learn through the on-site activities that they need to acquire a sense of the value of landscapes in the present age, rather than the attractiveness or beauties of the visual scenery. This learning experience will have more important influence on the phase to create the images of landscape design.

**Local administration learning**

The officers of the local administration work in vertical divisions. However, the problems appearing in the landscape are caused by complex factors. In the case of Ena City, we have considered that the landscape plan was not merely aimed at visual environmental order and control, but also at a representation of the vision of the region in the future. Under such an understanding, many unexpected topics were born in and after the sequence of the workshops, e.g., the use of vacant houses, reforming traditional buildings with out-of-date functions, design of public open spaces and their usage. The local administration has followed up on these topics one by one, by discussing them with university members. This was made possible by the efforts of the key person, who had a good understanding and good skill of coordinating various methods across the sectionalism. The efforts of this key person, who received the trust of the citizens, should have been stimulated in other staff members.

**5. Conclusion**

We have been thinking about the plan, even while rushing to connect the different sectors and objects and to make various events correspond with each other. This was made possible by the participation of multiple universities and by a supply of funds. Two of the four universities making up the team were in charge of the operation of workshops in four areas in parallel. This system achieved a much greater effect than if a single university had committed itself to a single area. Some emulous feelings among students, and the building of complimentary relations brought a good result. As to the areas, carrying out local activities in the neighbour hoods in parallel became a stimulus. At the final joint presentation, the community leaders of each area met for the first time and exchanged business cards. It was an interesting scene. As to the support we found for our activities in the beginning we started on a volunteer basis, but soon Ena City got a national subsidy for the model research project for local activation, so that we could afford to hold many workshops with many students. Ena City have research contracts with the universities individually. In addition, we got three years of public research funds based on these results in 2011.

The sequential activities on improving the landscape in Ena are starting new action in another area of the city, Oicho, at the autumn of 2012. The site, located in the center of the city, has a long history as a post town on the historical highway, so some traditional wooden buildings and a small waterway remain, but the urban area is hollowing out. Another viewpoint and actions in investigation will be required while making use of past experience, because a station
of a nationwide super-high-speed railway will soon open nearby.

The series of activities was not particularly coordinated as an educational program for local residents or students. However, upon reflection, it may be said that it became a place for multifaceted learning. The conditions unique to the region of Ena may have largely influenced our activities, but this practical experimental approach to problems in the environment and other subjects through a focus on the landscape will show several suggestions in what the landscape is in our age, as well as how to learn about it.

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**References:**

1) The English text of Landscape Act is available on the website:  