

THE RELEVANCE OF SYMBOLIC PHYSICAL ENVIRONMENT TO THE FORMATION OF SOCIAL NETWORKS FOR RURAL REGENERATION

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ABSTRACT: This study considers how local people relate their community identity to symbolic physical environment and how the geographical locations of these 'symbols' play a role in deciding the nature of social networks of the community groups organized for the purpose of regeneration. The subject of study is a mountainous rural village in Kochi prefecture, Japan, which has suffered depopulation and aging during the last few decades. Some inhabitants have volunteered to restore previously abandoned terrace rice fields in the centre of the whole area, as well as a mountain viewpoint at the top of it. While the latter has traditionally been the center of folk festivities, such as amateur horse racing and group hikes, apparently the local inhabitants came to realize the symbolic meaning of the rice fields to the community when it had lost its productiveness and started being abandoned. These two cases might present interesting contrast as to how local community groups form their social networks in relation to places. Within the first year of ongoing data gathering, we have conducted in-depth interviews with 60 inhabitants, focus group interviews with representatives of neighborhood organizations, participant observation in local activities and a photo-taking workshop involving 50 individuals. Combining qualitative narrative analysis and social network analysis, the study aims to address the following specific questions: How are the regeneration networks formed - who are the core members and what motivates them?; Are the social networks for regeneration geographically constrained due to the location of the 'symbols'?; What is the relation between the inhabitants' geographical position in the area and their positions in the local social network?; Is inhabitants geographical and social position related to their perception of the physical spaces? This paper reports on the research approach and some preliminary findings.

KEYWORDS: rural regeneration, voluntary organization management, symbolic resources

1. INTRODUCTION

Genkai-shuraku has been among popular media topics lately in Japan. Literally translated a 'settlement on the limit', the term stands for a rural settlement that has lost its population, with the age distribution of the remaining inhabitants skewed disproportionately to the elder, and thus looks to become unable to sustain itself in the near future. More specifically, Ohno (2005, 2008), who has been quick to identify this problem in the early 1990s,

defines it as a settlement of which those aged sixty-five and over constitute fifty percent or more of the population. He argues that the political and economic reformation policy executed by the Koizumi Cabinet (2001-2006), particularly the significant reduction of the central government tax revenue allocated to the local authorities, has been the main factor that accelerated the process of these settlements being pushed in the direction of being abandoned and disappearing. While population aging in rural areas is a problem recognized worldwide, it

is arguably most pressing for Japan, which has the highest proportion of population over 65 years old in the world (Japan 2009).

There has been relatively limited research, apart from Ohno's, on how *genkai-shuraku* might be regenerated. Some have focused on the renovation of derelict properties from an architectural planning perspective (Yusa & Gotoh, 2006), and others have looked at 'green tourism' including ones using terraced rice field ownership from the perspectives of agricultural and forestry management (Tsukada, 1997; Shiraichi, 2007, inter alia). However, little has been done to present an alternative way to conceiving 'regeneration', the conventional model of which tend to aim for economic and population boost, though it looks certain Japan as a nation is now expected to shrink.

Meanwhile, although it has been a while since community involvement has become the new tenet of sustainable urban and rural development worldwide (Morita et al., 1999), it has been pointed out that the interventions intended to ignite endogenous processes of local inhabitants organizing themselves for the purpose of regeneration, often failed to lead to sustainable voluntary movement (Nojima & Matsumoto, 2001; Tsutsumi et al., 2007).

The purpose of this study is two-fold. First, it is to consider how the goal(s) of rural regeneration in a rapidly aging settlement could be conceived of, when it looks unrealistic for it to drastically regain its population and economic activities alike. Second, the study explores the process through which the local inhabitants' effort dedicated to regenerating their communities could be organized and their network extend. This article reports on an ongoing case study in a mountainous village in Kochi, Japan.

The next section provides a brief overview of the case study area and two of the recently launched community groups, trying to join forces with a view to regenerating the village. Then, the methodology we employed is described, highlighting how quantitative and qualitative methods were combined. Next, the preliminary findings from both quantitative and qualitative analysis will be described. In conclusions, the required future work is discussed.



Figure 1 Location of Choja on the Shikoku Island

2. OVERVIEW OF CASE STUDY

2.1 About Choja

The study has been conducted in a remote rural mountainous village, Choja, one of the villages within the jurisdiction of Niyodogawa-cho, located about 60 km out to the west of the city of Kochi (Figure 1). Niyodogawa-cho was formed in 2005 as the result of the merger of three municipalities, Ikegawa-cho, Agawa-mura and Niyodo-mura, the latter being among the original case study areas of Ohno's (2005, 2008). Choja is one of the largest villages within the old Niyodo-mura area. Its population is approximately 800 with 300 households as of 2009.

While most of the other villages of old Niyodo-mura have already passed the threshold of *genkai-shuraku*, Choja has been fortunate to keep the

proportion of those aged sixty-five and over around forty percent to date, mainly owing to the fact that it has been the base of a limestone mining company for years and thus accommodates a significant number of working population. One of the two remaining primary schools within the old Niyodo-mura area is located in Choja as well, despite the recent closure of many others.

That said, shrinking and aging of population seems an inevitable trend there, too. Choja consists of thirteen settlements spreading across several kilometers, and each of them still maintains unity as a community. Of these settlements, however, those on the peripheries that do not accommodate the employees of the mining company are indeed *genkai-shuraku*, and some are on the course of abandonment. For example, only three households remain in Shashebu, which reportedly had sixteen or so households at its peak.

Thus, local inhabitants have started putting some effort to revitalize the village, and three local festivals have been launched within the last three years: Hanashobu-matsuri in June, Tanabata-matsuri in August, and Candle Night in December. These events now are said to attract some thousand people. In running these events voluntarily, the local people have started organizing themselves and look to extend the network of people who join forces for the purpose of regenerating the community.

2.2 Choja's community groups

Notably, there are two local groups that have been the core members to run these events. One is called 'Dandan-Kurabu', which might literally translate 'terraced rice fields club', though 'dandan' is also a local dialect meaning 'thank you' 'take it easy' etc. It is a volunteer group that voluntarily maintains the terraced rice fields situated in the

center of the village, which are also the venue for the three events. These rice fields had been abandoned gradually as the village lost its working population to secondary industry in urban areas. The club was first formed around a few people, who after their retirement started volunteering to mow and weed the fields, and plant flowers to beautify them. It has now over eighty members.

The other is called 'Hoshigakubo-kai', a group in charge of the maintenance of an open space at the top of the mountain, 'Hoshigakubo'. 'Hoshigakubo', or the 'hollow of star', was named after the pond in the middle of the space, mythically believed to be the result of a meteorite hit. The place used to host annual amateur horseracing festivals. People would bring their own farm horses to compete, not only from Choja, but also many other villages in and around Niyodo-mura. As cultivating machinery became dominant, the horseracing itself had come to an end over fifty years ago, but the local old people still have the fond memories of it. Younger generations also link the place with the sense of festivity, since it has also been the destination of school hiking, and the local educational committee holds a 'family hiking' event annually. 'Hoshigakubo-kai', with fifteen or so members, was launched a few years ago, originally to take over the maintenance of the place from a private company when the public funding to outsource the work was halved.

These two groups, in partnership with Kochi University and Niyodogawa-cho, now constitute a community council that has received five-year public funding to start up sustainable community regeneration projects endogenously. This study has been shaped around looking at their early effort to drive the community towards that goal.

3. METHODOLOGY

3.1 Data gathering

The primary information has been collected through field surveys, which were conducted five times between October 2008 and December 2009. Data gathering methods included semi-structured and in-depth interviews, focus groups, organization of a workshop, and participant observation in local activities. In cooperation with the local people, we gained access to a rich variety of informants. Instead of random sampling, we tried to maximize the diversity within the sample, so as to include inhabitants from all of the settlement units within the village, with various levels of involvement in local collective activities, age, and migration experience.

The first visit was dedicated to semi-structured interviews with a variety of informants. The questions we asked were concerned with: their personal and family history; daily activities; important events in their lives and their surroundings; their perceptions of the current local events; what they like and dislike about living there; and their views on the future of the village. On some occasions, we asked them to share with us their personal photographs, which would represent well the changing face of their neighborhood. For those who had had experience of living elsewhere, we asked them to compare it with the life in Choja and elaborate on the reasons to move here. A typical interview took between one and two hours.

After interviewing around 60 informants, the amount of newly heard information about the area or unique personal experience gained from each interview has become low, so we stopped interviewing new people and revisited informants who seemed to have much more to say than what our semi-structured interview framework allowed. Some

key individuals were re-visited several times, with gradually more focused questions targeted to their specific experience. In addition to that, we carried out focus group discussion sessions with the members of the local organizations during which we gained comprehensive description of their aims and activities.

Notably, one focus group session was conducted with 17 inhabitants of one of the most peripheral settlements in Choja. This session was particularly designed to explore the frequency as well as the geographical scale of the interactions between the inhabitants of different neighborhoods within Choja. We asked all the participants of the focus group what their relations and interactions with inhabitants of other neighborhoods are like.

In the end of this first year of our involvement in the area, we organized a workshop, which was open to all inhabitants. The information about the workshop was circulated through local pass-along circulation as well as word of mouth. 49 people participated in it, ranging from primary school pupils to 80+ year olds. The participants first went out to take photographs of their favorite places in and around the village, and then had discussions about them. A questionnaire was also conducted to explore their communication channels. We asked them to list the names of up five people falling into either of the following three categories: a person who invited them to this event; a person whom they invited, or a person with whom they just talked about it prior to the event.

In addition to these relatively formal ways of information gathering, we also participated in local events organized by a community group, of which we officially became members, and gained farther insights into local life-styles through staying at one

of the local families during the surveys. We took detailed ethnographic notes, which were shared at the end of the day within the team.

3.2 Data analysis

The information gathered through the field survey has been analyzed both quantitatively and qualitatively. Quantitatively, we applied some basic tools for social network analysis. First, pieces of information about communication related to the workshop acquired from each individual through the questionnaire were connected into one to obtain an overall communication network of the participants. Even an eyeball examination of the visualized network gives some idea as to who are the influential individuals who constitute effective channels for communication. It is expected to reveal, though a limited extent, the development of informal communication networks within the village, which would be of particular use in promoting events and mobilizing people in the future so as to extend the network of regeneration activities throughout all the neighborhoods.

Next, more rigorous methods of social network analysis were used to quantitatively identify the key individuals and communication channels. Influential people could be identified by the measure of between-ness – this value is high for actors who lie on many shortest communication paths among other actors. Furthermore, assuming that influential people are likely to be connected with each, eigenvector centrality was calculated for each respondent. In addition, clusters within the network, their cohesive cores and cut-off points were also quantitatively identified. The structure of this one type of the communication network should not be mistaken for the social structure of the community and the computed network measures are not all important.

Nevertheless, these measures can be used to rigorously pinpoint aspects of the broadly defined ‘community’, which deserve deeper exploration.

Once quantitative analyses were conducted, the nature of the network as well as the roles of identified relevant persons were substantiated with the qualitative information extracted from interview records. While more detailed qualitative analysis is just underway, the following sections present some preliminary findings, highlighting the issues that look to be worth exploring further in the future field surveys.

4. FINDINGS

4.1 Structure of communication network

Figure 2 shows the visualized image of the communication network constructed from the questionnaires. It includes not only the participants of the workshop, but also those with whom one or more of the participants reported to have had conversation about the workshop before it. The direction of an arrow represents the mere fact that the node of origin was the person who wrote down the name of person represented by the node of destination; it could be either direction of invitation or even simple conversation with no intension to invite the counterpart.

The shape of node stands for gender; an up-triangular is for female and a down-triangular male. Each color of node represents each of the sub-settlements within Choja, except for red, which are for those from outside. The size of node reflects its degree i.e. the total number of nodes it directly connects to. It could be considered that the larger the node is, the more important to the network the person is. All the names are pseudonyms.

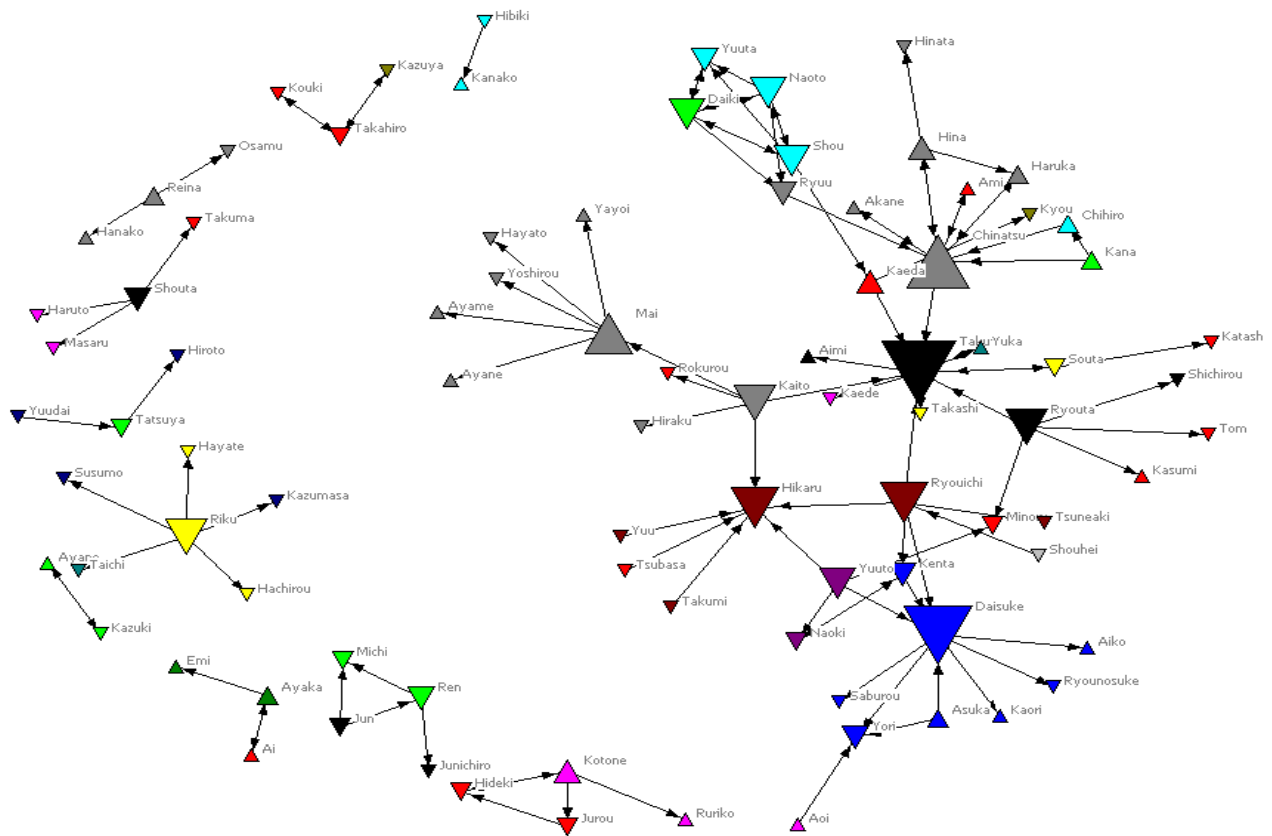


Figure 2 Network of workshop-related communication

With an instant look at the image, we could point out the following three points. First, there are a relatively limited number of large nodes and many more of small nodes. Second, the nodes of the same color appear to cluster together. Third, it consists of small separate components and a large one (referred below as the ‘main component’). These characteristics are interpreted below in light of the qualitative evidence observed on the ground.

4.2 Role of core members of community groups

One thing apparent in the network is the fact that the nodes with high degrees tend to be the core members of the community groups, Dandan-Kurabu and Hoshigakubo-kai. Table 1 shows the betweenness scores of the nodes with five or larger degree scores, along with in- and out-degree scores. They all scored five in out-degree, i.e. the number of people a respondent named in the questionnaire, except for Hikaru, who did not attend the workshop.

This suggests they were among those who had actively communicated about the event, and thus may well have contributed to its dissemination. The

Table1 Betweenness scores of high-degree nodes

Name	Degree	Between-ness	In Degree	Out Degree
Takuya (D*)	10	922	7	5
Daisuke (D/H*)	9	349	4	5
Chinatsu (D)	8	418	7	5
Ryouichi (D)	6	480	1	5
Hikaru (D)	6	255	6	0**
Mai (D)	6	250	1	5
Kaito (H)	5	428	0	5
Ryouta	5	186	0	5
Riku (D)	5	10	0	5

* D and H indicate membership of Dandan-Kurabu and Hoshigakubo-kai respectively

** Hikaru did not attend the workshop

scores of in-degree, i.e. the number of respondents who named the person, varied considerably. Coupled with the position in the network, this made the difference in betweenness scores.

Takuya was the highest in betweenness, and thus the most central in the network. His node is the largest black one in the middle of the main component in Figure 1. It is also apparent from the shape of the network that he is central, with other high-degree nodes linked to him and ties extend farther out from them. In fact, he is officially the ‘chief’ of Choja, elected by the inhabitants, and has been the ‘gatekeeper’ for us, providing a lot of assistance in setting up interviews and so on. He understood the workshop’s aim was to involve a wide variety of people as much as possible in terms of area, age and gender, and tirelessly worked to meet this for us. Hikaru would have had the similar level of centrality to Takuya, had he been present and answered the questionnaire. He was officially the coordinator of the workshop on the Choja side, and had been active in putting together the participants’ pre-registration.

The next group of high-betweenness nodes (between 300 and 500) seems to contain two different types. Daisuke and Chinatsu are high in in-degree, but positioned relatively peripheral, whereas Ryouichi and Kaito are low in in-degree, but positioned relatively central. It seems as though the latter group worked as bridges to other key persons who would communicate with more peripheral members of the community. The high in-degree scores of Daisuke and Chinatsu reflect the fact that those who they had spoken to about the workshop beforehand were actually present, which was the dividing line with the likes of Mai and Riku, who scored relatively low in betweenness.

It was interesting that the core members did not refer to each other so much, despite the fact that they certainly had talked about the workshop in their regular meetings of Dandan-Kurabu as well as the community council. But they tended to opt to name those who have not joined their groups. An extreme case is Riku, who is one of the most recognizable members of Dandan-Kurabu, but appeared separate from the main component, as shown on the left of Figure 2 (yellow down-triangular). This tendency might be a reflection of their keenness to involve more people in their activities.

4.3 Geographical distribution

The network structure might also suggest that there are the ‘center’ and ‘fringes’ to the whole Choja community in both geographical and social terms. Those who scored high in betweenness are not only the members of the community groups, but also from four of the five settlements located next to each other (colored black, brown, dark grey and blue), which constitute the largest cluster of settlements in the middle of the Choja area. In contrast, the other peripheral settlements are not necessarily under-represented in number, considering their relatively small population; more important, however, they all remain peripheral in terms of the position in the network. In fact, the separate components are mostly composed of the nodes of those from the peripheral settlements.

There has been some qualitative evidence as well that the interaction beyond their own neighborhood is very limited. The focus group session in Furuta, one of the most peripheral settlements, illustrates this well. As shown in Table 2, when we asked them around if they have any acquaintance – i.e. a person who they would greet when they come across somewhere – in each of the other settlements, the dominant majority answered

positively for most of the settlements. However, when asked if they have actually spoken to them the last few weeks, positive answers got very low.

Table 2 Communication beyond own settlement

Settlements in Choja	Know someone there	Spoken to her/him lately
A	4	2
B	15	5
C	12	4
D	17	8
E	15	2
F	15	6
G	17	6
H	17	4
I	17	10
J	17	8
K	6	1
L	13	2
M	3	0
N	8	1
Avg.	12.6	4.2

(n=17, focus group in Furuta)

There has been some indication that inhabitants of those peripheral settlements might have more close-knitted network within them and maintain local tradition well. For example, again, people in Furuta still practice *koh*, a traditional communal mutual-help loan, which used be a standard practice around the region. They also practice exclusive seasonal rituals at the community shrine strictly, though all of the other communities also do practice their own to a lesser extent.

This does not necessarily mean they are unwilling to participate. High proportion of the focus group participants actually had been to the three local festivals (14, 13, and 15 out of 17 respectively). However, the membership of Dandan-Kurabu was

only 3 out of 17. The general feeling of interviewees – not only those from Furuta – who have not joined the group seemed to be: ‘I cannot contribute as much, so I don’t join it’. For those who live far from the terraced rice fields, constantly going there to participate in volunteer work might be too much to take. How they could make the network more inclusive and extensive to involve these people is a challenge for the community council and each of the community groups alike, as long as they are aimed for the regeneration of Choja as a whole.

4.4 Bridging the age gap

Although the age attribute is invisible in Figure 2, the age gap is also apparent in the network. Of the ten small components detached from the main one, seven are the cases where young members of the community, such as primary school pupils, high school and university students, and a woman in the early twenties, only referred to their classmates or family members, and for some reasons a link to any of the adults connected in the main component is missing.

It was either that the parents they referred to were not present at the workshop or failed to answer the questionnaire, or that they simply did not refer to any adult who had told them about the event. Of course, it is highly probable that other adult respondents, too, failed to refer to a name or two; however, it could be said at least that younger members are so vulnerable in the network that the failure to name only one adult could cut them off it.

It is probably true that young people tend to name immediate friends, which is the case in the very close cluster of the main component near the top, composed of five nodes referring to each other (Yuuta, Naoto, Shou, Ryuu, and Daiki). It took two of them writing down the names of Chinatsu and

Kaeda to get them linked to the main component. Chinatsu and Kaeda work at school, as a secretary and a teacher respectively. Clearly, there was the lack of adults who could bridge the gap between the core members, who are predominantly over 60, and the young people. Indeed, only six out of the 50 workshop participants were local people of working age: two in the twenties, none in the thirties, one in the forties, and three in the fifties. This gap also would have to be filled in, to make the effort for regeneration sustainable.

4.5 Insider-outsider relationships

Another interesting issue to explore is the relationship between insiders and outsiders in the process of developing the network for regeneration. The network shown in Figure 2 contains fifteen red nodes, i.e. the persons who came from outside Choja. They included: participants' friends through school or work; government officials from Niyodogawa-cho and the local office of the Ministry of Agriculture, Forestry and Fisheries (MAFF); schoolteachers; and the researchers.

In fact, the interaction between the insiders and outsiders has been a key factor to moving the regeneration effort forward from the very beginning. The three major festivals had been started up as a result of the intervention by Kochi University, who organized a student workshop to 'discover the local treasures' and came up with the proposals for these events, among other ideas such as 'farmer's restaurant'. Instrumental to this intervention was the former director of the MAFF local office, who was also lecturing at the university at the time. Thanks to his previous experience in overseas projects, he was inspired that the abandoned terraced rice fields, coupled with the houses standing upon steep slope, could be a valuable community resource, and began to encourage local people to capitalize on it.

More recently, the local authority as well has taken the initiative in launching the community council, jointly run by the local authority, Kochi University, and the two local groups, Dandan-Kurabu and Hoshigakubo-kai. In the meantime, however, it is not only these stimuli coming from the outside, but there also had been some seed of voluntary effort from within, which had become the core for the local people to get themselves organized as Dandan-Kurabu (see next section).

The village has also attracted some academic attention; a researcher from another local university, Kochi University of Technology, lived there for a year to conduct research on elderly women's lives in remote rural settlements, while also helping out for the community activities, including not only the running of the events but also mowing and weeding the rice fields. She also organized lectures by her fellow academic staff so as to provide some ideas for their future activities. Her involvement seemed to have coincided with the activity of Dandan-Kurabu gaining its momentum, though her role in it is not entirely clear.

Notably, she played the role of the initial 'gatekeeper' for the authors to become involved in this study. As part of a broader research group, we selected Choja as a case study, with which we would consider the future landscape of the nation could be formed. It appears that local people have positively accepted our involvement, with a view to get some advice on the direction in which they might direct their effort in the near future. There has been some evidence that our intervention has started bridging the gaps in terms of age and area.

Ryouta, the black node connecting to Takuya's from the right, wrote down the names of the

researchers along with his younger brother and Takuya. He is a 24-year old young man, who has got to know one of the authors in Tanabata-matsuri when he was helping out his father, one of the core members of Dandan-Kurabu. Since then, he has been the main informant in gaining information from the viewpoint of younger generation. The researchers, Takuya and Ryouta, along with others, had drinks together on several occasions, and they said that they had never done that before.

Similarly, Yuuto, the relatively large purple node between Hikaru's and Daisuke's, is a 54-year old man, who is the elected chief of Furuta. He participated in the workshop and also named one of the researchers. He had not been so keen on Dandan-Kurabu's activities, while he had been active in the community of younger generation in many ways. After the workshop, in which we went around and took photographs of favorite places, he said he was pleased he could share the view with people from other settlements in Choja, and would like them to come and see Furuta more.

In fact, the local people might not be necessarily as close-knitted as some might expect for rural communities. The lack of communication between people was often spotted during interviews. For instance, an old woman had not been aware of her neighbor's recent admission to hospital due to an injury until we spoke to her. Hence, extending their network beyond these gaps would require something additional to their normal channels of communication. The impact of intervention from outside in this respect is something worth exploring farther.

4.6 Symbolic value of place and endogenous process

The discussion about the role of outsiders extends to

how the symbolic values of the rice fields and Hoshigakubo have come to be 'rediscovered'. It is for sure that outsiders 'eyes' were instrumental in finding out the value of the terraced rice fields as the 'stage' for the festivals, two of which are thematically linked to old local traditions as well. It is true that the landscape of Choja in general and that of the rice fields in particular has an appeal to visitors. The schoolteacher who took her pupils to the workshop had been impressed with these sceneries herself since she had moved to Choja earlier that year, and thus was coincidentally doing 'discovering Choja's treasure' workshops in her class at that period of time. Two of the participants from Kochi University, who accompanied their friend who came from Choja, were also very excited about the views.

However, it was not just those outsiders who were to be credited to realize their value to the community. Qualitative evidence suggests that the rice fields had not been regarded as community property when they were being cultivated, with the product being personally consumed by the landowners. Yet, about five years ago, one of the inhabitants started raising concerns over the abandoned rice fields and the stonewalling covered up by weeds, and several others come to realize the missing aesthetic value of them. That was the beginning of Dandan-Kurabu, and all the above-mentioned intervention came after it.

It is worth noting that there still are a lot of terraced rice fields that are being cultivated in Choja. For instance, there are ones in Furuta, which are kept in perfect condition as rice fields and people agree that they are as beautiful as the abandoned ones used to be. However, in terms of the symbolic power to bring people together, it looks as though the latter seems to have the upper hand. This could be down to

the fact that to appreciate Furuta's rice fields you have to go further up the mountain to have a good view, whereas the ones in the center of Choja are located along the approach road to the main settlement cluster and very easy to view from many different angles. What decides the symbolic value of a particular place is an issue to be explored further.

On the other hand, in the case of Hoshigakubo, the story is a little different. The place has always been the focal point of community gathering, notably, the traditional horseracing, school hiking, and family hiking. The place had been publicly maintained, but the reduction of fund meant that the town authority could not afford to outsource it to a private company, which 'had been doing the job poorly anyway' (Ryouichi). Thus, they decided to hand half the amount they had used to pay for the company to community and let them do the maintenance. Although it was Dandan-Kurabu who had been approached at first, they declined the proposal due to the lack of labor capacity. Then, a local councilor and several other members started up another local group, Hoshigakubo-kai. Despite the difference in the process, it is similar to the rice fields, that Hoshigakubo deteriorated over time and local people come to realize its lost community value and stood up to help amend that situation.

Interestingly, the ways of managing these groups are quite different. On the one hand, Dandan-Kurabu is voluntarily managed, and even each member is required to pay an annual membership fee of a hundred yen. Even though it is a very small amount, this is meant to help the members regard themselves willing participants, rather than being asked to help out. Hoshigakubo-kai, on the other hand, pays for those who volunteer to do the maintenance and beautification. The necessity of this payment has been questioned by some of the

participants, but they have succeeded in involving other groups in the communities, such as a women's group and local junior softball club. It could be said that the approach is more 'top-down' and 'capital oriented'. It has been successful in securing some additional public funding, and built some new structure in the place, such as tables and benches.

Hence, these two might present the contrast between bottom-up and top-down approaches. The dynamic process of interaction between insiders and outsiders must have played a part, which is subject to further research.

5. CONCLUSIONS

This paper has described the methodology and the preliminary findings of an ongoing study about the regeneration process of *genkai-shuraku*. Coupling social network analysis with in-depth qualitative data, the study has indicated several interesting issues concerning how the effort to regenerate a rural depopulating village could gain its momentum, or otherwise. Although the network constructed in the study was only related to the workshop we organized and should not be mistaken as the structure of actual social network in Choja, it still illustrated some important implications for the development of community organizations aimed for regeneration.

The fact that the community groups we studied were formed around restoration of places that have symbolic value to the community might have affected the formation of the network for regeneration. The communication network was dependent on the core members of Dandan-Kurabu and Hoshigakubo-kai, whose membership seemed to be dominated by old people from central settlements. For this reason, there seemed to be the gaps in terms of age and area, which needs to be bridged if they intend to regenerate the whole Choja community. To

bridge these gaps, outsiders' intervention could have a part to play, though much remains unknown about the dynamics of insider-outsider interaction.

Further analysis of the qualitative data, as well as continuous observation of the process in which these community groups develop their activities would be necessary. At least, holding events such as the three festivals and the workshop have the potential to enhance the communication between inhabitants from distant corners of the village, as well as that between different generations. How well they could do it is yet to see.

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REFERENCES

Japan (2009) *The World Factbook* [online]. Retrieved January 13, 2010, from U.S. Central Intelligence Agency:

<https://www.cia.gov/library/publications/the-world-factbook/geos/ja.html>

Morita, T., Nakamura, F., Akimoto, N. and Takahashi, K. (1999) A Study of Requirements to form Functional Non-administrative Organizations in Japan from a View of the Regional Initiative Approach, *Papers on City Planning. City Planning Review* 34, pp.313-318 (in Japanese)

Ohno, A. (2005) *Genkai-shuraku and Regional Regeneration* (Genkai Shuraku to Chiiki Saisei), Kochi Shinbunsha. (in Japanese)

Ohno, A. (2008) *An Introduction to Environmental Sociology of Mountainous Villages* (Sansou Kankyo Shakaigaku Josetsu), Noubunkyo. (in Japanese)

Shiraishi, K. (2007) Partnerships and Social Enterprises for Regeneration of Less Favored Area in Japan, *Ryukoku Law Review*, 39(4), 597-627. (in Japanese)

Tsukada, S. (1997) The Revival Potential of Agriculture and Farm Villages in Japan, *Annals of the Association of Economic Geographers*, 43(4), 246-161.

Tsutsumi, K., Koizumi, H. and Ohkata, J. (2007) A Study on The Empowerment System in Machizukuri: The Current State of Resident Autonomy Organization, *Journal of the City Planning Institute of Japan*, 42(3), 247-252.

Nojima, S. and Matsumoto, S. (2001) A Study on Process of Start and Development of Organization - A Case Study at Central District of Nagahama City -, *Papers on City Planning. City Planning Review*, 36(2), 7-12.

Yusa, T. and Gotoh, H. (2006) Vacant houses and their management in hilly rural areas : A case study in hayakawa town, Yamanashi prefecture, *Summaries of Technical Papers of Annual Meeting Architectural Institute of Japan*, 2006, pp. 611-612.