DESIGN OF ROADS FOR SOCIAL COMMUNICATION

Functions and Meanings of Roads in Community

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Abstract: In this paper, we discussed on what the road should be and on the ideal model of communal society through the survey of a mountain village. We rediscovered the functions and meanings of the road as a communication. The results clarified the followings:

1) The village road has a community supporting interface as a place of learning, cooperating, communicating and working. 2) The village road entails a double spatial meaning: formal or ordinary, center or periphery, so it links man with man, man with God and this world with the world of the dead. 3) The village road is recognized as a unified phenomenon of time and place, so it works as a communicatin place for contacts between man and man.

Keywords: Design of roads, Social Communication, Functions and meanings

1. Introduction

To walk in the street was an important part of human life. That's why various facilities, necessary in the world are located near by roads, for example shrines and temples and all are connected by means of roads. (Note 1)

In old times the road had the functions of living place, working place or a place to bring up the living culture. The road was a place for social and spiritual communication, connecting man with man, man with society and finally man with nature and gods. Therefore the road was an indispensable space for the maintenance and development of people in communal society. However at present time, with the weakening of the connections in the communal society, the process of motorization and the pursuit of economic efficiency in road construction, the variety of functions the road once had are gradually fading away.

By means of a village survey, this paper rediscovers the design of the road as a communication place and reflects on the ideal road model for present society and finally on the model of communal society, connected by roads.

This survey was executed in Ohnbori village (Mishima-cho at Fukushima prefecture), as a field work with two parts: in August and October, 1994. The research method was a hearing interview of 20 people between 45 and 91 years old, living in the village.

2. The roads of Ohnbori village at Mishima-cho

Mishima-cho is located in the Western part of Fukushima prefecture, along Tadami river in the area of Echigo mountains. Tadami river runs East-West at the center of Mishima-cho and it pours into plenty of mountain streams. Mishima-cho consists of 17 big and small villages, located along the river or streams. The Ohnbori village is the object of this study and it is a middle scale village of Mishima-cho with 145 inhabitants and 43
Once there were a few rice paddies and beans or rice were cultivated, while as a side job in winter hemp, paper mulberry, etc. were cultivated, moreover all farm houses were involved in sericulture. At present the people make their living by self-sufficient agriculture, forestry, engineering works or company work.

The main transport communication road is Yanaizu road, developed in the modern period and later Ohnobori village was connected with Kawai village by this road. Besides Yanaizu road Ohnobori village has another main road, called Ginzan-pass road and those two roads up to the end of the war were the most frequently used roads for people and goods' traffic in the area.

At present Ohnobori village is located at the Southern side of the national highway No. 252, running East-West along Tadami river and the national highways No. 1, 2 and 3 pass through the village (Fig.1).

Road No.1 extends from the village to the East, going to Kawai village. Roads No. 2 and 3 on the Northern side run up the hill from the national highway and going along them you can see the villages at the back of the South-eastern mountains.

The old roads inside Ohnobori village (roads No.1-7 in Fig.2) still exist nowadays. Junkenshi road (No.1) was constructed in 1985 in relation to the 'Village Pride'movement, later it is maintained as part of the 'Hometown visit course' and now a monument is under construction there. Funaba road (No.3) runs to the place for boat arrival at Tadami river. The marine products from Nigata were delivered through this road to each village.

At present the old roads No.1-7 are used as agricultural roads, going mainly to the rice fields or mountains. All the way through this roads the grass is cut regulary, however recently people don't go to the mountains, so the roads far away became out of use. All the roads depicted in Fig.2 are at present inside the village and from 1971 to 1993 have been maintained as village roads. At present a bus runs inside the village and in winter season the snow is removed, so the roads are vital for the village life.

3. Road functions in everyday life

Originally the road had various spatial functions other then the traffic of people and goods. For the village people the public space of the road was a place for close relationshp and communication and it is not too much to say that the road mediated the formation and maintenance of the communal society. In this paper we will examine the functions and meanings of the village road as divided into two parts: the use of the village road in everyday life and the use of the village road in ceremonial occasions, for example - year festivals, funerals, etc. At first we will investigate the use of the village road in the everyday life of Ohnobori village.

3.1. The road as a place for play

Once the children ran and played all around the village. The children played with stones or tree leaves, so the existence of the road was enough to make the play possible. For the children the road was a public space they
can play freely and it meant an 'Open space', connecting the garden with the shrine precincts, fields, forests and the rest of the village.

In Fig.3 are described some of the children games, which the children in Ohnobori village used to play until recently in the village roads.

Once the children while playing in the street space had opportunities for various experiences useful for their growth as adults. For example, they learned about the manners of group life, relation to nature, etc. by being in their own society with autonomy and independence. The children by means of the street as a place for play have learned the manners, while freely and creatively playing and experiencing and not by way of teaching or games, prescribed by the modern society. (Note 2)

3.2. The road as a place for communication and exchange

For the adults the road was a place where people gather and communicate and an important place to meet outside people. In modern times Ohtani village flourished as the cultural and economic center of the area and the place called Horse station accommodates travelers and luggage horses. Often various merchants, involved in leached cotton, loss silk, hemp, hoe, sickle, tea, salt, etc. trades passed along this area. Naturally, those merchants went also to the neighboring Ohnobori village, offering goods and transmitting various living and cultural information to the village people. (Note 3)

3.3. The road as a place for work

The houses of Ohnobori village are not separated by high fence or hedge from the road. Each house is connected to the road and nature, so the working processes inside the house and garden naturally spread into the road.

During a fine day in October in front of each house over the road collected small beans. soybeans and other branches are arranged into bundles. At the branches with dried beans were hit over a large wooden plate until the bean cases and nuts fall apart. After that the branches with remaining bean cases and beans are spread over straw mats in the road and are hit by stick, called matori or by the body of a beer bottle. In late autumn one can hear the sound of hitting the soy beans, echoing around the village. Under the gentle sunlight the village women are hitting the beans silently. (Fig.4)

Figure 3 The road as a place for play

Moreover, the roads of Ohnobori village are also used for other life supporting activities of the village as a public space.

For example, each year in the time of snow thawing a local theatrical group is coming to perform Kagura. The day of Kagura is a holiday for the workers in the village. At night Kagura is performed in front of the

Figure 4 The village women are hitting the beans
The house of Mr. B in the middle of the village. People sit on the threshold of the tea room or guest room, encircling the temporary stage in the garden and the spectators spread until the street. Centered around the lights of Mr. B house, the garden and street also become places for the audience.

4. Village road functions in ceremonial occasions

The main village roads, depicted in Fig. 5, are called kami (upper), shimo (lower), ue (high), naka (inner), shita (low) and ura (back). These roads have particular spatial meaning especially in ceremonial occasions, which is also recognized by the present village residents. The naming of these roads came from their relation to the river flow (kami-up, shimo-down), mountain height (ue-high, shita-low) or other concepts, related to the natural milieu. In addition the concepts kami/shimo and ue/shita were attributed meanings, related to the village spatial structure: kami is called the place of the shrine, while shimo is called the place of the graveyard. This type of spatial concepts, based on the natural topography are common for all villages of Mishima-cho.

Moreover, together with the shrine road, kami, naka, shimo, shita are called omote-michi (hondou) or front roads. Omote-michi originally designated the ancient roads, but recently it also has the meaning of 'place with houses' or 'wide place where a car can pass'. Ura (back) is the road on the valley side of Omote-michi, running parallel to it. On both side of Ura there are rice fields or trees and often the houses don't face the road, so it gives a bit lonely impression.

Once there was no village house, facing only Ura. Moreover, the road from Ura to the graveyard is called Ura-michi and it is a contrasting concept of Omote-michi.

4.1. Mushiokuri: the road, dividing the inside and outside of the village

Omote-michi is the place for ceremonial occasions in the spatial concept structure of the village-a road one should pass in all cases. That is to say that people recognized Omote-michi as a sacred space for ceremonial occasions and they preserved its spiritual and spatial order.

The annual event of Mushiokuri (Fig. 6) is an example that such spiritual/spatial order clearly existed. In this event vermins, damaging the cereals are gathered in a Mushiokuri cage and thrown away beyond the village borders, thus both the concepts of evil and spiritual worlds are included in this event. Thus by means of the Omote-michi the people understand the spiritual spatial order in the village and can drive away the evil, symbolized by the periphery (outside of the village) space, called Denbaramushi.

In this way it was recognized a spatial concept with binomial opposition of 'inside' and 'outside' the village, or this world and the other world, so the village community and the invisible space are integrated into one unit.

4.2. Wedding and Newly born baby' shrine visit: the road as a place for member approval

Until 1955 the wedding ceremonies were held in winter during the farmers' holiday season, sometimes in a
snowstorm day.

The wedding ceremony is held under the blessing of the village people, so the road plays an important role as the stage of the wedding. The road has the function of a place where the bride receives the approval of the community to become its member.

When a baby is born in the house, the wife together with friends or neighbors arranges the newborn baby's first visit to a shrine. In this event the child is dressed in 'Inagi' - a bleached cotton dress in whose back 3 beans are sewn, and taking the Omote michi the procession heads toward the shrine. During the newborn baby's first visit to a shrine Omote michi becomes again a stage for announcement to the village people and the road becomes a ceremonial space for recognition of a new member of the community. (Fig.7)

4.3. Bon Festival, Candle ceremony, Autumn festival: the road as connection between sacred and profane

During official ceremonies to visit the graves like Bon festival, Candle ceremony, etc. in all cases people used Omote michi.

On the 13th of August during Obon festival, the master of the family becomes a head, and holding up a Japanese lantern over his head, he walks toward the graveyard in Shimo direction. Next comes the eldest son in the family, ringing a bell and after him follow the other family members, holding incense sticks, beans, watermelon, etc. (Fig.8)

The Obon festival road is cleaned, the grass is cut ('Bonmichigari'), so in this way a sacred space for the deities to come is purified.

Moreover, in the day of the Candle ceremony, a small candle called 'Tsujiro' is put on both sides of the road in front of each house and this follows up to the graveyard. The road symbolizes a sacred path (Kamimichi) for the departure of the souls of the dead in solitude through the tiny lights of the Tsujiro. In this way during Obon festival and the Candle ceremony the village road is transformed from a space for everyday life into a ceremonial space and the sacred road Kamimichi serves to connect sacred and profane or this world with the other world.

 Usually to visit the graveyard people don't dare to use Omote michi, but walk through Ura michi or the farmers' roads. (Fig.8)

This also emphasize the existence of Omote michi as a signalization for the transition from the ceremonial to the everyday life space.

Furthermore, during the Autumn festival in the 9th of September, the festival floats go from the shrine via Kami road toward Shimo and Naka and later once again go back to the shrine by the Kami road. Here once more Omote michi plays the role of a sacred space, dividing the sacred and the profane. Kami becomes the main street of the festival, it is very crowded, many shops are arranged on both sides and at night it becomes a place for fireworks.

5. The road as a device, supporting the community
5.1. Water place as a communication core
In Ohnobori village the water from the wells is not enough, so the village created a common water place, where water, brought from the mountains has been taken for everyday life use. This type of water places are called 'Mija'. In the past it was the work of the wife to carry water from the Mija. These water places were reconstructed 20 years ago during the building of water supply system. At present there are 13 small and big water places inside the village (Fig.9), having 3 water sources: with fresh water from the mountain (No.1,3,4,5,8,9,10,11,13), water reservoirs from the bank (No. 2,3,4,5,8,9) and water supply (No.6,7,12).

The fresh mountain water is important for drinking and cooking uses. The reservoirs water from the bank is used for watering grass or washing, etc. The water places before the spread of the water supply were 6 feet squares, encircled by stones with 3 steps and roof structures. The present water places are 1m./1m. squares, made of concrete with 2 steps and the height of the water reservoir is ranging from 7-80cm. (Fig.10)

There are various uses of the water: for agriculture, washing, cooking, children play, etc. In agriculture the water is used for taking out the mud from the vegetables, cleaning the farming tools such as hoe,etc. and washing the dirty legs and hands. Since 5-6 years ago the Farming Wife Cooperation Association organizes 100 Yen market in the village, so the water is often used to wash the vegetables. Moreover, the water is used to wash green soybeans or taro and before the coming of winter it is used for maintenance of pickles like tub, Japanese radish and greens. In the past clothes washing was done in all water places, but nowadays they are used only to take out the mud from the working clothes.

Women gather around the water for various works, so the circle spreads wider naturally. The women, gathered around the water place, discuss about the preparations of the farming works or Bon festival and New Year. The water place is a place for life information exchange in every day life where one greets its neighbors and speaks frankly.

5.2. Road construction as immanent for the community standard

The road construction was a part of the rule for the use of common forests in Meiji period or cutting groves for the maintenance of the rice fields. In the same way it was a decided rule of the village. Moreover, in 1761 an inspection is sent to check the conditions for road construction.

Figure 9  Water places inside the village

Figure 10  Water place ‘Mija’

The road construction during the inspection was not an easy task: from road to bridge repair, building of a mountain pass teahouse and proposals for farmers' labor. The mobilized laborers exceeded 600 people and 52 workers were taken from Ohnobori village.

At present road construction remains one of the important collective activities of the village. At the end of April the 'spring workers' are cutting the grass around the roads and the cleaning and maintenance of the road become the main activities. This road maintenance is centered on the farm roads before the start of the farming works and it is a one day work when sickles, hoes, etc. are carried from the village. Furthermore before the Bon
festival there is a maintenance works for the graves visit, called Bonmichigari when the 'summer workers' main job is to cut the grass, clean and maintain the roads. There is a rule, that each family should provide one worker or in case of impossible participation the family pays 'Worker's fee'.

Moreover, the snow cleaning in winter is also one of the indispensable collective works for this region. In Ohnobori village until 4-5 years ago during the winter season (until the middle of January) the snow cleaning of the roads, leading to the primary school was done by the village people in alternating order. The snow cleaning was done by a group of 2 persons with shovels who cleaned during 30 minutes in the morning around 5,30a.m. In case of a big snowfall the group consisted of 3 persons.

There was a big cedar board with the cleaning order turning around the village and in this way the community rules were protected during everyday life.

There are also another collective works like the maintenance of the public space, which at present includes the cleaning of the shrine and sewage system. Furthermore from spring until the rainy season each night is held a fire attention watch, so this is also one of the collective activities, mediated by the roads.

6. Epilogue

A big part of the roads, constituting our living space are built by focusing on the materialistic or economic functions of the road as a means of transportation, or are made by rebuilding older roads. This paper doesn't consider the planning stages of such roads, but the functions and meanings the road had in the past. We consider that the road as a social communication, connecting man with the communal society or man with the spiritual world has disappeared from the living space of our cities and towns.

The village roads described in this paper clarified various meanings of the road as a social communication device and the relation between the functions of the road and the basics of human life, whose original road features have been forgotten.

(1) The road as an organic combination

By examination of the essence of the village roads several pivotal roles of the village roads for the formation of the village community were clarified: road as a learning place, collaboration place, communication place, living or working place. Moreover we clarified the spiritual recognition of the road by the people in the road use as a ceremonial place and the connections between house and road, the road as a unified expression of the community intentions and spirit and finally the community order. People has used the road for various activities as a private space for working or living processes or as a public space to establish the behavior rules of the community.

This kind of deep connection between man and road has strengthened the ties of the communal society and has established the so called Gemeinschaft (Note 4) type of village community. The village roads were the contact points of man and man or man and society within the community, reflecting the village community organic whole into an order and thus the road reflects the spirit of this organic whole, functioning as a social communication mediator.

We think that nowadays with the rapid progress of human alienation and community destruction, the road should play an important role for the formation of communal society.

(2) The road as a way to communicate a spiritual culture

The word 'Road' has also the connotation of a spiritual way people should follow. (Note 5)

The road is related to two kinds of worlds: the real world where one exists and, on the other hand, it is connected to the imaginative world of the unknown and far distant. The spatial qualities of such a road functioned as expressed in the creation of binomial concepts of spiritual spatial recognition like hare (ceremonial) and ke (everyday life) or uchi(inside) and soto(outside). Thus the twofold opposite spatial structure, created by the road, played the role of connecting the world of gods with the world of men, as it can be seen in the annual events of Bon festival and Mushikori or in weddings and the candle ceremonies.

In this way the spiritual spatial concepts related to the road, considered as awe with nature, can be understood as a part of the spiritual culture of the village community that by working boldly in nature has managed its living.

(3) Revival of the road as a social communication

The author noticed that while visiting the region if meeting people in the village roads there was a natural exchange of words. These words were greetings or conversations about the plants on the road side or farming products. This was a human contact impossible to experience by walking in the city. Why was that? It might be because the village road where you walk, work and exchange words is a single spatial-temporal place or it becomes a particular world of itself. People consider the
road as their common world, so the road is not only a physical space where one simply crosses, but a spiritual place where man is recognizing the other people and can enter into a human contact willfully and spontaneously.

Thus the immanent function of the village road is essentially a place for social communication or contact between man and man.

We need to rediscover and reconsider the functions and meanings the road should have originally by revisiting the village road in the past and present. Moreover the road revival should be reconsidered from the viewpoints of the designer and resident as a way to revive the present communal society, human contact in the road and its communication possibilities.

Notes
2) Illich showed that the present economic development changes from a usage value to an exchange value and he described the original role of the road as follows: 'The road was a place where children grow up to be elders, so the young people could face life by the learned experiences in the road'. Ivan Illich: 'Shadow Work', Tokyo: Iwanami-gendai-sensho, 1982, pp.6-7
3) Kunio Yanagida describes the costers or travelers as culture transmitters, outlining their role in the transmission of living and cultural information. Kunio Yanagida: Kunio Yanagida Original Collection, Vol.24, Tokyo: Chikuma-shobo, 1978, pp.267-268
4) Gemeinschaft is the full unity of people's will as an original or natural condition. It can be considered as a substantial, organic being of this united essential will. People are separated by their experiences, but essentially they are united in their common thoughts and communication. There is an agreement between those people and they live a collective life of communal actions and dwellings. F.Tonnies: 'Gemeinschaft and Gesellschaft', Tokyo: Iwanami library, 1957
5) 'The word road in Japan and China means a spiritual road people should follow, so it has a spiritual meaning.' Kunio Yanagida: Kunio Yanagida Original Collection, Vol.13, 'The old roads and the new roads' (Kodo-to-shindo) Tokyo: Chikuma-shobo, 1978, p.133