

Shrine Settings in Japan as Life-cultural Landscape with Diverse Relations to Nature

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ABSTRACT

Settings of traditional shrines and their surroundings are seemed to be one of the typical life-cultural designs realized on land in urban or rural area in Japan. It can be said that those settings are some reflections of nature-oriented cosmology established in long term history of ordinary people. Examining those settings and making clear their characteristics could be a significant issue of landscape architecture for discussing sustainable ways of urbanism or regional development. In this paper, the author examined and discussed the shrine settings from a view point of their spatial relation with surrounding water system. Based on the surveys on more than 60 local shrines in northern area of Tokyo, it was revealed that many shrines have strong connections to surrounding waters or low lands with downward-oriented worshipping to nature instead of upward-oriented worshipping well known as general location of shrine. It is believed that the result shows the diversity of landscape settings of shrines as historical life-culture, and the varieties has to be conserved or restored in various ways of urban design or regional planning.

Key Words: Cultural Landscape, Setting, Traditional Shrine, Nature Worshipping

1. Introduction

All over the world, we can observe various kinds of life-cultural landscapes as long-term accumulative interactions of human life style with surrounding nature. Especially the settings of some kinds of traditional religious facilities and their surroundings are seemed to be one of the typical life-cultural designs realized on land in urban or rural area. In case of Japan, village settings with traditional shrines are known as some reflections of nature-oriented cosmology established in long term history of ordinary people.

There have been many efforts to explain characteristics of Japanese traditional village communities from various fields of research. For instance, Kunio Yanagida, the most famous pioneer of folklore in the beginning of the 20th century, proposed an idea called 'God of hill' and 'God of rice field' (*Ya-ma-no-kami, Ta-no-kami*) (Yanagida, 1914). He explained the prototype of traditional agricultural village as the combination of a rice field and a surrounding hill with a cosmology that the god is believed to come and go between them

according to the seasonal cycle of agriculture. In the field of physical space planning, an architectural researcher Yuichiro Kohjiro showed a diagram of prototype of traditional villages in Japan (Kohjiro, 1975). The essential point of his idea was that a village might consist of two major spatial axes related to a hill or a mountain behind the village. One is called 'religious' axis which has direction to the top of the hill from the village, and the other is called 'social/economic' axis which has orthogonal direction with the religious one in the village. Around the same time, civil engineering researcher Tadahiko Higuchi showed the seven typical types of landscape patterns in Japan as the spatial structure of natural environments and cultural facilities (Higuchi, 1975).

Among these explanations, we can see a common way of interpretations which lead us to general understanding of traditional village communities in Japan. That is, they are all understanding typical villages with the existences of hilly high lands behind them and giving religiously sacred significances to the hilly spaces. This way of seeing seems to be based on the cosmology that sacred spaces worshipped by

communities exist in topographically higher level than ordinary living spaces. It is true that we can easily see good examples of shrine settings to support this idea around the land of Japan where consist of thousands of basins. However, at the same time, some questions can be raised if we can understand the landscape feature of village communities in Japan with such a homogeneous relation to nature. Haven't we had more diverse relationship with nature as life-cultural settings than we know in general? How can we explain the landscape settings of shrines in Kanto(around Tokyo) region where has relatively flat plane without any symbolic hilly lands?

As a hypothesis, at least in Kanto region, characteristics of shrine settings as cultural landscape could be explained as some topographic features which have strong connections not only to upward-oriented worshipping direction but also to downward-oriented direction related to their surrounding water systems. Based on these backgrounds and questions, this paper tries to understand some characteristics of community settings as cultural landscapes in Japan with more diverse relation to natural environment. That is, the purpose of this study is to examine and make clear some spatial settings of local shrines with their relations to lower land, especially water system of their surroundings(Of course it is already known that there are some shrines to worshipping rivers. But this paper's concern is not the individual case but such relation to water could be some typical feature of regional landscape).

II. Methods

1. Case Study Area

Because there are numerous shrines even within the Kanto region, a case study approach was applied. The study area was determined in the north-west suburban part of Tokyo (Itabashi-ku and Nerima-ku), by reasons to know both some primitive aspects of shrine settings and some influences of urbanization. And within two watershed(river basin) areas (Shingashi riv.-basin with Shirako riv. as its subordinate river and Shakuji riv.-basin), 65 shrines listed on shrine directory by public authority were selected as case study sites(Figure 1).

2. Survey

The major way of surveys on case sites are measurements of topographical inclination along the axis of worshipping

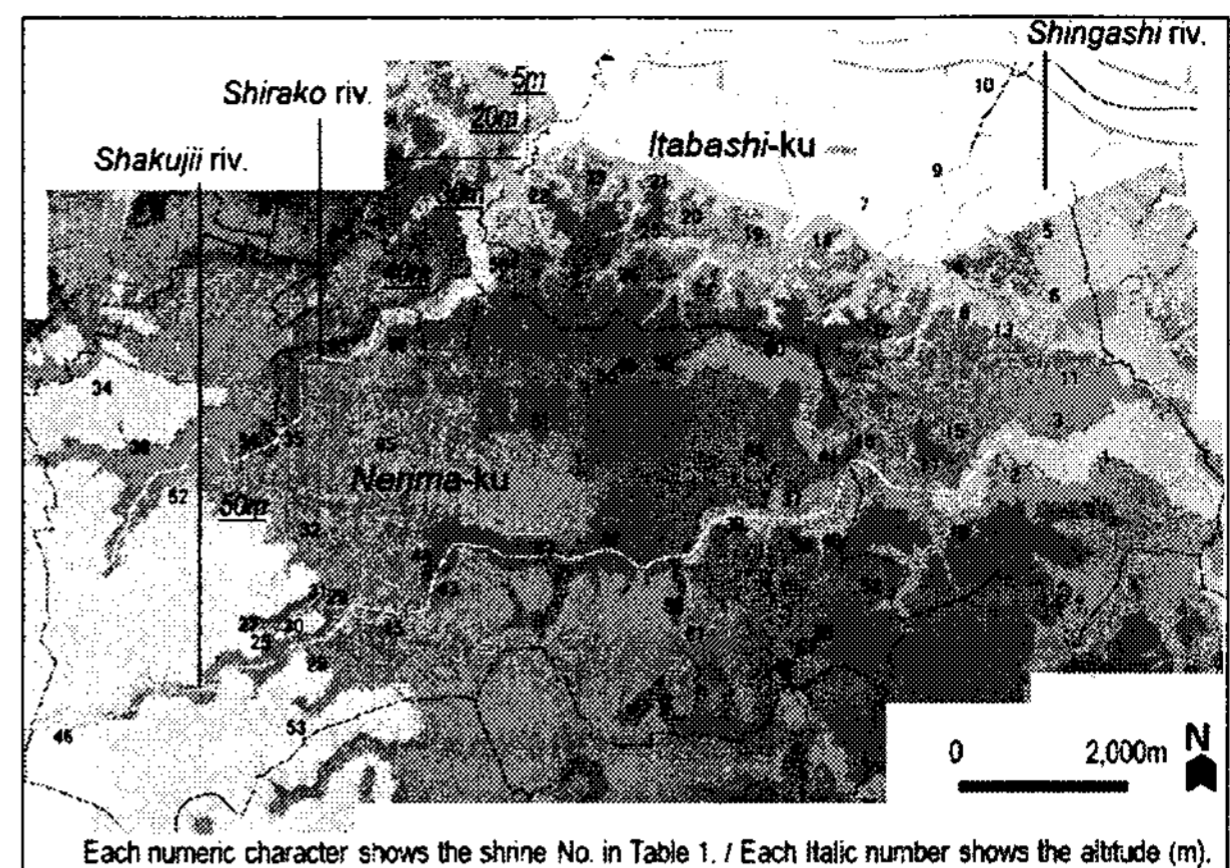


Figure 1. Study area and the location of surveyed shrines

direction. At every shrine, there exists at least one axis and direction of worshipping structured by Torii gate, approach road(*Sando*) or praying building(Ueda, 2003). On the basis of these axis and direction, this study took notice of the direction in vertical section if the worshipping action is oriented to upward or downward. First, the measurement space was determined in each shrine according to the size of approach space in front of a main building of a shrine. Specifically, a circle area with a radius of the length of approach space(i.e. *Sando's* length in almost cases) with praying spot as a central point was determined in each case(Figure 2). Then, each inclination value of ground was measured by using topographical map(1/2500) and confirmed by visiting actual sites. The inclination values of the grounds were measured along two axes at each case—one is the axis along the worshipping direction(i.e. direction approaching to shrine building on

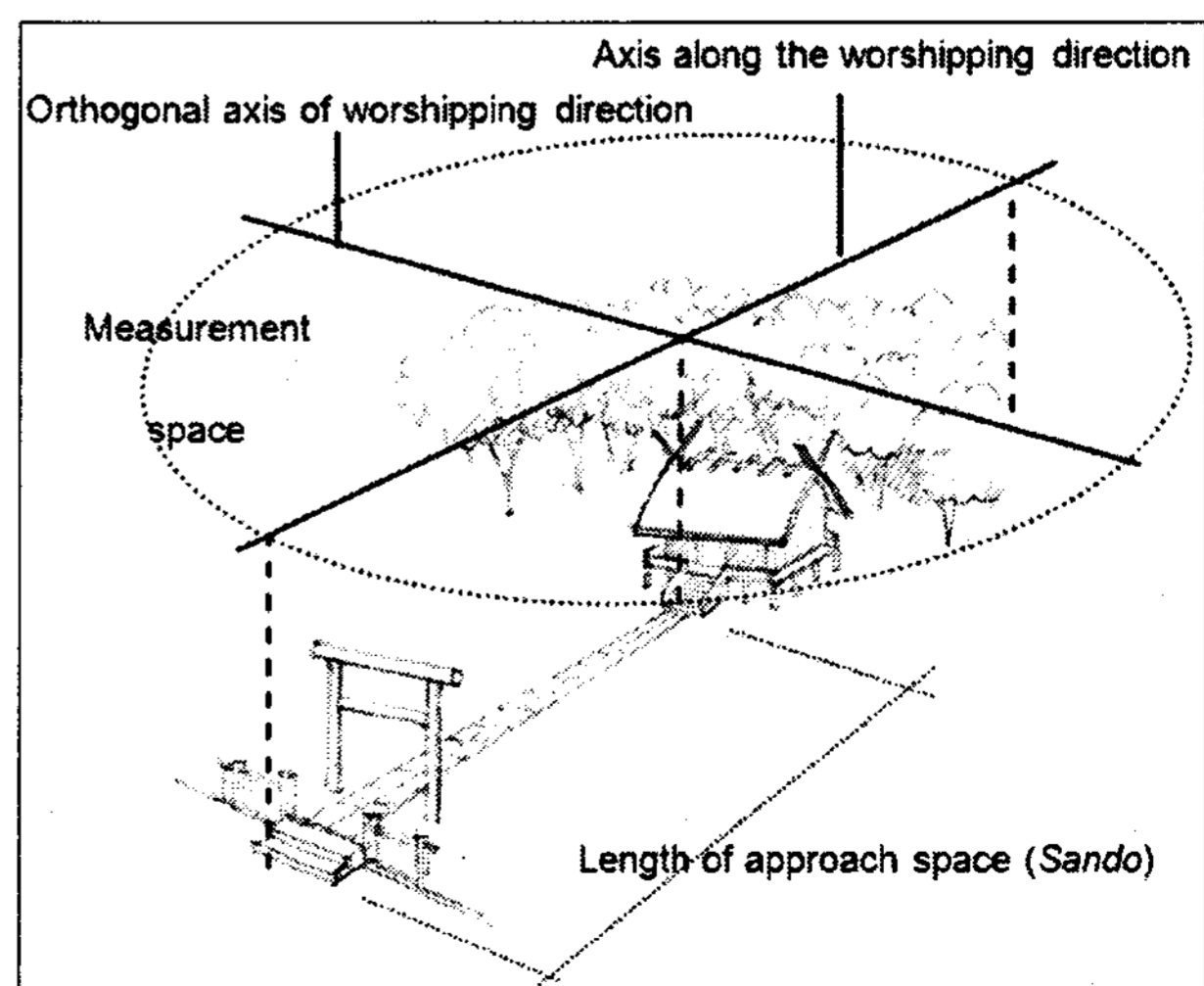


Figure 2. Measurement space

Sando in almost cases) and the other is the axis along its orthogonal direction crossing at praying point. As to the axis along worshipping direction, average values of inclination (by percentage of difference in elevation to horizontal distance) both within the front and back linear spaces of the main shrine buildings were measured separately(Figure 3), and also as to the orthogonal axis, both in the left and right linear spaces of praying point were measured separately.

3. Analysis

The major way of analyzing collected data is distinguishing if each case's ground is inclining or not. This is simple but difficult problem. In this paper, the author applied an empirical knowledge in landscape architecture that if the ground has over 4% inclination people can perceive the ground as a slope(JILA, 1978). At first, using this critical point of 4%, each case's inclination values both in the front and back of shrine building along the axis of worshipping were estimated as categories of 'ascent', 'flat' or 'descent'. Then, also with the critical point of 4%, based on the difference of inclination value between left and right linear space along the orthogonal axis of worshipping, each case's orthogonal inclination feature was estimated as categories of 'concave', 'flat' or 'convex' across the shrine building. And the topographical characteristics of each shrine location were examined with relation of inclination feature between along two axes.

III. Results

1. Location of Shrines

It is obviously observed, at a glance, that all the 65 shrines within the study area are distributed unevenly and lots of shrines are located near by rivers(Figure 1). That suggests the many shrines have some connections to rivers.

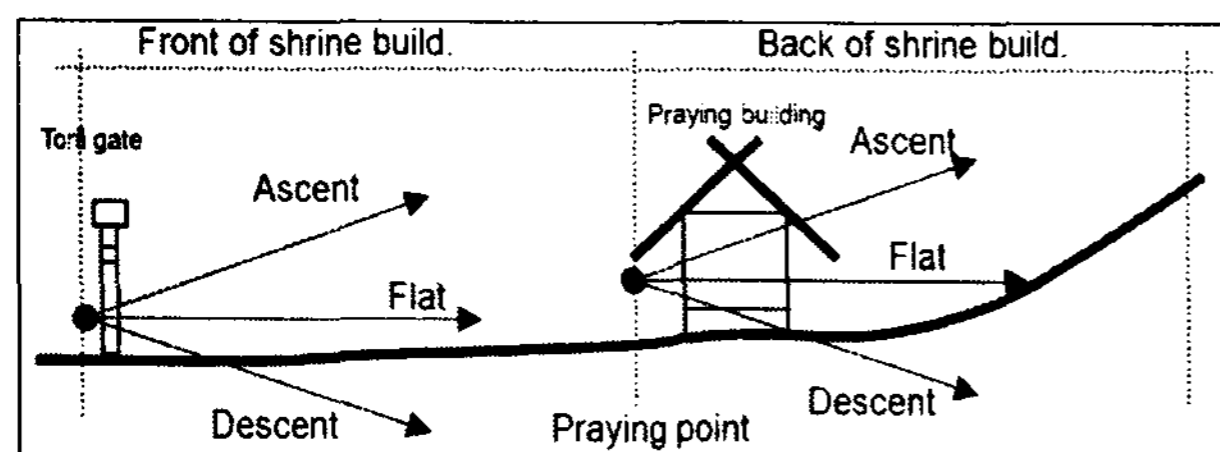


Figure 3. Inclination along the worshipping direction

Table 1. Inclination along the worshipping direction

No.	Name of Shrine	Address		River basin		LAS (m)	IWD		IOWD
		ward	town	Main	Sub		Front	Back	
1	Hikawa	I	Hikawacho	J		145	F	F	F
2	Kutsu	I	Nakamchi	J		12	F	F	F
3	Hikawa	I	Futabacho	J		136	F	F	F
4	Kumeno	I	Shimura2	G	I	127	F	D	V
5	Azusawa	I	Azusawa4	G		125	F	D	F
6	Hikawa	I	Hasunumacho	G		21	F	F	F
7	Hikawa	I	Hasune2	G		72	F	F	F
8	Kumeno	I	Maenochō5	G	I	28	D	D	F
9	Inarihikawa	I	Sakasita3	G		40	F	F	F
10	Hikawa	I	Funado2	G		24	F	F	F
11	Inari	I	Miyamotocho	G		43	F	F	F
12	Inari	I	Wakagicho1	G		26	F	F	F
13	Kumeno	I	Maenochō3	G	I	81	F	D	F
14	Tenso	I	Nishida2	G	M	50	F	A	F
15	Tenso	I	Minamitokiwada2	J		199	F	F	F
16	Mitake	I	Sukuragawa1	J	T	45	A	F	F
17	Hikawa	I	Toshincho2	J		88	A	F	F
18	Hikawa	I	Oyaguchikamimachi	J		181	F	D	F
19	Kitano	I	Tokumarū6	G	M	102	F	D	F
20	Inari	I	Yotusuba2	G		82	F	F	F
21	Suwa	I	Daimon	G		214	F	D	V
22	Sugawara	I	Narimasu5	G	S	107	A	D	V
23	Hikawa	I	Akatsuka4	G		272	F	D	V
24	Inari	I	Akatsuka6	G		109	F	F	F
25	Hachiman	N	Akatsuka6	G	M	57	A	F	V
26	Hikawa	N	Shakujidai1	J		267	F	D	F
27	Itsukushima	N	Shakujidai1	J		95	D	F	F
28	Tenso	N	Shimoshakujii6	J		37	F	F	F
29	Inari	N	Shakujicho1	J		35	F	F	V
30	Inarisuwai	N	Shakujicho5	J		14	D	D	F
31	Ohtori	N	Shakujicho3	J		36	F	F	F
32	shakujii	N	Shakujicho4	J		54	F	F	F
33	Yasaka	N	Ohizumicho1	G	S	161	A	F	V
34	Inari	N	Nishichizumi5	G	S	34	F	F	F
35	Inari	N	Ohizumicho2	G	S	29	D	D	V
36	Suwa	N	Nishichizumi3	G	S	214	F	F	F
37	Hikawa	N	Hikawada4	J		114	F	F	F
38	Kumanoinari	N	Sakuradai6	J		73	D	D	F
39	Takeinari	N	Sakuradai4	J		97	F	D	V
40	Hanezavainari	N	Hazawa2	J		112	F	F	F
41	Suwa	N	Hikawada2	J		36	F	F	F
42	Ichitukushima	N	Toyotamakita2	J		12	F	F	F
43	Inari	N	Fujimida3	J		32	F	D	V
44	Hikawa	N	Takanodai1	J		51	F	D	V
45	Inari	N	Minamitanaka6	J		40	F	D	F
46	Tensohachiman	N	Sekimachikita3	J		150	F	F	V
47	Hachiman	N	Takamatsu1	J		46	A	F	F
48	Kasuga	N	Kasugacho3	J		77	F	F	V
49	Atago	N	Tagara2	J	T	66	F	F	F
50	Tendo	N	Tagara4	J	T	25	A	F	F
51	Hachiman	N	Tagara6	J	T	61	F	F	F
52	Yakumo	N	Kotakecho2	J		101	F	F	F
53	Mitake	N	Shimoshakujii4	J		15	F	F	F
54	Hikawa	N	Ohizumicho5	G	S	98	A	A	F
55	Toshidahachima	N	Toshida4	G	S	54	F	F	F
56	Shusseinari	N	Asahicho3	G	S	45	A	F	V
57	Musashinoinari	N	Sakaecho	J		122	F	F	F
58	Hakusan	N	Nerima4	J		51	F	F	F
59	Hikawa	N	Kitamachi8	J		142	F	F	F
60	Sengen	N	Kitamachi9	J		32	F	F	F
61	Nerimachitori	N	Toyotamakita6	J		26	F	F	F
62	Kitano	N	Higashichizumi4	G	S	397	F	F	F
63	Sengen	N	Kotakecho1	J		59	F	A	F
64	Inari	N	Heiwada4	J		42	F	F	F
65	Toshidakitano	N	Yawa6	G	S	140	F	F	F

Ward—I:Itabashi-ku/ N:Nerima-ku
 River Basin—G:Shingashi riv./J:Shakujii riv./I:Idai riv./M:Maeyatsu riv./T:Tagara riv./S:Shir-
 LAS:Length of approach space (Sando)(m)
 IWD:Inclination along the axis of worshipping direction—A:Ascent F:Flat D:Descent
 IOWD:Inclination along the orthogonal axis of worshipping direction—F:Flat V:Convex

2. Inclination Along the Axis of Worshipping Direction

Based on an assumption of critical point 4% as human perception of slope, all the 65 cases of inclination values were estimated both in the front and back areas along the worshipping direction (Table 1). The most dominant topographical feature was 'flat' in both areas, but it is remarkable that there are more descent cases than ascent in the back area of shrine building (Table 2). Just for reference, if using lower critical point (2%~1%), the similar tendency can be observed. These results seem to support the hypothesis of this study that settings of shrines as reflections of village cosmologies are not so homogeneous only with upward-oriented worshipping structure.

3. Topographical Relation with Orthogonal Axis

By checking the inclination along the orthogonal axis of worshipping direction at the building point, some further topographical feature can be analyzed. The topographical feature along the orthogonal axis across the shrine building was 'flat' or 'convex', and there was no 'concave' case. As a result of chi-square test between the estimated inclinations categories of two axes, the topography in the back space of shrine and topography along the orthogonal axis of worshipping direction has statistically significant relation in 5% level (Table 3). In another words, it can be said that shrines with descending slope behind the building are likely located on some kinds of peninsular-like land from some tablelands (Figure 4). This characteristic of location of shrine shows the significance of shrine as landmark seen from behind low places.

4. Difference between River Basins

Some shrines located on the north clear edge of 'Musashino

Table 2. Inclination in front and back area of shrine building along the worshipping direction—Number of cases(%)

		Ascent	Flat	Descent	Total
3%	Front	9(13.8)	51(78.5)	5(7.1)	65(100)
	Back	3(4.6)	45(69.2)	17(26.1)	65(100)
2%	Front	16(2.4)	42(64.6)	7(10.8)	65(100)
	Back	5(7.7)	41(63.1)	19(29.2)	65(100)
1%	Front	22(33.8)	35(53.8)	8(12.3)	65(100)
	Back	10(15.4)	32(49.2)	23(35.4)	65(100)

tableland' have typical feature with descending steep slope behind the shrine building (case No. 4, 5, 21, and 23). Because these are all facing to Shingashi riv., it seems that the characteristics of shrine settings depend on some kinds of specific topographic features within each basin or small area. However, if checking the relation between river basin and inclination behind shrine building by chi-square test, there is no statistically significant relation (Table 4). As far as examined in two basins, it can be said that even though descending topographical feature is not the dominant pattern of shrine settings, it could support to describe some general tendency of cultural settings of landscape in Kanto region.

IV. Discussion

These results support the hypothesis of this study and show

Table 3. Cross table of inclination between two axes

		Inclination in the back space of shine building along the worshipping direction			
		Flat	Descent	Ascent	Total
Indication along the orthogonal axis	Flat	38	9	2	49
	Convex	7	8	1	16
	Total	45	17	3	65

Table 4. Cross table of inclination between river basins

		Inclination in the back space of shine building along the worshipping direction			
		Flat	Descent	Ascent	Total
River basin	Flat	29	8	1	38
	Convex	16	9	2	27
	Total	45	17	3	65

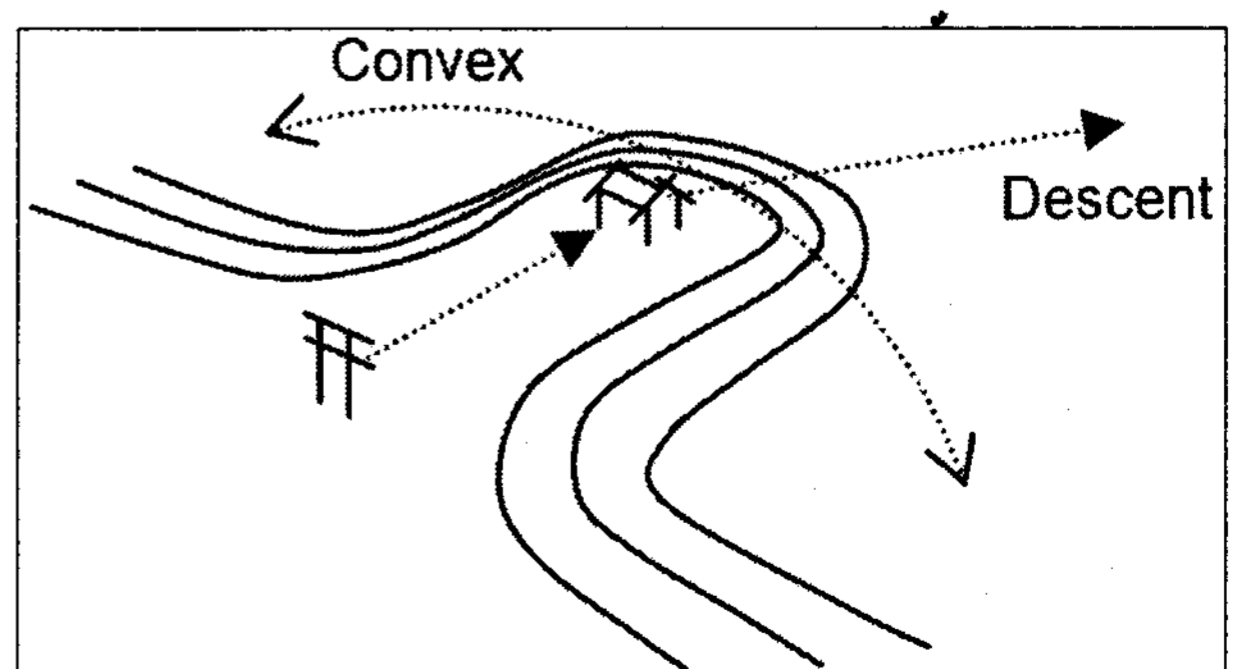


Figure 4. Topographical relation with orthogonal axis

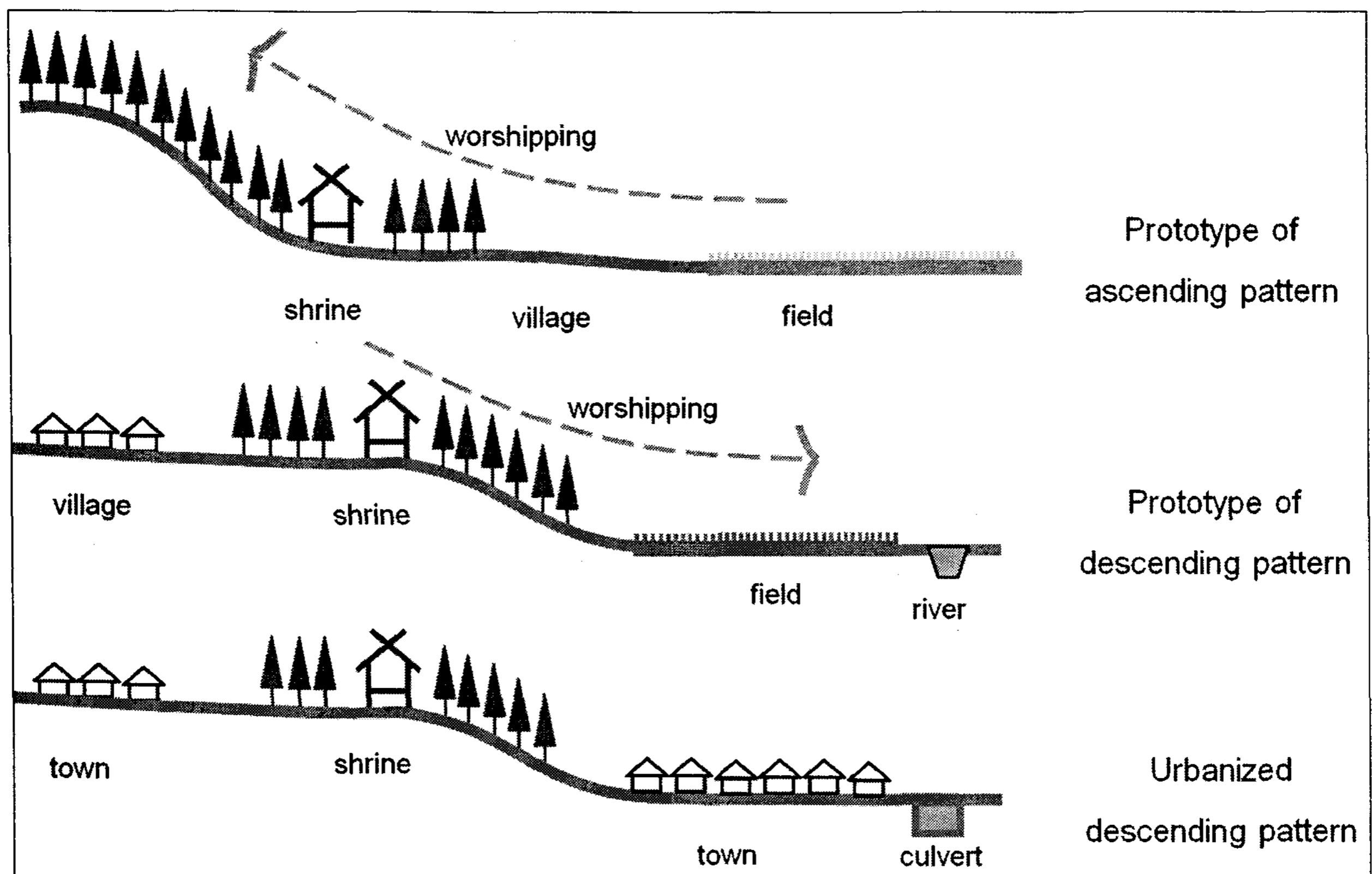


Figure 5. Diagram of prototypes of shrine settings and urbanized pattern

that instead of upward-oriented worshipping, downward-oriented worshipping is reflected in the settings of shrine within the case study area (Figure 5 above and mid.). It is true that upward and ascending worshipping is actually typical shrine settings in basins surrounded by hilly land, but there seem to be different kinds of settings in the region with relatively flat plane like Kanto. However, only by the examinations with statistical and quantitative way of analysis like this study, 'cultural' problem might be left behind. So these outcomes have to be supported by multiple aspects of researches. For example, history of farm land development in Kanto region in medieval age is known as fights against the frequently flooded low land (Figure 5 mid.). It is easy to guess that many shrines were built for the sake of calming down the force of nature and developing rice fields. These kinds of historical survey are required further.

In addition, it is noteworthy that cultural anthropologist Yoshihito Shimada has recently tried to re-interpret the most famous myth of Japan '*Kojiki*' with the way of structuralism (Shimada, 1998). First he says that we have been likely to have an image of this Japanese myth with 'heaven'-dominant cosmology until now. However, he points out that the

myth of *Kojiki* can be understood by some kinds of bipolar structural relation between 'land' and 'water' instead of the dominance of 'heaven'. These ideas have some similarities with the results of this study and stimulate further study.

Turning to the issue of conservation of these settings, it can be said that while the shrine settings with hilly lands have not been so damaged in the process of urbanization, the low or flat lands behind the shrines were easy to develop and convert to industrial or housing areas (Figure 5 bottom). So nowadays it's hard for us to be aware of the relations between low lands and shrines. But fortunately, many water streams themselves still remain underground as culvert. So it's not impossible to restore them as natural and open-air streams. In the case of ascending pattern of shrine settings, the main issue of conservation is likely to concentrate on the preservation of green groves. In contrast, in the case of descending pattern, some actions for restoration of natural water are expected to stimulate the activities of communities involving various participants with diverse concerns. Thus, according to the diverse patterns of landscape settings, the way of conservation could also have more varieties in future urbanism.

References

1. Higuchi, T.(1983) The visual and spatial structure of landscapes, 218pp., MITPress, Cambridge
2. JILA(1978) Handbook of landscape architecture, Gihohdo- shuppan, Tokyo(In Japanese), p. 908.
3. Kohjiro, Y.(1975) *Nihon-no-community*(SDsup No. 7), Kajima- shuppan- kai, Tokyo(In Japanese), p. 180.
4. Shimada, Y.(1998) *Inasaku-bunka-no-sekai-kan*, Heibon-sha, Tokyo(In Japanese), p. 354.
5. Ueda, A(2003) *Chinju-no-mori-no-monogatari*, Shibunkaku- shuppan, Kyoto(In Japanese), p. 297.
6. Yanagida, K(1914) *Santoh-mintan-shu*, Kyohdo-kenkyu-sha, Tokyo (In Japanese), p. 194.