

Environmental Image of Basin Districts in Primary School Songs

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Abstract

The main purpose of this study is to clear the universality and characteristics of representative symbolic environment image of basin districts of Japan. The reason that the school song is considered is the following 2 points.

- (1) A symbolic environment of the area that has universality that should convey to children is extracted. It is expressed concisely and plainly.
- (2) As for an elementary school, school district is narrow even more than junior high school or high school, and the environmental characteristics of the place are reflected to the song. It can grasp a boundaritive image, with an environmental image that shares comprehensive. The results are as follows.

Geographic environmental elements of the mountain, river and earth are included in school songs a lot. It is positioned as the universal environmental image. Thus, a symbolic space structure of an area can be grasped. Also an ecological environmental image is as well possible to be grasped. The difference of a rate of appearance of the environmental element is existed in school song. It expresses the characteristics of the environment richly. It is an effective text in linguistics comprehension of a symbolic environment of the area that a human feeling catches.

1. Introduction

Environment of the place where human being is born and live is remembered as a mental landscape and act to the feeling of human unconsciously or consciously in the daily life. Environment that appeals to the feeling of human strongly is depicted in landscape picture and poetry or prayer. Especially environment that was composed to poetry is included not only scenery but also sound, light, wind, rain and various environmental elements. It is the projection of an environmental image that was caught through five senses of human beings.

There are many researches that considered a painting and poetry. This paper aims to clear the universality and characteristics of the symbolic environment image of representative basin areas of Japan by school songs as a text.

The reason that the school song is selected here is the following 2 points. (1) The symbolic environment of region that has universality and convey to children is extract-

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ed, and it is expressed plainly. Accordingly it has the characteristic that the environmental image settled to the region in comparison with poem, 31-syllable Japanese poem, haiku and others based on personal life feeling. (2) As for elementary school district is narrow more than junior high school or high school, environmental characteristics of location are reflected to the song and the small area's image can be grasped with the large area's image held in common.

2. Objective regions and data

The position of objective regions is plotted in Fig.-1. and the outline is shown in table -1. In table-2, the number of song collected and the number of elementary school by region is shown. The songs were sent by mail and the rate of collection is over 90% with all regions. School songs of most are the 3rd constitution. It extracts nouns of environmental elements from these all words and using this data environmental characteristics of the regions are analysed.

3. Environmental elements in school song

(1) Large division of environmental elements

The environmental elements are classified into mountain, river, ground, sky, weather, sun, animal-plant, home country and historic place, the rate of appearance by region of each element is shown in fig.-2. The rate of appearance of mountain and

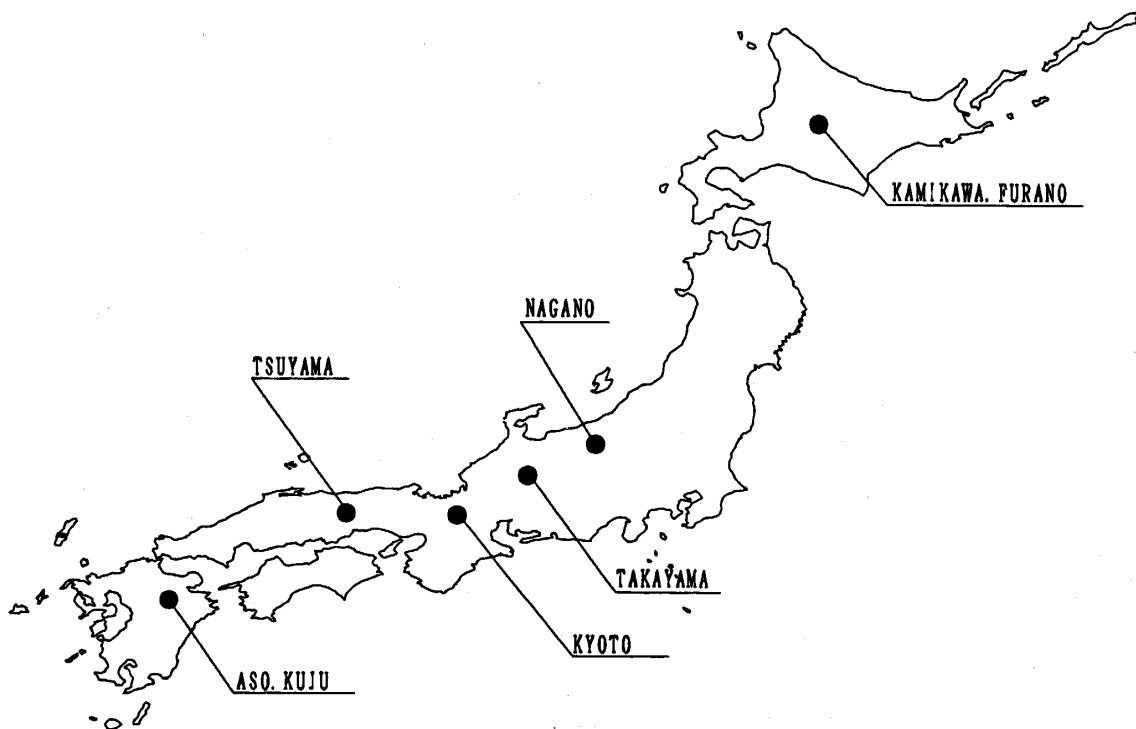


Fig.-1 The position of objective regions

Table-1 The outline of objective regions

Kamikawa–Furano region

Kamikawa–Furano basin is located at the center of Hokkaido. Kitami, Teshio, Hidaka and Yubari mountains rise around this basin. Tributaries of Ishikari River spread to all over the basin, the source is at the volcanic mountains called in general terms Mt.Daisetsu. The precipitation is less in around a year and the average temperature is 9°C, but it has a heavy snowfall in winter.

Nagano region

Around the west side of the Nagano basin, Hida mountains are located where the famous mountains in Japan rise such as Hodaka Mountains, Mt.Norikura, Kuragatake Mountains, and at the south side Kiso Mountains rise. AT the east side Shiga Plateau is located. many basins exist among these mountains and Chikuma River flows in this area. As the sea level of Nagano basin is 400 m or low, the weather is comparatively mild and the average temperature in January is around minus 1~2°C and the precipitation is less.

Takayama region

Takayama basin is located at the side of Miya River that flows at the center of Hida region. Ryohaku mountains and Hida highlands are located at the west side the basin, and at the east side Hida mountains called North Alps rise, this region is expressed "Hida of mountainous country". As the sea level of Takayama basin is about 600 m, the weather is cool in summer and cold in winter, and as known with Gassho–zukuri it has much snowfalls in winter.

Kyoto region

Hira mountains are located at the north–eastern side of Kyoto basin and this region is surrounded by Mt.Higashi, Mt.Nishi and Mt.Kita. Katsura River and Uji River flows in the basin. There are many old temples and historic places, because Kyoto was a metropolis even for more than 1,000 years since the Heian capital was put in 794. Weather is cold in winter like as the word "chill in the capital", on the other hand in summer it is most hot in Kinki area. The precipitation is about 1700 mm in a year.

Tsuyama region

Tsuyama region is located at the north of Okayama Pref. and Tsuyama basin exists among the Cyugoku–Mountains. The basin is largest in Chugoku area and the sea level is 100 m~200 m. Yoshii River, Asahi River and Takahashi River flow to the ground from valleys of these mountains. It is the characteristic of this basin that fog is emitted well through one year, although weather is a typical basin type.

Aso-Kuju region

Kyushu island is constructed by mountains and highlands with small basin and plateau, Mt.Aso and Mt.Kuju rise at the center of the island. At the foot area of Aso volcano and Kuju mountain, there is the Karudera of world class and the wide plateau is located. The average temperature is 10~14°C, and the precipitation of one year is 1,800~2,200 mm. There are many basins where the frost descends and fog occurs from fall through winter.

Table-2 The number of song collected and the number of elementary school

| region | number of collection | number of school | rate of collection(%) |
|-----------------|----------------------|------------------|-----------------------|
| KAMIKAWA·FURANO | 117 | 28 | 91.4 |
| NAGANO | 124 | 136 | 91.2 |
| TAKAYAMA | 48 | 51 | 94.1 |
| KYOTO | 201 | 209 | 96.2 |
| TSUYAMA | 168 | 182 | 92.3 |
| ASO·KUJU | 122 | 131 | 93.1 |
| total | 780 | 837 | 93.2 |

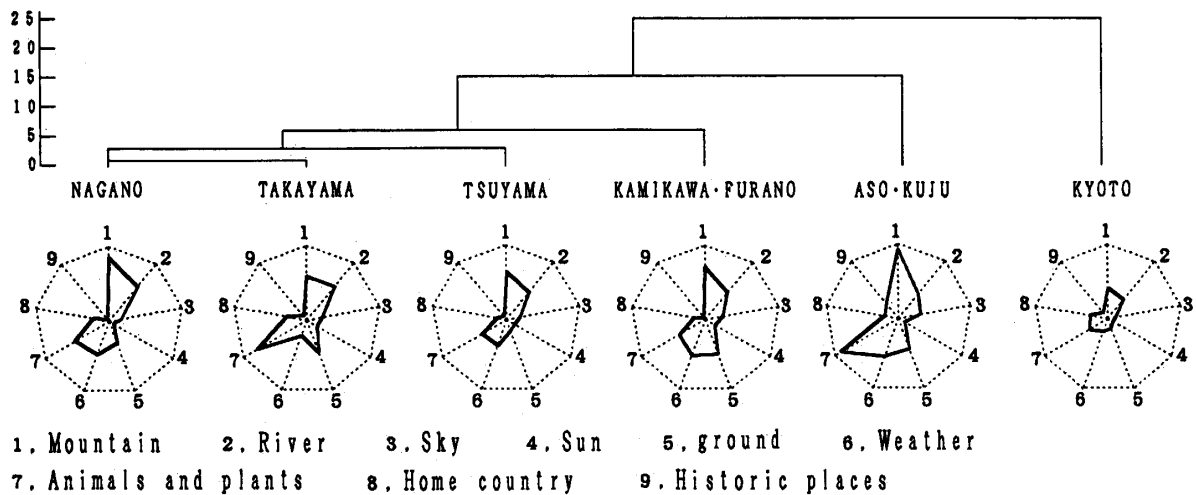


Fig.-2 The rate of appearance by region of each elements

river are high generally. Succeeding order is animal - plant, weather and ground. Yet a dispersion was observed to the rate of appearance by region, so the test for equality was carried out. As a result, a significant difference was admitted with all elements except for sun in 95% of significant standards. Thereupon, using these environmental element rates of appearance, similarity of 6 regions is examined by cluster analysis, the result is shown in fig.2. Cluster distance of Kyoto area is longest from other 5 regions. The rates of mountain, river, animal-plant and weather are lower than other regions and the rate of historic place is relatively high. Next the distance of Aso-Kuju region is long from other 4 areas. In this region, the rates of mountain, animal-plant and weather are high, and the one of river is low. About the remaining 4 regions, cluster distances are small comparatively. In Kamikawa-Furano region, the rate of ground is high in comparison with other 3 regions conversely and in Tsuyama area, the rate is low. In Hida-Takayama and Nagano region, the similarity is highest in 6 regions and the rate of river is relatively high. Also the rate of animal-plant is high next to Aso-Kuju, and the rate of mountain of Nagano is higher than Hida-Takayama.

(2) Middle and small division of environmental elements

To examine the content of environmental element more concretely, the environmental elements are divided minutely. In Table-3 middle division of mountain and river is shown and the rate of appearance of middle division of ground, home country and

Table-3 Middle division of mountain and river

| REGION | KANIKAWA, PURANO | NAGANO | TAKAYAMA | KYOTO | TSUYANA | ASO, KUJU | | | | | | |
|----------|-------------------|--------|----------------|-------|-------------------|-----------|----------------|----|-------------------|-----|------------------|----|
| MOUNTAIN | Mt. DAISETSU | 67 | HIDA Mountains | 82 | HIDA Mountains | 13 | Mt. KITA | 25 | CYUGOKU Mountains | 109 | Mt. ASO | 36 |
| | TOKACHI Mountains | 26 | SHIGA heigh | 35 | HIDA height | 4 | Mt. HIGASHI | 27 | general noun | 51 | Mt. KUJU | 25 |
| | TUBARI Mountains | 5 | general noun | 39 | RYOPAKU Mountains | 3 | Mt. NISHI | 16 | | | KYUSYU Mountains | 14 |
| | others | 4 | | | others | 5 | HIRA Mountains | 30 | | | others | 46 |
| | general noun | 21 | | | general noun | 17 | others | 2 | | | general noun | 47 |
| TOTAL | 123 | 156 | 42 | 123 | 160 | 168 | | | | | | |
| RIVER | ISHIKARI River | 74 | SHINONA River | 93 | MIYA River | 13 | YODO River | 93 | YOSHII River | 28 | SHIRO River | 12 |
| | general noun | 9 | HIME River | 6 | HIDA River | 12 | general noun | 3 | ASAHI River | 19 | GOKASE River | 3 |
| | | | general noun | 12 | SYO River | 3 | | | TAKAHASHI River | 39 | CHIKUGO River | 21 |
| | | | | | others | 4 | | | KANO River | 10 | OITA River | 11 |
| | | | | | general noun | 10 | | | general noun | 22 | ONO River | 10 |
| TOTAL | 83 | 111 | 42 | 96 | 118 | 77 | | | | | | |

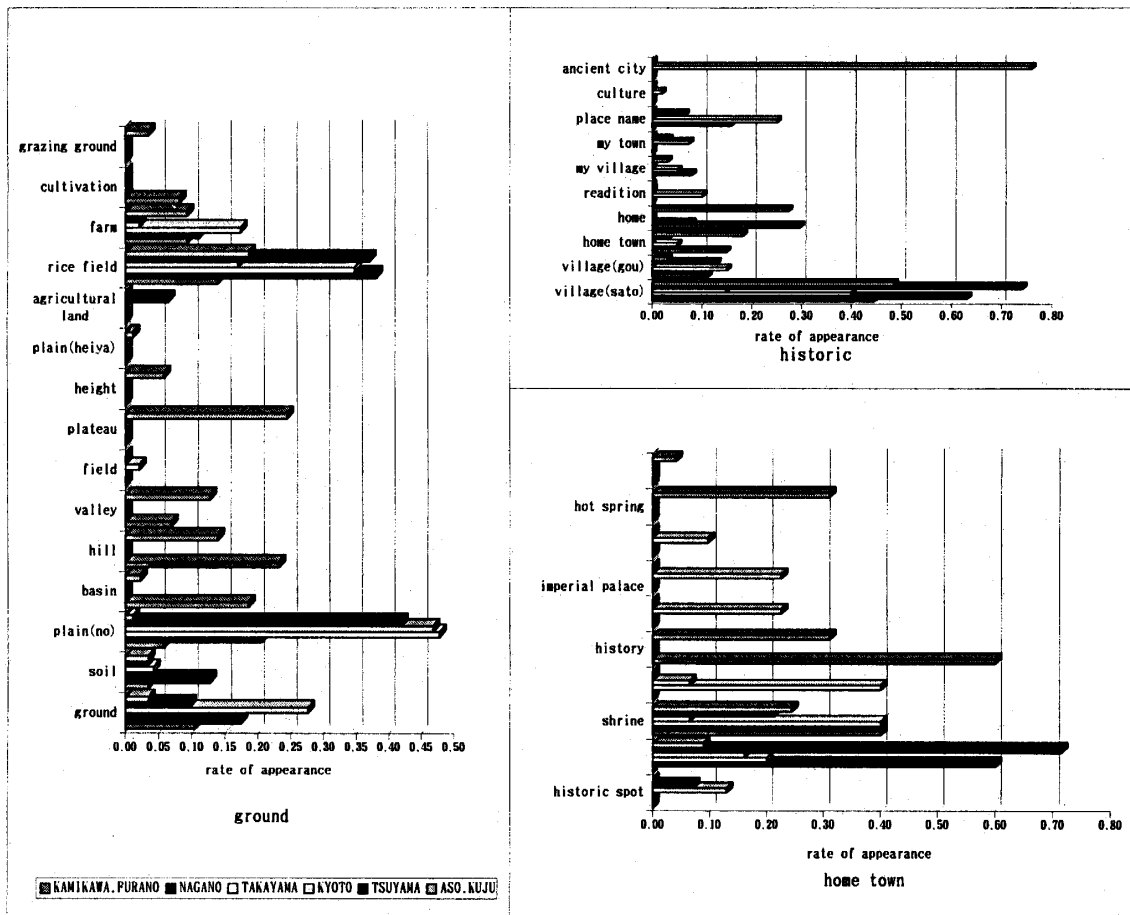


Fig. -3 The rate of appearance of small division

historic place is shown in fig.-3.

In Kamikawa-Furano region, nouns of Ishikari River (74) including tributaries are most frequent with the middle division and succeedingly Mt.Daisetsu (67) and the chain of Tokachi mountains(26). In case of small classification, even nouns of Mt.Daisetsu(60), Ishikari River(32) and Mt.Tokachi(23) appear frequently and hill(20), basin (16), village(12)and the Cyubetu River(11) continue. From these environmental elements ,the space structure is summarized as follows. The chain of Daisetu and Tokachi mountains continues in the east of the basin and under these mountains hills spread in the wide ground. Ishikari river and Cyubetu River flow the Kawakami basin and other low ground.

In Nagano region, the nouns of Shinano River(93)appear most frequently with middle division,and succeedingly Hida mountains(54),mountains without characteristic noun(37)and Siga plateaus(34) are many. Even with small classification, Chikuma River (39) and Sai River(13) that compose the Shinano River appear frequently and Mt. Kousya(11) in Shiga Plateaus and Mt.Iizuna(14) in Hida mountains are many. Among other things, the elements that expressed plain like as rice paddy (24), village(24), fields(13),earth(11),soils(8),are sung. Around the earth where Shinano River flows Shiga Plateau and Mt.Kousya rise in the east and Mt.Iizuna of the Hida mountains located in the west.

In Hida-Takayama region, mountains(17) without characteristic noun are most frequent with middle division. Succeedingly Hida mountains (13), Miya River(13), Hida River(12) and rivers without characteristic noun (10) are many. In small classification, field(11), villages(8), rice paddy(8), Miya River(8) and Mt.Norikura (7) are many and tributary of the Hida River is sung. The valleys and mountains of Hida and Shiga Plateau approached closely,the source of Miya River and Hida River, the fields and villages that are located among these mountains are presented as environmental image.

In kyoto region, Yodo River(93) appears frequently with middle division. Succeedingly Hira mountains (30), Higashi mountains(27), Kitayama mountains (25) and mountains(23) without characteristic nouns are many. In small classification, the nouns like as Mt. Atago(18) of Kitayama mountains, Mt Hiei(29),Katura River(26), Kamo River(23), fields(22) and earth(13) of Hira mountains appear frequently. Furthermore the frequency of appearance of home country and historic place is higher than other regions. Ancient city(41) is especially high. Among other things, Imperial Palace(7), tower(7), castle (trace) (5), historic place (4), Rashomon(3) are sung. Like this the historic city is located in the center of basin, and old Mt.Hiei, Mt.Higashi and Kitayama mountains are surrounding the city, Katsura and Kamo River flow in the plain area.

In Tsuyama region, the Cyugoku mountains(109) and mountain without characteristic nouns(48) are most frequent with middle division. Succeedingly Takahashi River (48), Yoshii River(28), and rives(22) without characteristic nouns appear frequently. In small classification, there are Tsuyama castle that was built on the hill located at the center of the basin, Yoshii River(11), Yoshino River(11) and Asahi River(10). Among other things, field(26), rice paddy(23) and villages(23) that expressed plain are appeared frequently. About mountain, Mt.Nagi(7),Mt.Kannabi(5),Shiroyama(5) are many and

individual mountains of Chugoku district is sung numerously. Characteristic nouns of tributary of Takahashi River are sung a lot. Tsuyama basin is surrounded by many mountains of the Cyuugoku area, and in the plain Takahashi, Yoshii, Asahi and Kamo River flow at the center of the plain.

In Aso-Kuju region, other mountain(46) named characteristic noun of mountain was sung in addition to Mt. Aso(36), Kuju mountain(25) with middle division and mountain of general noun (47) is many. Succeedingly Chikugo river(21), Shirakawa river(12), Oita River(10), Ono River(10) and rivers of general noun(19) are sung a lot. In small classification, Mt. Aso(30), Mt. Yufu(15), Mt. Sobo(13), Mt. Kuju(10), valley(11) plateau(21), hill(12), rice paddy(17), village(16), hot springs(14), history(14) and shrine(11) are appeared frequently. From this pattern, in Aso and Kuju region, mountains of Mt. Yufu, Mt. Sobo spread in peripheral area of Mt. Aso and Kuju. Marking the valley of these mountains or plateaus, Chikugo, Shirakawa, Oita, and Ono River flow, and many springs or historic places are distributed in the region.

(3) Frequency of appearance of climate, animals and plants

Nextly it is examined that the feature of climate, animal and plant they show well the characteristics of geological and topographical conditions. Frequency of appear-

Table-4 Frequency of appearance of environmental elements and the result of test for equality

| REGION | | KANIKAWA. FURANO | NAGANO | TAKAYAMA | KYOTO | TSUYAMA | ASO. KUJU | TOTAL (MEAN) |
|------------------|----------|------------------|-----------|------------|-----------|-----------|------------|--------------|
| WEATHER | SNOW | 32(27.4) | 36(29.0) | 9(18.8) | 5(2.5) | 13(7.7) | 11(9.0) | 106(13.6) |
| | WIND | 27(23.1) | 20(16.1) | 10(20.8) | 20(10.0) | 36(21.4) | 35(28.7) | 148(19.0) |
| | MIST+FOG | 6(5.1) | 6(4.8) | 4(8.3) | 10(5.0) | 15(8.9) | 21(17.2) | 62(7.9) |
| | CLOUD | 26(22.2) | 27(21.8) | 11(22.9) | 19(9.5) | 31(18.5) | 32(26.2) | 146(18.7) |
| TOTAL | | 91(77.8) | 89(71.8) | 34(70.8) | 54(26.9) | 95(56.5) | 99(81.1) | 462(59.2) |
| ANIMAL AND PLANT | TREE | 40(34.2) | 58(46.8) | 25(52.1) | 56(27.9) | 50(29.8) | 90(73.8) | 319(40.9) |
| | FLOWER | 20(17.1) | 26(21.0) | 11(22.9) | 23(11.4) | 24(14.3) | 50(41.0) | 154(19.7) |
| | ANIMAL | 11(9.4) | 13(10.5) | 20(41.7) | 10(5.0) | 24(14.3) | 26(21.3) | 104(13.3) |
| TOTAL | | 71(60.7) | 97(78.2) | 56(116.7) | 89(44.3) | 98(58.3) | 66(136.1) | 577(74.0) |

ance of environmental elements and the result of test for equality is shown in table-4.

The rate of appearance of snow is high in north region of Kamikawa-Furano, Nagano, Hida - Takayama, though the rate of other 3 regions falls below 10%. The rate of mist and fog are relatively high in Aso-Kuju region, the difference of climate condition is reflected and significant difference is admitted with 5% nominal significance level. On the other hand, the rate of wind and cloud is low in Kyoto region but the difference does not exist in other 5 regions, and the significant difference is not admitted.

In case of plant, the rate of tree is 74% in Aso-Kuju, Hida-Takayama(52%) and Nagano(47%) are high too, but the rate of Kyoto and Tsuyama is low. Also the rate of flower is in the same trend and the significant difference by region is admitted. It is the characteristic that the rate of Hida-Takayama(42%) is high about animal, and

the rate of Kyoto and Kamikawa-Furano region is low, so the significant difference by region is admitted. Thereupon, about the similarity of regions, the rate of appearance of climate, animal - plant was examined by cluster analysis. The dendrogram is shown in fig.-4. It is divided into Aso-Kuju, Hida-Takayama region and other 4 regions largely. The reason is that the rate of tree and animal is higher than other 4 regions. Aso-Kuju is situated as the region where the rate of fog, mist, tree and flower

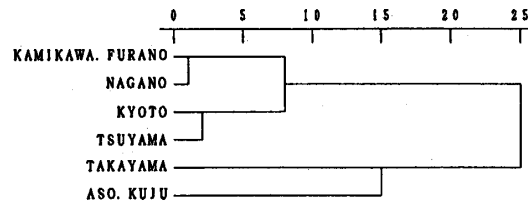


Fig.-4 The result of cluster analysis

is highest and also Hida-Takayama as the region where the rate of animal and tree is high. Remained 4 regions are divided into Kamikawa-Furano, Nagano and Kyoto, Tsuyama region. In Kamikawa-Furano and Nagano region, the rate of snow and tree is higher than other 2 regions. Especially these two regions are positioned as the region where the rate of snow is highest. On the other hand, in Kyoto and Tsuyama, the rate of snow, tree and flower is low.

4. Classification of environmental scenes.

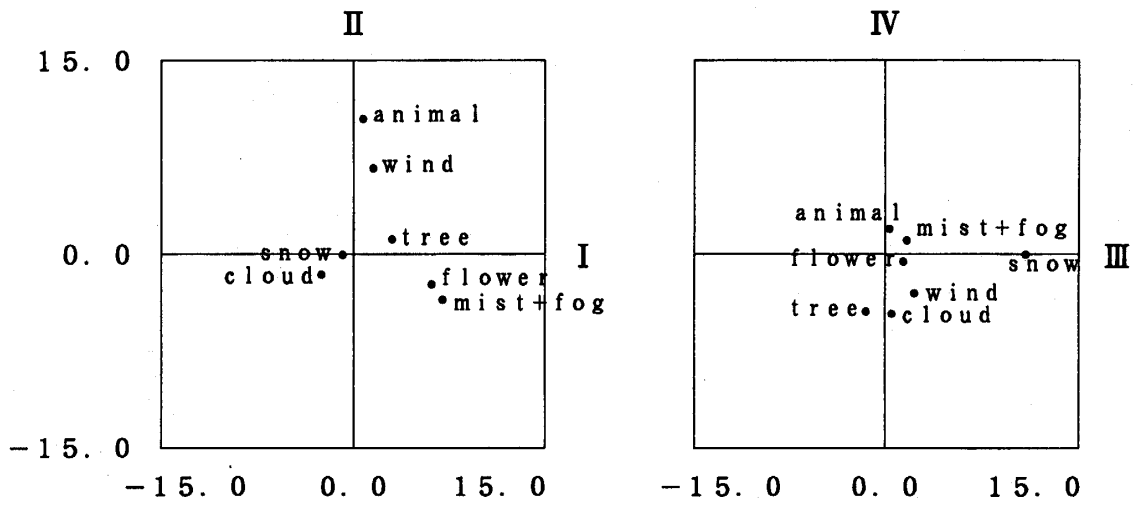
(1) Classification by Hayashi's quantification method III

It was examined that the difference of a rate of appearance of each environmental element by regions in chapter 3. In this chapter the combination of environmental elements that showed in words is classified to examine the scene that was expressed every one note more concretely. We consider the words which include the Mountain, river and ground they are the geographic elements in large division. About these 3 types, classification analysis of middle division items of climate, animals and plants is carried out by Hayashi's quantification method III. The environmental scenes that are expressed in words are classified by cluster analysis using the sample scores of this method.

The result of Hayashi's quantification III of mountain and river is shown in fig.-5. In case of mountain, mist, fog and flower are positioned at the plus side of I axis and on the other side cloud and snow are positioned, so it is the axis that shows the frequency of appearance of climate.

As for II axis, animal and wind is on the plus side, this axis means mainly the frequency of animal. In case of III axis, the snow mainly appeared in Kamikawa-Furano and Nagano is on the plus side among the climate elements, this axis means the snow that appears a lot in north areas. As for IV axis, tree and cloud is on minus side, this axis means mainly the tree. The cumulative contribution ratio to IV axis is 0.64.

mountain



river

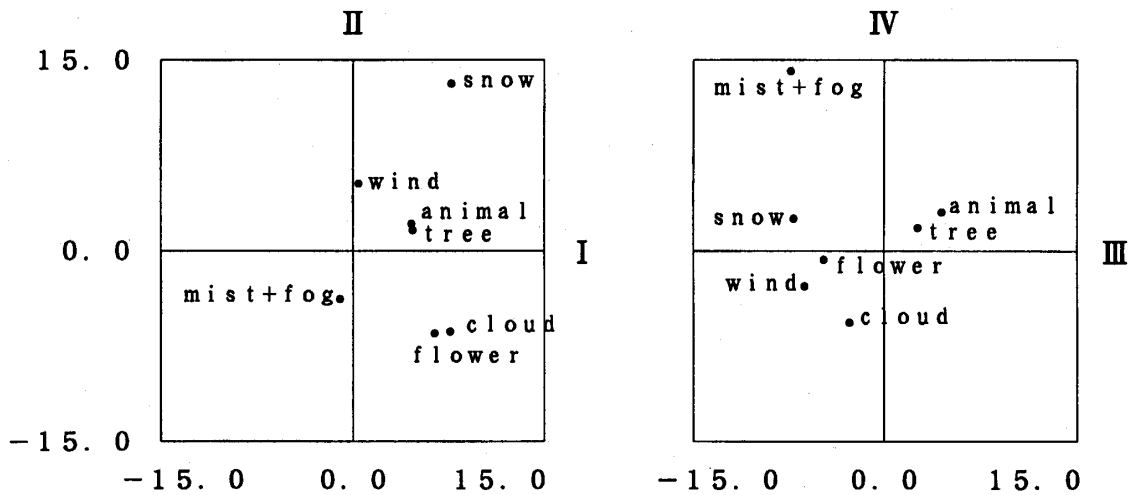


Fig.-5 The result of Hayashi's quantification III

In case of river, snow, cloud and flower are positioned on the plus side and mist and fog are on the minus side of I axis, it is the axis that means mainly the climate of fog, mist, snow. As for II axis, snow positions on the side of plus. In case of III axis, animal and tree is on the side of plus and other nouns are all on the minus side, therefore, it is the axis that means animal and tree. As for IV axis, mist-fog is positioned on the plus side and scores of other elements take a value close to zero. The cumulative contribution ratio to IV axis is 0.68. The same analysis was carried out about the elements of other large divisions.

Next the cluster analysis of words is carried out by using sample scores of I to IV axes by Hayashi's quantification method 3, and the words are classified into 5~7 types, the dendrogram is shown in Fig.-6.

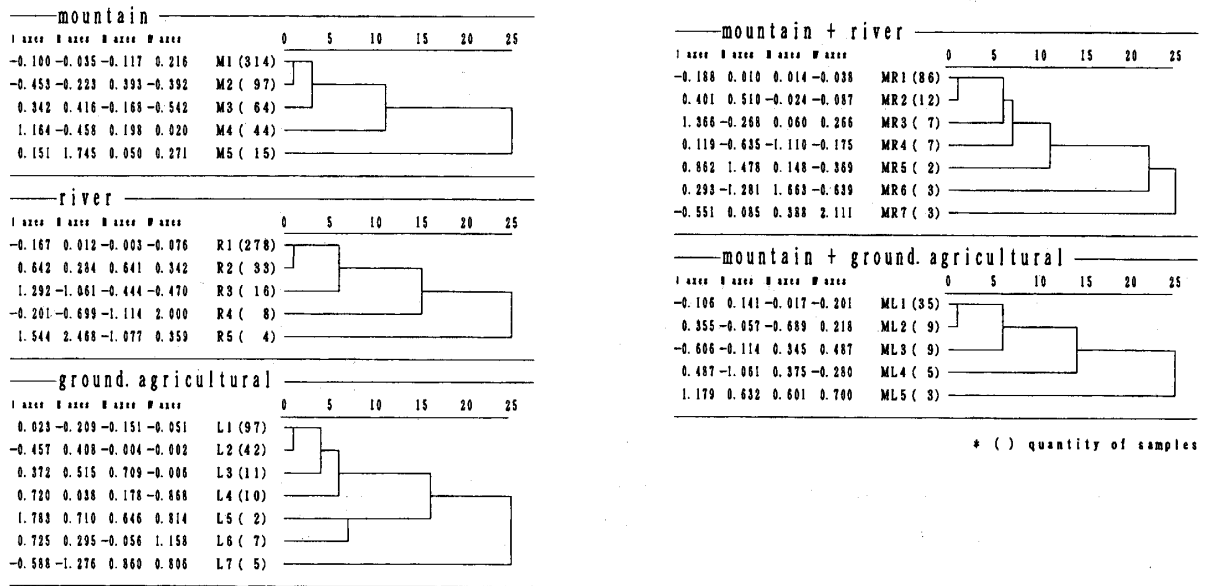


Fig.-6 The result of cluster analysis of words

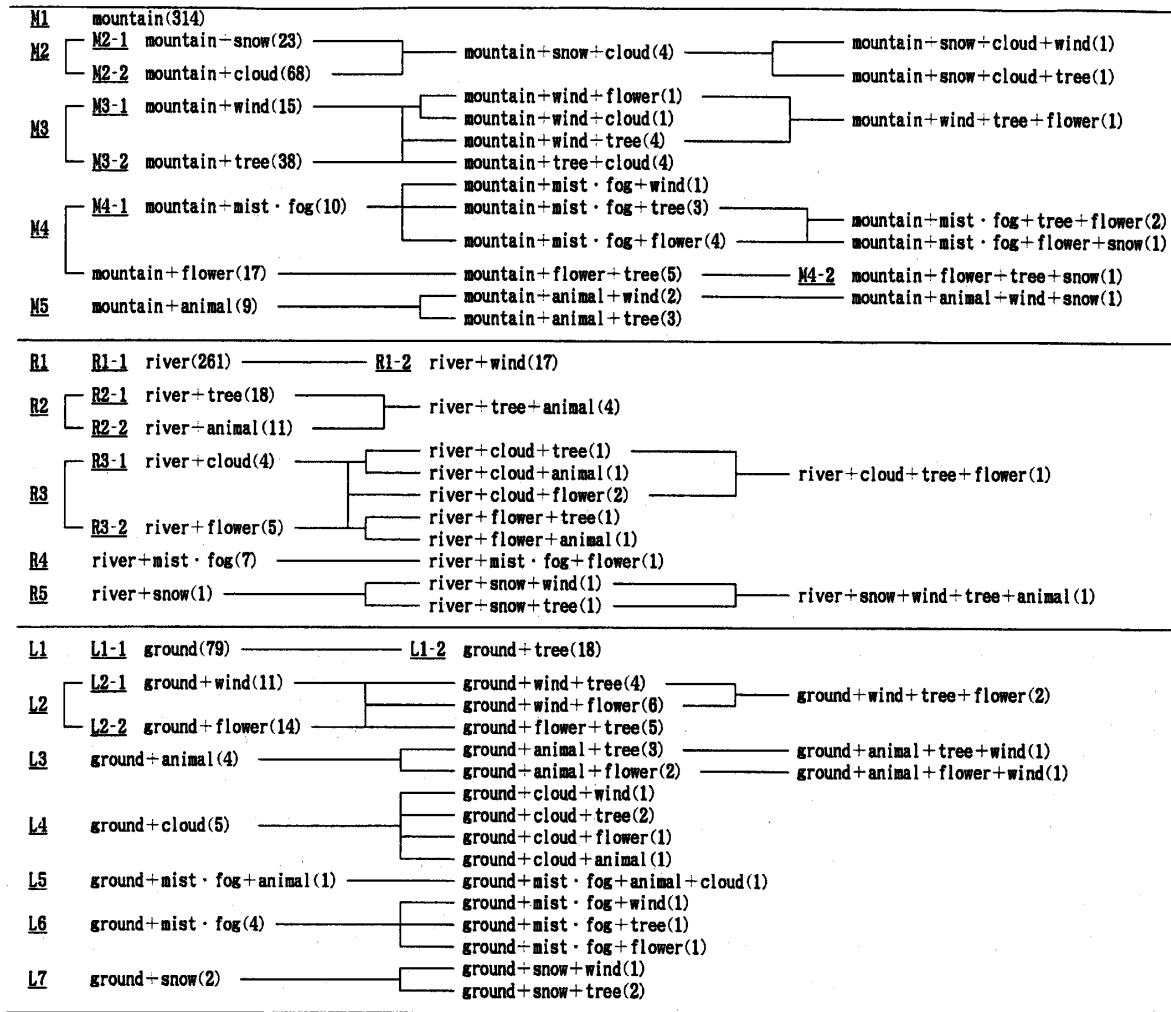


Fig.-7 Combination of environmental elements

(2) Combination types of environmental words

The combination of environmental elements of the scene is shown in fig.-7. About the 5 types(M1~M5) of mountain, the number of M1(314) is most as the type appearing only a mountain. M2 is composed of two major patterns of "mountain+snow" and "mountain+cloud", furthermore a type that "mountain+snow+cloud+(wind or tree)" are all expressed is seen too. M3 is composed of the patterns "mountain+wind" and "mountain+tree". In case of "mountain+wind", element of tree,flower,cloud is added furthermore and in case of "mountain+tree", cloud is added. As for M4, combination of "mountain+mist-fog" and "mountain+flower" are the main patterns, and tree or flower is added. M5 is mainly composed of "mountain+animal" and tree or wind is added.

About 5 types of river, R1-type is most(261) that only a river appears, and the combination of "river+wind" is added. As for R2 ,the combination of "river+animal" and "river+tree" is much and "river+tree+animal" is added. R3-type is mainly composed of "river+cloud", "river+flower" and tree or animal is added. R4 is the combination of "river+mist-fog", and R5 is the combination of "river+snow" and the number is only 4.

The ground is classified into 7 types. L1-type is most frequent(79) which only the ground is appeared, and "ground +tree" is added. Succeedingly L2-type of "ground +wind" and "ground +flower" is much and there is the case added tree. L3~L7-type are small number of examples, the elements of animal,cloud,mist-fog and snow are added to ground.

5. Regional characteristics of environmental scenes

(1) Frequency of types by regions

It is examined on the basis of the rate of appearance that the difference of frequency of environmental nouns by regions. The frequency of environmental nouns and result of correlation test by regions are shown in table-5.

The significant difference is admitted in M1"mountain", M2-1 "mountain+snow", M3-1 "mountain+wind" and M4-2 "mountain+flowers". As for the rate of "mountain", Kamikawa-Furano is highest with 0.58, Tsuyama (0.44) and Aso-Kuju (0.43) are high succeedingly, although other 3 regions do not fill to 40%. As for "mountain+snow", the rate of Nagano and Kamikawa-Furano is high but other region's one is low with about 0.02. In Aso-Kuju region, "mountain+wind" is high with 0.1 but it does not appear at all in Kamikawa-Furano and Hida-Takayama. As for "mountain+flower", the rate is high in Hida-Takayama and Aso-Kuju.

In case of river, the significant difference is admitted in R1-1 "river", R2-1"river+tree", R2-2 "river+animal" and R5 "river+snow". As for "river", the rate of Hida-Takayama and Tsuyama is high with 0.43, but it is low in Nagano with 0.25. As for "river+tree" and "river+animal", the rate is generally low and high relatively in Hida-Takayama and Nagano. The number of "river+snow" is only 4 examples, it appears in Nagano and Hida-Takayama region.

In case of ground, the difference is admitted in L1-1 "ground ", L2-2 "ground+flowers" and L3 "ground and +animals". As for "ground ", the rate of Kamikawa

Table-5 Frequency of environmental nouns and result of correlation test by regions

| | N1 | N2-1 | N2-2 | N3-1 | N3-2 | N4-1 | N4-2 | N5 |
|--|-----------|-----------|-----------|-----------|-----------|----------|-----------|----------|
| KAMIKAWA · FURANO | 68 (0.58) | 8 (0.07) | 15 (0.13) | | 5 (0.04) | 2 (0.02) | | |
| NAGANO | 42 (0.34) | 13 (0.11) | 16 (0.13) | 6 (0.05) | 9 (0.07) | 3 (0.02) | 8 (0.07) | 5 (0.04) |
| TAKAYAMA | 18 (0.38) | 1 (0.02) | 3 (0.06) | | 3 (0.06) | 3 (0.06) | 5 (0.11) | 2 (0.04) |
| KYOTO | 66 (0.33) | 3 (0.02) | 12 (0.06) | 1 (0.01) | 13 (0.07) | 2 (0.01) | 5 (0.03) | 2 (0.01) |
| TSUYAMA | 69 (0.44) | 5 (0.03) | 15 (0.10) | 8 (0.05) | 13 (0.08) | 6 (0.04) | 3 (0.02) | 3 (0.02) |
| ASO · KUJU | 52 (0.43) | 2 (0.02) | 18 (0.15) | 12 (0.10) | 18 (0.15) | 5 (0.04) | 11 (0.09) | 3 (0.02) |
| Examination of significance difference | * | * | | * | | | * | |

| | R1-1 | R1-2 | R2-1 | R2-2 | R3-1 | R3-2 | R4 | R5 |
|--|-----------|----------|----------|----------|----------|----------|----------|----------|
| KAMIKAWA · FURANO | 43 (0.37) | 4 (0.03) | 6 (0.05) | 1 (0.01) | 4 (0.03) | 1 (0.01) | 1 (0.01) | |
| NAGANO | 31 (0.25) | 4 (0.03) | 8 (0.07) | 1 (0.01) | 1 (0.01) | 2 (0.02) | | 3 (0.02) |
| TAKAYAMA | 20 (0.43) | 3 (0.06) | 4 (0.08) | 6 (0.13) | 1 (0.02) | | 1 (0.02) | 1 (0.02) |
| KYOTO | 67 (0.34) | 5 (0.03) | 1 (0.01) | | 1 (0.01) | 3 (0.02) | 3 (0.02) | |
| TSUYAMA | 67 (0.43) | 1 (0.01) | 1 (0.01) | 9 (0.06) | | 1 (0.01) | 2 (0.01) | |
| ASO · KUJU | 37 (0.30) | 2 (0.02) | 3 (0.02) | 1 (0.01) | 2 (0.02) | 4 (0.03) | 1 (0.01) | |
| Examination of significance difference | * | | * | * | | | | * |

| | L1-1 | L1-2 | L2-1 | L2-2 | L3 | L4 | L6 | L7 |
|--|-----------|-----------|-----------|----------|----------|----------|----------|----------|
| KAMIKAWA · FURANO | 24 (0.21) | 8 (0.07) | 10 (0.09) | 6 (0.05) | 2 (0.02) | 3 (0.03) | 2 (0.02) | 3 (0.03) |
| NAGANO | 12 (0.10) | 8 (0.07) | 1 (0.01) | 2 (0.02) | 2 (0.02) | 3 (0.02) | 2 (0.02) | 1 (0.01) |
| TAKAYAMA | 1 (0.02) | 3 (0.06) | 3 (0.06) | 3 (0.06) | 4 (0.09) | | | |
| KYOTO | 21 (0.11) | 3 (0.02) | 2 (0.01) | 4 (0.02) | | | 2 (0.01) | |
| TSUYAMA | 9 (0.06) | 5 (0.03) | 7 (0.04) | 8 (0.05) | | 1 (0.01) | | |
| ASO · KUJU | 12 (0.10) | 10 (0.08) | 5 (0.04) | 9 (0.07) | 6 (0.05) | 4 (0.03) | 3 (0.02) | 1 (0.01) |
| Examination of significance difference | * | | * | | * | | | |

-Furano is high with 0.21, on the other hand it is only 1 example in Takayama and the rate of "ground + flower" is also high in Kamikawa-Furano but Hida-Takayama and Tsuyama is low. As for "ground + animal", the rate of Hida-Takayama and Aso-Kuju is high, but it does not appear in Kyoto and Tsuyama region.

(2) Regional characteristics of environmental image

Fig.-8 shows the rate of the type of environmental scene by regions. Yet the rate of "mountain+river" and "mountain+ground" that excluded from the examination in (1) is included.

In Aso-Kuju region where the rate of mountain, animal-plant and climate is high by large division, the rate of "mountain" and "river" is high in common with other regions. The rate of "mountain+tree", "mountain+wind", "mountain+flower", "ground+tree" and "ground + flower" is higher than other regions, this is the characteristics of this region and the distinctive feature of the land and climate of this plateau is expressed richly. The typical words are as follows.

- towering mountains at the boundary of east and west (Minani)
- young shoots in deep breast of mountains!(Iwataki)
- the name is clean, our Miya River(Minani)
- Jujube bears fruit in shore of Miya River(Kokufu)
- now on time, fresh verdure of field on the hill rustles to wind of light(Enako)

The rate of "mountain" is highest in Kamikawa-Furano where the rate of ground and snow is high. There are few cases that mountain and other elements are combined except for "mountain+snow" and "mountain+cloud", in many cases only a mountain is appeared independently. Also the rate of "ground" and "ground+wind" are higher

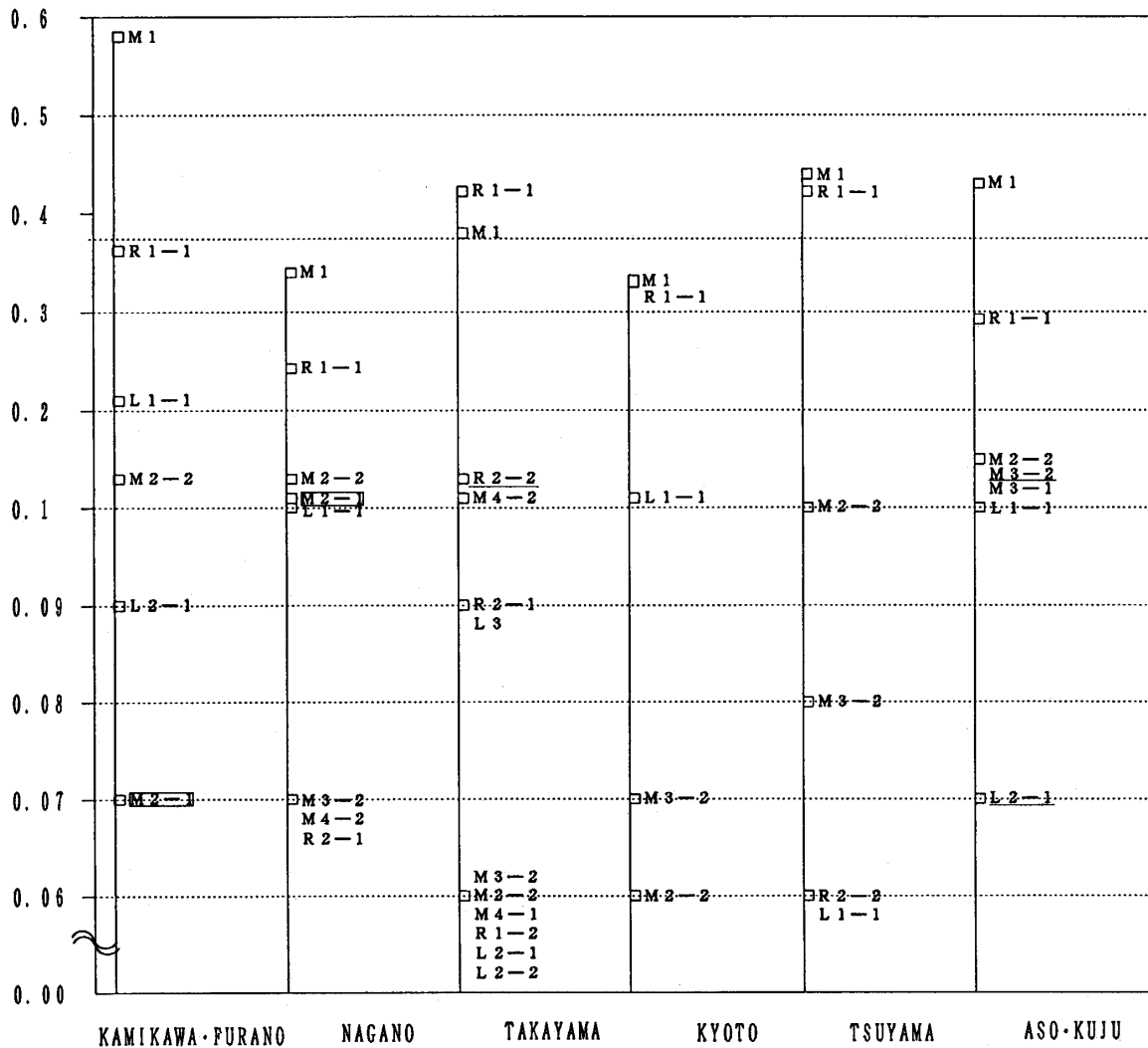


Fig.-8 The rate of the type environmental scene by regions

than other regions. The scene of vast field of Kamikawa-Furano is expressed richly. The typical words are as follows.

- we look up the peak of Mt.Daisetsu(Higashikawa)
- the peak covered with snow shines distantly (Ryoun)
- Mt.Daisetsu above the clouds,pure and noble figure (Hokusei)
- Ishikari River flows purely(Ikaushi)
- the cultivated hill bears fruit richly!(Furebetu)
- balmy wind at green hill (Kamuihigshi)

The rate of "Mountain" and "river" is high with 0.4 in Tsuyama region where the rate of ground,animal and plant is low, also the combinations of mountain and river, cloud,tree are observed, but the combinations of ground and other elements are few. The rate of "river" and "mountain" are high in Hida-Takayama where the rate of river, animal and plant is high, and "mountain+cloud" or "mountain+river" is high

succeedingly. Also the combinations of "river+animal" and "ground+animal" are most among 6 regions, and it is the characteristics that animals are expressed a lot with mountain and river. In Nagano region where the rate of mountain and river is high, the rate of "mountain", "river" and "mountain+river" are high, and succeedingly types of "mountain+cloud" "mountain+snow" are many, they are the combination of mountain and climate, especially the rate of "mountain+snow" is highest among 6 regions. The typical words are as follows.

peak of Mt.kousya calls us(Hiraoka)

in west Alps, Peaks covered with white snow continues solemnly (Naniai)

noble figure of mountains, clouds arise below (Asahigaoka)

In Kyoto region where the rate of mountain, river, animal-plant, and climate is low, the rate of "river" and "mountain" is 0.35, and other types are few. The reason is that there are many schools located in old city areas, so there is much expressions of historic home country acts. The typical words are as follows.

Mountains of Kyoto call us refreshingly at dawn(Suzakudairoku)

permanent flow of Uji River that tells history (Kitadaigo)

we were born in famous land, let's make new culture of Kyoto (Imakumano)

6 . Conclusion

In this paper, the characteristics and universality of environmental image was examined by the analysis of environmental scenes presented in school song words of 6 regions in Japan. The results are as follows.

1) Geographic elements of mountain, river and earth are included in school song words a lot, and these are positioned as the universal environmental image of basin areas. Also by gathering these geographic elements that appear in each school song, the symbolic space structure of the region is grasped. Furthermore climate, animal and plant are appeared in the words, the ecological environmental image can be grasped as well.

2) In Aso-Kuju region in Kyushu, the elements of mountain, tree, flower and mist-fog are appeared frequently, ground and snow in Kamikawa-Furano in Hokkaido, river, tree and animal in Hida-Takayama. On the other in Kyoto, geographic or ecorogical elements are not appeared frequently, but the elements of home country and historic place are relatively much.

3) The difference of the rate of such environmental elements brings about the difference of the pattern of environmental scenes. In Aso-Kuju region where the rate of mountain, animal-plants and climate is high, not only mountain or river but also combination patterns of mountain and tree, wind, or flower, ground and tree are much. The lay of the land and climate of mild plateau area of Kyushu is expressed richly. On the other hand, in Kamikawa-Furano of Hokkaido, only a mountain is sung independently, also a scene of vast field is expressed richly.

4) Like this, the characteristics of environmental image of each region are expressed richly in school song words. It is an effective text for linguistic comprehension of symbolic environments of a region that human feeling catches.

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