

A Method of Analysis about the Settlement of Satsumon Culture

—An Example of STV Site, Kushiro, Hokkaido—

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1. Preface

There are many data according to the pit-dwellings of Satsumon Culture by the excavations in nowaday. But it may say that there weren't occasions reported in the results of having analized fully the excavational data which opposed the study of "Settlement pattern" still now.

Recently, it is going to use the words, "settlement archaeology", and there is a article that gives a important guide the study of settlement pattern. That have connections with "microstructure", "macrostructure" and "settlement" (Chang, 1968)(Rouse, 1968).

By K. C. Chang, the "settlement" using archaeology is occupied a natural place by the members of community, and is said by him, the "settlement" is not only one extended earth spacially but also the plural places. And it is said that the "micro-structure" is one cultural and social structure,, and the "macrostructure" is a larger cultural and social system composing plural each settlement. Furthermore, if both are the typological "model" of and for the "settlement" , the works of archaeology should be say the process making the "model". It is called "articulation" is the construction of the "model" from the relation of these compositional units and structure. This process to the "articulation" is a "microarticulation" and a "macroarticulation". Our aiming goal is the "structure" and the "articulation" is the method of in order to reach the goal. *

Then, in case of considering based on such a position, I must make clear the "STV microarticulation" and conduct model" of the "STV microstructure". More and more, it must necessary study so as to stimulate till "macro".

Fortunately, the members of cores of Kushiro Municipal Museum succeeded in the excavations at the STV site, Midorigaoka, Kushiro , in the view of problems with analysis of the structure of settlement pattern.

I'll want to express the results of those studies. Furthermore, at the time of writing this paper, I was given several instructions and cooperations of Messrs. Shinpei Kato, Shiro Sawa, Yoshio Okazaki, Shinsuke Araki, Teruji Toyohara and

Fumio Yamamoto and so on. I thank for their kindness by the means of writing here.

2. An outline of the site

This site is located on the "Kushiro Terrace" and is far about 700 from Kushiro River, and it is situated on the two slender terraces sloping to south facing a little valley. From pit-dwelling of №.1 to №.6 are situated on East Terrace, and №.7 and 8 on west Terrace. Both interval is about 40m far.

House of №.1: Square with 6.5 by 6.0m. An oven is perhaps situated at the southeastern wall. There are several small pits along the wall but it is considered a base with 4 post-poles. The long axis is N 45° E. Ezoshika (*Cervus nippon yesoensis* H.), a shell of Ubagai (*spisula sachalinensis* (SCHRENCK)), the kind of barnyard grass and a part of sword (*semekanagu*) are found.

House of №.2: Square with 6.7 by 6.0m. An oven constructing with stones is at the southeastern wall. 4 post-poles excepting 1 and Small pits along the wall. The long axis N 53° W. Ezoshika, the shells of Kawashinjugai Family, the fragments of Satsumon type pottery are found.

House of №.3: Square with rounded corners. 6.6 by 6.0m. An oven is with stones at the southeastern wall. 4 post-poles. Small pits along the wall. The long axis N 45° E. A slender tongued part is situated at the southern part of the oven, this is thought the entrance.

One Satsumon type pottery accompanied with oven, the shells of Kawashinjugai Family the shells of Ubagai and a fragment of iron (sword?) are found.

House of №.4: Square with rounded corners. 5.6 by 5.3m. An oven at the southeastern wall which is perhaps with stones. One square storage-pit (35cm in depth) is placed at the corner of east, and it is also 4 post-poles excepting this place of the storage-pit in the base. Small pits are found along the southeastern wall. N 27° E.

One Satsumon type pottery, Makiri 1, Nail? 2 and 3 shells of Ubagai.

House of №.5: Square with 5.0 by 4.65m. There isn't an oven, it was confirmed a slender entrance at the eastern wall, H 75° W. No remains on the floor.

House of №.6: Square with rounded corners. 5.5 by 5.0m. oven.

Only small pits along the wall. Two square and oval shape storage-pits are found at the corners of east and south. N 72° W. No remains on the floor.

House of №.7: Square with 6.0 by 5.5m. An oven with stones at the southeastern wall. Small pits along the wall are orderly. 4 post-poles excepting eastern one are basic style. N 49° W. Ezoshika.

House of №.8: Slightly distored square with 5.4 by 4.3m. An oven with stones at the southeastern wall. Some small pits. 4 post-poles. N 47° E. Three Satsumon type pottery, sword 3. a part of sword (*semekanagu*), a fragment of wooden vessl, two fragments of lacquer ware and Ezos.

The fundamental strata through each pit-dwelling is as follows:

I : Black humic soil including grass roots.

II : White volcanic ash (W-vol. ash).

III : Dark brown soil including W-vol. ash.

IV: Black humic soil (old surface in those days).

V : Orange soft loam.

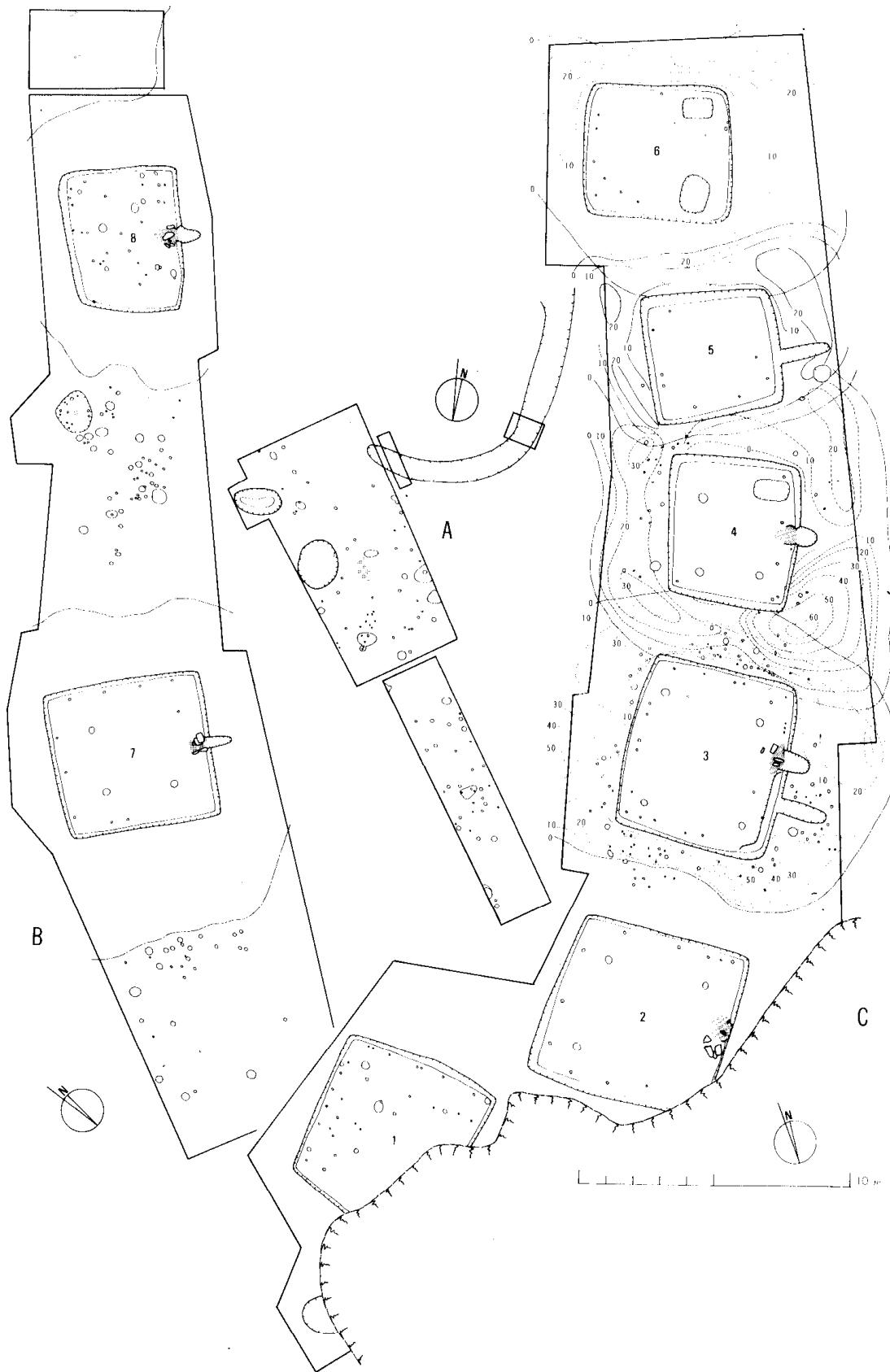


Fig 1 Ground plans of houses and excavated areas
 A: northern terrace
 B: western terrace
 C: eastern terrace

VI: Orange hard loam.

In the outside of those pit-dwelling, there is a orange volcanic ash (O-vol. ash) during the third and the fourth layer, which is considered the soil of piling up from pit-dwelling. Within the pit-dwelling, O-vol. ash accumulate more or less. This layer is perhaps considered veiling soil that piled up the roof then. Still more, the state of the soil of piling up from pit-dwelling is as Fig. 1 showing contour lines. Also the pillar like pits are recognized as figure.

3. An analysis of STV settlement

In the first place, it is necessary to put in order the relation of old and new, and the simultaneous relations within the other pit-dwelling.

1) During House of №1 and №2, it is recognized that №2 was constructed later by the relation of piling up soil from each dwelling.

But both houses existing contemporary, for these soils were mixed. --- STV 1 period.

2) №3 is later than №2 by reason of piling soils, and №4 is later than №3 but these are simultaneous relation by potteries, structure of the house and the oven. --- STV 2 period.

3) №5 is later than №4 by piling soils, and moreover constructed one group with №6. These have no oven and post-poles. And that no remains. --- STV 3 period.

4) In concerning №7 and №8, it can't say the relation of old and new. №1, 2, 7 and 8 are seemed to from one group by the states of Ezoshika and a kind of barnyard grass, but it isn't able to draw a conclusion positively. Still more №1 and 8, these houses can assume simultaneous relation by reason of the state of post-poles and the long axis. Or each is capable of independence in time, but it couldn't prove those independences.

Under these results I'll consider the settlement pattern and so on.

A. Settlement of STV 1 period

There are interesting remains at №1 House, for example, a kind of barnyard grass, sword's semekanagu, and Ezoshika. Especially the bones of Ezoshika were also found at No. 2, 7 and 8, but including differences as follows. Namely at №1 is found the limbs bone, №2 cutted antler and some small parts of joint bones, №7 the limb bone and №8 under jaw. The fact lacking the parts of body and a part skull in all, it shows that the disjoint working was done outside of houses and near places. * * Then, there were discovered the kind of barnyard grass as same as those of №1 at the small terrace situated western part of №8. If there remains are considered component №8, we are able to recognize the cooperative works of collecting one by the members of settlement in STV 1 period. Furthermore we'll have a hypothesis the state of primitive communism.

B. Settlement of STV 2 period

we could obtain several data from House of №3 and №4 that were very good preservation.

1) The state of appearance of Satsumon type pottery accompanied with oven, and both techniques of giving design resemble closely.

2) The shell of Ubagai is discovered.

3) The oven doesn't use making of clay, that almost made of stones. In spite of in №3 there were found two clods of clay in a pit. This fact is very important element, besides the type of section ensuing to chimney has a distinguished point.

4) In the structure of №4, the situation and the state of post-poles are like 1 period, and they are distinguished. Their poles are very shallow. This fact is meant that is put emphasis the roof than post-poles structurally. Concerning this point I'll describe in detail later section.

5) There was found a square storage-pit at the northern part of the oven in №4 House, which couldn't be discovered in №3.

C. Settlement of STV 3 period

House of №5 and 6 naming STV 3 period have a mark accompanying no oven. And these have no post-poles and Satsumon type pottery.

In №5 the entrance * * * is attached to the southeastern wall, and two storage-pits are belong to №6.

Besides, these №5 and 6 have middle size over 4m in length in a side. Nevertheless, it is very important thing that these middle size dwellings don't have 4 post-poles type. Concerning to the post-poles, H. Watanabe says as follows. "In the pit-dwellings of all northern people the structure is stable by far, and together with the post is particularly big, and standing in deep under the ground that is a characteristic." And again " It is understand that the size of post have influence on the stability and the eternity of the house structure, therefore it becomes a mark showing the security of house." (Watanabe, 1966). If we make apply this theory for the STV settlement, it must say that this site have a construction less eternity. But we'll be able to lead correct comprehension according to as following interpretation. In a word, we are necessary that changing from STV 1 and 2 period being shallow post-poles with a new group of Satumon type pottery and accompanied an oven to STV 3 period having no post-pole and oven.

As a result, at least in these stages of Satumon Culture, we may say that it has been changing its emphasis from pole to roof in structure of pit-dwelling. In another word, concretely, we are able to consider a process as same that process of construction of so-called modern age Aynu's house, which process is that, in the first place, structured the roof in priority, and next ride its roof on the poles having "Ketunni" that is structure of framework showing a tripod (Takabeya, 1943) (Obayashi, 1957). Therefore, the fact never recognize post-poles in STV 3 period that relates strongly veering of emphasis to the structure of roof.

Still more, in other sites as same example can be given. For example, in case of having the oven, Higashikushiro site №2,5 and 6 (Sawa.Utagawa, 1969) Tokachi-puto site, Urahoro-town №2 (Akazawa, 1967). Mr. T. Akazawa said about the latter as follows. "there post-poles are recognized, but can't find out its trace at near the eastern corner these all three pits are extremely shallow.

This is very peculiar. As considering this point, another one (eastern pole) don't dig the pit and may only stand on the floor. "Then in case of having no oven, we can show the examples Higashikushiro site №4 (Sawa.Utagawa, 1969) and Nishi-tsukigaoka site, Nemuro-city №140 and 171 (Iwasaki, 1966) and so on.

D. A phase of STV settlement

We can find having something in common through each pit-dwelling or in each one. The remains were almost concentrated near the oven in case of existing. In №6 which have no oven but storage-pit.

Also its storage-pit is placed approaching to the southeastern wall, this shows the departure of the working place inside the dwelling. Mr. T. Obayashi described about the style of room-arranging (Obayashi, 1971). According to it, he introduced a theory that the tent and pit-dwelling style of old Asian tribe in northeastern Siberia have no sexual spacial departure. This type is the third type among three classification by Ränk. But how can that be ? In STV site, we should see the fact that this site have nearly the tent style of deer-breeder and hunter in northern Eurasia(the first type by Ränk), and the tent style of nomads in southwestern Siberia(the second type). Then having no limits, in the pit-dwellings of Satsumon period, if we considered that the entrance was situated at the wall as same side as the oven, we can point out the general fact as STV site. This problem may be examine more in detail in future.

We can find out a certain regularity in the state of pits like as post-pole at the outside of the pit-dwellings. That is to say, the state of №7 & №8 and №4 & №5 At the №7 & 8, those pits are concentrated at the southern part of each dwelling. These will be having no relation with the construction of house directly, but it seems to show the place of the thing like "nusa-ba" or "iwakute" (the place for sending forward the Heaven, God land) of modern age Aynu. The same pits were also found at the northern terrace. At that place, there is a part accompanying the burned soil and even the arrangement like curving a circle. Possibly, should we consider the existence of temporary hut as so-called a summer house ?

House of №3 and 4 approach too much against House of №7 and 8 and the state of pits at the southern part of these dwellings. Probably, these circumstance pits are connected with the construction of dwelling directly, but concentrated pits at slightly isolated place are thinkable as same as above-mentioned "nusa-ba" or "iwakute".

4. A transition of STV settlement

As though above-mentioned, concerning the Construction from House of №1 to №6 at least we were able to recognize the order, №1→№2→№3→№4→№5→№6, by reason of the fact of the stratum relation. But it isn't given the materials considering the timely width of construction about the mutual relation of pit-dwellings.

In spite of this limited condition, we should presume the above-mentioned each settlement of from 1 period to 3 period. And now confer the map of Fig. In that we can see two terraces situating from №1 to №6 and №7 & 8. Then at least the former, we are able to recognize the more old pit-dwelling situating the part of extremity. Furthermore on its terrace, from 1 period settlement to 3 period settlement, each is formed outside by way of 2 houses units.

I thought such a transition one general phase of the settlement in Satsumon Culture. I'll make my point clear that problem in other chance. If in another sites, in the case showing the ratio during THE NUMBERS OF PIT—DWELLING and the extends of those pit-dwellings THE DIMENSIONS OF PIT - DWELLING

increase in relation to direct proportion nearly too. After all, in the case the second settlement forms same situation as the first one, fundamentally it is thinkable the pattern that the second settlement construct outside never enter into the first settlement. It was proved that such a transition of settlement (Fig. 2)

For example, in case of Jomon age, post-Jomon age and Okhotsk age it was seen cutting or duplication in the approaching period. On the contrary in Satsumon age, those cases are never find. A transition of settlement is done basing on a certain regulation on a fixed topography available as the site. Especially it is said in relation to the settlement of Satsumon.

At this STV site each settlement transfer on the slender tongued terrace from the point to the back part. For the time being, I'll call such a method of transition STV settlement pattern.

The above-mentioned relationship during the post-pole and roof construction may also have a element in context this pattern. Then this STV settlement pattern showing such a model, I'll refer to the question about whether being in other settlement or how being the mutual relation with STV settlement and others.

5. The settlement of Satsumon

Culture near Kushiro-city

It is clear by the investigation at August in 1933 that there were a great many pit-dwellings and also formed a fair large settlement placed on from the streets of Kushiro to Midorigaoka and Musa terrace and on the terrace facing to the lake of Harutori (by the map "The pit-dwellings in Kushiro region" belonging to Kushiro Municipal Museum. The investigator is Mr. Shinpei Kawai) (Kawai, 1936).

Still more a rough sketch of Fig. 3 is made by plotting basing on the map. Depending on the map there are plotted about 260 at Midorigaoka and 210 at Harutori. In the point being thought this STV site, there are 14 pits on two terraces each 9 and 5. * * * * Adding to other several settlements, at least more than 520 pit-dwellings are recorded. In spite of the present time remaining pit-

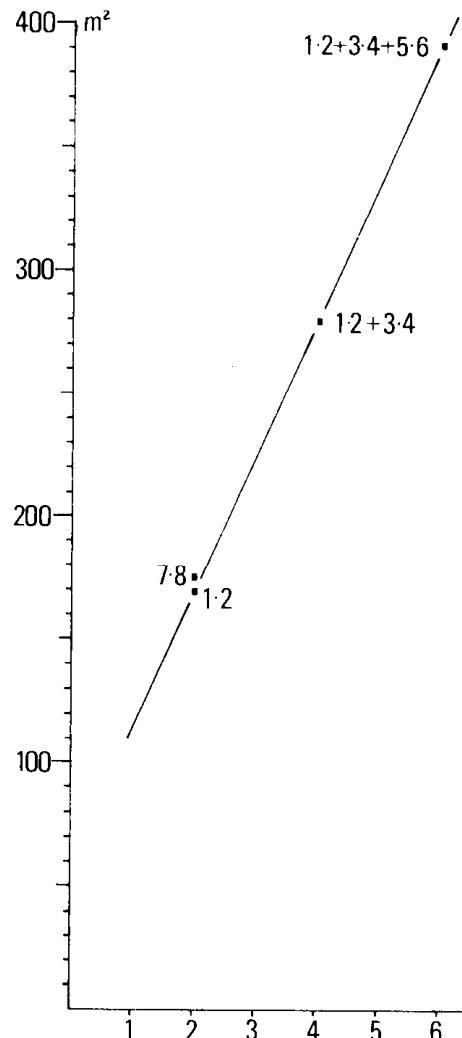


Fig. 2 The Numbers of pit-dwelling and The Dimensions of pit-dwelling in STV settlement

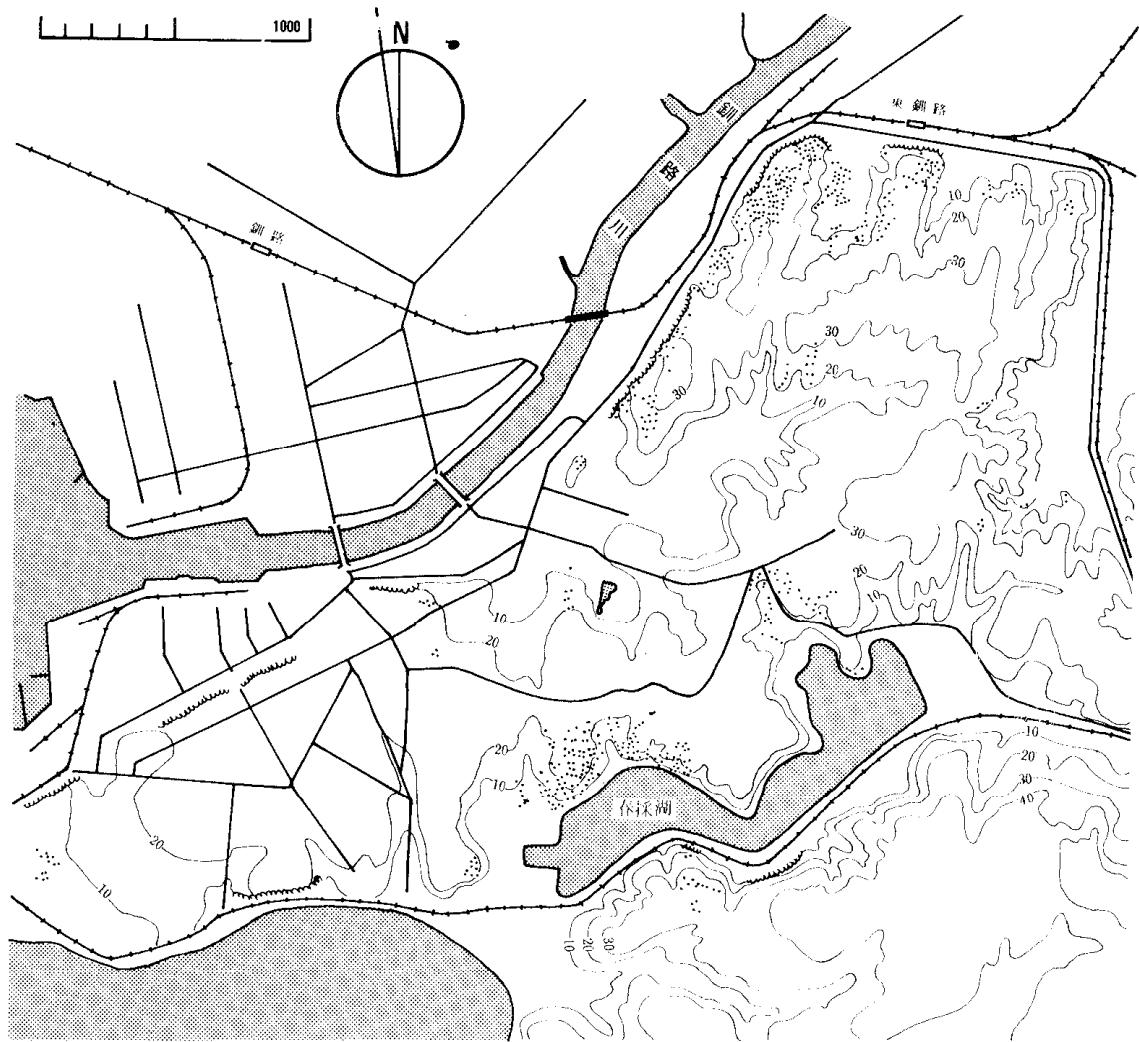


Fig. 3 The pit-dwelling in Kushiro Region. (by S. Kawai)

dwellings are 19 at Higashikushiro site, 18 at near Charanke Chashi, Harutori Lake and this STV site, all of others were destroyed by up to date exploitation before formal scientific investigation.

Fortunately, concerning the site of Higashikushiro we are continuing several excavations. And we are given some data from excavated 4 dwellings. Higashikushiro settlement "extends on the tongued terrace facing to northwest lying between the northern cliff with about 12m in height and its southern gently swamp about 60m. There are placed 11 pit-dwellings on the top of the terrace the extends of dwellings that is to say a scale of the site is about 70 by 90m." (Sawa-Utagawa, 1969).

The pit-dwellings near period of STV 1 or 2 period are № 2, 5 and 6, and № 4 is contrasted the STV 3 period.

So far as thinking their extends, we can't recognize to apply the STV settlement pattern. Contrasting to STV site, Higashikushiro site is placing on the tongued terrace with somewhat width, especially we must consider the fact having the extends at the top of the terrace. Supposing that in a row transition like as STV settle-

ment pattern transfers sideways with some houses unit (in some cases changing direction slightly), we are able to say never being contradictory to the way of principle transition in the Satumon settlement. In future we'll be able to testify in logical or to correct when whole pit-dwellings are excavated. Here I'll present the existence of Higashikushiro settlement pattern as a hypothesis. As same as pattern is also recognized at Gifu II site, Tokoro-town by the excavation of Tokyo University what report will be introduced before long. * * * * *

In Midorigaoka site there were concentrated about 200 pits, but were only excavated three pit-dwellings in Satsumon age. Therefore we can't understand the settlement pattern, but can forecast the existence of from STV 1 to 3 period when considering as the settlement.

Here turn my point from Kushiro streets to outside. There is a settlement having about 200 pit-dwellings in Tokotan site, Kushiro-village. Once in 1949, Tokyo University excavated a few pit-dwelling.

It is recognized what contrasting to STV 3 period. In this site we can observe an arrangement in a row on a small tongued terrace, and probably there will exist STV settlement pattern. Similarly in 383 pit-dwellings including Jomon age in Hokuto site, Kushiro-city, the group arranging in a row on the tongued terrace will be observe this pattern.

As above-mentioned in the neighbouring area of this STV site, it is the majority unexcavated. By later study we can clear the "macrostructure" in Kushiro region.

NOTES

* By I. Rouse (1968), it is prescribed that the settlement is consisting of all remains of one community — one point and some sites were used for dwelling, burial and hunting based on each purpose. —

* * However, we can't judge whether the each part of deer is the one body.

* * * Probably at least at this site, there will have placed the entrance in all dwellings at southeastern-eastern wall. It is considered that the cases of difficulty its detection are № 1, 2, 4, 6, 7 and 8, and the ones of comparatively without difficulty № 3 and 5.

* * * * It is surely that this point is STV site, so far as judging from the present situation of the site we can't count 14 numbers, there are 8 only. But it has possibility having existed on the extreme point of the terrace. Possibly it may be added at far back situation.

* * * * * By the teaching from Mr. Tsuyoshi Fujimoto.

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