REGIONAL ORGANIZATION IN THE JOMON PERIOD

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Translated with Introduction by
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Abstract. Regional organization in Jomon Japan is discussed based mainly on the distribution of ceramic styles. A style *(yoshiki)* is defined as the overall mode in which potters in a given region produced their work. Some 70 such styles have been distinguished within the 10,000-year duration of the Jomon period. The most important of these styles are described here in the framework of the six-part division of the Jomon into Incipient, Initial, Early, Middle, Late, and Final phases. Of the three levels of regionality which can be recognized (regions, subregions, and nuclear zones) it is the nuclear zones which seem to correspond to a band or group of bands maintaining a common pottery style. How some of these regional units behaved in the face of increasing interaction with the new Yayoi culture at the end of the Jomon period is discussed in the final part of this paper.

Introduction

Tatsuo Kobayashi is Professor of Archaeology at Kokugakuin University, Tokyo and currently one of the leading scholars of the Jomon period in Japan. This paper is a translation of an article which first appeared in Japanese as "Jomon jidai no kuniguni" in *Jomonjin no chie* [The Wisdom of the Jomon People], edited by Kazuro Hanihara (Shogakkan, Tokyo 1985). Because the original was a lecture delivered in Tokyo in 1983, a few minor changes have been made to aid the English readability of the text. To try to offset the lack of references, various suggested readings have been built into this Introduction.

We believe this translation will be of use to scholars who are interested in Japanese prehistory but who do not read Japanese because it contains valuable insights not just into the prehistory of Japan but also into the practice of archaeology in that country. In a concise summary of Jomon ceramic history, Kobayashi not only recounts the main decorative and technological developments in Jomon ceramics, but also places them in the context of more general trends such as the increase in vessel shapes with the Moroiso style or the almost total loss of surface decoration in the Late and Final phases in western Japan. Together with Pearson (1990) and Kaner (1990), therefore, this paper could stand as a good introductory reading on Jomon culture.

Of equal interest to this paper's account of Japanese prehistory, is the perspective it gives on the way archaeological analysis is approached in Ja-

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pan. There are two main areas of theoretical interest discussed here. The first is the social and geographical meanings of ceramic units and the second is the question of ritual, boundaries, and cultural interaction during the Jomon-Yayoi transition. Of course, the views expressed here should not necessarily be seen as representative of Japanese archaeology as a whole, but Professor Kobayashi's ideas on these two questions are nevertheless extremely influential in Japan.

As is well known, Japan was the home of both the earliest and one of the richest ceramic cultures of the prehistoric world. A number of works in English describe this Jomon ceramic tradition which lasted from about 10,500 to the end of the first millennium B.C. (see Kidder 1957, 1968; Pearson 1990; and references in Kaner 1990). As might be expected, Japanese archaeology has a long history of detailed classification of this pottery and many of the ceramic types used here by Kobayashi were first formulated before World War II. While much of the basic material thus remains the same, however, Kobayashi's approach to typological classification in some ways represents a radical departure from preexisting methods. In order to see why this is so, we will have to attempt a brief discussion of Japanese archaeological typology.[1]

Typological techniques began to be applied in earnest in Japan in the 1920s under the stimulus of scholars such as Kosaku Hamada (1881–1938) who brought back the ideas of Oscar Montelius and Sir Flinders Petrie from his study in Europe. Three concepts, first introduced by Nakaya (1929), are important to an understanding of Japanese typology: these are *keishiki* (form), *keishiki* (type), and *yoshiki* (style).[2] The Japanese words for "form" and "type" are pronounced the same; they are written with different characters but are often a source of confusion even for native speakers. The term "form," however, has been used in a basically similar way by all Japanese archaeologists and it is over the other two concepts, "type" and "style," that most debate has centered.

Until the late 1960s ceramic typology in Japan was dominated by two figures, Sugao Yamanouchi (1902–1970) working on the Jomon period and Yukio Kobayashi (1911–1989) working on the Yayoi. Yamanouchi's approach was based around the concept of type *(keishiki)* which he saw as a group of ceramics with shared characteristics occupying a certain region over a certain period of time. As a classificatory unit this is regarded to be similar to Yukio Kobayashi's "style" *(yoshiki)* as used for classifying Yayoi pottery.[3] Yukio Kobayashi, in contrast, used the term "type" *(keishiki)* to refer to a particular shape or type of vessel and its seriative development. A group of such types thus formed a style.

Tatsuo Kobayashi's scheme was developed out of dissatisfaction with Yamanouchi's approach. His ideas were first published in a Tokyo site report in 1967 and have appeared in various papers since then (eg. 1989). Although Yamanouchi's method was useful in plotting the basic chronological relationships of Jomon pottery, Kobayashi argues that it failed to take full account of the complex structural system of that pottery. He criticizes, for example, the lack of an adequate framework to deal with different typological levels such as in the Final Jomon when the Kamegaoka type is divided into six subtypes known as Obora B, BC, C1, C2, A, and A′. It is the Obora units which correspond most closely to Yamanouchi's *keishiki* leaving an explanatory gap at the higher Kamegaoka level (Kobayashi 1989:248).

Tatsuo Kobayashi uses both *keishiki* and *yoshiki*, but it must be stressed that his *keishiki* is quite different from that of Yamanouchi and his *yoshiki* quite different from that of Yukio Kobayashi. Tatsuo's *keishiki* is, however, similar to Yukio's *keishiki* in referring to the developmental sequence of a particular class of pottery. This concept can perhaps be best understood from diagrams where it is sometimes referred to as a "lineage" or "tradition" *(keito)* (eg. Taniguchi 1988). Suzuki (1988:325) is using "type" in this sense when he writes that, "The representative type *(keishiki)* of the Kasori E style *(yoshiki)* is a tradition *(keito)* of caliper-shaped vessels with a spiral design around the rim." As explained in detail in this translation, Kobayashi links the existence of such types with a shared mental template held by the social group which made the pottery.

Groups of types which share a common style or "atmosphere" *(fun'iki)* are designated *yoshiki* (styles) by Tatsuo Kobayashi. This concept of style has much wider temporal and spatial connotations than Yamanouchi's type and derives more from the pottery groups *(doki gun)* of Chosuke Serizawa and Isamu Okamoto than Yamanouchi's work. For Kobayashi, however, a *yoshiki* represents more than just a stylistic zone; it is rather an independent cultural or social unit forming a dialect group (1987, 1989:252).

Kobayashi's concept of pottery styles has been very influential in Japan. Despite this he has many critics—although interestingly few have published detailed rejoinders. The most general criticism is that despite laudable aims in attempting a more socially based classification, Kobayashi's approach is rather poorly defined and difficult to apply in practice. Otsuka (1989) suggests that Yamanouchi's typological framework bears more relation to actual Jomon ceramic units and that his method (unlike Kobayashi's) has the advantage of being repeatable by different investigators. Based on social psychological doubts over the "group mind," Ueno (1983: 79–80) has criticized the concept of a shared mental template which lies behind Kobayashi's "type."

Sahara, a Yayoi specialist, has argued that while the concept of *yoshiki* may be a good one, the name is inappropriate because it is the same as Yukio Kobayashi's *yoshiki*. Sahara (1985:9) suggests the English loan-word *sutairu* (style) as an alternative for Tatsuo Kobayashi's *yoshiki*. This may be acceptable in Japanese but would make explanation in English even more of a nightmare!

Japanese archaeologists who have not adopted Kobayashi's approach still use Yamanouchi's basic framework, although certain scholars have developed their own refinements (e.g. Nishimura 1986) or experimented with other methods (e.g. Ueno's 1983 and 1986 work on information exchange). Despite this it seems fair to say that many of the concerns with prehistoric social organization which can be seen to lie behind Kobayashi's models remain poorly developed in Japan. Symptomatic of this situation is the rarity of detailed debate over related hypotheses on style and ethnicity developed within Anglo-American archaeology. This is not to suggest that Western archaeology is necessarily superior, but we feel that greater communication would be of benefit to both sides.

Intrinsic to the consideration of typology and artifact variability here is the question of regional organization. Kobayashi links his concept of *yoshiki* with nuclear zones which had a shared cultural and social identity. Although these zones were influenced by environmental factors, sometimes they clearly crosscut natural boundaries. The Oshima Peninsula of southern Hokkaido, for instance, often fell within the same cultural sphere as the northern tip of Honshu. The existence as early as the Jomon period of a division between east and west Japan corresponding to a historically-known dividing line of many cultural and linguistic traits (cf. Obayashi 1990) is a matter of considerable interest to the cultural anthropologist as well as the archaeologist. Interpreting the social meaning of the prehistoric zones which Kobayashi describes remains an important task for the future.

It will be obvious to any reader of this translation that many problems still remain unresolved. Kobayashi views style as the passive reflection of ethnicity. What he terms "nuclear zones" were bands or groups of bands maintaining a common pottery style. While this last is, of course, a real possibility, Kobayashi makes no attempt to discuss the various meanings of style and how they may have been affected by changing social circumstances. What caused change within a particular style? Did stylistic behavior as a symbol of ethnicity become more prevalent when population increased? Was the expansion or contraction of style zones caused by change in ethnic groups or changes in the use of style? Many such questions come to mind when reading this paper. Equally, however, we hope readers will be aware of the enormous potential of the Jomon data for answering such problems. This paper thus represents a beginning, an agenda for research on Jomon stylistic variation. More detailed work needs to follow on each of the units which Kobayashi describes.

Kobayashi concludes this paper with his views on the Jomon-Yayoi transition. In a style typical of much of his work, he puts over his often unique ideas using dramatic metaphors which, although one may disagree with the details, brings the past alive in a way rarely found in other Japanese archaeological writing. Japanese theories on the Jomon-Yayoi transition can be divided into those which approach the problem from the Yayoi perspective and those which come to it from the Jomon perspective. In the former approach, the Jomon people are usually depicted as passive recipients of Yayoi culture which is accepted as a natural progression from the Jomon lifestyle. In contrast, scholars working from a Jomon perspective have looked for explanations for change from within late Jomon society itself (e.g. Akazawa 1982; Watanabe 1986, 1990). Kobayashi's approach here clearly falls into this second category (see also Kobayashi 1985, 1991).

Kobayashi argues that certain conservative elements in Late and Final Jomon culture in western Japan can be interpreted as a reaction to increased contacts with the Asian mainland. For example, a large number of clay figurines were produced at two sites in Kyushu during the time when evidence for rice first appears on that island, i.e., the end of the Late Jomon. Kobayashi suggests such behavior was designed to defend Jomon culture just as popular movements to "Expel the Barbarians" arose at the end of the Tokugawa era as a reaction to increasing Western influence (Kobayashi 1991:217).

The problem of the relationship between Jomon and Yayoi cultures has long been an important one in Japanese prehistory, partly because it is connected with the question of the ethnogenesis of the Japanese people. During the early stages of Japanese archaeology there was a dominant trend to assign excavated remains to specific ethnic groups mentioned in historical texts or known from Japanese expansionary movements into Hokkaido and the Asian mainland. While various theories were proposed, a common suggestion was that the Ainu could be linked with Jomon pottery and the "true" Japanese with Yayoi wares. As recently discussed by Barnes (1990), however, until at least the 1930s there was little conception of the *chronological* relationships between these groups: "the differences in pottery types developed by archaeologists were entirely attributable to different coexisting groups of people rather than to ceramic variation through time" (Barnes 1990:936, paraphrasing Takahashi 1980:154).

It was Sugao Yamanouchi's careful strati-

graphic and typological work that was partly responsible for upsetting this Old School approach. Yamanouchi's challenge was clearly presented at a round-table discussion held in 1936 (Kono et al. 1936). Since this discussion and a series of follow-up articles appeared in the short-lived journal *Minerva*, this has come to be known as the Minerva Debate (cf. Barnes 1990:935–937).

Based on comparisons of his ceramic types, Yamanouchi argued that the Jomon period ended more or less at the same time in each region of Japan. This was a quite different view from that of Old School scholars such as Teikichi Kida who believed that Jomon pottery was used by the Ainu in northeast Japan until the 14th century A.D. Although conducted in somewhat less extreme terms, this debate over the relationship between Jomon and Yayoi cultures and populations has continued throughout the post-War era. In this paper, Kobayashi cites Takayuki Okamoto as an inspiration to his ideas. Okamoto has long been a proponent of the idea that ethnic conflict occurred as Yayoi-Japanese groups in the south gradually spread north at the expense of the Jomon-Emishi-Ainu groups of Tohoku and Hokkaido (Okamoto 1974, 1991). Kobayashi also adopts a view of Jomon "resistance" and Yayoi "aggression" although he appears to use those terms in a primarily symbolic sense.

We fully agree with Kobayashi's call to study the symbolic and ritual aspects of the Jomon-Yayoi transition. Some such work has of course already been attempted. Komura (1987:44) suggested that the incised early Yayoi pottery of the Tokai region may have been formed to display ethnic identity *vis à vis* the Ongagawa pottery users.[4] Various interesting theories have been proposed with regard to traditional Jomon influences on early Yayoi burial practices in central Honshu (discussed in Hudson n.d.). We still remain a long way from a complete understanding of the formation of Yayoi culture, but examples such as these—together with the cases noted by Professor Kobayashi in this present paper—make it clear that regional variation was high and that we need to consider preexisting Jomon adaptations in more detail before we can ever fully comprehend the transition from Jomon to Yayoi.

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Notes to Introduction

1. For further reading on this topic in English see Kidder (1957, 1968), Nishimura (1986), Barnes (1986), and Bleed (1973). This last work was unfortunately not available to us during the writing of this Introduction.

2. Jujiro Nakaya (1902–1936) was a major formative figure in Japanese typology. Kobayashi (e.g. 1975: 58–61) criticizes Nakaya's *yoshiki* (style) as being rather vague, but nevertheless takes the three concepts derived by Nakaya as his basic starting-point.

3. As noted in Hudson (1990:82), many Japanese archaeologists tend to see Yamanouchi's "type" and Yukio Kobayashi's "style" as more or less the same. While there are undeniable similarities in terms of the units of classification, however, Tatsuro Otsuka (personal communication) has argued that the theoretical concepts behind the two are completely different. Yukio Kobayashi's "style" was based on a combination of vessels with clear functions whereas Yamanouchi's "type" was built around pottery of similar shape and decoration. Kobayashi's concept of "style" was influenced by his desire to understand the spread of rice agriculture from west to east Japan, but Yamanouchi's "type" was a way of getting at the development of and interaction between regional ceramic units across the archipelago.

4. This suggestion was first made by Komura in the 1980 report of the Minamimori site, Gifu Prefecture.

Regional Organization in the Jomon Period

An historical understanding of events in the Jomon period involves a consideration of the *actors* in each event, the *time* at which it happened, and the *place* where it occurred. It is on these three pillars that research is based. When one looks at textbook and introductory accounts of Japanese archaeology, however, one gets the impression that whilst traveling gradually back to the Kofun period can be counted as an extension of history, and that whilst some historical narrative is just possible for the Yayoi, when we get to the Jomon there are only very particular descriptions such as Jomon pottery had this sort of shape or Jomon people lived in these sorts of houses. Basically it is the question of place (the historical stage) and the individual characteristics of the people who lived in that place that is completely lacking from such accounts.

When discussing regional organization in ancient Japan the so-called *kuni* of the Yayoi period come easily to mind.[1] Although Jomon and Yayoi social organization were quite different, I believe

we can nevertheless reach an understanding of Jomon regional units almost as concrete as that of Yayoi polities such as Yamatai which were mentioned in the Chinese dynastic histories. In this paper, therefore, I want to consider Jomon regionality not just as a means of distinguishing one area from another, but also in terms of a region's intimate connection with the people who lived there.

Within the Japanese archipelago there is great geographical variation based on latitude and geology, and depending on whether a particular location is montane, coastal, riverine, or on a plain, terrace, or basin. In this sense, Japan can be understood as a mosaic of different geographical environments. The archipelago can be further divided based on climate—precipitation and sunlight—as well as by the ecological habitats of the various plants and animals that existed in a particular area. The lifestyles of Jomon groups were intimately connected with their local surroundings and these varied environments form the background for our understanding of those groups.

While it is only to be expected that contemporary dialects and regional customs do not directly coincide with those of the Jomon period, such things can also provide important clues to the organization of Jomon society. There can be little doubt, however, that a consideration of Jomon regionality must be based first of all upon archaeological data. In other words, any concrete grasp of this question must begin with the analysis of sites, features, and artifacts. A site can be defined as the traces left in the soil of the activities and behavior of Jomon people. Within such a site, a feature is a construction which is still visible because part of it was dug into the soil in antiquity. The term artifact can refer to both things made by human beings as well as natural remains such as plants, animals, and various minerals. The characters used for the Japanese word "artifact" *(ibutsu)* have the rather strange literal meaning of something which is left behind or left remaining. Japanese *ibutsu*, however, is used in the same sense as the English word "artifact" which perfectly suggests the meaning of things made by human beings.

An investigation of Jomon regional organization should take equal account of sites, features, and artifacts, but in reality such an approach is extremely difficult. On this occasion, therefore, I want to focus on artifacts—which can provide a particularly effective grasp on the problem. As man-made tools, artifacts are closely connected with past human behavior and it is thus possible to survey the whole of Jomon Japan from the same starting point.

Pottery Style and Function

Man-made objects can be divided into two general categories, A and B. Class A consists of objects made out of materials such as stone, bone, and wood which have been used since the beginning of human history. Such objects are made by *subtracting* from the original block of raw material. To make a stone tool you have to find a suitable piece of rock and then work it by removing small chips until your desired shape gradually appears. In contrast, class B objects are those made with materials involving the *addition* of weight or size. Within the long span of human history, class B objects are comparatively new, being particularly noticeable after about 10,000 years ago. Pottery is the best example of an object in this category and the importance of pottery in human history must be seen in this light.

As is well known, the raw material for pottery is clay. Clay is an extremely flexible material from which a variety of plastic forms can be made. Furthermore, changes can be made during the fabrication process. In other words, the elasticity of size and form means that the intentions of the object's maker are particularly well reflected. In contrast it is almost impossible to make alterations to class A objects. If the flaking angle of a core does not go according to plan, for example, you may find yourself working with a smaller preform than expected. Due to that mistake it may become impossible to keep to your original intention of making a point about 5 cm long. You may have wanted to finish off the tool as a laurel leaf-shaped point, but because of the flaking mistake you may only be able to make a slender point like a willow tree leaf. Clay, on the other hand, can be modelled to within about a tenth of a millimeter and it is possible to construct a shape which matches a preconceived image. In short, the element of luck can be excluded and an object can be made to an original plan. This is the main contrast between class A and class B objects.

The mere physical properties of pottery, however, do not prepare us for the large quantity that was made in the past. What is more, it can be found across the whole of Japan. This suggests that pottery was not just reserved for special activities, but was used in daily life and thus had a close connection with Jomon social organization. Pieces of Jomon pottery can be distinguished from other pieces by their individual characteristics; in some cases pieces share common features and when these elements are brought together they form a group which we call a pottery type. All types are linked to the people who made the pottery. During the fabrication process a shape in the potter's head is transferred into a clay object. I shall call the original shape or idea a model. This model is not unique to the potter, but is very similar to models held by other members of his or her community.

Jomon groups were always organized around face-to-face relations. A man may have lived in a pit-house with his family but once he stepped out

of that house he could see other families and communicate with them easily. There would have been a high degree of mutual understanding or, to put it another way, a major characteristic of such a "face-to-face" society would have been the sharing of information. Shared models can only come from shared information. This can be seen in various ethnographic examples as well as in our contemporary society. Thus when a potter makes a pot, he or she is expressing in clay not just an individual style but the beliefs and preferences, or normative model, of the group to which he or she belongs.

To take an example, the reader is asked to imagine that the *shinkansen* "bullet train" is passing by Mt. Fuji which can be seen by all the passengers. Upon seeing the mountain some people will say, "I can see Mt. Fuji," some "It's Fuji" or "Do you see Fuji?" There are various ways of expressing it in both English and Japanese, but in the end the meaning is the same: that the passengers can see Mt. Fuji. This is the same as the relationship between pottery and a cognitive model. In other words, Fuji is the model and peoples' various expressions upon seeing it are equivalent to pottery as a final product. When brought together the variations on the theme of "I can see Fuji" can be called a type. Thus when we define a type from an assortment of pottery we have demonstrated the existence of a model held by the pottery maker. A type (*keishiki* or *kata-shiki*), therefore, is a copy of a model made by an individual which shows unique individual characteristics. The communal aspect is that everyone was able to see Mt. Fuji or that everyone agreed that the pot was a representation of a certain model.

There are many types of Jomon pottery and we know that certain groups possessed more than one type. In this case we can talk about the overall style or development of a group of types. This can be called a style *(yoshiki).* A style is the overall mode in which a potter reproduces the model which is found in his or her mind. Bizen ware, for instance, is a famous unglazed stoneware made in Japan from the medieval period down to the present. There are many shapes of Bizen ware such as *sake* bottles, cups, flower vases, teapots, and so on, but collectively they have a special "flavor" which enables one to identify them as Bizen. This is what we mean by a style.

In contrast to this, the concept of form (*keishiki* or *katachi-shiki*) refers to the shape of pottery. To take another example from recent Japanese ceramics, the style of Bizen, Hagi, Karatsu, and Kutani *sake* bottles may all differ, but the function of the bottle (to warm *sake*) and thus its form remain the same.

If we look at Jomon pottery with the above concepts in mind, we can distinguish some 70 pottery styles *(yoshiki)* over the 10,000-year duration of the Jomon period. Each of these styles followed the same process of appearance, development, and decline. Although they are not much in evidence these days, Japanese popular sea shanties also experienced a similar process of birth, popularity, and obsoletion as a *style* of song. Thus in general terms the history of Jomon pottery is marked by the rise and fall of these 70 ceramic styles. Some of these styles extended across extremely large areas and are known as pan-regional styles; others occurred in very limited areas and can be called localized styles. Similarly, if we look at the temporal aspect, extremely long-lived styles can be found with both large and small parameters. Short-lived styles which appeared, flourished briefly, and then disappeared equally quickly also existed. I like to call long-lived styles the "chrysanthemum type" and shorter-lived styles the "cherry blossom type" because of all the typical flowers of Japan the chrysanthemum blooms for a noticeably long time whereas cherry blossoms soon fade. It is not just a question, however, of simply describing a style as long- or short-lived. In using this approach we may get at the social characteristics of Jomon people, perhaps seeing, for example, the beginnings of a Tohoku temperament in the tendency of long-lived styles to be favored in that part of Japan.

After a rather extended introductory discussion it is now time to look at what pottery can tell us about the regional organization of the Jomon people. First of all I want to consider the pottery styles of the six subdivisions of the Jomon period, i.e. Incipient, Initial, Early, Middle, Late, and Final (Fig. 1).

The Distribution and Features of Jomon Pottery

In the first subperiod, the Incipient Jomon, the Japanese archipelago can be divided into two major parts. The area south of the Tsugaru Straits between Honshu and Hokkaido had pottery, but the production or use of pottery had yet to be developed in Hokkaido where the Preceramic period continued. Although Honshu and Kyushu seem to have shared more or less the same ceramic styles, microblades were still in use only in Kyushu. Microblades are a distinctive type of tool which spread across the whole archipelago in the last stage of the Paleolithic. In Kyushu, microblades continued after the introduction of pottery, but in Honshu they were replaced by new types of tools such as tanged points, large single-edged axes, arrowheads, and triangular- and rectangular-sectioned awls. From these examples we can see that there was already regional differentiation of material culture in the archipelago in the Incipient Jomon.

Hokkaido continued without pottery until

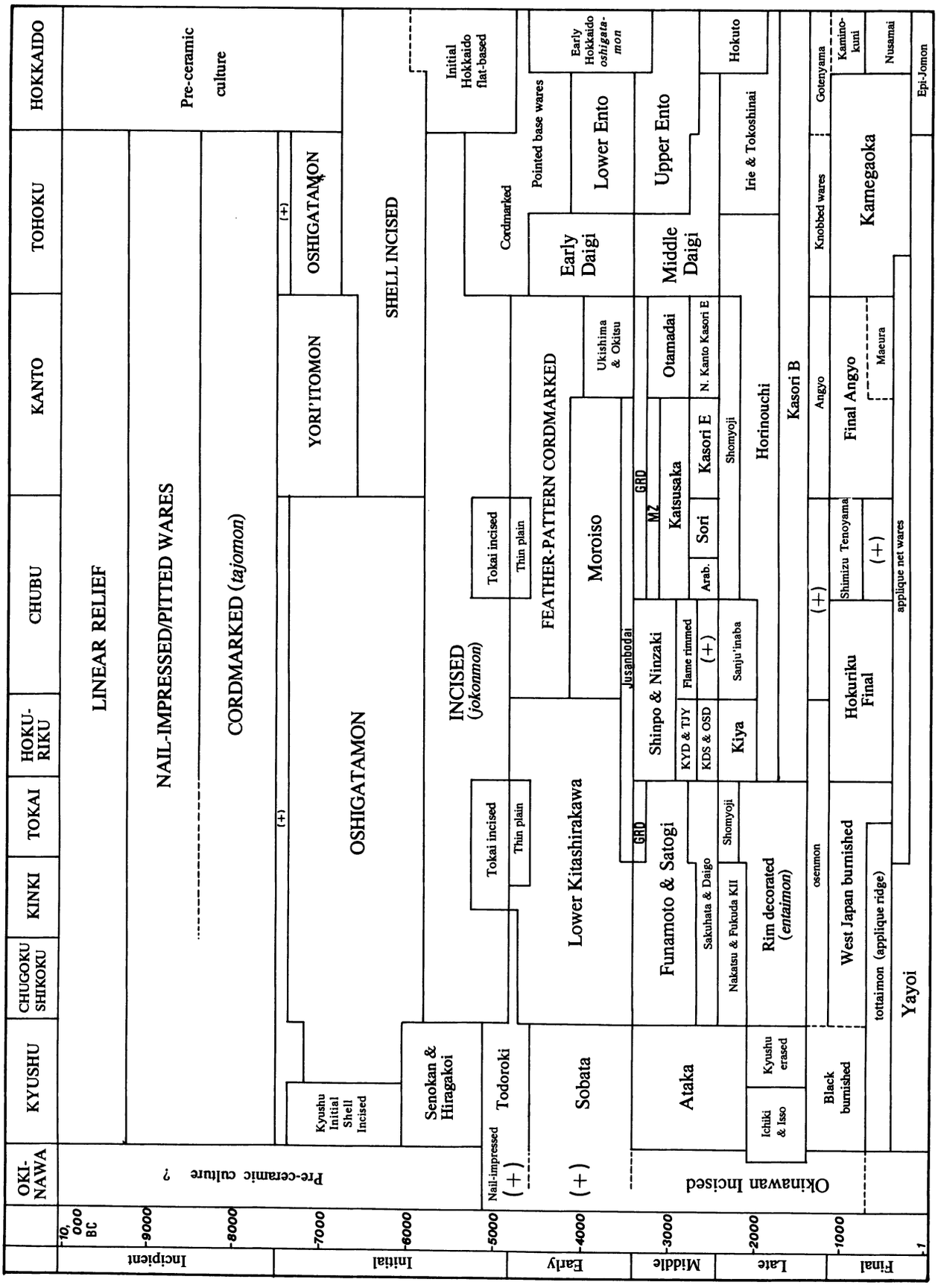

Figure 1. Chronological table of Jomon pottery styles. The symbol (+) denotes that the style which corresponds with this stage is unclear. GRD: Goryogadai; MZ: Mujinazawa; KYD: Kamiyamada; TJY: Tenjinyama; KDS: Kushidashin; OSD: Osugidani; Arab.: Arabesque design style. Prepared from the author's original table in *Jomon Doki Taikan* Vol. 4 (Shogakkan, Tokyo, 1989).

around the middle of the second subperiod, the Initial Jomon. After this a flat-based pottery and, for a while, a shell-incised ware were the main ceramic styles of this phase. In Honshu the *yori'itomon* style, in which cords were wrapped around a small stick which was then rolled over the vessel surface, was centered in the Kanto region. In contrast to the Incipient Jomon, when the ceramic styles had few prominent characteristics, distinctive local styles of pottery made their appearance with *yori'itomon*. Moreover, *yori'itomon* continued for a considerable duration in the Kanto and can be counted as a long-lived style in that region.

Oshigatamon pottery was widely distributed through Honshu and Kyushu in the Initial Jomon period. Whereas *yori'itomon* was based upon a cord pattern, the *oshigatamon* design was made by rolling a small wooden dowel, onto which chevron, lattice, or oval shapes had been cut, over the surface of the pottery. This style also developed its own regional characteristics. The Hibaraki type, for example, was centered in Tohoku but for a short time spread as far south as the Tokai. Jinguji was another type of *oshigatamon*, distinguished from Hibaraki by the sort of incisions on the dowel, and located in the Kinki. Jinguji, however, was a rather localized type and only continued for a short time.

In southern Kyushu, a shell-decorated style seems to have had a parallel development with the shell-incised pottery which followed *oshigatamon* in eastern Japan and to which it bears strong design similarities. With these styles, the notched edges of bivalves such as the ark shell (*Anadara broufhtonii* Schrenk; Japanese *akagai*) were pressed onto the pottery surface in a rocking motion leading to a very distinctive effect. By this period the Jomon people had already developed an effective maritime technology and could quite easily travel south to the Okinawan Islands. The first Jomon occupation of the Izu Islands also occurred in the Initial phase. This maritime ability would seem to suggest that the spread of shell-incised pottery may have involved the actual movement of people between eastern Japan and south Kyushu.

In the Early Jomon, Hokkaido continued its rather independent evolution with a cordmarked, pointed base style. Somewhat after this a cylindrical style of pottery known as Lower Ento appeared and spread from southern Hokkaido to the northern part of Tohoku. This Ento pottery was an ultra long-lived style, continuing almost until the end of the Middle Jomon. In south Tohoku in the Early Jomon was the Daigi style and adjoining this, in the Kanto and Chubu regions, the quite widely distributed Moroiso style made its appearance. During the second half of the Early phase the Ukishima style appeared in the eastern Kanto, particularly centered around Lake Kasumigaura and the banks of the Tone River. Lower Kitashirakawa pottery was found from the Kinki west, and in Kyushu the Sobata style spread through a wide area as far south as Okinawa Island.

What is especially noticeable about the Early Jomon is that with the Moroiso style of around the middle of the phase, the variety of vessel shapes increases in contrast to the single basic form that had distinguished Jomon pottery up until that time. The increase in jars and serving bowls marks the beginning of the production of vessels designed for various functions. Bowls also formed a part of Kitashirakawa pottery, but in other areas the tradition of vessels used for boiling continued through the Early Jomon.

The Ento pottery mentioned above had a very simple, deep cylindrical shape rather like a Japanese tea caddie. This form continued to be made in south Hokkaido and northern Tohoku during the Middle Jomon. Although the design work became more decorative, the basic mood or style of the pottery remained unchanged with the onset of the Middle phase. In north and east Hokkaido at this time another type of cylindrical pottery is known as the Hokuto style. Also undergoing few major changes, Hokuto pottery was influenced by Ento ceramics from the south. In both the Early and Middle Jomon the Ento style encompassed north Tohoku and south Hokkaido. The most noticeable thing about this area was that both sides of the Tsugaru Straits played a part in the same cultural sphere as if the straits were a route of communication rather than a barrier.

In the Middle Jomon the famous flame-rimmed pottery style became especially developed in Niigata Prefecture, both on the mainland and on Sado Island. This style is so named because of its exaggerated flame-like rim projections. In the Hokuriku region unique decorative and stylistic elements were shared by both flame-rimmed pottery and by the related Kamiyamada and Kushidashin styles. The Katsusaka and Otamadai styles were widely distributed through the Kanto and Chubu regions, although a closer inspection reveals that the Otamadai sphere stretched from the Boso Peninsula to the Lake Kasumigaura area, whilst the Katsusaka sphere was located in Saitama, Tokyo, and the foothills of Mt. Yatsugatake. The Sakihata pottery sphere stretched from west Kanagawa right through the Tokai district. In western Japan the Funamoto and Satogi styles spread as far as eastern Kyushu. Conversely, the unique Kyushuan Ataka style is only sparsely found in this eastern area around Oita.

The eastern boundary of the Middle Jomon Funamoto and Satogi styles seems to correspond with the Early Jomon boundary between Early Kitashirakawa and Moroiso. This phenomenon can also be seen in the Late and Final Jomon when, for example, the eastern boundaries of the Late Moto-

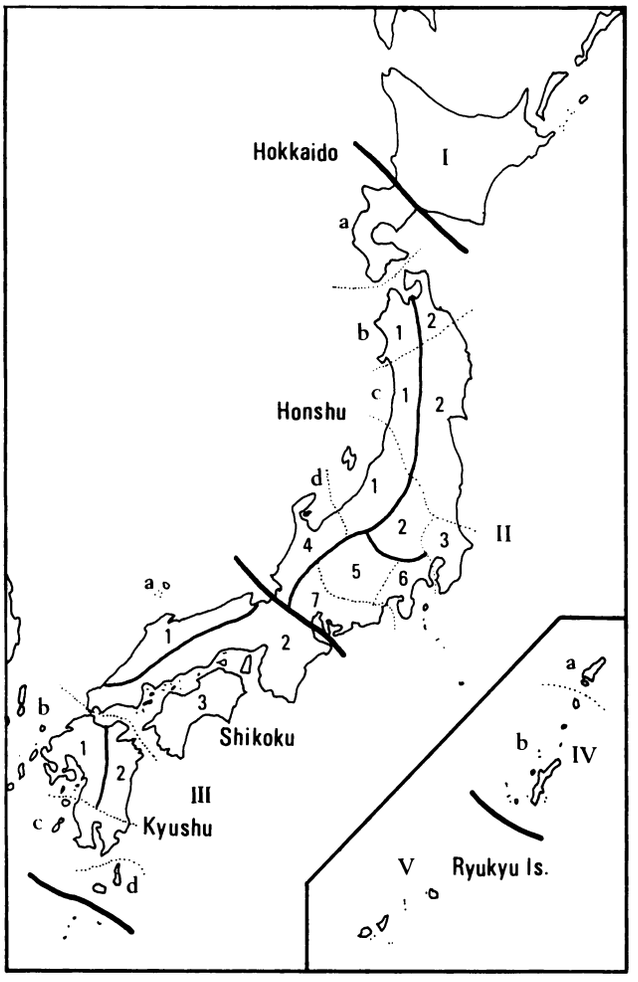

Figure 2. Map of Jomon regional units. I: Evergreen coniferous and deciduous broadleaf forest region; II: Deciduous and broadleaf evergreen region; III: broadleaf evergreen region; IV and V: Oceanic regions. The letters *a* to *d* represent subregions and numbers 1–7 refer to nuclear zones. See text for details.

sumiyoshiyama (pron. *Moto-sumi-yoshi-yama*) and Miyataki styles as well as the Final Jomon *tottaimon* style are more or less the same as in the earlier periods. In fact, the distribution of these ceramics demonstrates the major division between western and eastern Japan as early as the Jomon period. In other words, it seems that there was a boundary here between two large supraregional groupings through most of the Jomon.

In the Late Jomon this east-west division becomes all the more noticeable. In contrast to the continuing decorative designs in eastern Japan, in the western Motosumiyoshiyama and Miyataki spheres ceramic decoration became much more low key. To put it more bluntly, plain pottery gradually became the norm in western Japan. Particularly in the second half of the Late Jomon, if we exclude some limited grooving, vessel surfaces lose almost all decoration. In the east, however, pottery of the Hokuriku Iguchi, Chubu and Tokai Nakanosawa, Kanto Angyo, Tohoku Shinchi, and Hokkaido Dobayashi styles were conspicuously different in that vessels were still adorned with ornamental designs. In the Final Jomon this east-west split became even more pronounced with appliqué-band *tottaimon* pottery in the west and the Kamegaoka complex in the east.

The Division of Jomon Groups

As we have just seen, the whole of the Jomon with its various subperiods is marked by the continual succession of around 70 ceramic styles. From the distributional overlap of these style zones it is clear that certain boundary lines were more significant than others (Fig. 2). The boundary lines which appeared most frequently were those between east and west Japan (from the Tokai to Wakasa Bay), across the Ishikari Plain in Hokkaido, south of Tanegashima, between Okinawa and Anami Oshima, as well as a line marking off the southern limit of the Jomon world at the Sakishima Islands. In this way five large regions (I through V) can be easily distinguished.

The five large regions can be further split into a number of smaller areas, designated by lower case letters in Figure 2. Thus, for example, region IIa refers to the land between the Tsugaru Strait and the Oshima Peninsula. Region IIb refers to the northern tip of Tohoku, but the reader will notice in Figure 2 that this area has been further subdivided into zones 1 and 2. These can be called nuclear zones, although their actual size varies considerably. These seem to be the fundamental units that appear when one looks suitably closely at the Jomon archaeological record. Zones such as these may be a yardstick by which we can measure how many people came together over what size area to form regional alliances within a hunter-gatherer economy. With this in mind there is a strong possibility that we may later be able to subdivide region I (Hokkaido) into at least two subzones centered on Wakkanai and Kushiro.

All of the regions just described had an intimate relationship with the physical environment of the Jomon period discussed at the beginning of this paper. It must be assumed that there was a particularly close connection with the food resources available in each environment. In Hokkaido, for example, apart from vegetable foods, salmon and Ezo deer (*Cervus nippon yesoensis* Heude) were especially distinctive to the Jomon diet. Masaki Nishida of Tsukuba University has called this the "salmon and deer" zone. Furthermore, the major Tokai-Hokuriku dividing line between east and west Japan not only distinguishes two vegetational zones, but also the division between where coastal

salmon fishing was common (in the east) and where it was less often practised (in the west). In other words, region II (eastern Honshu and the southern tip of Hokkaido) was distinguished by the presence of salmon, deciduous acorns, and various other sorts of nuts as foodstuffs. In western Japan (region III) nuts were the most representative food source, but as Makoto Watanabe of Nagoya University has pointed out, the sweet acorns of western Japan (from *Castonopis cuspidata* Thumb.; Japanese *shii*) need little treatment and can be eaten either raw or roasted. In contrast, the horse chestnuts and deciduous acorns relied upon by the inhabitants of eastern Japan cannot be consumed without leaching to remove water-soluble tannin. Acorns were an important foodstuff across most of Jomon Japan and have been found from archaeological sites. Because some varieties cannot be eaten without leaching, however, food preparation techniques became another major factor behind the east-west division.

On the basis of the distribution of pottery styles as well as the natural environment, vegetation and food resources, we must distinguish three levels of regionality in Jomon Japan: regions, subregions, and nuclear zones. The nuclear zones were not all equivalent in rank but links between other nuclear zones within the same subregion were probably stronger than links with other regions. In other words, Jomon regional organization seems to have been based on a pyramid structure of large, medium, and small units. The fundamental unit of a band or group of bands maintaining a common pottery style was what we have called the nuclear zone. These zones covered the Jomon archipelago like a mosaic and the groups belonging to each zone probably shared behavioral norms stretching from daily activities to beliefs, folk songs and tales, and world view. Throughout the Jomon period, whilst maintaining its individual identity, each nuclear zone was directly or indirectly influenced by events on each geographical scale from the archipelago to the region.

The Characteristics of Regional Groups

Bearing in mind our discussion so far, I want now to look at some Jomon groups in more detail. As our first example let us take nuclear zone IId-1 which is made up primarily of Niigata Prefecture. In the Middle Jomon this region saw the development of flame-rimmed pottery together with a sudden population increase at around the same time. Although site numbers are not directly proportional to population, there is a general correspondence and with population growth there often seems to be an increase in individualistic cultural traits. In the Niigata zone the situation previous to the appearance of flame-rimmed pottery is particularly interesting. There was strong influence, for instance, from the Daigi pottery style of neighboring Yamagata Prefecture (zone IIc-1). Ento pottery from Aomori and north Akita (IIb-1) also made its way into the Niigata area. This Ento style seems to have passed along the Yamagata coast, only landing when it reached Niigata. Such facts imply that region IId-1 with its high population level was actively importing distant cultural traits or else that other groups were bringing these traits into the region. After this the Katsusaka style came in from the interior of Honshu down the Shinano River and a great variety of elements spread to IId-1 from the Hokuriku coast. The important point, however, is not that these elements were copied and favored, but that Jomon group IId-1 of Niigata completely assimilated them and created the original form of flame-rimmed pottery.

This flame-rimmed pottery exerted a certain amount of influence over surrounding areas; several examples even found their way as far as the Pacific coast. This vigor began to wane by the latter half of the Middle Jomon, but made something of a comeback around the beginning of the Late phase. After this, however, the number of sites declined precipitously and the style lost its individuality. Seen in this way, the nuclear zone IId-1 of Niigata developed a strong individuality for a certain time but did not continue indefinitely. We might call this a short-lived region and IId-5 also falls into this category.

In contrast, the Kanto was an extremely stable region which always maintained its independent identity throughout the long Jomon era. Site density is high and it would seem that population was maintained at a constant whilst new ceramic styles were invented one after another almost without interruption. A similar situation was seen in the southern Tohoku around Sendai Bay and in the region bordering both sides of the straits between Honshu and Hokkaido. In this way we can confirm the existence of certain regions which were always at the forefront of developments in Jomon culture. In western Japan it was nuclear zone IIIc-1 in south Kyushu which was always the center of gravity in this area, pulling in cultural elements like a tractor. The real source of this cultural "energy" is a major topic for future research.

Jomon regional units were not formed by, for example, intensive fishing activity along a coast leading to the formation of a shell-midden group in a belt-like region; rather, they were structured as in the Kanto where coastal and inland-based subsistence pathways seemed to have formed part of the same regional unit. Thus, in spite of the fact that one nuclear zone contained various environments, regional units were not based on a single subsistence pattern, but noticeably included both coastal and inland areas within the same social framework. The situation can be said to differ from the region-

ality observed on the Asian and American continents with their vast interiors. Serving as the stage for the historical events of the Jomon period and as the basis of Jomon social organization, the regional groups each underwent an individual development in the period of upheaval between the end of the Jomon and the beginning of the Yayoi. I want now to move on to look at this transitional period in more detail.

New Information from the Continent

The latter half of the Late Jomon was a period in which a considerable amount of new information was transferred, almost certainly from the Korean peninsula to Kyushu. The concrete manifestation of this information was rice. A fair number of Jomon people who had never previously seen or eaten rice now experienced its taste. For this reason there was considerable contrast between regions I and II and region III at this time. This east-west contrast is also well reflected, for example, in the distribution of clay figurines. Such figurines were found all over eastern Japan, especially in the Kanto and parts of Tohoku where certain sites have produced hundreds of examples. In the west they are extremely scarce, although unexpectedly concentrated at a couple of sites in remote Kumamoto Prefecture in south Kyushu. The fact that such typically "Jomon" or "eastern Japan" objects should have appeared in out-of-the-way Kumamoto against a background of increasingly plain pottery in western Japan from the end of the Late phase onwards is extremely interesting. If we consider this more closely, it would appear that the new culture, probably introduced from Korea, had begun to influence the existing Jomon culture.

This influence resulted in the discard of Jomon attributes and the adoption of new cultural elements or a stimulation for the existing Jomon culture to take new directions, as shown by the trend towards plain pottery. On the other hand, however, the spread of the new culture led in some areas to a strengthening of Jomon traditions. This would seem to be best evidenced by the apparently sudden decision to make many clay figurines. This viewpoint is particularly derived from the work of Takayuki Okamoto, but anyway there existed what we might call a line of defensive strongholds of Jomon culture at a time when a large part of northwest Kyushu was being quickly permeated by new cultural traits. And it was at this time that several sites in Kumamoto Prefecture, especially Mimanda and Kaminanbu, produced a large quantity of clay figurines. Despite the fact that almost no figurines have been found in the surrounding areas of western Japan, the discovery of more than 50 eastern Japan-style figurines at an isolated village in south Kyushu can be understood as a conservative reaction to the new culture.

At the Yamaga shell midden in Fukuoka Prefecture a female burial was discovered wearing fifteen shell rings on her left arm and eleven on her right. Such clearly ritualistic objects had not previously been produced in any quantity, even in the Middle Jomon. With the new cultural inflow from the Late Jomon, however, Kyushuan culture took on a strongly ritualistic appearance, or to put it another way it is noticeable that an eastern Japan type of culture came to the forefront. By the Final Jomon, rice cultivation had begun in a part of the *tottaimon* appliqué band pottery zone which centered on northwest Kyushu. Stone cist graves and other elements also appeared, but the new cultural inflow was not limited to this part of the *tottaimon* zone, spreading in one leap as far as the Tokai. This stage represents the birth pains of a new culture—the Yayoi.

The Influence of Yayoi Culture

If we look at the later distribution of clay figurines we find that some time after they disappear from Kyushu they reappear only as a few scattered examples around Nara and Osaka. A large quantity of figurines, however, were made at the Kashihara site in Nara Prefecture in the Final Jomon. During this period other sites with such a quantity of figurines are completely unknown in the area west of the Kanto. Why should these objects suddenly appear at a site in Nara? As we saw previously, in Kyushu the movement to prevent the spread of the new Yayoi culture and to maintain Jomon traditions, evidenced, for example, by the determined production of Jomon-style figurines in Kumamoto, was soon destroyed and the making of figurines abandoned. The Jomon "resistance movement" to the new culture was then pushed further and further back until, by the Final phase, it had retreated to the Kinki. The last stronghold of the Jomon tradition was now the Nara area and, in a period when such objects had all but been forgotten, the inhabitants of Kashihara seem to have suddenly decided to make many figurines.

Furthermore, we cannot overlook another active development which occurred on the eastern side of the border separating east and west Japan in the Final Jomon. In the belt of land encompassing the Tokai and Toyama, Ishikawa and Gifu Prefectures, the production of secondary tools increased. This development was intimately connected to, and can be seen as a mutual response to, the attempt to preserve Jomon culture by desperately making many figurines at the Kashihara site. So-called secondary tools include stone crowns, bars, rings, discoidal mace-heads, and banana-shaped stone tools.[2] These sorts of objects were made in this area of eastern Japan, but it is not known what any of them were used for. All have strange shapes and carved decoration. Although it is very difficult to

carve decoration on hard stone, the patterns were not simply chipped away but carved and polished in a regular, woodpecker-like fashion. What I am here calling secondary tools are ritual objects which had a separate meaning from hunting and gathering tools but which were nevertheless extremely important to Jomon society. Secondary tools stretched along the front-line contact zone between east and west Japan and were made in different pottery style regions. The determined production of clearly Jomon-style objects was in direct opposition to the new western culture represented by *tottaimon* pottery. When these Jomon-style stone crowns and saw-tooth objects[3] were made outside the front-line bases, that is in the Chubu, Kanto, and Tohoku regions, however, they were often made of clay. The clay and stone objects have the same shape, but, as emphasized earlier, production of the stone objects would have taken a great deal of time and labor. In contrast, the clay objects made behind the front-line would have relieved much of the strain involved in the production of lithic objects. The clay tools could have been made during intervals in pottery making or at least by utilizing a technological process that was already available. Some of the tension of the front-line bases was transmitted to these outlying areas, but the atmosphere seems to have been comparatively relaxed.

The tradition of ritual tooth ablation is also connected to the circumstances of this transitional period. This custom began in the Early Jomon but did not really catch on until the Middle phase after which it gradually became widespread, continuing right through the Final Jomon and for a part of the Yayoi period. Tooth ablation seems to have been particularly characteristic of the Tokai region. The custom refers to the extraction of healthy teeth in accordance with a prescribed pattern. In the Jomon case it also involved the filing of incisors into a fork-like pattern sometimes known as *Zackenfeilung*. This latter technique was particularly common in the Tokai region, although two examples are known from the Kou site in Osaka and one from the Tsukumo shell midden in Okayama Prefecture. Surprisingly rare in the Kanto and other areas with strong Jomon characteristics, it is a remarkable fact that the distribution of *Zackenfeilung* kept in step with the distribution of secondary tools within the frontier belt zone described above. In this way, ritual affected the world view found along the border zone between east and west.

In the areas behind the front-line, such as Nagano, Niigata, and the Kanto, a great quantity of arrowheads were made in the Final Jomon. Of course, arrowheads had been made for a long time before this, but particularly from about the middle of the Final there are examples of sites from which hundreds of arrowheads have been discovered. This is another sign of the great changes occurring within Final Jomon society. Although many arrowheads were made, they sometimes include examples with the original cortex and flaking platform, some which are not symmetrically shaped, and even some examples where what must have originally been a sharp point is no more than a bump. What could possibly be the explanation for this state of affairs?

The Individual Behavior of Regional Units

With the tensions caused by the gradual influx of a new culture we may guess that these Jomon groups in Nagano, Niigata, and the Kanto were spurred on to make arrowheads as a preparation for war, even though they may not really have intended to fight. Also at about this time, the Kanto people stopped producing ritual clay and stone plaques. Against this background, around the very end of the Final Jomon, the Chiami pottery style appeared in the Hokuriku, Kanto, and Chubu regions and in Fukushima Prefecture. Chiami pottery was different from the preceding Kamegaoka, Angyo, Maeura, Sano, and Nakano styles, particularly in its low-key decoration. In short, western influences had begun to directly affect the Kanto. In the front-line bases the strength to continue making secondary tools had already come to an end and the path for the next cultural advance had been prepared. On a broad scale, however, it can be seen that the Jomon cultural tradition as a whole was still being clung to and the regions north of Fukushima remained tranquil. Nevertheless, the Jomon people of the Chiami pottery zone were directly confronted by the Yayoi culture which had arrived in the Tokai; they faced head on into the so-called Yayoi typhoon.

It was just at about this time that rice was introduced into the area around Niigata Prefecture. Just as it had been brought into Kyushu in the Late Jomon, rice made its way into Niigata at the very end of the Final phase, evidenced by carbonized rice grains stuck to the bottom of pottery from the Nagahatake site in Sakae. With the knowledge of rice, various other tangible and intangible cultural influences are hypothesized to have vigorously spread as far as the Aizu basin in west Fukushima.

Although Jomon elements disappeared from both pottery and tools in the Chiami phase, they were resuscitated to some extent in the Yayoi period. Cordmarking, for example, dropped out of use on the surfaces of Chiami fine ware, but once this phase had passed into the Yayoi period proper, that is once rice cultivation had begun and some stability had been reached, a local identity was once again achieved by the use of cordmarking as pottery decoration. There was a similar Jomon renaissance in that decoration once again spread over the whole vessel surface whereas it had been limited to the edge of the rim on Chiami ceramics.

How did the Jomon people cope with these

various disturbances? In the end they appear to have settled down in the same way as Yayoi culture in western Japan. Further east, in Tohoku and Hokkaido, deep in the heart of Jomon culture, Yayoi influence was late and much diluted. The Japanese archipelago was by no means a monolithic culture in the Jomon period. A great many regional groups displayed their individual behavior throughout the long history of the Jomon and in the period of upheaval between the end of the Jomon and the beginning of the Yayoi. I believe that probing the individual behavior of each of these groups is the first step towards a concrete historical narrative of the Jomon period.

Translators' Notes

1. In his original paper Professor Kobayashi frequently uses the term *kuni* to refer to Jomon local groups. We have not attempted to render this word into English, however, because its meaning is so vague. *Kuni* is the Japanese reading of a Chinese word *guo* which was used to refer to Yayoi-period political units in Chinese dynastic records. Although Yayoi *guo* may be best understood as "chiefdoms" the term was not consistently used in the Chinese histories and is usually glossed "country." While Kobayashi is not suggesting that Jomon and Yayoi social organization were in any way similar, the rather vague meaning of *kuni* makes it a useful catch-all to refer to prehistoric regional units.

2. The tools referred to here are *sekkan, gyobutsu sekki, kanseki, kanjo sekifu,* and *bananakei sekki.*

3. *Sekkan* and *ishinoko.*

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