

Chapter IV  
PREHISTORIC POTTERY TYPES OF EAST ASIA;  
THEIR RELATIONSHIP TO CHULMUN

As explained earlier, the very name of Chulmuntogi ("Comb-pattern pottery") was created by early Japanese archaeologists to express their opinion not only with regard to the similarities between Korean decorated pottery and East European Kammkeramik but also to suggest a derivation therefrom. This suggestion was first made by Fujita in the early thirties (Fujita, 1948:13), and has rarely been challenged since. However, it has never been suggested, even by Fujita, that all "comb-pattern" pottery is in fact decorated with a comb-like implement. All prehistoric decorated pottery in Korea falls under this rubric, whether the decorations were made by incising, stamping, punching, grooving, or even pinching or filleting. Kim Jon-Hak (1968:5-7) makes a very good case for the appropriateness of the more general term "geometric" for this group of pottery, but this has not been accepted by other workers in the field. Lumping all the decorated pottery together may obscure important regional differences, but if it is to be given a collective term, "comb-pattern pottery" fails to describe the majority of it.

There can be no question about certain superficial similarities between some East Baltic and Siberian pottery types and certain selected sherds of Chulmuntogi. Kim Won-yong illustrates some of these in a review article (1962b:48-49). Especially the pottery from Amsari, which is considered to be "classic Chulmuntogi," bears considerable likeness in a few atypical decorative motifs. Kim also reiterates, in the same paper, the theory that

the idea of pottery making, or the potters themselves, came from the north and went to Japan producing the Jomon pottery which also bears some striking resemblances to Chulmuntogi. It has been widely thought in Korea that the radiocarbon dates for Jomon must be in error since they fail to fit this sequence. Even Kim Jon-Hak (1966) joins those who believe that the "geometric" pottery came from Siberia.

It has alternatively been suggested by a Soviet archaeologist that the type of pottery represented by Chulmuntogi is ancestral to that in the Soviet Maritime Region and in the Amur River basin, and that it is ultimately patterned after unspecified basketry from Southeast Asia (Okladnikov 1964:38). Some round-based pottery in the Ryukyus has been suggested as a possible step on its journey northward,

Daifuku (1949), reflecting a point of view common in Jomon studies before the era of radiocarbon dates, suggests four possible routes by which the Jomon culture might have been introduced to Japan. Two of these are through Korea, but in his sketch map (1949: 268) he does not extend the origin of the arrows in his diagram back toward Siberia.

When considering relationships between Chulmun and other kinds of prehistoric pottery, a caveat is in order on the quality of the evidence. Even the most cursory examination of relationships within East Asia is beset by great difficulties. Not the least of these is the number of unrelated languages in which site reports are published from the areas bordering on Korea or believed to be forerunners of Chulmuntogi. Reports tend to be published, if at all, in small journals rarely obtainable outside their country of origin. For this reason the following relies largely on summaries in English or translations for each area and refers, where possible, to original site reports for illustrations, photographs, and maps.

No reason has been found to doubt the reliability of any of the major sources; nevertheless they are summaries and secondary sources and, therefore, the full range of the underlying data is not available.

A second kind of difficulty lies in the nature of the data. The only large series of radiocarbon dates in the area is from Japan, with one pertinent date from the Ryukyus and a few from Siberia and China. Relative chronologies, local sequences, and guess dates based variously on geologic strata or level of development are less than satisfactory for comparisons between regions. The time dimension, which is crucial to the solution of the problem, is thus uncertain at best.

It is not the purpose here to compare entire assemblages. Since it is on the basis of resemblances between pottery styles that relationships between areas have been postulated, the discussions will be region by region, but they cannot be exactly parallel, since all pertinent information is not available for all regions.

In order to be a possible forerunner of Chulmun, a ceramic ware must be antecedent in time, belong to a contiguous area or at least show continuous style similarities through the intervening distances, and be similar in form and/or style. However, because theories of the origin of Chulmun have been based on stylistic likenesses alone, the following discussion will have the same emphasis.

#### Eastern Europe and Siberia

Korean and Japanese archaeologists generally believe that Chulmun is principally related to Kammkeramik from the East Baltic area by way of Siberia (Fujita 1948:13, Kim WY 1962b:43). East Baltic "classical comb and pit-marked pottery," however, actually



bears no close resemblance to Chulmuntogi. The so-called comb-markings on classic Chulmun are a series of short incised lines, drawn either one at a time or, according to Kim Won-Yong (1962a) and Chase (1964:145), sometimes with a comb. In either event, the comb markings are not the same as those of the Baltic area where the marks are made by impressions of the end of a multiple-toothed implement. Thus the comb-markings of Chulmuntogi do not parallel those of the East Baltic at all. The pit markings are also essentially different; in the Baltic pottery there are deeply indented pits but Chulmun contains shallowly impressed punctates. Arrangement of design elements also differs; rows of punctates may occur on Chulmun pottery between the band design and the body design or they form the band design itself, but on Kammkeramik pits usually alternate with other designs or form part of a more complex design (Gimbutas 1956:205). Thus the only characteristics actually shared by Chulmuntogi and Kammkeramik are general similarity of shape (pointed bases) and the fact that both kinds of pottery are decorated with lines and dots created by roughening the surface. As many North American Woodland pottery types also share these similarities, the postulated relationship seems extremely tenuous.

If, however, such a relationship existed, one would expect to find linking pottery types in the intermediate land area within the deciduous forest zone. Such, however, is not the case. For instance, Siberia, especially the region around Lake Baikal, which is cited by the proponents of the theory as providing such a link, contains prehistoric pottery with similarities to Chulmun, but the similarities are not the same as those shared with Kammkeramik, except for the conical shape.

The earliest pottery type from the Baikal region, Isakovo, shares with Chulmun certain design motifs, in particular the row of punctates around the rim and a row of curved line impressions. However, in Chulmun these designs are used in multiple rows and

the rest of the pot is decorated with a contrasting pattern. Isakovo is decorated only by a single row of punctates or curved lines, which may also be on the inside or on the lip edge (Michael 1958:39, Chard 1958:9). Neither of the latter placements have been reported on Chulmuntogi.

Placement of motif, however, is less important than differences in manufacture which would seem to be basic. In contrast to Chulmun which was built up by the coil method, the Baikal pottery, according to Okladnikov, was made by pressing wet clay into nets. Even if this was not the method of manufacture, the net markings, which are conspicuous on Isakovo, are absent on Chulmun.

According to Michael (1958:40), some have speculated that Baikal pottery was derived from Kammkeramik, others think that it came from Southeast Asia. Okladnikov, however, who has studied the area personally, believes the pottery to be autochthonous. It might be added here that the comb impressions which have been adduced as evidence of a relationship with Kammkeramik belong to the pottery of the next stage, Serovo, which has a completely different shape. And again the comb markings are impressions of the points of the comb rather than lines incised with a comb.

The earliest radiocarbon-dated pottery in this region is from Bel'kachi I, about 4920 B.C. (Chard 1974:65). This pottery is similar to Isakovo pottery in shape decoration and, apparently, method of manufacture. The associated stone tools are "virtually unchanged" from the preceding era (Chard 1974:65), lending support to Okladnikov's suggestion of local development of the pottery.

In sum, then, the Chulmun pottery of Korea shares no characteristics with Serovo, the comb-impressed ware of Siberia. It is the same in general shape as the earliest ceramic stage in the Baikal region, Isakovo, and shares two decorative motifs and the placement of these motifs in a band around the rim. It differs



fundamentally, however, in method of manufacture. Therefore, the Baikal pottery cannot be seen as an intermediary between Kammkeramik and Chulmun, and it may not indeed be related to either.

### China

Ceramic stages antedating the Yangshao horizon in China are still speculative. Chang (1968:88) postulates a pre-Yangshao horizon which he calls Sheng-wen ("cord-marked") and for which he assumes a level of primary village-farming efficiency. The term Sheng-wen is applied to all cord-marked pottery found widely throughout China and remaining on the fringes after the nuclear area had developed painted (Yangshao) and polished (Lungshan) pottery. Sometimes cord-marked pottery is found in the same levels as the more developed Yangshao or Lungshan ceramics.

Although Chang postulates that a Sheng-wen horizon will be widely found, there is still little evidence. A cave site in central China has recently disclosed an early Sheng-wen site (Chang 1972:436). Except for being handmade, the pottery seems to be utterly unlike Chulmun. For other Sheng-wen sites, settlement and subsistence are unreported, and the accompanying assemblages are quite variable, as are other attributes, such as color, temper, and shape of the pottery itself. Sheng-wen is thus not a useful category for the purpose of comparison with Chulmun.

Nevertheless, some tantalizing similarities do appear. Cheng (1967:213, Plate 15, no. 11) illustrates a sherd from Hsien-jen-chiao in Szechwan which seems to be identical to some Amsari pottery. In the written description (pp. 118-119), however, Cheng suggests that some vessels of this type were wheel-made, which would be a basic difference.

Chang (paraphrased in Pearson 1972:228-29) has pointed out similarities between Chulmun and pottery "all along the northern

fringes of China, from Manchuria to the Great Wall areas of Sinkiang." This area, however, is not China proper and will thus be treated separately in the next section. The developments in China's nuclear areas seem to have influenced Korea only later, at the time of the Lungshanoid expansion.

### Manchuria

The region usually known in English as Manchuria and called by the Chinese the Northeast is one of the areas of East Asia least known archaeologically. This is regrettable since it borders on Korea to the north, belongs to the same ecological zone, and presumably would have been a natural area for cultural contacts.

A few sites, however, have been excavated and published. One such series of sites, which are thought to contain the earliest pottery in the region, are near Ang-ang-hsi (Cheng 1959:137-141, Larichev 1964:181-231, Chang 1961:58-59). The sites are dated by means of their geological stratum to about 5000-4000 B.C. (Cheng 1959:141) and therefore could antecede Chulmun. On the other hand, Larichev (1964:228) would place the sites between 2500-1800 B.C. No radiocarbon dates are yet available.

The description of the pottery from Ang-ang-hsi sounds similar to Chulmun: predominantly brown in color, handmade by coiling, simple shapes with straight rims and flat or rounded bases, no handles, decorative designs in bands, incised and applique patterns (Cheng 1959:139). The drawings (p. 140), however, do not resemble Chulmun at all. The shapes, for instance, are globular, with rudimentary necks, and some vessels have spouts. The only illustrated band is in the middle of the jar, and it is composed of zoned areas rather than rows. The similarities are rather general. Larichev (1964:226) notes that the cultural affinities of the pottery are with the Soviet Maritime Region, northern Korea, and the Late Jomon of Japan. Chang (1961:68) thinks that flat-based pottery in East

Asia is later than pointed-bottomed vessels. The next stage in Manchuria, the Lin-hsi, is even less likely an antecedent to Chulmun, for the pottery is mostly wheel-made.

At the end of the Liaotung peninsula and on Shang-ma-shih Island nearby, there are sites resembling northeast Korean Chulmun on the Yalu River (Kim Wy 1967a), which Kim also believes are from the later part of the Chulmun period because of their flat bases. Therefore, according to Korean chronology as well, the influence went from Korea to Manchuria rather than in the opposite direction.

#### The Soviet Maritime Region

As the Soviet Maritime Region is contiguous with northeast Korea, it is not surprising that definite affinities have been noted between the Chulmun of the Tuman River and northeast coast of Korea, and sites farther up the coast and on the Amur River. The regions are also similar ecologically and have similar total assemblages. Okladnikov (1962:284) and Chard (1960) consider the Soviet Maritime Region and northeast Korea as one culture area. It should be noted, however, that the pottery from these sites differs in several important ways from the classic Chulmun of central Korea. Although the shape of the northeast pottery is generally conical, the bases are flat rather than pointed or rounded. And while the pottery of the Maritime Region often has zigzag patterns and a separate band, the motifs are frequently created with stamps and roulettes rather than by incising. As pointed out by Okladnikov (1964:38) the pottery resembles in shape and design the entodoki of northern Japan, a variant within Jomon, more closely than it resembles classic Chulmun.

Looking more closely at specific pottery types, we find at the mouth of the Tetyukhe River an early pottery with impressed diamond-shaped designs forming a band around the rim. The pots are tall with narrow, flat bases. Farther south, near the mouth of the



Batalyanza River, there is pottery of the same shape, some decorated with stamped designs but other having incised vertical zigzags covering most of the vessel. The southernmost site of the Soviet Maritime Region, near the mouth of the Gladkaya River, contains vessels of three different shapes which can be arranged in a developmental series (Okladnikov 1965:59). The earliest of these is not the truncated cone, but rather a bowl with flaring sides. Thus it seems strange to derive the tall vessels from southern basketry, as Okladnikov does elsewhere.

In sum, the pottery of the Soviet Maritime Region is clearly linked with the northeast Korean Chulmun, but relationships to central Korean Chulmun are less well established. Nothing is known of the relative dating.

#### The Ryukyu Islands

It is sometimes suggested that the incised pottery of Korea is linked with the Ryukyu Islands via southern Japan and ultimately with Southeast Asia. This suggestion is based on two similarities, between the pottery of Korea and a few sites in the Ryukyus, and between both kinds of pottery and basketry in Southeast Asia.

For instance, Okladnikov (1964:38) says in a summary paper on Siberian neolithic that ceramics of the Amur sites are:

covered with a fine broken line and comb-type pattern in the form of parallel vertical zigzags. Closely resembling the very ancient cylindrical (Ento-doki) vessels of the Neolithic settlements on the Japanese islands in shape and pattern, these pots are evidently descendants of the original, high cylindrical baskets of the southern regions of eastern Asia and neighboring islands. These baskets had the same narrow, upright strips of vegetation in zigzags.

Unfortunately no specific reference is given to the basket-using

groups which may have provided the prototype for the pottery.

That this particular type of pottery is modeled after basketry prototypes is a reasonable conjecture. But on the basis of archaeological evidence presently available, the transition from basketry to pottery neither occurred in the Ryukyus nor was transmitted through the island chain.

Pottery descriptions from Ryukyu sites (Pearson 1969) include shapes, decorative techniques, and decorative motifs which are similar to Chulmun. For instance, at the Kadena, Oyama, and Kaneku sites horizontal zigzag lines are present. Rows of punctates are reported from Omonawa, Akajanga, and Tsuken Island in addition to zigzag lines, but not necessarily on the same sherds. These are variations within a large repertoire of surface treatments. One would expect the earliest "ceramic baskets" to be closer copies of woven baskets.

The hypothesis is not only weak stylistically, it is impossible as the dating is now understood. Pearson (1969:110), after studying reports and museum collections throughout the Ryukyus, concludes that "all remains of the Ryukyus, with the exception of the pig bones from Ishigaki and perhaps the deer bones from Okinawa, apparently postdate the beginning of the Ichiki type in southern Kyushu." Both the pig bones and the deer bones are from aceramic sites, therefore Pearson evidently believes that the earliest pottery in the Ryukyus is derived from Jomon. The earliest radio-carbon date is  $1408 \pm 80$  B.C. at the Attaburu site, thus corroborating his judgment (Pearson 1969:112).

The pottery of the southern Ryukyus resembles types found in eastern Taiwan, but as the Taiwan pottery is later than the Early Jomon pottery, it cannot provide a derivation of Jomon from south China. Chang (1970:40) suggests that Hoabinhian, Jomon, and northern Chinese "reflect separate and largely independent developments in three widely divergent ecological situations." At any

rate, the Ryukyu chain does not provide an archaeological link between the early ceramics of Japan and Southeast Asia, nor from the south to Korea.

### Japan

Japan, containing pottery associated with early radiocarbon dates and within easy sailing distance of Korea, already has two points in its favor as the source of Chulmun. On the basis of stylistic similarities the closest links can be found with the Jomon pottery of Japan as well.

The division of Jomon into five periods: Soki, Zenki, Chuki, Koki, and Banki, is generally accepted. English translations of these terms, however, vary. Chard (1972:383) follows Beardsley's (1955:323) usage of Initial, Early, Middle, Late, and Final, while Kidder first proposed Early, Early-Middle, Middle, Late-Middle, and Late (1957:4) but now uses Earliest, Early, Middle, Late, and Latest (1959, 1968a). It is not always clear, therefore, to which of the first two periods the term "Early Jomon" applies. The terminology suffered a further strain when pottery earlier than Earliest or Initial Jomon appeared. This very crude pottery, from Fukui Cave in Kyushu and elsewhere, has generally been called Incipient Jomon. However, Mohr (1969:10) contributes to the general confusion by extending Initial Jomon to cover this early pottery and by referring to the period known in Japanese as Soki, as Late Initial Jomon. The earlier pottery is distinctive enough and separated enough in time to warrant a separate term. Therefore the terminology with the fewest overlapping referents would seem to be Beardsley's, that is, Incipient, Initial, Early, Middle, Late, and Final.

Chard (1972:383) has outlined a tentative chronology of these periods based on radiocarbon dates: Incipient Jomon 11,000-7500 B.C., Initial Jomon 7500-5500 B.C., Early Jomon 5500-3200 B.C., Middle Jomon 3200-2000 B.C., Late Jomon 2000-1000 B.C. and Final



Jomon 1000-600 B.C. Thus Incipient Jomon, Initial Jomon, and part of Early Jomon all precede classic Chulmun, even if Sohn's earliest date of 4000 B.C. is accepted.

Not all ascriptions of Jomon pottery types to a particular period, however, are based on radiocarbon dates. Sequences which were worked out in the Kanto Plain on the basis of stratigraphy and stylistic progression have been extended to other areas on the basis of stylistic similarities alone. While this procedure has been partially validated by radiocarbon dates, it has not always proved to be accurate in detail. Thus, most of the pottery types considered to be Initial Jomon are conical pots with pointed bases, but some of these have been ascribed to Initial Jomon because of their shape where stratigraphic or other confirmation is lacking.

The conical pot with rounded or pointed base is found widely in Japan. Its Initial Jomon manifestations include sites in Kyushu (Kawasaki, Oita), the Kansai (Kozanji shellmound, Wakayama), the Kanto Plain (Daimaru, Yokohama City), and northern Honshu (Fukurizawa, Aomori) (Kidder 1955:60-61).

Although Jomon literally means "cord-marked," there are other decorative techniques represented in the assemblages. Early pinched and appliqued types have been found in Kyushu, and early Inland Sea examples are commonly impressed with a grooved roller. Incised and grooved types were popular early in the Kanto Plain, usually but not always associated with cord-marking. The fingernail impression is widely used in the central and eastern districts, and Incipient Jomon contains fingernail impressions in Kyushu. Grooving continued as an important decorative technique even into Middle Jomon in Kyushu, especially in the form of short, parallel lines.

In terms of decorative motifs, the herringbone pattern is frequently found in all stages of Jomon, although it was usually created by rolling twisted cords across the surface of the damp

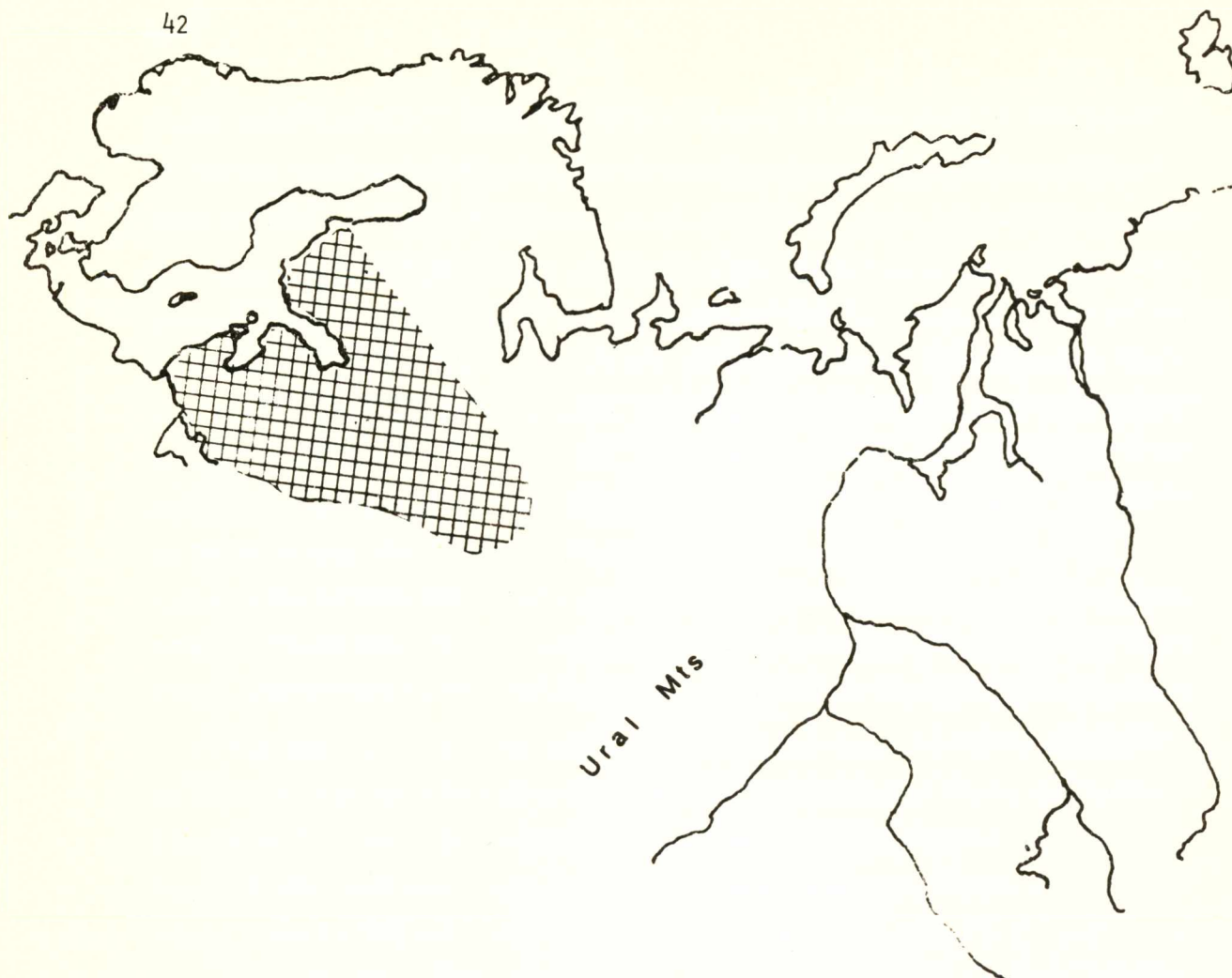
clay rather than by incising. The separate band also appears.

All the design elements, decorative techniques, and pottery shapes of Chulmun were thus also found in Incipient or Initial Jomon. It should be emphasized, however, that there is no particular Incipient, Initial, or Early Jomon pottery type from which any specific kind of Chulmun can be derived. Although all style elements are present in Jomon, there is no single pottery type that contains all of them. Besides, Jomon types have style elements that do not appear in Chulmun at all.

In spite of this, however, stylistic similarities are greater between Chulmun and Initial Jomon than any other area or horizon. Thus by all three criteria of antecedent time, propinquity, and style similarities, Initial Jomon is the most likely source of Chulmun.

Students of East Asia as a whole have also linked Korean Neolithic more closely with Japan than with Siberia. Chard, for instance, dividing Northern Asia into three culture areas in the Neolithic, includes Japan and Korea in the Pacific Area, and divides Siberia between the other two (Chard 1960). Okladnikov (1962:284) also notes that Japan, Korea, and the Soviet Maritime Region formed one culture area in the Neolithic. Larichev (1964: 219-221) also links these regions on the basis of stone tool types rather than pottery.

In summary, if stylistic similarities in pottery are to be taken as evidence of relationship, then unless the radiocarbon dates from Japanese sites are in error or still earlier dates are obtained for sites on the Korean peninsula, the direction of influence must have been from Japan to Korea and perhaps from there northward. As diffusion from this center spread out, ceramic traditions developed to the west would have been encountered, and reciprocal influences, including the potter's wheel, would eventually have been transmitted through Korea back to Japan.



### Legend

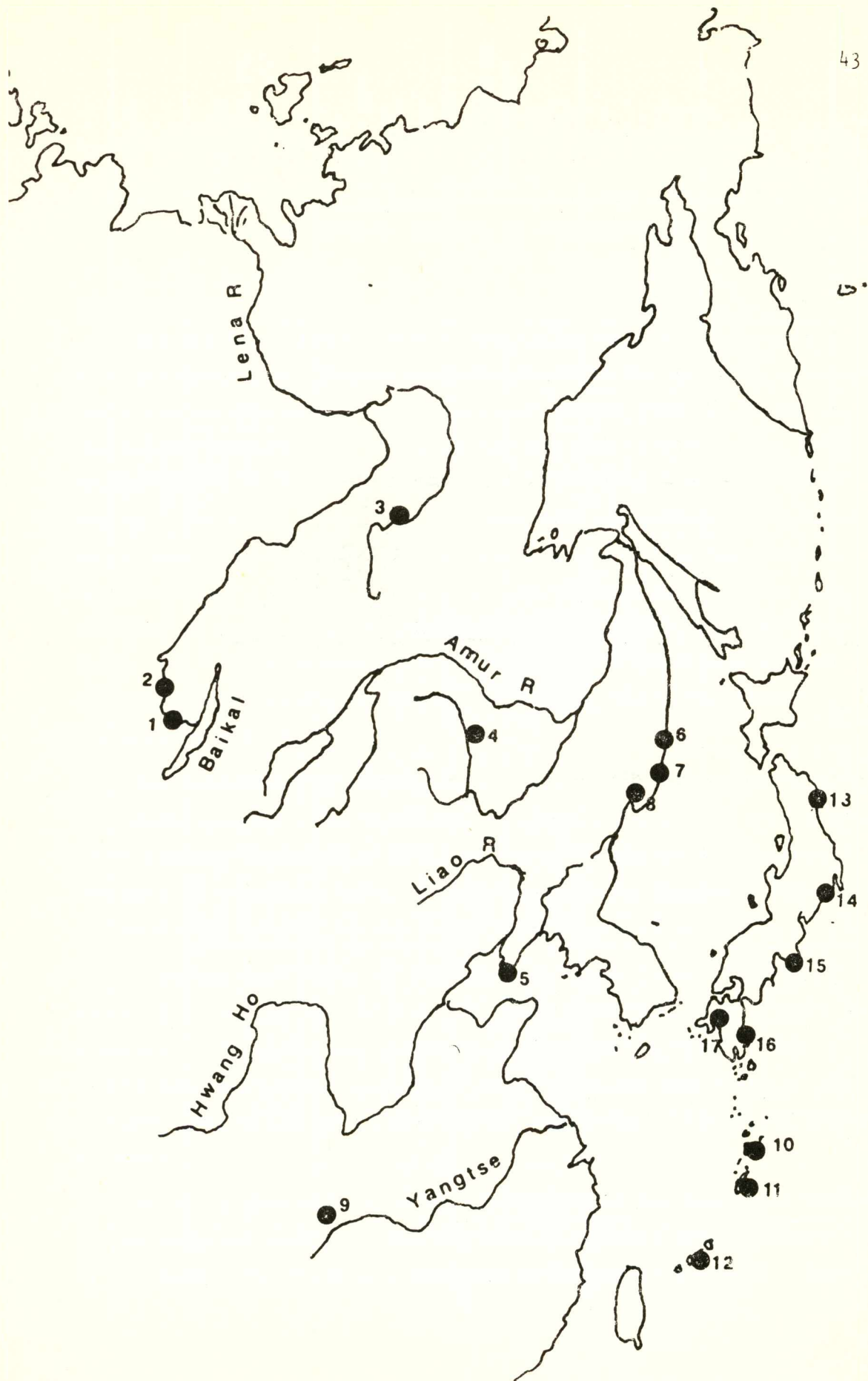


East Baltic Comb Ware

- |                    |                    |
|--------------------|--------------------|
| 1. Isakovo         | 11. Okinawa sites: |
| 2. Serovo          | Akajanga           |
| 3. Belkachi        | Kadena             |
| 4. Ang-ang hsi     | Oyama              |
| 5. Shang-ma shih   | Tsuken Is.         |
| 6. Tetyukhe        | Attaburu           |
| 7. Batalyanza      |                    |
| 8. Gladkaya        | 12. Ishigaki       |
| 9. Hsien-jen-chiao | 13. Aomori         |
| 10. Omonawa        | 14. Daimaru        |
|                    | 15. Kozanji        |
|                    | 16. Kawasaki       |
|                    | 17. Fukui Cave     |

Fig. 10. Prehistoric Pottery Sites in East Asia





44

	East Baltic	Siberia Lake Baikal	Manchuria	Soviet Maritime Region	China	Japan	Ryukyus	Korea
0						Yayoi		
1000 BC						Final Jomon		
					Shang Dynasty	Late Jomon	1448 BC Attaburu	
2000 BC								
		Serovo 2040±80 BC Okladnikov	Ang-ang-hsi (acc. to Lari-chev) guess date	Ang-ang-hsi guess dated Okladnikov 1965:78		Middle Jomon		Tongsamdong 2650-2780±100
3000 BC								
	Comb Ware	Isakovo (guess dated) Okladnikov			3635±105 Yang-shao 3890±105 shao 3955±105	Early Jomon		Chulmun Middle Han Sites
4000 BC					4115±110			Tongsamdong, Mokto Period 4580±140
5000 BC		4920 BC Bel'kachi I (cord marked)	Ang-ang-hsi guess date acc. to Cheng			Initial Jomon		

Fig. 11. Chronology of East Asian Finds