

Jomon pottery: cord-imitating decoration

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ABSTRACT – *The paper discusses the decoration of pottery of the Neolithic Jomon culture (Japanese Archipelago, 13 600–900 BC). The comb-impressed pattern produced by various kinds of cord or rope stamps is considered as the ‘calling card’ of Jomon pottery from the earliest cultural periods to the latest. Another kind of decoration recognized recently uses the cord not as a patterning tool, but as an essential motif of decorative composition. High relief elements imitate cordage forms and structures – knots, loops, hanging cord, net, etc. This kind of decoration corresponds to the pottery of Middle Jomon period (3500–2500 BC) sites located in northern and north-eastern Honshu and southern Hokkaido. It is supposed that the introduction of images of real material object into the field of decorative art was reasoned by the meaning of cord and cordage as cultural signs during the Middle Jomon period. Interesting parallels to some cordage structures reconstructed on Middle Jomon pottery decoration are well known in traditional Japanese culture of VI–XX cc. Analytical interpretation of this resemblance may become the subject of special research.*

IZVLEČEK – *V članku se ukvarjamo z okraševanjem keramike v neolitski kulturi Jomon (japonsko otočje, 13 600–900 BC). Glavnikasto vtisnjen vzorec, narejen z različnimi vrstami vtisov vrvi, velja za ‘vizičko’ jomonske keramike od najzgodnejših do najkasnejših kulturnih obdobj. Pred kratkim prepoznana vrsta okraševanja kaže, da se vrvi ne uporabljajo le kot orodje za izdelavo vzorcev, temveč kot bistven motiv v kompoziciji okrasa. Elementi visokega reliefa posnemajo obliko in strukturo vrvi – vozle, zanke, visečo nit, mrežo, itd. Ta okras je pogost na keramiki v najdiščih iz obdobja srednje Jomon (3500–2500 BC), ki se nahajajo na severnem in severovzhodnem Honšuju in južnem Hokkaidu. Domnevamo, da je bilo uvajanje podob iz resničnega materialnega sveta na področje dekorativne umetnosti, povezano s pomenom vrvi in vrvja kot kulturnih simbolov v času srednjega obdobja Jomon. Zanimive vzporednice nekaterim vrvnim strukturam, rekonstruiranim na okrasju keramike iz srednje Jomon, so dobro poznane v tradicionalni japonski kulturi iz VI.–XX. stoletja. Analitična interpretacija te podobnosti mora postati predmet posebne raziskave.*

KEY WORDS – *Japanese Archipelago; Jomon culture; Middle Jomon period; pottery; relief cord-imitating decoration*

Introduction

An outstanding phenomenon of the East Asian Neolithic is Jomon culture, which existed in the isolation in the Japanese Archipelago for more than ten thousands years and produced many thousands of archaeological sites from Hokkaido in the north to Kyushu in the south. At present, some researchers suppose on the basis of carbon dating that Jomon cul-

ture began as long ago as 13 600 BC (*Kobayashi 2004.5*)¹. Pottery is most abundant and a significant category of the artifacts together with stone assemblages on each site beginning from the Initial Jomon period, about 9200–5300 BC. A distinctive feature, or ‘calling card’, of Jomon pottery is cord-impressed decoration. It passed through time from the earliest

¹ Here and below the chronology of Jomon culture is referenced after *T. Kobayashi 2004*.

cultural stages to latest. The name 'Jomon' (a term coined by Edward S. Morse who discovered cord ware at the Omori site in 1867) means 'cord mark' in Japanese (Harris 1997). Cord-impressed design in its technological and stylistic variety has been a special and very carefully investigated subject in Japanese archaeology since the 1930's. It is argued that the diversity of cord twisting methods and the manner of cord stamping on clay surface caused all the visual variations in impressed design (Hurley 1979; Kobayashi 2004.23–25; Sugiyama 1942; Yamanouchi 1964). So the cord, or rope, may be called a basic tool of Jomon pottery decoration. At the same time, within the rich and long-lived Jomon pottery tradition, cases when the cord (rope) appears not as a tool, but as a substantial motif of decoration may be distinguished. They seem to be most significant in the relief design of Middle Jomon pottery assemblages.

The Middle Jomon period (3500–2500 BC) is considered a time of cultural flourishing in various aspects – the economy, social relationships, religion, artistic life (Aikens, Higuchi 1982; Kobayashi 2004; Pearson 1992; Takahashi et al. 1997). In particular, the stylistic variety of pottery appearing mainly in vessel decoration increased greatly in comparison with the preceding Early Jomon stage. According to T. Kobayashi, more than 20 local pottery styles existed during the Middle Jomon, correlating with different areas of Japanese archipelago. For some areas the co-existence of two or three different styles is supposed (Kobayashi 2004.30–31). A common trait of most Middle Jomon pottery styles was the significant role of relief decorative elements and motifs. In many cases, relief pattern appearing like a central part of the design composition was combined with a cord-impressed pattern serving as unobtrusive 'phonewire' covering the vessel's walls. Sometimes the relief decoration was used without cord-impressed accompaniment. The most refined, sophisticated and diverse variants of relief decoration are characteristic of the Katsusaka, Atamadai, Flame (Kaen), and Karakusamon pottery styles found in Chubu



Fig. 1. Map of research area. Tohoku and southern Hokkaido region are marked with circle.

and Kanto regions, *i.e.* in central and eastern Honshu. Intricate high-relief and deep-relief compositions formed mainly of curve-lined elements are the subjects of especially steadfast attention in Japanese archaeology. S-shaped, wave-shaped, spiral motifs, zoomorphic and anthropomorphic figures are interpreted as symbolic pictures in the context of Middle Jomon spiritual life (Aikens 1995; Harris 1997; Kobayashi 2004.19–50).

This paper is focused on the Middle Jomon pottery of Tohoku region and southern Hokkaido region (Fig. 1). Tohoku is the traditional name of northern and north-eastern parts of Honshu Island, including the prefectures of Aomori, Akita, and Yamagata. The coastal areas of Tohoku and southern Hokkaido regions are rich in Jomon sites presenting cultural remains from the Early to the Final stage (Aikens and Higuchi 1982.95–186; *Illustrated Catalogue* 2001). Pottery assemblages of the Middle Jomon stage are interesting because of the occurrence of relief decoration imitating the cord and/or rope.

Research data

The basic research source is the pottery collection from Ookubo site located in Aomori prefecture, at

the coastal area of Mitsu-bay. The collection consists of ceramic vessels from Early, Middle, Late and Final Jomon horizons excavated in the 1920s and 30s and typologically arranged later. The pottery collection is stored in the National Museum of Japanese History². The Middle Jomon pottery assemblage that is the subject of our investigation may be attributed to the Upper Ento and Middle Daigi pottery styles, based on Kobayashi's systematization of local stylistic variation (*Kobayashi 2004.30–31*).

The Middle Jomon pottery group from the Ookubo site, including 61 complete vessels, is characterized by technological uniformity. The vessels are made of clay with natural or in some cases artificial sand temper, and grog inclusions. The throwing method consisted of hand building clay rolls transformed into narrow bands. The outer and inner surfaces are slipped and smoothed, but not very carefully. The firing was executed in an oxidizing regime, at low temperatures, about 600–700 °C. Ceramic vessels are of simple shape, with unrestricted or slightly restricted orifices, straight or concave smooth walls, and flat bottoms. The vessels' heights vary from 8 to 38 cm, usually 16–25 cm. In some cases the rims are designed with several – from 3 to 6 – wave-like, triangle-like or rectangular-like vertical protrusions typical of Jomon pottery of the late Early to Middle periods.

All vessels are decorated. It is possible to distinguish two main kinds of decoration: cord-impressed decoration, and monotonous rows of cord imprints or more complicated compositions including geometric motifs formed by cord impressions (Fig. 2) The second kind of decoration is most common and presents a combination of a 'phonewire' cord-impressed pattern occupying almost all the vessel's surface, and relief decoration on the upper part of the vessel. In the context of this paper, the second kind of decoration is especially worth considering.

Deep relief and high relief decoration types may be identified. Only 3 vessels have deep relief decoration formed from grooves incised on the wall. The object of our attention is the high relief decoration on most of the vessels (38 samples). Decorative compositions are formed of fine narrow or coarse

Fig. 2. Ookubo site. The Middle Jomon horizon. The ceramic vessel with cord-impressed decoration.



thick clay rolls, or bands applied on vessel's wall. In some cases it may be observed that clay rolls were applied over the cord impressions 'phonewire' decoration. The prevailing tendency was the covering of clay rolls by transverse cord impressions or incised stretches. The upper border of the high relief decoration area always is orifice line. The width of the decorated area varies from one quarter to one third or one half of the vessel's height. It is interesting to note that every vessel with high relief decoration bears an original composition which is not replicated on other pots. Nevertheless, this variety may be divided into some general compositional groups according to decorative elements or motifs.

The first group includes 16 vessels. The high relief decoration is composed exclusively of straight linear



Fig. 3. Ookubo site. The Middle Jomon horizon. The ceramic vessels with relief decoration, imitating the hanging cord.

² The author researched the pottery collection of Ookubo-site in National Museum of Japanese History in 2003.

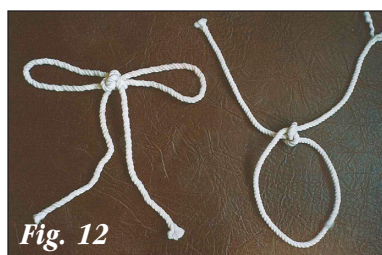
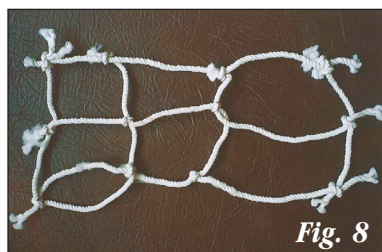
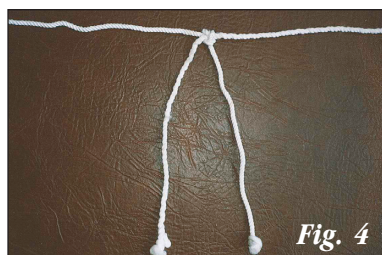


Fig. 4. The experimental model of hanging cord. **Fig. 6.** The experimental models of tied cord. **Fig. 8.** The experimental model of net-like (lacy) cordage. **Fig. 10.** The experimental model of suspended cord. **Fig. 12.** The experimental models of the bow-shaped knotted cord and the looped cord.

elements made of clay rolls. This composition group includes various combinations of horizontal, vertical, inclined lines, angular-shaped and zigzag-shaped figures. The second group, of 19 vessels, has decorative compositions formed from linear (horizontal, vertical, inclined) and curvilinear elements. The third group, comprising only 3 vessels, has decorative compositions formed mostly of curvilinear elements – the arc-shaped or wave-shaped figures.

Not considering in detail the nuances of decorative compositions it would be important to fix certain traits common to all three groups. Each group includes examples of decorative elements or motifs which may be interpreted as relief imitations of realistic plastic structures of the cord, or rope. Certain variants of cord-imitating images on Middle Jomon pottery from Ookubo are detailed below. Experimental models of cord structures are applied to illustrate the probable prototypes of decorative images.

Hanging cord (rope). This straight-line decorative element observed on vessels NN A-14-2-28, A-14-3-29, A-14-4-27³ presents the idea of hanging cords or ropes (Fig. 3). This looks like two cords (ropes) tied and hanging loosely, or a single cord entwined so that its ropes (ends) are hanging down. It is an interesting detail that the lower ends of the clay ‘hanging cords’ are completed by relief thicke-

ning looking like a bunch at the end of real cord or rope (Fig. 4).

Tied cord (rope). The series of relief elements imitates various methods of joining, fastening or tying. These are on vessels NN A-14-1-57, A-14-1-61, A-14-3-36, A-14-1-93, A-14-1-97, A-14-3-45 (Fig. 5). It may be supposed that realistic prototypes of such decorative images were plastic structures formed of tied, fastened or knotted cords (Fig. 6).

Cordage net structure (lacy cordage). Some vessels (A-14-1-62, A-14-1-93, A-14-1-98) have decorative compositions looking similar to lacy or net-like structure formed by crossing, interlacing or tying cords. The elements comprising this design may be straight or curved lines. (Figs. 7 and 8).

Suspended cord (rope). This arc-lined element oriented with its concave side down appears in decorative compositions on vessels NN A-14-87, A-14-3-52, A-14-1-86 (Fig. 9). It looks like a horizontally suspended cord (Fig. 10).

Some vessels combine different elements imitating cord structures. Thus, vessel N A-14-1-93 has a combination of ‘cordage net’ and ‘tied cord’ (Fig. 7); vessel N A-14-1-87 is an example of the ‘suspended cord’ combining with the ‘tied cord’ (Fig. 9). It may be noted that in all cases the impression of the cord image is composed not only by the imitation of various plastic patterns in appliqué rolls, but in significant measure by the covering of these rolls by transverse stretches or imprints to replicate the texture of real cord.

Other cases of relief decoration imitating cordage structures are seen in the materials of archaeological publications. Middle Jomon pottery of the Tohoku and southern Hokkaido regions is presented in detail in photographic and graphic illustrations of the books ‘The Comprehensive Book of Jomon Pottery’ edited by T. Kobayashi (1989) and ‘Jomon Pottery’ edited by S. Yamanouchi (1964). Here we can observe the series of interesting decorative elements which may be interpreted as clay relief images of

³ Here and below, are noted the Museum’s inventory numbers for vessels from the pottery collection of the Ookubo site.

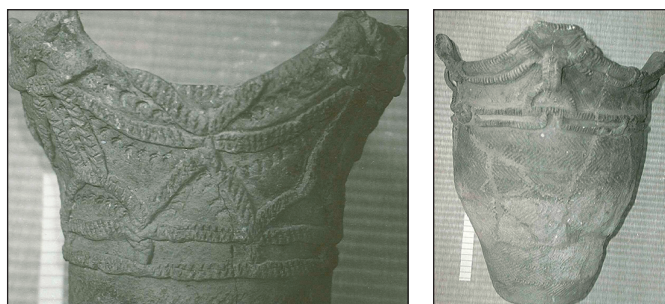


Fig. 5. Ookubo site. Middle Jomon horizon. Ceramic vessels with relief decoration, imitating tied cord.

cordage structures. Some of them are described below.

Bow-shaped cord (rope) knot. The most expressive case of this element is recognized in the decorative composition on a ceramic vessel from the Middle Jomon horizon of Tsokinoki 1 site in Aomori prefecture (Kobayashi 1989.185, fig. 708) (Fig. 11.1). A decorative figure replicates the configuration of a bow-shaped knot that is very popular among known kinds of knot structure (Fig. 12).

Cord (rope) loops. A decorative element imitating the loop made by a cord or rope is detected on vessels from the Middle Jomon horizons of sites at Hinohama and Hamanasuno in southern Hokkaido (Kobayashi 1989.184, fig. 705, 193, fig. 748) (Figs. 11.2 and 12). In all cases this element is used with other decorative elements (figures) to form a general composition.

Hanging cord (rope). This element is similar to the images of hanging cord recognized in the Ookubo pottery finds. Relief imitations of cords or ropes hanging loosely and completed by bunches at the lower ends are fixed in decorative compositions on vessels from the Middle Jomon horizons of sites at Kayakarizawa in Akita prefecture, Sannai in Aomori prefecture, and Usujiri in southern Hokkaido prefecture (Kobayashi 1989.192, fig. 742, 184, fig. 702, 190, fig. 735) (Fig. 13.1).

Cordage net structure (Lacy cordage). Decorative compositions on vessels from some Middle Jomon sites in northern Honshu and southern Hokkaido look like the lacy cordage formed by crossing or interweaving cords (Kobayashi 1989.190,

figs. 733–735; 191, fig. 737, 738; Yamanouchi 1964, fig. 68–70, 76). This is the same kind of relief imitation seen on pottery from the Ookubo site (Fig. 13.2).

Also, it is possible to recognize the decorative element of the ‘suspended cord’ (Kobayashi 1989.191, fig. 740), and imitations of different kinds of cord tying (Kobayashi 1989.190, fig. 735, 184, fig. 703; Yamanouchi 1964, fig. 71). Some compositions may be explained as images of complicated cord structures, and various elements: ‘cordage net’, loops, cord tying, or binding, and others (Kobayashi 1989.192, fig. 738, 190, fig. 733, 734, 735; Yamanouchi 1964, fig. 68, 69).

Discussion

Archaeological records reflect the important role and high development of basketry and cordage as crafts among the Jomon population from the earliest times. The remains of artifacts made of plant and fiber materials are direct evidence of this. Significant sources indicating advanced cordage technology are the multifarious cord impressions on the walls of Jomon vessels (Kobayashi 2004.24–27; Sugiyama 1942; Yamanouchi 1964). Besides the great variation in the twisted and plaited cord imprints, traces of cord knots and loops are detected (Hurley 1979. 68–79). Undoubtedly, Jomon peoples were surrounded by an abundance of basketry and cordage utensils of various functional destinies. It seems to be likely that the morphological diversity and plasticity of size cord structures could have inspired the idea of introducing some cordage forms into pottery de-

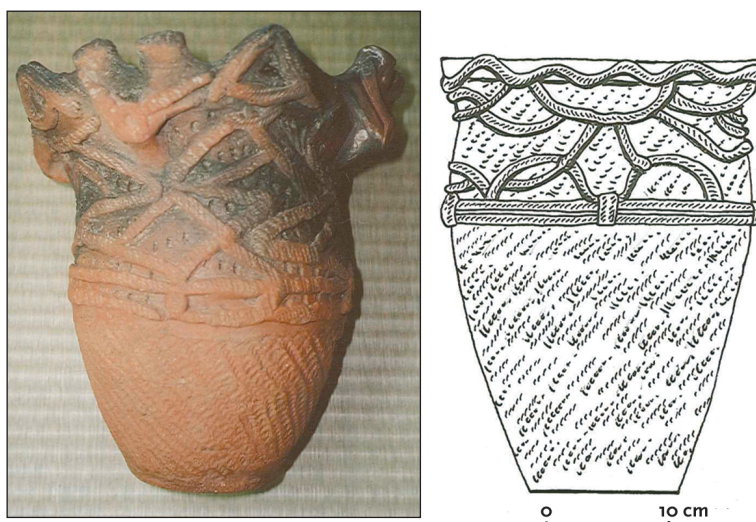


Fig. 7. Ookubo site. Middle Jomon horizon. Ceramic vessels with relief decoration, imitating net-like (lacy) cordage.

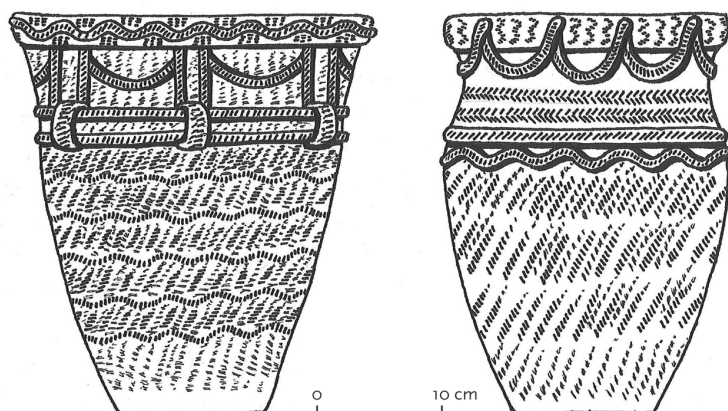


Fig. 9. Ookubo site. The middle Jomon horizon. Ceramic vessels with the relief decoration, imitating suspended cord.

coration. The clay as a plastic and compliant raw material allowed the replication of the lines, curves and interlaced patterns of flexible cords or ropes.

It may be supposed that the earliest relief cord imitation in pottery design seems to appear in the Incipient Jomon period, before 10 000 BC. Some researchers distinguish a relief 'raised-cord' pattern on the oldest Japanese ceramics. This pattern is usually in the form of horizontal appliqué bands decorated with various kinds of imprints, sometimes cord impressions. It has some similarity to the image of a cord (Kobayashi 1993). However, only Middle Jomon archaeological records give us obvious appearances of cord-imitating decoration in its variable and expressive forms. It is important to emphasize that decorative, cord-imitating relief elements or motifs are associated with the Middle Jomon pottery-making traditions of certain territories – Tohoku region, *i.e.* northern and north-eastern Honshu, and southern Hokkaido. Some researchers believe that these regions share features of pottery-making development, beginning with the Early Jomon period (Aikens 1995; Kobayashi 2004.51–56). In the light of data presented in this paper it may be supposed that the introduction of relief decorative elements imitating various kinds of cordage structure was a distinctive cultural item of the local population.

Looking at pottery-making traditions of the Late and Final Jomon periods, 2500–900 BC, we can not detect significant cases of relief cord-imitating decoration. In general, after the Middle Jomon period, in the pottery-making of various regions of the Japanese Archipelago high relief design became extinct and was replaced by another standard of decoration, mainly combinations of incised patterns and local areas of cord-impressed patterns (Aikens and Higuchi 1982.164–179; Pearson 1992. 73–74).

It is quite important to emphasize that the Middle Jomon pottery of Tohoku in southern Hokkaido area demonstrates the unique situation of introducing of a real object of material culture (cord structure) into the sphere of decorative art. Prehistoric potters created metaphorical images of such ordinary, at first glance, things as cords or rope. What reasons caused this phenomenon besides the external decorative attractiveness of cord structures imitation? It was noted above that researchers suppose symbolic meanings for some kinds of Middle Jomon relief decoration, including sophisticated curvilinear elements and motifs. Thus, Kobayashi considers decorative compositions on ceramic vessels of Flame-like and some other styles as probable 'codes' of ethnic, or tribal, identity. It seems likely that the areas of certain pottery styles corresponded to territories of different Jomon groups (Kobayashi 2004.42–71). In the light of this conception, it may be supposed that high-relief cord-imitating decoration on Middle Jomon pottery from Tohoku and southern Hokkaido region played for the local population the role of a cultural mark, or sign. The essential meaning of this sign probably derived from the functional context of real cord, or rope, as one of the most necessary items of everyday life. Supposedly, the cord in its various forms and structures may be associated with such ideas as 'linking', 'defending', 'protection', etc. Obvi-

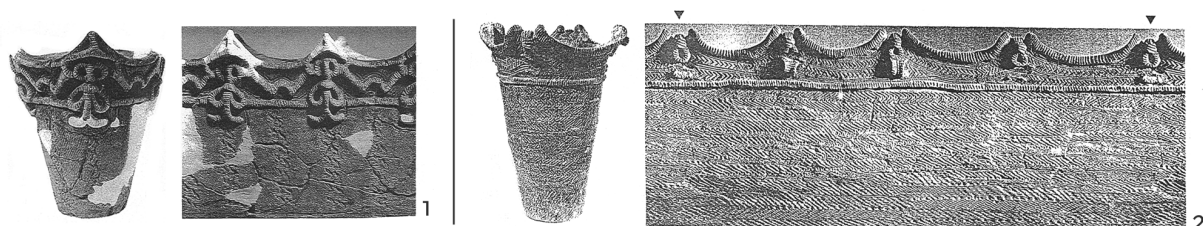


Fig. 11. Ceramic vessels with relief decoration, imitating bow-shaped knotted cord (1) and looped cord (2). Middle Jomon sites Tsukinoki 1 (Aomori prefecture) and Hinohama (Hokkaido prefecture). (From Kobayashi 1989.184–185).

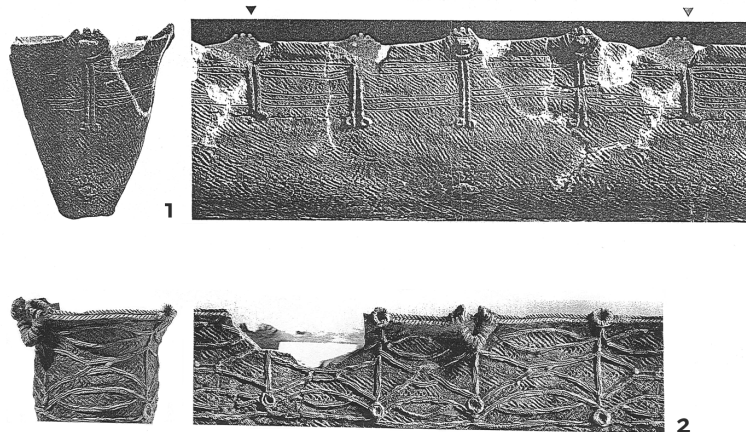


Fig. 13. Ceramic vessels with relief decoration imitating hanging cord (1) and net-like (lacy) cordage (2). Middle Jomon sites Kayakarizawa (Akita prefecture) and Usujiri (Hokkaido prefecture). (From Kobayashi 1989.190, 192).

ously, all these abstract concepts had positive connotations in the mentality of prehistoric peoples.

Considering ‘the cord theme’ in the records of the oldest stages of Japanese history, it would be interesting to look at the latest evidence of traditional culture. One can note the wide usage of the cord, or rope, in various spheres of material and spiritual life. These are traditional costume, sacred cere-

monies, package technology, and some others (Cort 1982; Cort and Nakamura 1994; Shigeru 1978; Yamamoto 1998.454-537; 1999.138-239). The cord appears as an objective sign or symbol with a positive meaning. Thus, in the context of Shinto religion, which originated in the pre-state period of Japanese history, a special cord made of rice straw has its own name, shimenawa, and is associated with ideas of protection and defense (Nakortchevsky 2003.46-48, 183, 188; Takai 1985. 53-54). In old Japan, during traditional New Year festive ceremonies, the cord was used as a necessary attri-

bute symbolizing wishes for happiness, and the warding off of disasters (Markova 1991. 374-375; Saikaku 1981.277).

It seems to be important to emphasize that certain traditional cordage structures are very similar to some cordage forms imitated in the decoration of Middle Jomon pottery. These are the hanging cord, suspended cord, and bow-shaped knot. We can meet



Fig. 14 (left). The sacred cord ‘Shimenawa’ at the enter of Shinto-Buddhist shrine of Edo period (17-19 centuries). The surroundings of Sakura-city, Honshu Island.

Fig. 15 (right). The bow-shaped knotted rope with bunches at the entrance of traditional Shinto-Buddhist shrine. Kamakura-city. Honshu Island.



Fig. 16 (left). *The Middle-aged samurai armour and helmet with knotted cordage details.*

Fig. 17 (up). *The Middle-aged samurai armour with bow-shaped knotted cord.*

them among the attributes of Shinto cult (Figs. 14 and 15), the details of traditional dress and gear (Figs. 16 and 17), and traditional package arrangements (Fig. 18). Here we can not suggest the explanation of the parallels between the models of prehistoric cord structures and cordage forms in traditional Japanese culture need an especially oriented

investigation. It seems likely that this subject is in close relation to the problem of the origin of Japanese ethnicity and culture. One of most disputable and unclear questions in the context of this problem is the role of the Jomon population in the process of forming the Japanese ethnic community at around the end of 1st millennium BC and beginning of 1st millennium AD (Aikens and Higuchi 1982.187–322; Pearson 1992; Taksami and Kosarev 1990). So, any resemblances in the material and spiritual culture of prehistoric inhabitants of the Japanese Archipelago and historical population are of great interest and value for detecting probable links between the ancient past and the present.



Fig. 18. *Traditional Japanese boxes ‘inro’ for the packing small things with knotted rope.*

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