

Exchange in the Neolithic and Bronze Age in the Territory of the Forest Belt of the USSR

The supply of products from producer to consumer may be accomplished in different ways, one of them being exchange for other products. The principal causes responsible for exchange in primitive society were division of the spheres of application of labour and differences in the distribution of natural resources in the various zones inhabited by collectives.

The initial division of labour based on sex gave rise to the exchange of the products of labour between members of a closed family household. Demonstrating the sex-based division of labour material from burial grounds thereby proves the past existence of such exchange. The next logical step in the development of exchange is its extension beyond the family household into the sphere of larger congenerous affiliations. Primarily surplus products were used for exchange. This form of exchange is not elicited from archaeological data but is reconstructed from ethnographical material which attests that there was a widely practised «gift exchange» of required objects between kinsfolk and relations by marriage.

The possibility of a frequent or permanent exchange of a certain kind of surplus products led to specialized production aimed at meeting the demand of the society for such products. Engaged in that production were skilled craftsmen. At this stage of production a «commodity» makes its appearance, a product intended for exchange, characterized by serial manufacture. Hoards comprising sets of similar articles are a most clear expression of commodity production. Neolithic burial grounds do not provide material for identifying specialized producers, but in the Bronze Age there appeared tombs of founders, e.g. that at Rostovkinsk burial ground 21 near the city of Omsk (Matyuschenko, Lozhnikova, 1969). Some of the dwellings excavated in the forest zone may be attributed to such artisans, for example, the dwelling on the site of Lipovaya Kuriya in the South Trans-Urals area (Khlobystin, 1976).

The low capacity of the «market» sometimes suspended the development of commodity production. The rich copper deposits in Taimyr beyond the polar circle gave rise to the formation in the first millenium B.C. of the Pyasina culture of bronze founders who produced metal articles in quantities sufficient for exchange. However, the appropriating economy, the scarcity of population and the small market for product exchange made it impossible to relieve any larger number of founders from direct food procuring activities and thus impeded the development of bronzecasting production.

The increasingly marked distribution of territories among ethnic associations, reflected in archaeological cultures, led to the distribution of raw-material bases among definite communities and to their differing economic and production orientations, as well as to the development of societies with the predominance of one

or another type of appropriating economy. All this contributed to the development of commodity exchange on the level of inter-tribal or inter-ethnic relations. The ethnography of primitive peoples shows that an important share of exchange belonged to raw materials whose extraction occasionally required the labour of the entire community. Archaeological finds from the forest belt cannot fully demonstrate the whole diversity of commodity exchange existing at the time. It is indicated only by the distribution of objects and half-finished products made of characteristic raw materials and of the raw materials themselves which have a definite source of origin. However, unceasing analysis of the possibilities of interpreting such phenomena as evidence of exchange is essential. Sources of raw materials could be used by all the communities living nearby while the communities living far from the sources could send special expeditions there. Thus, in studying the sources of material for making flint implements in the region of the Upper Volga, it was found that, as a rule, flint from the nearest sources predominated on the sites; on some of the sites, however, there were equal portions of the material from several sources, irrespective of the distances between them and the site (Selivanova, Galibin, 1982).

Studies on exchange in the territory of the USSR based on archaeological evidence have been made by a number of researchers among whom mention should be first of all made of A. Ya. Bryusov, N. N. Gurina and A. P. Okladnikov whose investigations were concerned with the Neolithic and Early Bronze Age cultures of the forest belt. In 1972 a special symposium on »Exchange and trade in ancient societies» was held at the Leningrad Branch of the Institute of Archaeology of the USSR Academy of Sciences, at which papers were discussed dealing with the problems of exchange practised by the forest zone population (Kratkie tezisyy . . . , 1972; *Obmen i trgovlya v drevnosti*, 1974). Among the publications of the past fifteen years, special mention should be made of the monograph by N.N. Gurina devoted to the flint mines of Western Byelorussia which, apparently, supplied flint to the tribes of the late Niemen culture and those of the corded pottery culture (Gurina, 1976), as well as studies on the occurrence of flint (Kovnurko, 1973; and others) and on locating the metallurgical and metal-working centres of the Urals and the Volga area (Chernykh, 1970).

The absence in some areas of good lithic material was the main cause of establishing exchange relations among the neolithic inhabitants of Northern Eurasia. The population of the Kola Peninsula, where local morainic flint is very scarce, obtained flint from the east coast of the White Sea. From the same area and from the Valdai Hills flint was supplied to the area of Karelia. The population of the shores of Lake Onega used the flint deposits on the southern shore of the lake and on the Vytegra River. Valdai flint was brought to the inhabitants of Estonia, Latvia and Lithuania at the end of the Early Neolithic and in the advanced Neolithic period. From Karelia, abounding in high-quality slate, this fine material was supplied as such and in the form of implements (picks, axes, adzes) to the inhabitants of the Baltic lands and of the territories of the present Vologda, Archangel and Leningrad districts, most likely in exchange for flint. Slate implements of Karelian forms occur also in West Siberia. In this connection it should be mentioned that on one of the sites of West Siberia an embryo-shaped ceramic figurine was found similar to those from Finland and the Lake Onega area (Moshinskaya, 1976, pp. 34–36). That find, together with the finds of a mace-head with »pins» in Karelia and of articles made of Siberian pine in Finland, as well as the widespread occurrence of figured axe-hammers, whose main area of occurrence was Finland and Karelia, may serve as a proof of cultural relations in the remote past.

It has been established that exchange involving stone raw materials went on in the territory of Siberia as well. From the South Trans-Urals area articles of distinctive red-green jasper found their way to West Siberian regions, including the southern part of the Yamal Peninsula, deficient in flint. Silicious shale, similar to that from the deposits in the Anabar and the Olenek river basins, was used in the Mesolithic-Early Neolithic period in Taimyr. Green nephrite which came from the Kitoya, a tributary of the Angara, is found on the vast territory of Siberia, Mongolia and North China. White nephrite the deposits are located in the Sayany Mountains and on the Vitim River was of which brought from there to Eastern Europe (finds of nephrite rings from the Turbinsky burial ground) the Amur and North China.

Ornaments, too, were an important item of exchange. In the monuments of the advanced and Late Neolithic periods in the forest belt of Eastern Europe there were finds of ornaments made of amber from Lithuania (the Kursh Spit and Palanga) and Latvia, where manufacturing was centred at the Sarnate settlement and the sites of the Lubana Depression (Vankina, 1970; Loze, 1979).

Amber from the East Baltic area reached Finland, Karelia, the east shore of Lake Onega, the Upper Volga and the Middle Dnieper. The easternmost known points of the finds of amber pendants are sites in the Middle Dnieper area. Apparently, the beautiful articles of amber, possessing electrostatic properties, were the main items which the population of the Baltic lands exchanged for shale and flint they were in want of.

The occurrence of amber may serve as an indication not only of the links between the Baltic tribes and the tribes of other territories but also of the relations which were maintained within those territories. Moreover, it suggests the existence of intermediaries who, in exchange for amber, would obtain some goods from communities dwelling far from the Baltic amber centres. Some indication of what particular goods were involved may be given by finds from the East Baltic area which attest that from Finland and Karelia came were such finished articles as shale rings, parts of composite fishing hooks and shale arrowheads which could be made by distant partners in exchange and not by intermediaries.

Widely distributed in the forest belt of Eurasia were shale rings which are sometimes regarded as imitations of amber rings. Such rings, however, were found in Siberia too. In the Baikal and Trans-Baikal areas rings were usually made of nephrite. It appears that rings were the favourite ornament with many of the ethnic groups which inhabited the forest zone in the second millenium B.C. In the second-early first millenia B.C. cylindrical beads of agalmatolite and pyrophyllite were a common ornament in East and South Siberia, they were produced in yet unknown centres in the Altai, in the East Sayan Mountains or in China where there are deposits of these stones. One of such beads was found even beyond the Polar Circle on the Pyasina River in Taimyr. Shells of molluscs used as ornaments were found in the Baikal area and Yakutia, their habital nowadays are seas of South-East Asia. In this connection mention should also be made of cowrie shells from the Indian Ocean that reached South Siberia, where they were found in graves of the Karasuk culture. However, one should not discount the possibility that ancient shells from geological strata were used, as was the case with shells from burials of the Afanasyev culture of South Siberia.

The significance of exchange and its scope increased substantially in the Bronze Age, when the need arose for obtaining finished bronze implements or copper and alloying metals. Deposits of these metals are concentrated in several regions which are distinguished as mining and metallurgical regions. Of much significance for the

development of the Eneolithic culture in Karelia were the workings of native copper on the north-west shore of Lake Onega. Judging from some finds, the utilization of that copper continued in the first millennium B.C., when it was brought to the Vyg River (Zhuravlev, Devyatova, Vrublevskaya, 1981). The main source of copper for the forest zone of Eastern Europe was the copper-bearing sandstone of the Urals area, which is characteristic of Balanovo Fatyanovo, Volosovo and Abshevo metallurgy, and, later on, also copper deposits in the Urals. Studies of copper deposits and the spreading of objects of copper from different deposits make it possible to ascertain relations maintained by the bearers of the Bronze Age cultures in Eastern Europe (Chernykh, 1970).

The deposits of copper in the Urals were also used by the population of West Siberia. In Siberia the sources of copper with different impurity contents were the deposits of Kazakhstan, Rudnyi Altai, Sayany, and the Trans-Baikal region. In recent years cases came to light testifying to the utilization of ores of the south Baikal area. As regards territories beyond the Polar Circle it has been established that at the end of the second and in the first millennia copper-nickel ore deposits of the Norilsk area were under exploitation and served as the base for the development of bronze metallurgy in Taimyr. Tin deposits that were utilizable in antiquity are much rarer than copper ores. Therefore the presence of tin bronze indicates that in the Bronze Age there were well-established exchange relations due to which tin from the Trans-Baikal area or Indigirka and other hardeners reached foundry men who lived far from the sources of the metals.

Commodity exchange played a very progressive role. It was not confined to enhancing the intensification of production and meeting more adequately the demands of society – it also promoted closer relations between peoples, the establishment of ethnogenetic links and the assimilation of new cultural achievements, involving new peoples into the sphere of world culture. On the other hand the development of commodity production led to the accumulation of wealth, the growth of exploitation and predatory wars.

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