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## THE EASTERN CONTACTS OF NORTHERN FENNOSCANDIA IN THE BRONZE AGE<sup>1</sup>

### *Abstract*

In the Bronze Age metals came to Finland from two directions. The metal-using culture spread to the southern and western coastal regions from the Baltic area, mainly Scandinavia. Eastern and Northern Finland received metal from the east. Bronze import via the White Sea area was of importance for Northern Fennoscandia as a whole as shown by finds related to the Seima-Turbino and Ananyino cultures of the Volga-Kama area. Trade routes from this region followed the Northern Dvina River to the White Sea and from there along the rivers flowing from the west to the watershed from which the water routes flowing west to the Gulf of Bothnia could be reached. Especially in the region of Kainuu, the upper reaches of the water system of Lake Oulujärvi, there are several finds of steatite casting molds indicating local manufacture brought about by the trade in metals. It was via this route that iron eventually spread into the region, but when knowledge of iron smelting from local lake and bog ores was achieved, eastern trade diminished considerably. It did not cease completely, however, and from approximately 900 to 1200 AD Biarmia at the mouth of the Northern Dvina played an important role in the trade relations of Northern Fennoscandia.

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During the Bronze Age there was no knowledge of local ores in Finland and all metals were imported. Metal was obtained from both east and west and Finland was thus an area of contact for metal cultures whose centres were located far apart. This was based on a course of development that had started already in the Stone Age whereby Finland was divided into two distinct cultural areas.

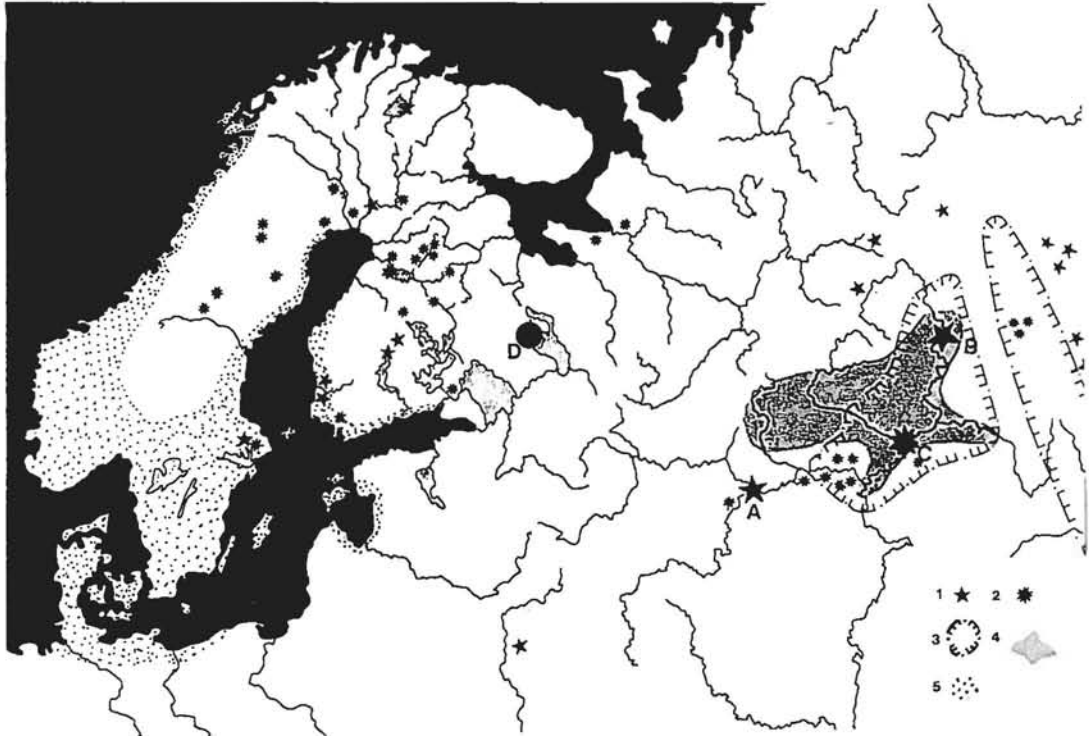
As late as the period of Typical Comb Ware (ca. 3300–2800 BC) the prehistoric culture of Finland was relatively uniform, but a breaking up occurred before the end of the Stone Age. In the southern and western coastal regions Typical Comb Ware developed into Late Comb Ware (ca. 2800–2000 BC) and around 2500 BC this area was invaded from the south by the Corded Ware culture, which belonged to the European Battle-Axe cultures and was ethnically and lin-

guistically separate from the Comb Ceramic. The mixed Kiukais culture came about through the intermixing of these two groups and was oriented towards Scandinavia and the Baltic with relatively weak contacts to the east.

In the Bronze Age, around 1500 BC a strong cultural area arose in Scandinavia with its centre in Denmark and Central Sweden which extended along the Atlantic coast to Northern Norway. In the Scandinavian fell zone its influence remained weak but in Finland the Kiukais culture was so strongly influenced by it that the Bronze Age culture of the coastal regions received a definite Scandinavian character.

Western influences, however, were significant only in a narrow coastal zone extending from the Bay of Viipuri to Southern Ostrobothnia. Elsewhere in Finland the Typical Comb Ceramic tradition led to the asbestos-tempered ceramic groups, which retained and strengthened eastern contacts. Along with the spread of knowledge of metals in Eastern Russia and the exploitation of its rich copper ores, the asbestos ceramic groups

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Areas of Bronze Age culture and finds. 1. Seima celt 2. Ananyino celt or mold 3. Areas of copper ores in East Russia 4. Core area of the Ananyino culture 5. Area of the Scandinavian Bronze Age culture. A. Seima B. Turbino C. Ananyino D. Copper area of Lake Onega (According to various sources).

of Finland also came into gradual contact with metals.

Metals came to Finland from the east by at least two routes. In the early Bronze Age textile-impressed ceramics spread north-west from the Volga-Oka area, apparently at least partly through a movement of population. In Finland and East-Karelia this led to a variant, partly based on local traditions, known as the Sarsa-Tomitsa textile-impressed Ware. In Finland this ware is known mainly from the southern and eastern regions with the northernmost finds in Kainuu and Kemijärvi. The Sarsa-Tomitsa group is dated to ca. 1300 BC – 300 AD (Carpelan 1979) and metal artefacts connected with it are eastern Mälär-type celts (Meinander 1954 38).

Through the influence of textile-impressed ware, asbestos ceramics developed into the contemporaneous Säräisniemi 2 or Sär-2 group of ceramics, which includes several sub-groupings. In North and East Finland it is more common in the finds than textile-impressed ceramics. It is also known from East Karelian finds and the

Kola Peninsula and during the Bronze Age this ceramic group also spread to the northern and central parts of Scandinavia (Carpelan 1979).

Casting molds of eastern Mälär celts found in the regions of Suomussalmi and Kemi indicate that the textile-ceramic contacts led to the spread of metal into the northern areas. However, a much more important route linking Northern Fennoscandia to the metal culture centres of the east seems to have been via the White Sea.

Since the Stone Age the river routes of Northern Finland have been important means of communication between the Gulf of Bothnia and the White Sea. The most direct route passed through Kainuu or Kuusamo. The Lake Oulujärvi water route led across the watershed in many places to the upper reaches of the Kemijoki river flowing into the White Sea. From the Iijoki River it was possible to cross to the White Sea water route in Kuusamo but also the Oulankajoki River in the same region led to the White Sea. The Kuusamo region could also be reached from the Gulf of Bothnia along the

Kemijoki River of Finland. This river could be reached from the White Sea via the Tunstanjoki and Tenniöjoki Rivers. All of these waterways with intersecting routes were in active use up to the early years of the 20th century (Huurre 1983 433–434, 1984).

The eastern Stone Age contacts of Northern Fennoscandia in the period from ca. 4000 to 3000 BC are indicated by the so-called early Säräisniemi Ceramics (Sär 1). This was a northern stylistic variant of Comb Ware and its southern boundary runs from Central Finland to Lake Onega. In the north it is found on the Varanger Fjord and on the Kola Peninsula. In the east ornamental motifs particular to it seems to occur as far as the region of Mezen (Huurre 1983 142, Stokolos-Korolev 1984 tI. III:15).

The finds of flint in Northern Finland may indicate similar contacts. Flint does not occur naturally in Finland and it was an important eastern import since the Comb Ceramic period. The flint found in Southern Finland is mainly from the Valdai region, but Northern Finland may also have received some of its flint from deposits bordering on the White Sea, although comparative analyses of materials have not been carried out (Kinnunen et al. 1985; on the areas of flint see also Gurina 1974 map 1). This may also be the area of origin of a small flint figurine which was found in Suomussalmi and is rare in the Finnish material (Huurre 1986).

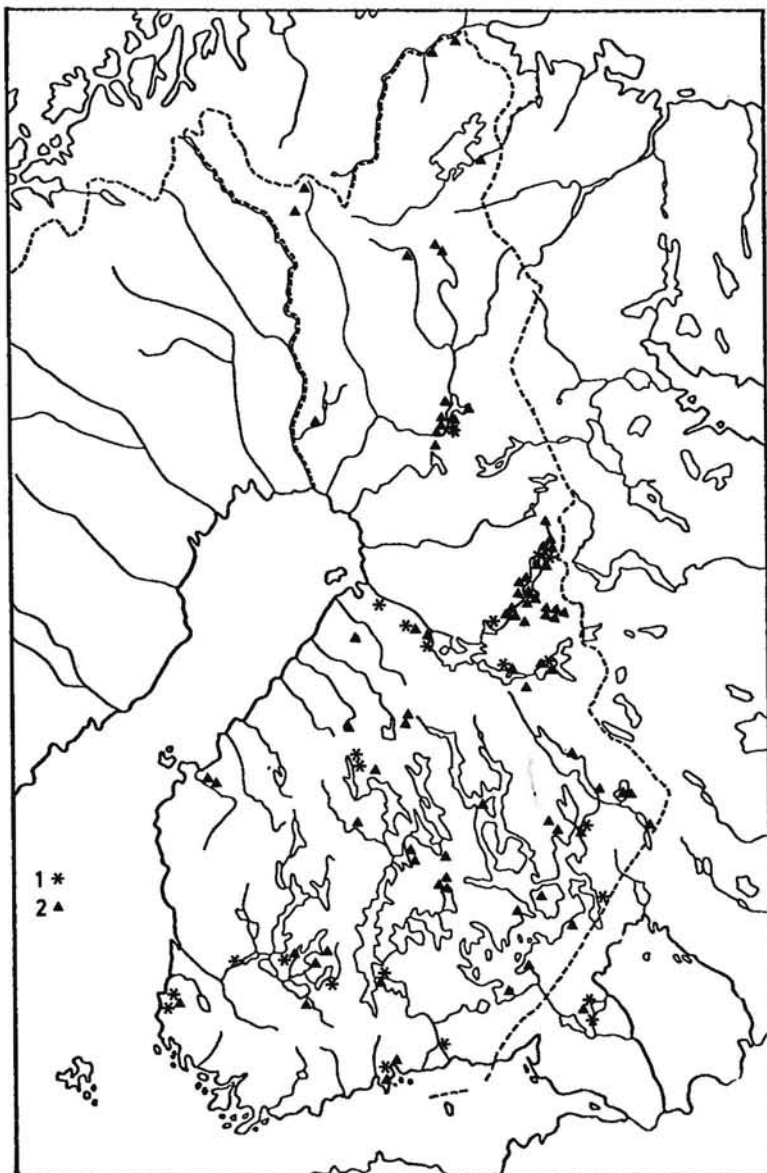
Because of eastern contacts Eastern and Northern Finland seem to have come in contact with metal earlier than Western Finland. The earliest known metal artefacts are a copper ring from Polvijärvi in Northern Karelia (Taavitsainen 1982) and a copper adze from Suomussalmi in Kainuu (Huurre 1982). Both are of pure copper, but their dating is uncertain. The site of Polvijärvi includes finds of both Typical Comb Ware and asbestos-tempered ceramics, but their chronological difference is not necessarily a significant one and J.-P. Taavitsainen has dated the ring to the period of Typical Comb Ware, i.e. the early third millennium BC. The copper gouge from Suomussalmi was found at the Kukkosaaari site with finds from the pre-ceramic period to at least the Bronze Age. The artefact was beaten into shape and its form resembles that of a stone adze. For these reasons it can be regarded as of very early date and probably from the third millennium BC as well. In the Lake Onega region there are deposits of copper ores which began to be mined around 3000 BC, apparently through influences from the Urals (Žuravlev 1975, 1979). Analyses of the copper, however, show that

neither of the Finnish finds are from this region but from further east (Taavitsainen 1982 45; with regard to the Suomussalmi adze the possibility of local ores has also been taken into account: Huurre 1986).

Two finds do not yet give cause to speak of a Finnish Eneolithic. Here the Stone Age continued for several centuries. The Bronze Age proper can be regarded to have begun only when the Seima-Turbino Culture (ca. 1600–1200 BC) of the Volga and Kama regions gradually extended its influence into Northern Fennoscandia.

There are six finds of Seima-type bronze celts: two from Lapland (Inari, Rovaniemi), two from Central Finland (Pielavesi, Laukaa) and two from the province of Satakunta in Western Finland (Noormarkku, Nakkila). There is also a Swedish find of a Seima celt from the Uppland region. These artefacts do not seem to be present in the area of textile-impressed ceramics, which seems to indicate the White Sea route as their direction of arrival (Salo 1981 254). This route is clearly indicated by the distribution of a newer type of arrowhead also belonging to this stream of cultural influences. Of the even-based or White Sea type flint arrowheads found in Finland nearly three-quarters are from Northern Finland and over a third along the straightest route in Kainuu between the White Sea and the gulf of Bothnia. In the inland regions and in SE Finland even-based flint arrowheads are rare, whereby they cannot be part of the stream of influences related to textile-impressed ceramics. In Western Finland they arrived without doubt via the north. There are some flint even-based arrowheads also from Northern Sweden but there as well as in Finnish Lapland they arrowheads of this type were made of local quartzite. In the more southern regions of Finland quartz was used as raw material (Huurre 1983 284–290; 1984 49, map p. 44).

Celts of the Seima type may already have been made in Fennoscandia although their casting molds have not been found in this area. A single exception is a Swedish find of a later mold which may display Seima-type features (Salo 1981 254; Bakka 1976 19). Finds of molds, crucibles etc. show that local casting of metal increased during the Bronze Age. Judging from these finds the import of eastern metal was at its most extensive around the end of the period. The majority of the finds can be dated to the period of the Ananyino Culture from ca 800 to 400 BC (Carpelan 1975 a) the central area of which was in the Volga-Kama region. This cul-



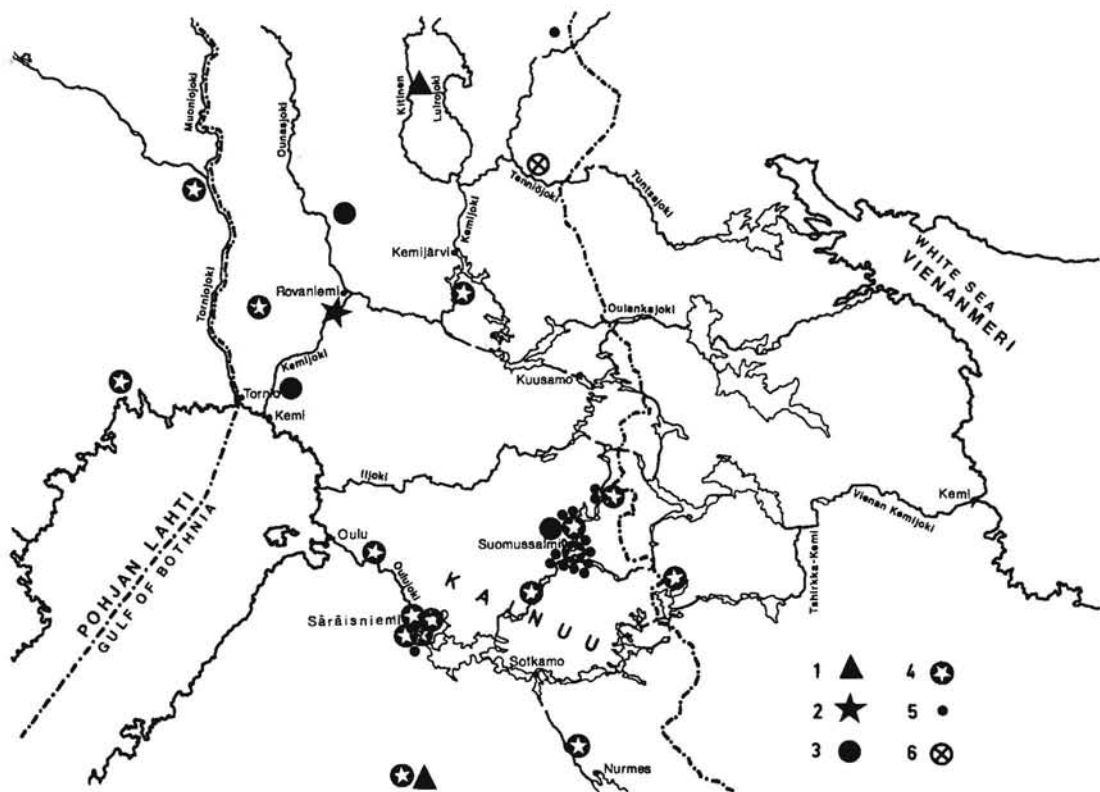
Early Metal period ceramics in Finland  
 1. Textile-impressed Ware  
 2. Sär-2 ceramics

ture had a definite influence especially in the northern parts of Fennoscandia in the area of asbestos-tempered ceramics, but there are also finds of related artefacts from Southern Finland and as far as Uppland in Sweden. In its final stages the culture was familiar with the use of iron.

Most of the finds of Ananyino artefacts are casting molds for celts. There are thirteen finds from Finland of molds or fragments of such,

nine are of steatite and four are of clay (Huurre 1983 267, 1986). There are also some finds of these artefacts from Sweden. There is only one find of a typical Ananyino celt from Finland. This was found in Turku (former parish of Maaria); there are two finds of atypical axes from the Porvoo region. There is also an Ananyino celt find from Uppsala in Sweden (Meinander 1969 52–53).

With the exception of two Seima celts the



Routes from the White Sea to the Gulf of Bothnia with finds of Bronze Age metal artefacts and molds. 1. Metal finds of Scandinavian type. 2. Seima celt. 3. Mälär type celt mold. 4. Ananyino type celt mold. 5. Mold of other type. 6. The Savukoski find of iron weapons.

Bronze Age axes of Finland have been found in Central and Southern Finland. The casting molds, on the other hand, are nearly without exception from the eastern and northern regions and their distribution seems to centre around the waterways of the Lake Oulujärvi region. From this area there are ten finds of casting molds for celts, one of which is of the eastern Mälär type and the others of the Ananyino type. The latter type is also represented by the find of a casting mold from Babya Guba (Akonlahti) in the Dvina (White Sea) region. In addition to the above there are ten finds from Kainuu of casting molds or fragments of such for adzes, knives and other artefacts as well as five unfinished molds (Huurre 1982, 1983 267–269, 1986).

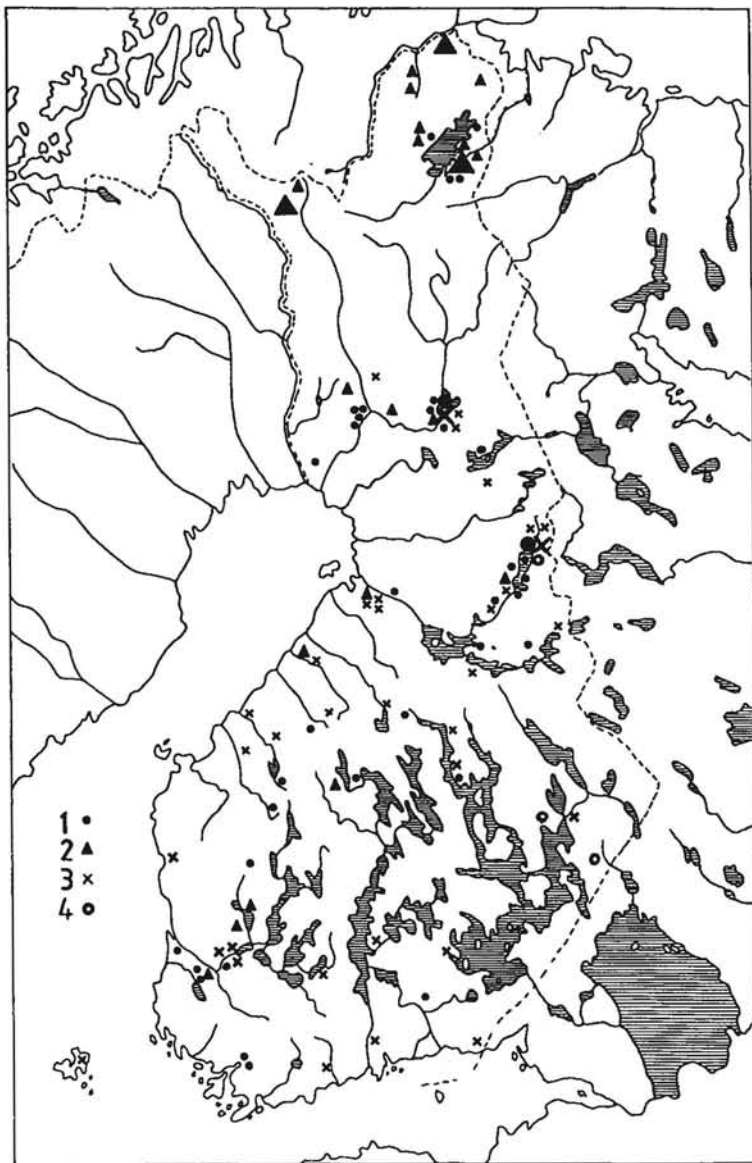
In the Kainuu region also the number of Early Metal Period sites is exceptionally high especially in comparison with the rest of Finland (Huurre 1982, 1986). Although this may partly be the result of emphases in field work and study, it can nevertheless be assumed that this was affected

by the advantageous location of the region along the trade routes. It seems that most of the metal from the east passed through this area on its way to other parts of Fennoscandia. In Kainuu there is also a local supply of steatite for making molds. Import may possibly have been mainly in raw metal, which was cast here for further marketing. It is also possible that molds were made for sale and exchange. However, no analyses of stone materials have yet been made to ascertain this assumption.

Decorative features of Ananyino-type molds found in Fennoscandia differ from those of the eastern central area of the culture. There does not seem to have been any direct imitation of prototypes. Similar features also occur in the celts found in Uppsala, Turku and Porvoo, which suggests local manufacture (Meinander 1969 53).

Anayino influences may also have reached the west through the textile-ceramic area. There is a find of a casting mold of clay for an axe from





Finds of even-based arrowheads in Finland. 1. Flint 2. Quartzite 3. Quartz 4. Other lithic material.

Räisälä on the Karelian Isthmus. However, they seem to have come mainly along the White Sea route.

Metal may have been obtained even from beyond the Urals. Christian Carpelan has pointed out the problem of the so-called imitation textile-impressed ceramics (waffle ceramics) which occur in a zone extending from the Kola Peninsula to Norrland in Sweden. This ceramic group is connected in any way to textile-impress-

ed ceramics as such. Its points of origin are in the region of the Lena River in Northern Siberia and Carpelan has suggested that the upswing of trade caused by the use of bronze created contacts of at least short duration between these distant areas in the period from ca 900 to 500 BC (Carpelan 1970, 1975b, 1979). The route of contact may have passed north of the White Sea and via the Kola Peninsula.

Although the cultural centres of Scandinavia

were situated closer, their influence in Northern Fennoscandia as well as in the inland and eastern regions of Finland seems to have remained much weaker than that of the eastern centres. There are, however, two depot finds from Finnish Lapland from the 8th century BC which indicate metal coming also from Scandinavia. From Inari there are finds of Norwegian ring brooches together with a late variant of a Seima celt and from Sodankylä there are four swords which also may be from Norway (Meinander 1954 13,41,52,88). However, the western artefact forms do not seem to have found permanence in the north. With the exception of a find of a casting mold for a Norwegian type Mälär axe (Meinander 1969 55) from Rovaniemi, all of the finds of molds reflect eastern influences.

A total of 150 Bronze Age metal artefacts are known from the whole of Finland and most of these are of Western type and were found in the cultural area of the coastal region. Sixteen western artefacts have been found in the inland and northern regions and of these twelve are from the depot finds of Lapland. Artefacts of the eastern culture from throughout Finland are approximately the same in number with seven finds from the coastal zone. This indicates that metal was much more common along the coast than in the inland. Finds relating to the casting of bronze, however, indicate a completely opposite situation. The contradiction may be explained by the different nature of the finds. In the Western cultural area the artefacts are mainly grave and stray finds and dwelling sites, from which the molds, crucibles, etc. of the inland have been found, have been studied only to a slight degree in this area.

Influences from the White Sea area to Northern Fennoscandia are reflected mainly in artefacts. In pottery influences are few. It can be assumed that the contacts were upheld by traders from the east and they do not seem to have been connected with any movements of population. Despite this, the contacts may have had their influence on language as well as other areas of culture. The spread of the Finnish term vaski, meaning copper and bronze would seem to fit into this period, regardless of its route of introduction into Finnish (Salo 1981 33, Taavitsainen 1982 45–46). Also the visits of traders may have led to the interchange of genes.

As iron came into use in the Ananyino culture knowledge of it spread gradually along with trade to the northern areas of Fennoscandia, possibly even before iron arrived in Southern Finland from the Baltic regions. The oldest iron

weapons found in Finland are from the Tennijoki River in Savukoski, which is on the route connecting the White Sea with the Finnish Kemijoki River. The artefacts are two scythe-like curved weapons, with handles corresponding to Scythian sword handles of the 5th century BC. Without doubt they came to Finnish Lapland via the Ananyino culture (Erä-Esko 1969, Huurre 1983 298–300).

The spread of the use of iron had adverse effects on the eastern trade of Fennoscandia. Until then metal had been an imported article but iron could be made of local ores from lakes and bogs, the use of which was gradually adopted. In Northern Finland domestic production of iron began during the last centuries BC and self-sufficiency reduced the need for imported metal. From around the birth of Christ the active role of Southern Finland and Scandinavia grew in the north and their importance increased in relation to the east.

Despite these developments contacts with the east never broke off completely. Throughout the Iron Age eastern artefacts, especially brooches can be found as far as the northern parts of Scandinavia. In the late Iron Age their number increases again. From the Viking Period to the 13th century AD the White Sea area rose to become an important factor in Fennoscandian trade. In Norway it came to be known as the rich and fabled Biarmia.

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