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AN EARLY BRONZE AGE SITE ON THE COAST OF VÄSTERBOTTEN, SWEDEN, WITH HAIR-TEMPERED TEXTILE POTTERY

Abstract

This paper presents a recent excavation of an Early Bronze Age coastal site in the parish of Sävar, Västerbotten. There is also a short presentation of other north Swedish Early Bronze Age sites on the coast. At the site in Sävar there were remains of a hut in the shape of an oval embankment with a depression in the middle. The finds are among others quartzite arrowheads with transverse base, adzes or chisels of greenstone, scrapers of quartz, hair-tempered pottery with textile impressions and also lumps of resin with tooth marks. The bones from the site were from seal and fish. The site is preliminary interpreted as a temporary hunting station used during the summer or early fall.

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Background

The Late Neolithic and Early Bronze Age coastal settlement in northern Sweden is something that we still have little knowledge about. A large number of cairns along the coast, dated to the Bronze Age have been known for a long time. Pollen analyses show that agriculture and stock-raising did not play a significant role until the end of the Bronze Age in Medelpad (Engelmark 1978, 45), and that is also true for the coast of Västerbotten (Engelmark 1976, 97). This means that the economy during the main part of the Bronze Age probably was based on hunting and gathering. In the inland areas the finds from this period show similarities with finds from the east and south-east, for example quartzite points with a transverse base and asbestos-tempered pottery. Lars Forsberg has studied the settlement pattern in the inland of northern Sweden during this period. His results point to a settlement pattern with long seasonal movements along the river valleys between the forest and the mountain foothill area. This in contrast to a more sedentary settlement by the coast proposed by Baudou (Baudou 1968, 132; Forsberg 1985, 271–275).

Coastal Early Bronze Age sites in northern Sweden

During the last decade several sites with coastal settlement from the Bronze Age have been found, but only very few have been excavated so far.

Fattenborg is a large site in the parish of Töre, Norrbotten. At the site there is a large number of visible features within approximately one square kilometre. There are 37 graves in the shape of stone settings except for one long cairn. There are 31 pits that are part of the prehistoric remains. In the area there are also remains of 9 huts or houses, in shapes of oval or rectangular embankments visible on the ground, although 2 of these are uncertain. Along with this there are also 18 areas with settlement indications like fire cracked rocks, burned bones and stone flakes. These indications appear without connection to other features (Lagerstam 1991). In 1990 two of the features was examined, one of the houses and one of the pits. The osteological results show dominance of seal but also fish along with small game, like hare, marten and squirrel. The results point to a summer settlement. The elevation above the present sea-level together with ^{14}C datings places this site into

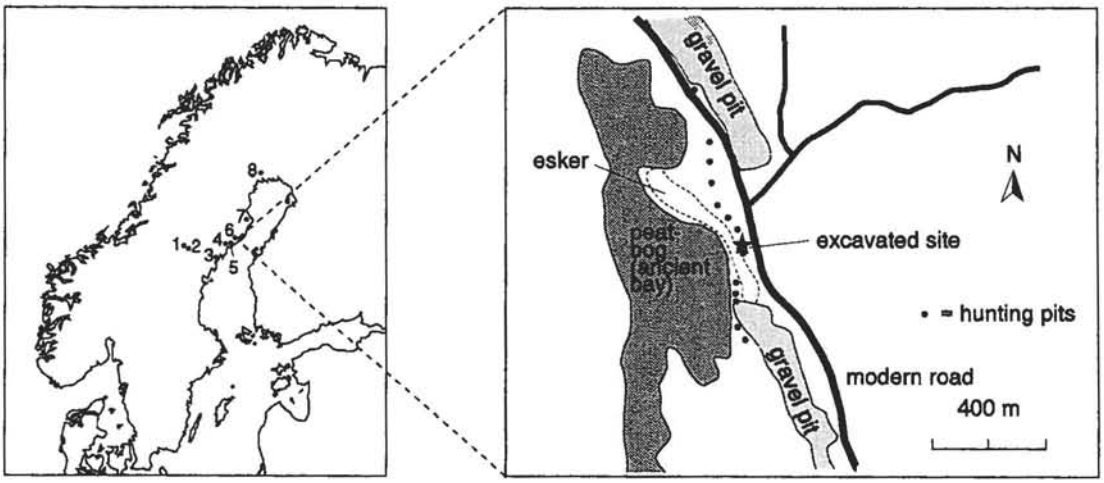

Fig. 1. (Left) Sites mentioned in the text: 1. Rå-Inget I, 2. Nämforsen, 3. Mjäla, 4. Kåddis, 5. Mariehem, 6. Sävar, 7. Falmark, 8. Fattenborg. (Right) The excavated site at Sävar and it's surroundings.

the Early Bronze Age (Bertvall 1993, 19).

At Falmark in the parish of Bureå the Nordarkeologi project conducted an excavation in 1969 and 1970. The site is located by the lake Falmarksträsket. The elevation is about 39 meters above sea level. The excavation was carried out in a ploughed field and the features found were four hearths. There is no ^{14}C dating from this place. The finds were preforms and points with transverse base made of quartzite. There were also some scrapers and a chisel made from red slate. The osteological material showed no sign of seal, but there are a few fragments of bones from sheep/goat and pig. The find contexts of these bones are however a bit uncertain (Broadbent 1982, 124). The site has been interpreted as a base-camp with the main activities being hunting and manufacturing of quartzite points (Willemark 1992, 30)

At a place called Mariehem, in Umeå, the Department of Archaeology at the University of Umeå has conducted excavations from 1988 to 1990. This is a site with two cairns and there are also two mounds of fire cracked stones. These mounds date from the Early Bronze Age and continue into the Iron Age. During the Early Bronze Age the site was located on an island by a narrow strait close to the mainland (Forsberg 1993, 239). The faunal remains were from seal and fish but there were also bones from sheep/goat from layers dated to the Early Bronze Age. The lithic material was flakes and scrapers from quarts and bifacially worked preforms from a possibly volcanic stone (pers. comm. Forsberg 1993).

Just west of Umeå, by the Umeå river, is a site at the village Kåddis. The department of archaeology at the University of Umeå excavated the site in 1982. The site was situated about 40 meters above sea-level. The finds were few. Along with fire cracked rocks there was one polished slate point of Sunderøy type. There were flakes from red and black slate, and flakes from quartz and quartzite. One of the finds interpreted as fragment from a bifacially worked flint point, might be a gunflint from much later times (Broadbent 1984, 50 Fig. 5b).

In 1978 the Department of Archaeology at the University of Umeå excavated a site at Mjäla in the parish of Nätra, Ångermanland. The excavation took place at a site of ongoing gravel exploitation and had the character of a rescue excavation. The site was found at an elevation of 50–57 meters above the present sea level. The osteological material showed presence of seal and beaver. The lithic material was dominated by quartz flakes (Gullmert-Häger 1978). A quick examination by the author showed that there are some tools among the flakes. Two types of pottery was found on this site. One type is Neolithic, possibly Battle Axe Pottery. The sherds from Mjäla corresponds closely to the neolithic sherds found at Bjurselet, in the parish of Byske, Västerbotten (Hulthén 1991, 11–12). The other type of pottery is tempered with hair and have textile impressions on the outer surface. This type of pottery is closely connected to Asbestos Pottery that usually dates to the Bronze Age (Hulthén 1991, 32).

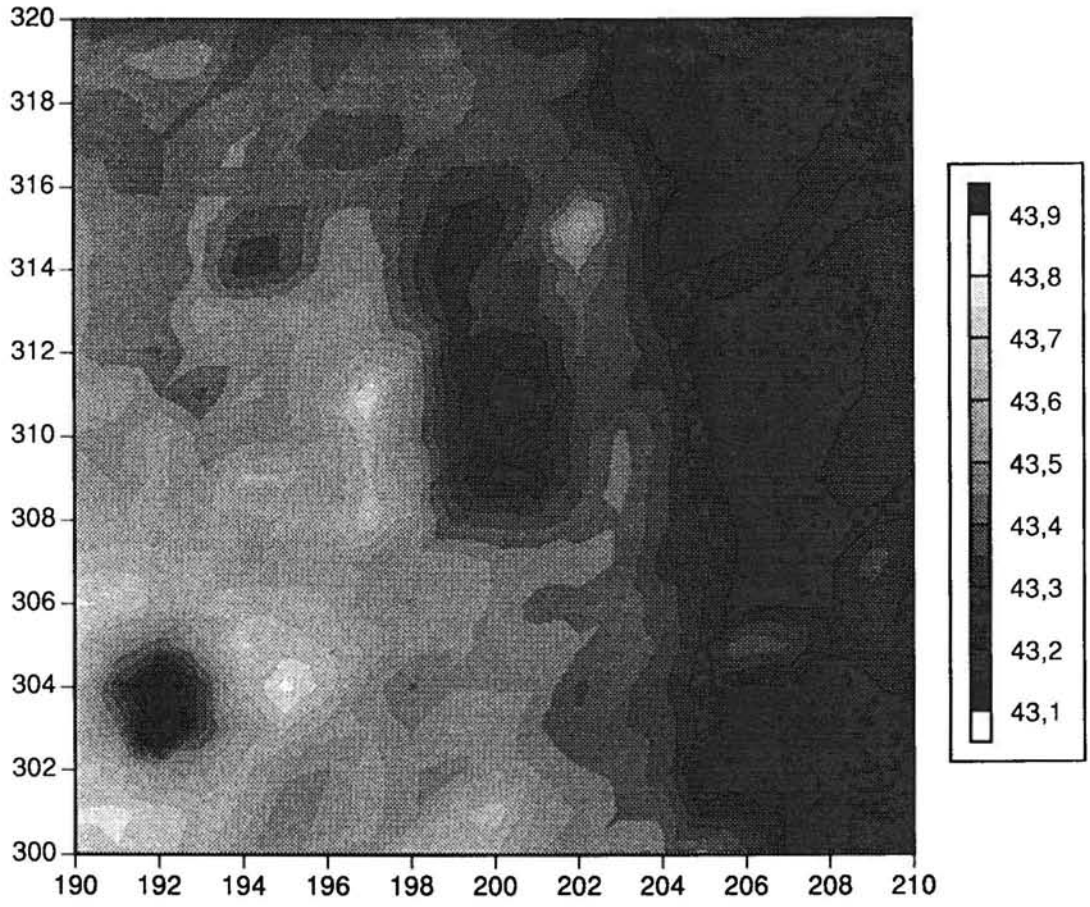

Fig. 2. Contour graph of the ground at the site showing the hut remains in the middle. In the lower left is a hunting pit. Scale indicating metres above sea level.

The excavation at Sävar

One site that has been excavated recently is located in the parish of Sävar about 20 kilometres north-east of Umeå, Västerbotten. The site has been excavated by the Department of Archaeology at the University of Umeå during parts of three seasons, 1991–1993.

The site is located on an area of glacifluvial sediments with a marked esker going mainly in north-south direction. And at the location of the site it consists mainly of sand. The ground is well drained and very dry. The surrounding areas are to a high degree till and peat bogs. About 70 meters west of the site there is a natural spring with fresh water close to a peat bog. There has never been any cultivation in these surroundings and therefore there has been very few disturbances of the site. There is a system of hunting pits oriented in north-south direction in the area. The hunting pits are likely of a more recent date. Today the site is covered with a sparse spruce forest (Fig. 1).

At the site there was an oval embankment 14 meters long and 10 meters wide visible on the surface. The height of the embankment was 10 to 20 centimetres. On the inside there was an area, 8 × 2,5 meters that was about 10 centimetres lower than the surrounding ground. In 1989 a simple phosphate analysis was made on soil samples. This showed that there was slightly higher phosphate content in the embankment and the area inside compared to the area outside (Loeffler & Sandén 1989). This is interpreted as the remains of a prehistoric house or hut with the oval embankment representing the walls, and the inner area the floor (Fig. 2).

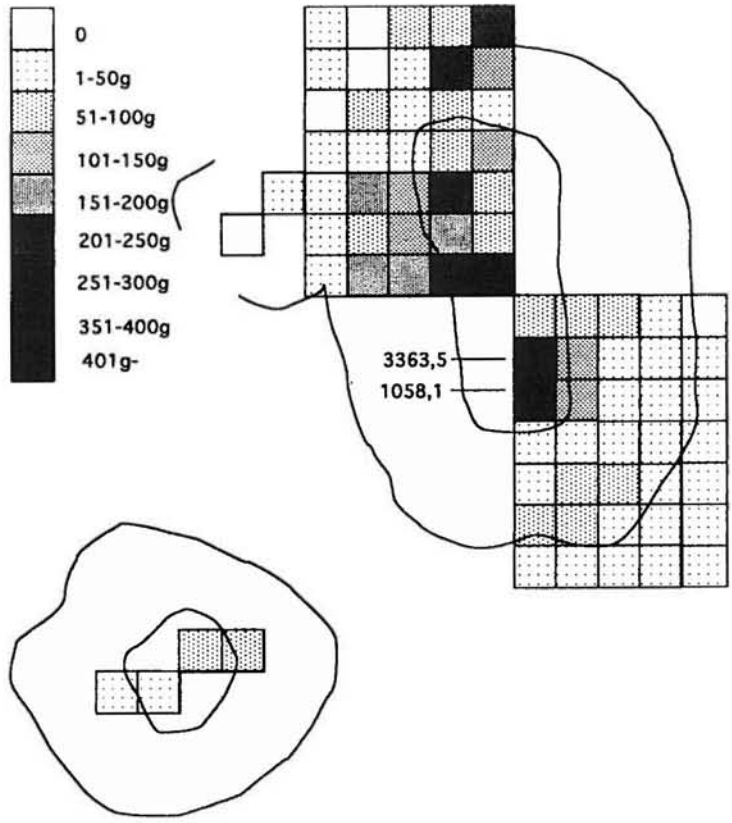

Fig. 3. Distribution of flakes by weight for every m².

Finds

One activity that we can not trace at the site is making fire. So far we have not found a fireplace or any fire cracked stones.

The most common finds were flakes of quartzite and quarts. There was one spot inside the proposed house, less than one square meter, where there was a large concentration of quartzite flakes together with a hammer stone, cores and an anvil stone that was broken in two pieces. This flake concentration contained 48 percent, by weight, of the recovered flakes at the site. There was also a smaller concentration of flakes in the northern half of the floor area. Otherwise the pattern showed that the flakes had probably been disposed outside the house or along the walls on the inside as a result of cleaning the house. This is also true for other types of finds. The flakes found in the embankment are most common in the northern part (Fig. 3).

The bones recovered from the site had a total weight of 126 g. All of the bones from the 1991 and 1992 excavation were unburned, and those identified were seal bones, except for one fish bone (Wallander 1992). This is a clear indication that this site was closely connected to the coast. The bones recovered in 1993 are not yet examined.

There were one whole and three fragmentary bifacially worked quartzite points with transverse base, and also one preform. They were all found in, or in close connection with the embankment. (Fig. 4). The flakes of white quartzite show that manufacturing of arrowheads of this type has been taking place here. These flakes correspond to a very high degree with flakes produced by Erret Callahan in the last stage of experimentally making bifacially worked points. Two adzes or chisels made from greenstone with a triangular crossection were found and also one that was very much damaged. There were also greenstone

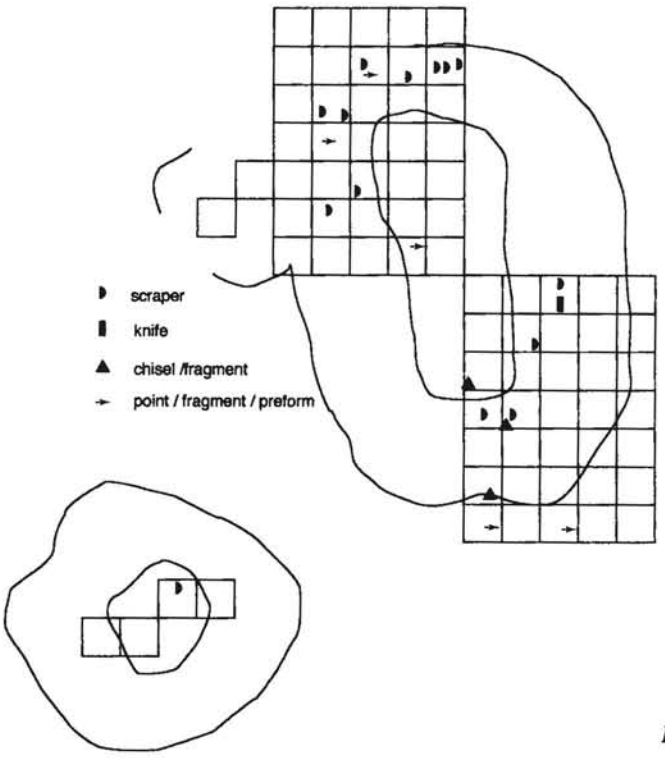

Fig. 4. Distribution of finds.

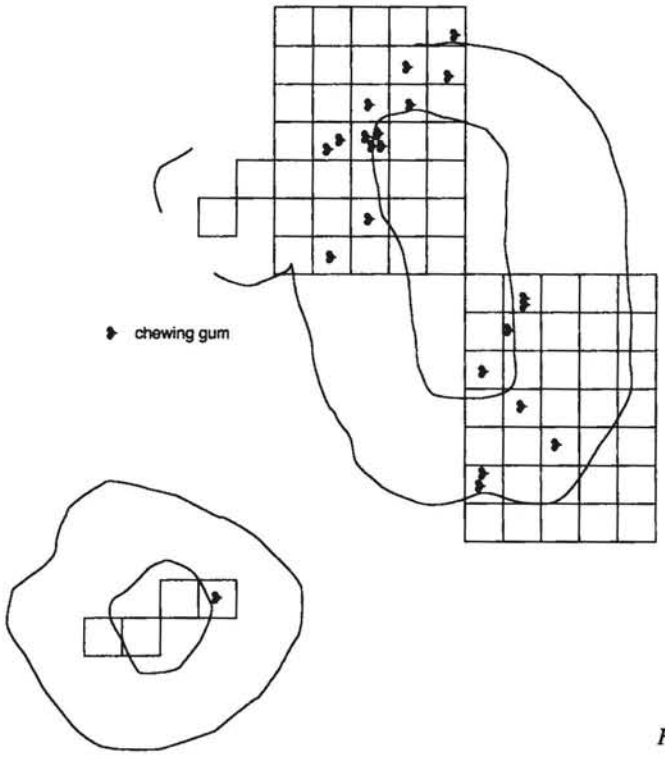

Fig. 5. Distribution of "chewing gums".

flakes with polished surfaces, probably originating from the damaged chisel. There were also a few scrapers of quartz and quartzite (Fig. 4).

One interesting type of finds are chewing gums, that is pieces of resin with clearly visible tooth marks. There were more than twenty of these and there were also two lumps of resin with no tooth marks. These looked like they had been melted. The chewing gums were also found mainly in the embankment. This means that they were discarded as garbage (Fig. 5). This type of finds are known from all over Fennoscandia and large parts of Europe from the Mesolithic period and onwards (Edgren 1992, 77–78; Evans & Heron 1993, 449; Larsson 1982, 74).

At the site there was also 2210 g of pottery. The clay was tempered mainly with hair but also other organic materials. There are textile impressions on the outer surface of the sherds. The sherds are very fragmented so any reconstruction of vessel shape and rim diameter should not be looked upon as too certain. However there seems to be at least two vessels, one with the shape of a bowl or a plate with a rim diameter of about 25 centimetres. The other vessel is smaller about 15 centimetres in diameter and the walls are more straight.

In Sweden Hair-Tempered Pottery has been found on three other sites, these are all in Ångermanland. The sites are Nämforsen and Rå-Inget I in Ådalslidens parish and Mjäla in Nätra parish (Hulthén 1991, 29). None of these sites have any ^{14}C datings and it is very difficult to see where the pottery falls chronologically. At Rå-Inget there is Hair-Tempered Pottery in the same stratigraphic layer as asbestos tempered Textile Pottery (Hulthén 1991, 28). At Mjäla there was also pottery of a type that Hulthén calls Neolithic (Hulthén 1991, 10). Mjäla is a coastal site with good access to a narrow strait during a long time of prehistory. There is a strong possibility that the site has remains from more than one period.

According to Hulthén the Hair-Tempered Pottery has imitated textile impressions, but the pottery from Sävar and also from Mjäla that I have studied by myself does not have imitated textile impressions.

Hair-Tempered Pottery is also known from both Finland and northern Norway. In Norway hair-temper is found in pottery of the Pasvik type found mainly in the inland of Finnmark. Usually this pottery is tempered with asbestos. This type of pottery does not have textile impressions but stripes and sometimes pits (Jørgensen & Olsen 1988, 15–16). Jørgensen and Olsen date this pottery to the period 2000 to 1000 B.C. The asbestos tempered Textile Pottery gets a dating to the period 1800–700 B.C. The Imitated Textile Pottery with asbestos temper gets a dating to 2000 or 1800 to 500 B.C. (Jørgensen & Olsen 1988, 65–68).

In Finland there is Imitated Textile Pottery with hair-temper along with asbestos, and Carpelan notes that organic temper is a Late Neolithic feature (Carpelan 1978, 15). Arponen gives the Textile Pottery a dating to 1880 to 1100 B.C. an the Imitated Textile Pottery 1450 to 500 B.C. (Arponen 1992, 13).

Dating of the site and the ecological setting

One of the chewing gums have been subject to AMS radiocarbon dating. The value obtained was 3310±70 BP (BETA 63351 CAMS-7419), when calibrated this gives a range, with one standard deviation, of 1677 (1597, 1568, 1529) 1513 B.C. The site is situated at about 43 meters above the sea level. The calibrated value corresponds to a level between 35 and 39 meters above sea level (Segerström & Renberg 1982, 22). The selection of habitation on this site is best understood if we have an imaginary sea level at 38–40 meters above the present. This level would allow the fresh water spring to have emerged from the sea. This spring is the only source of fresh water in the vicinity. The peat bog about 70–100 meters to the west of the site would have been a shallow bay of the sea. On the western side of the esker there is a sandy flat area where there also are sporadic finds of flakes of quartz and quartzite. This area has about the same elevation as the house remains on the eastern side of the esker. The peat bog is not very deep and its bottom is at about 38 meters above sea level. The bay coming in from the sea would disappear at a sea level lower than 38 meters. Since the landscape is very flat, a lowering of the sea level will have vast consequences with a rapid displacement of the sea to the east, thus leaving the site with no direct access to the sea.

Habitation at the site at Sävar was most favourable at a sea level between 38 and 40 meter above the present. The older part of the range of the radiocarbon dating falls into this favourable time. The finds from the site does also support a dating to the Early Bronze Age. It is important to use different independent methods of dating to get the best understanding of the dating and the settlements location in the prehistoric landscape.

In the immediate surroundings of the site there was access to fresh water from the spring and a

shallow bay that provided fishing and maybe seal hunting. Within a five kilometres radius from the site there was access to the estuaries of the small rivers of Sävarån and Täfteån. Sävarån still has a population of salmon. At the mouth of river Täfteån there was a rather long and narrow bay. Off the coast there were only a few small islands. Within the five kilometres radius there are also two lakes. Along Sävarån there are vast areas of glacifluvial and littoral sediments. These are mainly sand. The rest of the surroundings are till or peat bogs. Some of the peat bogs may have been small lakes during the Bronze Age. The osteological analysis from the site shows that there was a heavy emphasis on the exploitation of marine resources. Seal and fish were the only species identified.

My preliminary interpretation of this site is that it was occupied during the summer or early fall. A winter settlement should have clearer traces of fire. This was not a base camp but a temporary camp occupied for maybe a few weeks. The duration of the occupation was long enough for making it worth building a house or a hut and the house was used so much that it needed to be cleaned up inside. The main reason for staying there was to hunt seal and to fish.

Early Bronze Age coastal settlement in northern Sweden

Looking at the excavated coastal settlements from the Early Bronze Age in northern Sweden we can see that the finds from all of them show great similarities with what is known from northern Fennoscandia. There are no finds with clear connections to the south Scandinavian Bronze Age. Pollen analysis show no sign of crop growing at this time. The economy was based on hunting, fishing and gathering with emphasis on marine resources, mainly seal. The bones from sheep/goat from Mariehem show that stock raising is present at that time but the material is still to small to say how important this was for the economy.

This presentation of the coastal settlement was made leaving the coastal cairns completely outside the discussion. The source material from coastal sites is still very limited, but it is important to use it, as well as the coastal cairns, in order to build models concerning economy, settlement patterns and social organization during this period.

In the future it is important to study the relation between the coastal and the inland settlements in northern Sweden and also the relation between coastal settlements on the gulf of Bothnia.

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