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Amber, Garnet, and Rock Crystal at Paviken: Gotland Archaeological Field School

Site Introduction

Undisturbed since abandonment in AD 1000, Paviken is now accepted as an important site of trade and manufacture, a powerful link in the chain of Viking age ports on Gotland (Carlsson 2013, Linquist 2014, Jankhuhn 1982). The site (Figure 1) consists of two areas: Paviken I, the harbour site, and Paviken II, next to a large cemetery (Carlsson 2013). Paviken I was excavated 1967-73 and phosphate mapped by Per Lundstrom and Jan Peder Lamm (Figure 2).

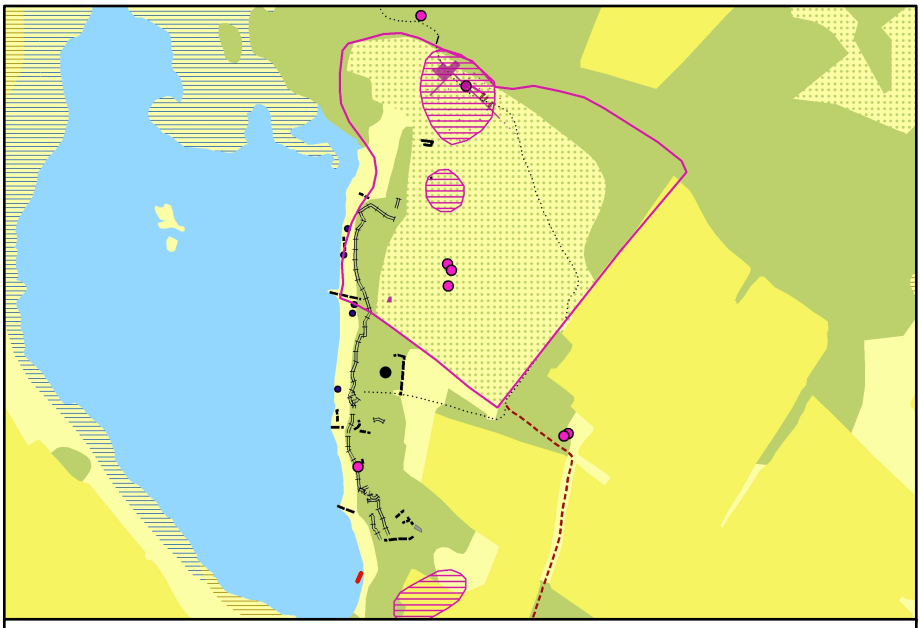

Figure 1. Paviken, Gotland. Paviken I is the northern most highlighted area. Map courtesy of Amanda Karn.

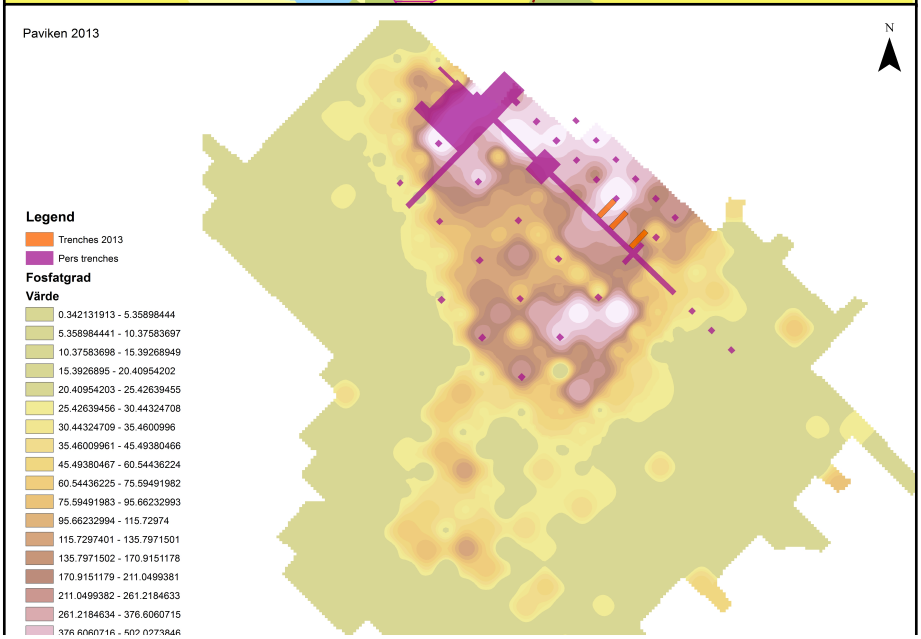

Figure 2. Phosphate Map of Paviken 1. Map courtesy of Amanda Karn.

Dan Carlsson's current project aims to discern how Paviken (together with Vastergarn) operated within the trade system of Gotland and the Baltic, especially in reference to two other harbor sites, Frojel and Visby, in order to understand how they "balanced each other in question of trade and manufacturing on a wider scale over time" (Carlsson 2013, p. 4). This paper will focus on the spatial distributions of three types of precious stones found at Paviken I during both Lundstrom's work and Carlsson's 2013 excavation in an attempt to place their significance in a larger framework of Viking age trade and manufacture on Gotland.

Lundstrom's excavation covered 1000 square meters. Carlsson's 2013 excavation covered approximately 64 square meters. The squares were measured 2 meters by 2 meters. In Carlsson's excavation, three trenches were opened. Trench 1 reached layer B, consisting of sand and compact clay. Trench 2 reached layer B as a well, taking a few constructions down past this layer of sand, clay, and gravel. Trench 3 reached far past layer B and consisted of many large rocks. Because Paviken has been undisturbed since the Viking age, these layers offer an accurate representation of how they existed in 1000 AD.

Amber at Paviken

At Paviken I, Lundstrom collected 177 fragments of amber. The spatial distribution of worked amber fragments is shown in the map below (Figure 3). Amber appears a popular find on the site. The highest value of 22 amber fragments was found in square 38:3, closely followed by square 36:51 with 19 pieces of amber and square 38:5 with 11 amber pieces. To place these high-content areas in perspective, most of the squares contained only 1 to 3 amber fragments.

Garnet at Paviken

At Paviken I, Lundstrom recovered 277 pieces of garnet. However, garnet was found in more highly concentrated areas than amber and does not have the wide spatial distribution of amber (Figure 4). Square 24:90 contained 130 worked garnet fragments, followed by 66 in square 24:100, 28 in square 39:10, 19 in square 39:20, and 15 in square 39:30. The remaining 14 squares in which garnet was found rarely contained more than 1 piece. Indeed, one trench of five squares contained 98 % of all excavated garnet.

Rock Crystal at Paviken

No worked fragments of rock crystal were found during Lundstrom's excavation of Paviken I. However, two beads were recovered.

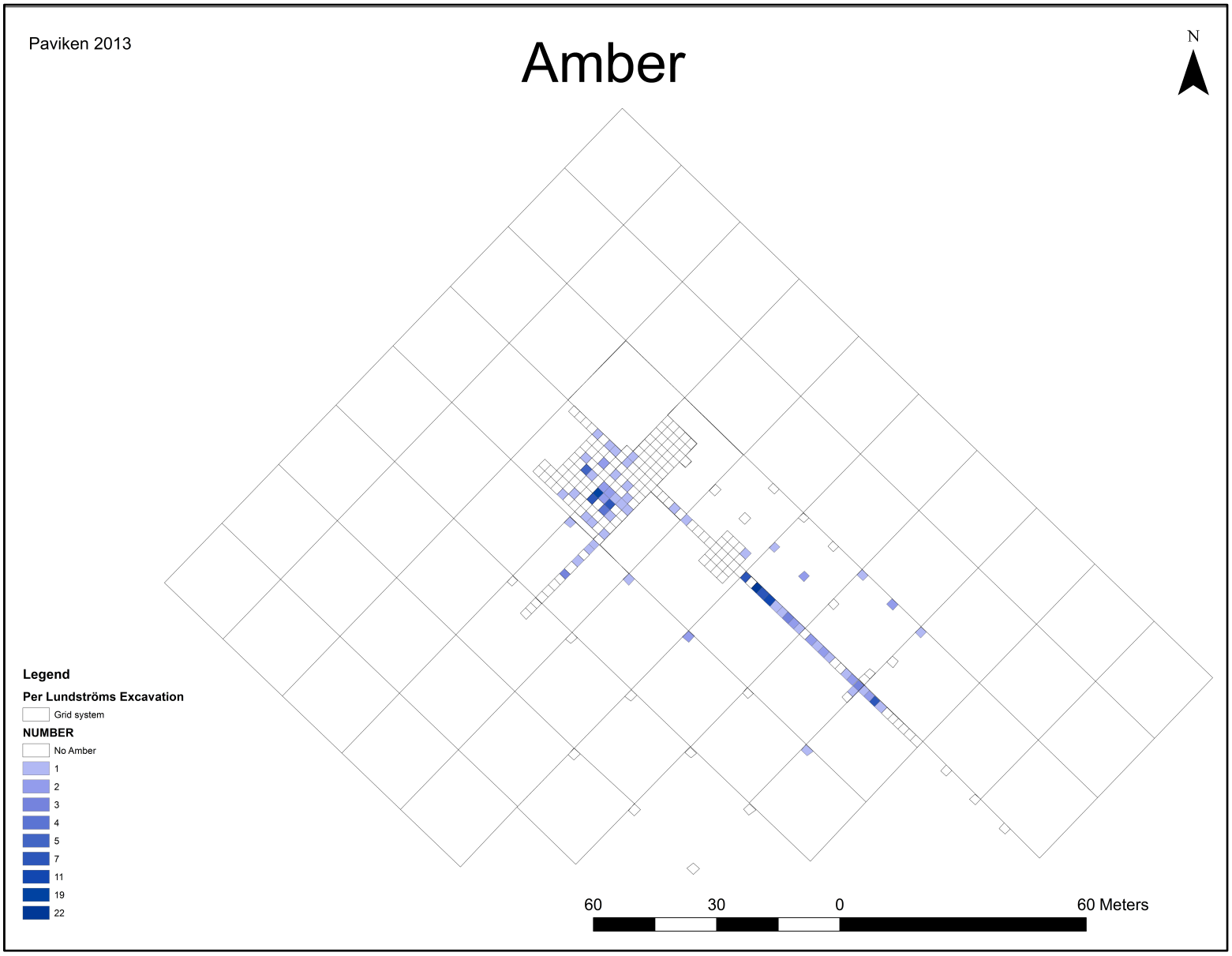

Figure 3. Spatial distribution of worked amber pieces at Paviken.

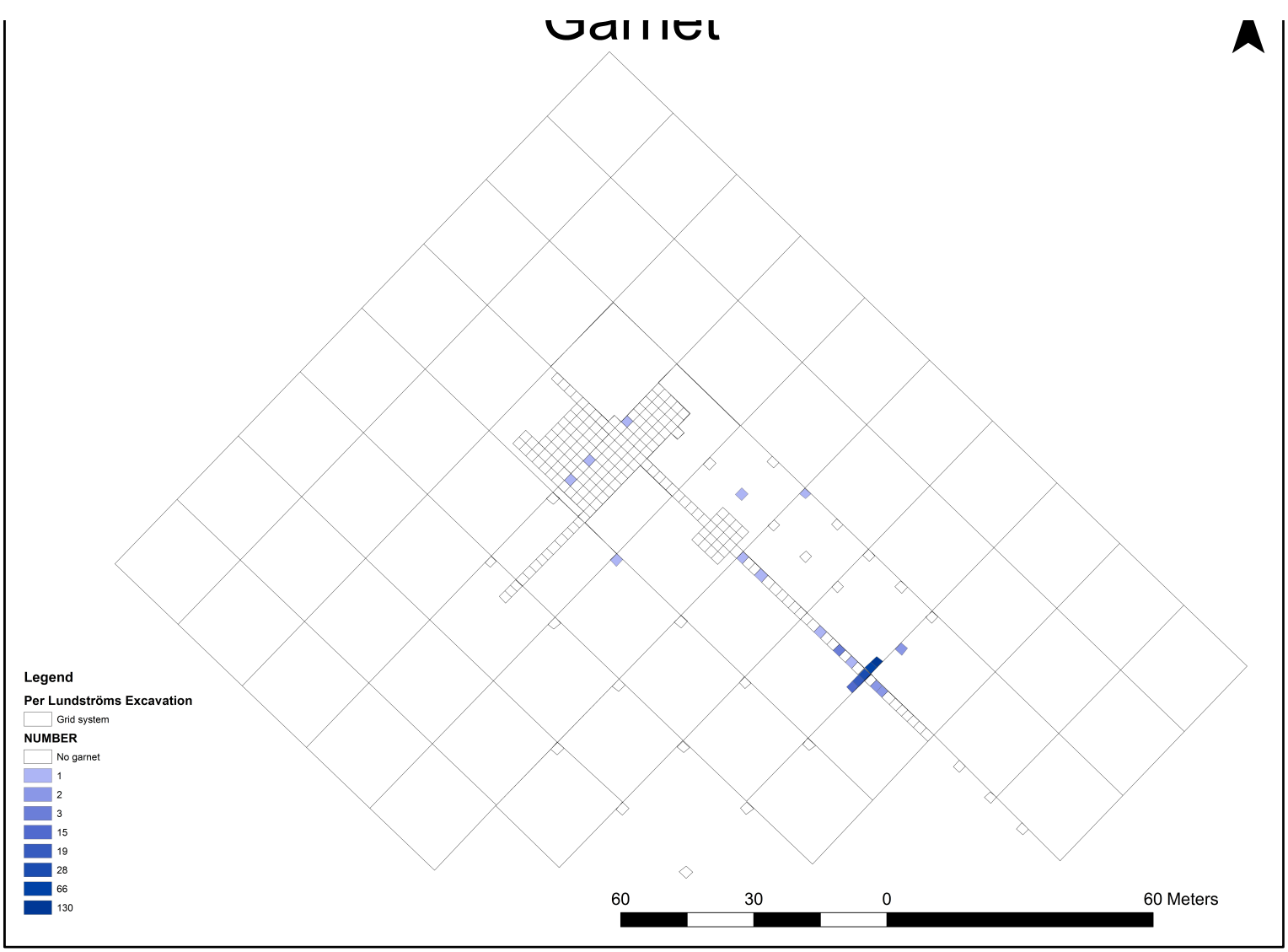

Figure 4. Spatial Distribution of worked garnet pieces at Paviken.

Discussion

As the eighth century Svea clan of modern-day Sweden attempted to claim the eastern Baltic and turn it into Swedish inland sea, Gotlanders assumed a decisive role in founding the first Norse trading colonies in the Baltic (Poertner 1975, pp. 173). Indeed, archaeological sites indicate that Gotlandic merchants were the forerunners of Norse colonization, even before the Swedes (later 9th century) (Poertner 1975, pp. 189). Gotland became an island rich with markets carrying foreign goods and was heavily influenced by the styles of continental Europe and the farther east (Jankuhn 1982, pp. 23).

Gotland looked eastward for trade, which likely explains why Baltic amber (probably from Lithuania and Poland) is commonly found in Viking age sites in the form of raw material and manufactured beads despite amber being naturally absent on the island itself (Carlsson Beads, 1; Graham-Campbell 2001, pp. 104). Soft and very workable, amber was used to make many things, such as beads and gaming pieces, and has been found in almost every Scandinavian Viking townsite and overseas Viking settlements (Haywood 2000, pp. 23). At Paviken, artifact 33528 in square 38:8, artifact 33749 in square 24:9, and possibly artifact 33036 in square 35:29 are considered "pawns" or gaming pieces. Beyond its ornamental value, amber was likely sought out by the Vikings for "attributed magical properties" (Graham-Campbell 2001, pp. 104). The large amount of worked amber fragments, plus amber pawns and amber beads, at Paviken could indicate that a shop specializing in jewelry or similar craft existed. Because we know that Gotlandic merchant-farmers were comparatively wealthy and the island operated as a massive trade center, the large amount of worked amber is not surprising. Amber was recovered in smaller quantities and in several unrelated squares.

Garnet is also non-native to Gotland and its presence at Paviken encourages the vision of strong trade routes through the island. It was often used in jewelry or inlaid in gold weaponry, such as sword handles. Garnet has a different spatial distribution at Paviken than amber does as garnet was found very heavily in just one area. This could indicate that a specialized shop existed in this area in which garnet was commonly worked.

Rock crystal, though only found at Paviken in the form of two beads, was highly valued by Scandinavians (Brink 2008). It appears not to have been common at Paviken, perhaps owing to the fact that it was a rarer and more valued commodity than amber or

garnet. Further excavation is needed to better understand the lack of rock crystal at Paviken.

In conclusion, the high presence of amber and garnet at Paviken support the fact that Gotland was an island of wealthy merchant-farmers as a result of their ideal placement for Baltic trade. It seems likely that Paviken operated well within Gotlandic and Baltic trade routes during the Viking age, offering not only a stopping ground for ships, but also local shops that manufactured precious gems. Furthermore, due to the above shown spatial distribution of amber and garnet, it also seems apparent that certain areas were dedicated to specialized crafts at this harbor site.

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