Korta meddelanden

The Dirham Background Radiation

By Martin Rundkvist

In radio astronomy there is something called the cosmic background radiation. It is faint, it is everywhere, and it is a remnant of the Big Bang. My investigations with the Swedish Metal Detector Association and three county museums in recent years have uncovered something I like to call the Dirham Background Radiation. Put briefly, it seems that if you send 25 detectorists onto the land of a farm in agricultural southern Sweden for three days and keep them from moving around too much, they always find a few dirham coins. It happens reliably regardless of previous archaeological indications on the site, and even if you find little else. This has potentially dramatic consequences for our idea of the size and geographical distribution of Scandinavia's dirham importation in the AD 800s and 900s. The relevant figures are presented in tab. 1.

The reason that we have made this discovery only now, 45 years after metal detectors became cheaply available, is apparently that no-one has organised metal detecting to this level of intensity before at a series of sites in Sweden. To continue our astronomical analogy, nobody has had a large and sensitive enough telescope until now. Sweden's legislation has prevented amateur initiatives, and there has not been an organised detector hobby for very long that archaeologists can collaborate with. You need to cover a lot of ground and you need to spend a lot of detectorist time on each hectare. 30 person hours per hectare is adequate.

Is the typical dirham in Swedish soil then scattered singly or sitting in a hoard? Let us look at Örebro County, where the County Museum organises fieldwork in Glanshammar parish. This county had 115,298 hectares of arable in 1866 (Swedish Board of Agriculture 2011). Glanshammar is known for its rich archaeology, though it has no known Viking Period hoards. If we assume conservatively that this parish's plough soil is twice as rich in dirhams as the

	Hectares	Pers-hrs / hect	Dirham coins	Other finds before AD 1100
Östergötland, Hagebyhöga, Aska 2020	5.4	35.7	2	40
Närke, Glanshammar, Hassle-Hagaby-Skogsberg				
2020-22	22.6	28.0	2	43
Närke, Glanshammar, Husby 2021	11.6	32.2	6	19
Närke, Glanshammar, Storsicke 2021	13.2	28.8	2	8
Bohuslän, Svarteborg, Köpestad 2022	5.4	32.8	1	2
Närke, Nora, Södra Husby 2023	14.8	27.0	2	1
Närke, Glanshammar, Gränsjö 2023	10.1	27.5	4	15
Sum	83.1		19	

Tab. 1. Even if you find little else you always find a few dirham coins.

province's average, then our results indicate that there are about 16,000 scattered single dirham coins in Örebro county's arable that would be available to focused metal detector investigations [115,298 hectares arable * (16 dirhams/57.5 investigated hectares in Glanshammar/2)]. The three surviving Viking Period coin hoards from Örebro County contain only 464 dirham coins (Malmer & Golabiewski-Lannby 1990; Audy & Burström 2020). This means that at least in this county, most of the deposited dirhams are almost certainly in the Background Radiation, not in hoards. With an eve to our results from sites in Nora parish and the provinces of Bohuslän and Östergötland, the same probably goes for much of agricultural Sweden. Claus Feveile is of the opinion that you have not metal-detected a Danish site long or intensively enough before you find a dirham (pers. comm. November 2023).

As noted for instance by Jacek Gruszczyński (2019, p. 274f) and Jens Christian Moesgaard (2023), singly found Viking Period coins are almost universally interpreted as indications of where transactions took place. In Gruszczyński's study areas, the distributions of stray coins and hoards largely coincide. But the material presented here suggests that there is a poorly understood bias favouring discovery or reporting of single coins in areas that also have hoards. In 2023 my team and I went to Nora in Bergslagen, far from any sign of Viking Period settlement or hoards, and we picked up the Dirham Background Radiation there too. Scholarship probably does not really know where Swedish dirhams are. Perhaps they are everywhere, but thinly spread.

Moesgaard (2020, p. 25) writes, and I translate: "The data foundation is thus solid enough today for us to conclude that an absence of Medieval coins from a rural parish [in SW Zealand] does not actually prove an absence of coins in that parish. Instead it is in overwhelming probability just the result of insufficient metal detecting in recent years." Food for thought in a country with no such solid data foundation. References

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Coin list

Classifications independently by Florent Audy, Tobias Bondesson and Yngve Karlsson. Non-dirham coins omitted.

- Bohuslän, Svarteborg parish, Köpestad 2022. 1 quarter Abbasid: Balkh, 180 H, AD 796/7.
- Närke, Glanshammar parish, Gränsjö 2023. 1 third Abbasid: al-Mamun, 198–218 H; probably type Eshragh #1138, Samarqand, 198 H, AD 813/4. 1 quarter Samanid: one of the caliphs Ahmad, AD 892–942. 1 Abbasid fragment: al-Wathiq billah, 227–232 H / AD 842–847. 1 dirham fragment: Madinat al-Salam, c. AD 820–946.
- Närke, Glanshammar parish, Hassle 2020. 1 quarter Abbasid: Samarqand c. AD 835. 1 looped incomplete Samanid: probably Ismail b. Ahmad AD 892–908.
- Närke, Glanshammar parish, Husby 2021. 1 complete Abbasid: Harun al-Rashid / al-Mamun, Balkh, 188 H, AD 803/4. 1 half Samanid: Ahmad ibn Ismail or Nasr ibn Ahmad, Samarqand, 30x H?, AD 912–922? 4 one-eighth dirhams: probably three Abbasids and one Samanid.

- Närke, Glanshammar parish, Storsicke 2021. 1 complete Abbasid: al-Amin, al-Muhammadiyya, 193 H, AD 808/9. 1 third multiple dirham: 38X H, AD 9905.
- Närke, Nora parish, Södra Husby 2023. 1 complete Samanid: caliph al-Muqtadir billah, prince Nasr ibn Ahmad, Samarqand, 308 H, AD 920/1. 1 half single-sided Samanid: probably of similar date and origin as the aforementioned.
- Östergötland, Hagebyhöga parish, Aska 2020. 1 incomplete single-sided Abbasid: probably AD 9th century. 1 quarter Samanid: Ismail ibn Ahmad, 2-- H.

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