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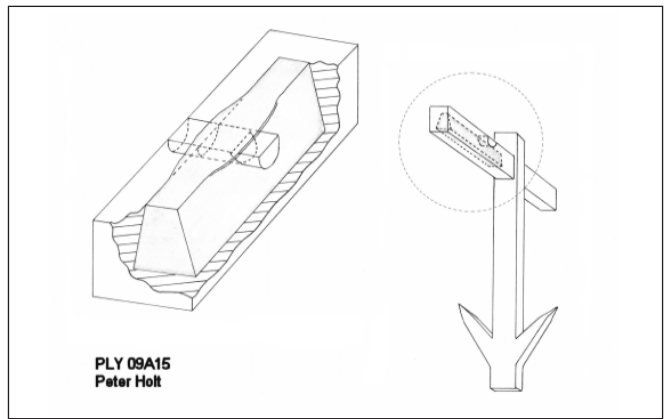


Fig. 1-5. The Fort Bovisand Anchor Stock Core (drawings by Peter Holt); © The SHIPS Project – used with permission http://www.ships-project.org/Finds/Fd_09A15AnchorStock.html (09.07.2022).

which correlates for the most part with Kapitän's typology published in the same year, wherein the type is similarly defined as a Type 2a wooden anchor with a lead-filled stock.⁵

The core has not undergone any invasive scientific analysis. It was initially considered to extract a sample and submit it for lead isotope provenancing.⁶ Due to the possible overlap of lead isotope ratios however, provenance analyses to distinguish between British and Mediterranean lead, despite being geographically remote, may not bring an unequivocal result.⁷ The museum therefore decided against destructive sampling. The aim of this article is thus to bring the Anchor Stock Core from Fort Bovisand into the academic record, while trying to address the question of the (un)likelihood of it being made of lead from British mines, without isotope analysis.

Although lead, in the Mediterranean, is a common by-product of silver mining at least since exploitation began at Lavrion⁸ – in the British Isles it is less so. The probable beginnings of large-scale lead-exploitation can be dated to the Claudian conquest. Several ingots have been recovered from the Mendips; one dated 49 CE,⁹ while further ingots have been dated to the reign of Vespasian.¹⁰

Earlier sources for lead mining in the British Isles pre-dating the Roman Conquest are scarce. The earliest lead artefact in Britain, found near the Scottish border, is a lead-bead necklace which has been dated to the Early Bronze Age.¹¹ A study into lead isotope concentrations within tooth enamel concluded that concentrations within the teeth of Britons were never above (median) 0.1 mg kg⁻¹ during the entire prehistoric period, with the highest (i.e. 0.1 mg kg⁻¹) coming notably from individuals from the Neolithic. In contrast, from the 1st to 4th Centuries CE, concentrations increased significantly to median figures of 1.21 mg kg⁻¹, suggesting that large-scale lead mining was being performed in Britain only from the start of Roman conquest, and that the “appearance of increased lead concentrations only during the Romano-British period supports the observation that people “had little use for (lead) until the plumbing revolution of Greco-Roman times”.”¹² In contrast, lead anchor stock cores were in use centuries earlier.¹³

There have been further discoveries of lead anchor stock cores in recent years,¹⁴ perhaps most notably during the two diving seasons of the Moroccan Maritime Survey (MMS) at Cap Spartel near Tangier, in 1999 and 2002.¹⁵ In the first survey season, one Type IIa/2a core was found with the wood from the stock still attached.¹⁶ While it was left

in situ on the seabed, a sample of the wood was taken and subsequently C¹⁴-dated to a range between 785-400 BCE. This range falls within the lifespan of Type IIa cores as described by Haldane.¹⁷ In addition, lead isotope provenance analysis was performed on samples from six anchor pieces recovered from both survey seasons, and the conclusion was reached that while Italy is an unlikely source, the ratios indicate that they could be compatible with mines from Southern Spain.¹⁸

In conclusion: the Anchor Stock Core from Fort Bovisand is probably not made of British lead, because lead mining on a scale which would allow for the manufacturing of an anchor part this size only began a few hundred years later. Compared to other recently discovered anchor stock cores, given their proximity to Cadiz and other Punic settlements in southern Iberia, it may have come from a Phoenician ship. Weighing one Attic talent, the Fort Bovisand Anchor Stock Core could be Greek. In the absence of firm scientific data however, it could have come from anywhere and its origin must remain an open question.

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- ⁵ KAPITÄN 1984, 36-37.
⁶ Cf. VILLA 2009; STOS-GALE/GALE 2009.
⁷ BRILL/WAMPLER 1967.
⁸ GALE 1980, 177-178.
⁹ But see WHITTICK 1982, 113-115, who considers it to be a commemorative plaque.
¹⁰ TYLECOTE 1986, 61; MONTGOMERY *et alii* 2010, 202.
¹¹ MONTGOMERY *et alii* 2010, 202.
¹² MONTGOMERY *et alii* 2010, 210; and TYLECOTE 1987, 41, cited in MONTGOMERY *et alii* 2010, 219.
¹³ Cf. chronology of wooden anchors in HALDANE 1984, 13, Fig. 5.
¹⁴ See e.g. ROSLOFF 2007; Van DUIVENVOORDE 2012.
¹⁵ TRAKADAS/CLAESSON 2001; TRAKADAS 2002; ERBATI/TRAKADAS 2008; TRAKADAS/ERBATI 2009.
¹⁶ TRAKADAS 2002, 19; ERBATI/TRAKADAS 2008, 45.
¹⁷ *Supra*, nr. 4.
¹⁸ ERBATI/TRAKADAS 2008, 46-48.

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