Caldarium? An antimony bronze used for medieval and post-medieval cast domestic vessels

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ABSTRACT: The archaeological evidence for medieval and post-medieval casting of large domestic vessels in England is reviewed. This consists of archaeological features, waste products and the finished artefacts. The distinctive nature of the alloy used (an antimony-rich leaded copper alloy) is discussed. It is argued that this alloy was a waste product from the extraction of silver from fahlerz ores.

Introduction

This paper describes the archaeological evidence for medieval and post-medieval manufacture of copper alloy domestic vessels, primarily three-legged cauldrons. Hemispherical cauldrons made from riveted wrought copper alloy sheets had been made from the Bronze Age until the late Anglo-Saxon period. In the medieval period these were replaced by cast vessels, usually with three feet and two lug handles near the rim (Fig 1, and see Butler and Green 2003; Cherry 1987; Drescher 1968 and 1982–3; Goodall 1981; Lewis 1978 for further details). Posnets and skillets are both smaller versions of cauldrons (they still have three feet) but with a single strip handle. Posnets usually have the same profile shape as cauldrons while skillets have flatter bases and straighter, more vertical sides.

The earliest illustrations of three-legged cauldrons date to the 12th century (eg London Museum 1940, fig 68) and the earliest use of the word cauldron is in 1300 (Oxford English Dictionary). Posnets appear in 13th century illustrated manuscripts (eg Butler and Green 2003, 174–5) and the earliest use of the word is in 1327 (Oxford English Dictionary). Skillets are perhaps a later version of a posnet: the earliest use of the word is in 1403, and three-legged skillets were produced (in cast iron) into the 20th century (Butler and Green 2003, 17). Three-legged cooking vessels in general appear to go out of fashion in the modern era as cooking 'technology' changed.

Documentary evidence shows that large cast domestic vessels, such as cauldrons, posnets and skillets, were common in most English households during the medieval and early post-medieval periods (eg Field 1965). It is likely that in the period in question (12th to 18th centuries) several million vessels were produced.

Manufacturing evidence

The archaeological evidence for the manufacture of large copper alloy domestic vessels consists of workshop features (such as furnaces and casting pits), moulds and casting waste. Importantly, the archaeological evidence for the casting of church bells is almost identical and until recently archaeological evidence for the casting of large copper alloy artefacts was usually labelled 'bell-casting'. As discussed below, the chemical analysis of casting waste can provide the clearest