MEMBERS DATASHEET

Hammers and Mallets
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Throughout the Early Medieval there are a number of different hammers and mallets in use by the various trades. Even by the mid 20th century over 250 examples were known from Viking Norway alone. While there is a lot of crossover between period hammers and modern hammers stylistically, there are also many differences.

This datasheet aims to explain how modern and period hammers differ, what to look for to ensure that your hammer is acceptable in the LHE and finally a brief catalogue of example period hammers and mallets.

Modern vs Period

The primary difference between modern (within the last 100 years or so) and ancient hammers is the technique of manufacture. Period hammer heads were handmade in a forge by a blacksmith, modern ones are mass produced by machinery and often cut from a sheet before being hardened. Immediately this precision makes a modern head look very different to period hammer. The addition of maker’s marks, a narrow neck, and various other alterations distinguishes a modern hammer head from the plainer period heads.

Wooden mallets are much the same. Obviously all materials other than wood are not suitable for a period mallet, but even a modern wooden mallet is often unsuitable as they are mostly machine made and look it. The squared head and corners of a modern mallet are totally at odds with the found examples of period mallets.

Even though some of the styles can be broadly similar, it can be safely assumed that virtually all shop bought modern hammers and mallets will be unsuitable for use in the LHE.

Hafting a hammer

Correct hafting of a hammer is just as important both from an authenticity and safety perspective. Details of how to haft can be found elsewhere; here we will cover what is necessary to make the handle acceptable for the LHE.

Probably the best period wood to use for hammer (and axe) handles is ash. Oak is also acceptable but ash would be better. As a modern imported wood, hickory should be avoided.

Once fitted snugly to the head, the end of the shaft can be wedged with either hardwood wedges (again ash or oak for preference) or with iron/steel wedges (such as with the Tattershall Thorpe

1 (Petersen, 1951)
hammers). All wedges should be basic wedge shapes, not the modern style with additional spurs and flanges.

**Acceptable styles of head**

There are a number of styles of hammer that are suitable for use in the LHE ranging from heavy blacksmithing hammers down to light pin hammers for jewelry making and light riveting. As well the broad categories listed below, there are also occasional finds of hammers that may have been purposefully made for a specific task but would not necessarily commonplace items.

The position of the handle socket can also be variable, especially for hand hammers. As well as the “standard” central position e.g. fig 2 A, it can also be at the end so that the head and handle form an “L” rather than a “T” e.g. fig 1. This style of socket can also be formed simply by bending the bar around a former and not welding it closed.

Fig 1 (left) Simple hammer head formed by bent iron bar (Image: Petersen 1951). Based on ethnographic evidence, most likely to be a riveting hammer.

**Hammerhead forms**

Fig 2 (left). Hand hammer heads from Thetford (A), York (C) and Ballinaby (D). Sledgehammer head from Mästermyr (B). Not to scale.


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2 (Hinton, 2000, p. 20)

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Hammers that can be easily used in one hand are the most common of all hammer styles. Two handed hammers are less common, but still chronologically and geographically widespread. The examples in Fig 2 cover both Britain (A, C & D) and Scandinavia (B) and date from 9th – 11th C.

Generally the shape of these hammers is rectangular with a wedge shaped nose (Fig 2 A, B & C) though sometimes the shape varies (Fig 2 D). As well as the variation in shape, the handle position can also be different and in some examples it is at the rear of the head rather than in the centre (e.g. Bygland).

After studying many examples, it was found that the vast majority of hand hammer heads fell into a particular weight range; 400-750gr. This group includes the above examples from York3 and Thetford4. Sledgehammers are heavier and those from Mästermyr weigh between approximately 1600gr and 3400gr5.

Further examples of these styles of hammer can be found throughout Northern Europe, with particular fine assemblages from Saebo, Norway6 and Bygland, Norway7.

“Pin” hammers

After the sledgehammers described above, the next most common style of Early Medieval hammer head is the so-called “pin hammer”. While some of these are superficially similar to a modern pin hammer, many are more like smaller variants of the hand hammer or are more similar to a small solid cross peen hammer.

Fig 3 (right). “Pin” hammers from Tattershall Thorpe (A), York (B), Mästermyr (C) and Helgö (D). Not to scale.


These hammers generally are both smaller and lighter than hand hammers. They are often found in association with other evidence suggesting that the owner was a metalsmith of some

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3 (Ottoway, 1992)
4 (Rogerson, et al., 1984)
5 (Arwidsson & Berg, 1982)
6 (Lorange & Delgobe, 1889)
7 (Blindheim, 1962)
description (most likely a jeweler), but not a blacksmith (e.g. Hinton 2000). Another possibility is that some of these smaller hammers were used by comb makers as riveting hammers.

Some examples of “pin” hammers are very delicate, with an example from Tattershall Thorpe weighing only 33gr\(^8\).

As with hand hammers, they are found across Britain (Fig 3 A & B) and Scandinavia (Fig 3 C & D) and are present from the 7\(^{th}\) C through to the 11\(^{th}\) C\(^9\).

**Claw Hammers**

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Fig 4 (left). Claw hammer from Goltho, Lincs (Image: Ottoway 1995)
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This claw hammer is one of two Saxon examples from Goltho, both of which date from the 11\(^{th}\) C\(^10\). These are quite rare finds and most probably would not be an item that would be a standard feature of every carpenter’s toolbox. Another example from the late 11\(^{th}\)/early 12\(^{th}\) C is known from Winchester\(^11\).

**Mallets**

The poor preservation of wood on most sites means that complete examples of wooden mallets are rare. However they are not totally unknown and a few examples do exist. As today, mallets in the past could be either be turned from a single piece of timber (fig 5) or they could be a composite tool comprising a separate head and handle such as the example from York (fig 6). Based on both the archaeological finds and modern examples, single piece mallets can be made from willow, oak or beech (depending on their use) and for composite mallets willow, oak or beech for the head with an ash or hazel handle.

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Fig 5. Possible mallet from Waterford. 11\(^{th}\) C, turned from willow (Image: Hurley & McCutcheon 1997)
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\(^8\) (Hinton, 2000) 
\(^9\) (Hinton, 2000), (Ottoway, 1992) & (Fischer & Victor, 2011) 
\(^10\) (Goodall, 1987) 
\(^11\) (Goodall, 1990) p278 fig 60 no. 400, p277 no.400
Fig 6 (right) Wooden mallet from York. (Image: Morris 2000)

The head is willow and the handle is hazel\(^\text{12}\).

\[\text{Bibliography}\]


\[\text{12} \text{(Morris, 2000)}\]

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