

# The Vikings

Saxon, Norman, Celtic & Viking Re-Enactment



## VIKING, SAXON AND NORMAN SHIELDS

COMPILED by ROGER BARRY

FOR THE VIKINGS

Ex Libris:



## **VIKING, SAXON AND NORMAN SHIELDS**

There are four types of shields that are covered by the title of this document, flat round shields, lenticular round shields, flat kite shields and curved kite shields. We can quickly deal with the latter as there is no evidence of curved kite shields at the Battle of Hastings or during the early years of the Conquest, as this is normally the only part of the Norman period that the Vikings NFPS re-enacts details of this type of shield can be left to those who specialise in that field. (Conquest)

Of the round shields there is no evidence that the Vikings ever used lenticular shields, all theirs were flat. The lenticular shield was in use during the late centuries of the Saxon period and it can be surmised that it would be more expensive to produce than a flat shield. The only Saxon warriors on the Bayeux tapestry that have lenticular shields are also equipped with chain mail, interestingly enough the un-armoured Fyrd are depicted with small flat kite shields.

### **Viking Flat Round Shields**

These shields were also used by the early Normans and Norman infantry up to and beyond the Conquest.

They were made of wooden planks (often lime wood) which were glued together, were between 30' and 40" in diameter and often only a fifth of an inch thick. Some were entirely covered in leather and all had a protective rim usually of leather, such as the Gokstad shields, some had rims of iron and at least one, found in Birka, Sweden, was bound with small bronze plates.

All shields had a prominent cone shaped or hemispherical iron boss which protected the fist when holding the grip. The grip itself was part of a brace that ran the width of the shield across the grain of the wood. This brace could be of wood but was more usually of iron and sometimes forked into three at either end giving the appearance of a leafless tree.

Some shields had curved iron braces on the front and possibly the back also. Most, if not all, had a strap which the warrior could use to hang his shield up or secure to his back. This strap may have been long enough to enable the warrior to fight and be able to retain the shield if he had to dropped it. The strap may have been fitted to either end of the brace, in some cases it could be fitted to one end of the brace and the centre grip.

Shields were painted, the commonest to least common colours were red, yellow, black, white, green and blue. Normally one or two colours would be used in a simple pattern such a quarters, occasionally a mythical beast was displayed. The shields found in the Gokstad ship burial were alternately painted yellow and black.

## **Saxon Flat Round Shields**

These follow very much the same design as the Vikings with only a few variations.

Shields varied from 12' to 40' in diameter- early ones were very light, being not more than half an inch thick. As with the Viking shields they may have been covered in leather and had a rim of leather or iron. At a grave at Petersfinger in Wiltshire a shield has been found made of thin sheets of wood fixed together like plywood, the grains crossing each other at right angles.

The grips on Saxon shields could vary from 110mm to 400mm but the longer ones belong to the seventh century at the latest, about 200mm would seem to be more common for our period. Grips were made of thin iron which curved in towards the boss around a wooden core and wrapped in leather. They were secured at either end by a single rivet.

All rivets have their heads on the front of the shield and are hammered over a washer on the back.

There is little physical evidence for straps on Saxon shields, however there is documentary evidence in poems and illustrations. The only physical evidence suggests that a strap was secured around the handle and may have had a small buckle fitted.

## **Saxon Lenticular Round Shields**

In later centuries Saxon shields became heavier and lenticular, other wise they differed little to other round shields.

## **Norman Shields**

Many shields were made from several planks of wood glued side by side, but some kite shaped shields may have been formed from a single piece of wood. The Brienze shield (late 12c and the oldest still in existence) is 15mm thick and covered in parchment on both sides. Most were made of lime wood or poplar. They are depicted on the Bayeux Tapestry as being as wide at the top as the warriors shoulders, they then curve round in a circle and come to a point at the warriors knee.

All the kite shields on the Tapestry appear to be flat, this is born out by the fact that the Normans are depicted as eating from them after their landfall and that the makers of the Tapestry had no problem depicting the lenticular round shields of some of the Saxon Huscarls. It is also interesting to note that the only Fyrd depicted with shields have small kite shaped ones.

All the kite shields held by Normans are depicted as having some sort of rim but it is not clear from what they are made. Leather, when used, would be tacked at the edges on the rim or at the rear.

Most of the Norman shields are depicted (Fig. 9) with the warriors moving left to right, consequently there is a better view of the back than the front. The most common

design for the strapping, with sixty-four examples, is a single strap across the top section of the shield. It seems to be fixed at the rim and both ends are high enough up to be in the upper half of what would be a circular shield. It cannot be said with any certainty whether or not this is a leather strap or a bar, but as without exception it is depicted as a wavy line, it would seem more likely that it is a leather strap. The warriors are always depicted as holding it with their hand in the centre of the strap and their forearm running down the shield, with one exception no forearm straps are indicated. The only exception is an un-mailed warrior on foot, he has two forearm straps set at a slight angle.

There are four shields with a square arrangement of straps for holding and a long strap that could go over the shoulder. One of these belongs to Harold. Only one is shown being held and in this case the warrior's hand grips the uppermost horizontal strap and his forearm passes under the lower horizontal strap.

Two shields have an x of straps in the upper circular part of the shield, in both cases the warrior is depicted as holding the centre where the straps cross with their forearms coming up the shield. One has two straps offset to his right on the back of the shield through which his forearm passes.

One shield has a single short hand strap over halfway down the shield, the warrior's arm comes down the shield and grips the strap, no forearm strap is depicted.

There are a variety of different designs of shield fronts depicted on the Tapestry, sixteen of the fronts are plain apart from a variety of dots which may indicate rivets, on a number of occasions they do seem to reflect the strap arrangements depicted on the back but many do not. There are six mythical beasts, twelve wavy x's (excluding those carried by Huscarls), two crosses, one with alternately coloured triangles down the right side, one bird, one plain, and one (carried by the Duke) with a small trefoil terminated cross around the central boss. Nearly all the Norman shields are shown with bosses though they were by this time only for decorative purposes.

Bosses and all leather straps and handles would be riveted through the wood with the heads on the outer face,

## **Modern Construction**

Making a shield as an exact replica of the original is a good idea if it is to be used in a passive display but not so good for re-enactment. Documentary evidence from England and Scandinavia suggests that a shield only has one good fight in it, or less! In a Holmgangr a warrior was allowed three shields!

Modern marine plywood is probably the best material for making a shield for battle re-enactment, we have certainly had little problem with it for the last 25 years. The thickness really depends on how heavy a shield you think you can handle, however a large shield of half inch ply is rather heavy for most people. Three eighths of an inch is thick enough for most people.

### **The Disk**

To cut a shield disk you will require a band saw or jig saw, the latter is more likely on most peoples budget. Take your plywood and stick a pin or nail in the centre, tie a piece of string to this and measure out the radius of the shield. Tie a pencil to the other end and pull the string taught, then draw a circle. (Fig. 1) Repeat this again with a smaller circle in the centre that is big enough to fit your clenched fist into, make sure that it is smaller than your boss. (Fig. 2)

Next you need to simulate planking. Decide which side will be the front and which the back, on the back side you can then score four or five lines to give the impression of planks. This can be done with a screw driver kept straight with a ruler, make sure that you score the lines in the same direction as the grain of the wood.(Fig. 3) If you are fortunate enough to have a piece of plywood with the grain running in the same direction on the front as the back, you can repeat the procedure on the front. The fact that you are probably going to paint the front would conceal the fact that you have no scoring there. Of course you may prefer to do it the other way and if you are going to cover the front in leather then only score the back.

Now drill a hole inside the inner circle and cut that out with the jig saw. (Fig. 4) Then use the jig saw to cut around the outer circle. You now have your shield disk. (Fig. 5)

### **Covering the Shield**

If you are going to cover the shield in leather then do that next. Mark out your leather shield disk in the same way as above but make the radius two inches bigger. You can cut this out with a good pair of shears rather than the jigsaw. Cut out small triangles all around the circumference, they should be no more than one and a half inches deep and an inch wide at the top. Space them about an inch apart. Next glue the leather to the outer face of the shield, Evostick contact glue is best. When the glue is dry soak the outer rim of the leather, it will then be easier to bend over the rim of the wood. Nail the leather to the back of the shield using broad head tacks, these have irregular shaped heads so that they look very much as if they were hand made. Place the shield some where warm to dry afterwards you will drill through the leather to fit the rest of the shield together.

## **Fitting Boss and Grip**

Next fit the boss and grip, these are fitted at the same time as the rivets securing the boss also secure the grip, particularly if using a metal grip. Drill four or six holes around flange of the boss and then use it as a guide to drill through the shield. Two of the holes on the boss must match the grip so use it as a guide to drill them, the grip should be fitted at right angles to the planking so line the whole thing up before you make any holes in the wood. (Fig. 6)

The boss and grip should then be riveted to the shield. Coach bolts make good rivets but don't forget to file off the lettering on their heads, also just below the head they are square sectioned and this will need rounding off with a file before passing it through the boss. Six-inch nails also make good rivets and require less work. The rivets should be annealed, that is softened, and you can do this by heating them to a red heat and then allowed to cool slowly. The head of the rivet should be on the front of the shield and you will need a washer for the back of the shield. Pass the rivet through all the items to be fitted together and mark a point a quarter of an inch above the washer, cut the rivet short at this point.

A ball hammer and a hard solid surface are now required, an anvil is ideal but not essential. Using the round end of your ball hammer hit the end of the rivet, keep hitting it until it expands to such an extent that it is wider than its original diameter and is firm against the washer (Fig. 7) Many rivets discovered by archaeologists have been bent over the washer in the manner of a bent nail. This is fine for an exact replica of a one fight shield, but if you use this method for re-enactment shield it will develop a death rattle<sup>1</sup> as the boss and grip become loose.

## **The Rim**

If you have not covered your shield in leather it is time to fit the rim. Metal rims add to the weight of the shield and make the occasional injuries caused by shields worse. You can cause wicked injury to a warrior with a leather rimmed shield, the injuries caused by a metal rimmed shield are worse as we have found out the hard way If you do fit a metal rim then it should be secured by rivets in the same manner as the boss.

The rim is best protected with leather or rawhide, rawhide is easily, but not cheaply, obtained by buying large doggy chews from the pet shop. Doggy chews need to be soaked in water for at least an hour to make them pliable, leather should also be soaked for the same reason. Using the same type of tacks as for fitting a leather front, tack the rawhide or leather to the shield with tacks in the front and back of the shield. When complete put the shield in a warm place to dry. (Fig. 8)

## **Strap**

The shield is now ready for battle but still may need a carrying strap. When this should be fitted depends on which method of securing it to the shield you have chosen and should be riveted.

## **Norman Shields**

The methods described above will work very well for Norman kite shield with the following exception, its shape! To mark out a kite shield start with a circle as above, this should have a diameter equal to your shoulder width. Then draw a line through the centre equal to the length from your shoulder to just below your knee. Next draw a line from either side of the circle centre grip behind the boss.

## **Lenticular Shields**

There are two methods of producing lenticular shields which are suitable for re-enactment and neither of them are easy. Each method requires specialist tools to a certain extent and both demand the use of a former which has to be constructed before any of the processes can begin.

## **The Former**

The former can be constructed from soft wood, 4" x 2" is best. Cut one 32" and then two 29", two 23", two 20", two 17", two 14", and two 11". These need to be glued together by their 4" surfaces to form a rough edged circle. Sash clamps should be used to hold them together while the glue dries, but if they are not available use 3" screws. Do not use screws on the two 11" lengths as you will be cutting into them. Once the rough circle has been formed leave it three or four days to dry. Find the centre of the disk and draw a 30" circle using a pencil, drawing pin, and a length of string. Cut the waste wood away using a jigsaw. Now the disk is ready for shaping. Put a margin all the way round the disk 1" up the edge. Use a woodwork plane to remove the waste wood starting from the centre and work outwards removing more wood as you near the outside edge. The disk should remain 4" tall in the centre and gradually curve down to the P margin on the outside edge. Finish the surface with rasps and files until it is smooth. Finally glass paper it to remove any scratches.

Making a former may be a long and arduous process but it needs to withstand the pressures of clamping your shield to it.

## **The Planked Method**

First you need to purchase some planking six inches wide which is 4mm to 6mm thick. English hard wood is best. Cut enough strips of card to six inches wide to cover the surface of the former. These can be held on the former with drawing pins. These need to be trimmed so that the joins are parallel. Make sure that there are no bulges or kinks in the surface. Use the card template to mark out the individual planks. You will need two sets of planks for each shield. Shape each piece using a plane making sure that the edges are at right angles to the surfaces. Place two layers of newspaper on the former so that any glue spillage does not glue your shield to the former. The planks should run from left to right on the bottom layer and from top to bottom on the top layer with glue on the joining edges and surfaces. Clamp the planks around the edge of the former with 0 clamps tapping them into position to take up any slack. Use resin bond glue rather than PVA which may separate when rained on. When the shield is



dry release it from the former and cut it to shape. Finish the edges and surface and add your fittings.

### **The Sheet Plywood Method**

Cut three circles of 3mm plywood to the size of your former. Draw a margin about 4 inches from the edge on all three pieces. Using the centre point of the circles as a guide draw 32 radial lines between the margins and the edges of the disks. Cut along these with a tenon saw. This removes sufficient material to allow the surface to be curved. Put glue on the joining surfaces remembering to turn the middle one at right angles to the others. Stagger the cuts so that none of them are over each other. Use resin bond glue rather than PVA which may separate when rained on. Leave it to dry for at least 72 hours before you do any more work on it. When the shield is dry release it from the former and cut add your fittings.

Anglo-Saxon England; Lloyd & Jennifer Laing  
The Vikings; Ian Heath  
Norman Knight 950-1204; Christopher Gravett  
The Vikings; The British Museum  
Viking Hersir; Mark Harrison  
Exploring Saxon and Norman England; P 1 Helm  
The Bayeux Tapestry

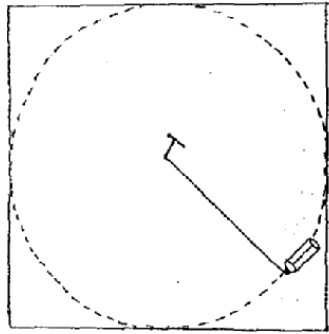


Fig 1

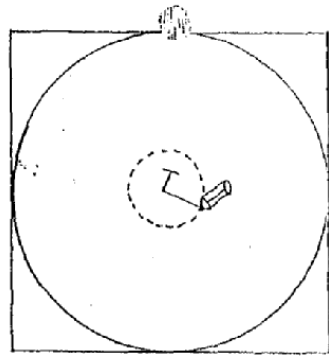


Fig 2

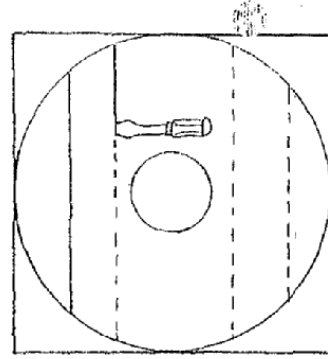


Fig 3

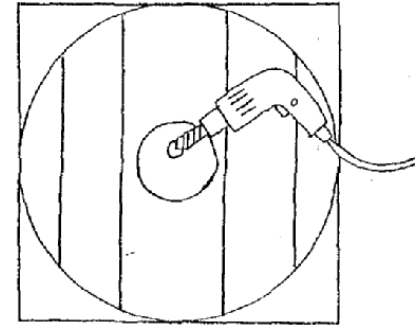


Fig 4

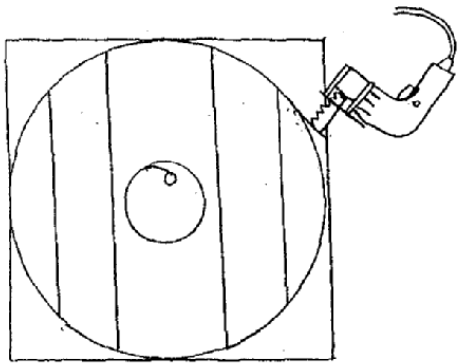


Fig 5

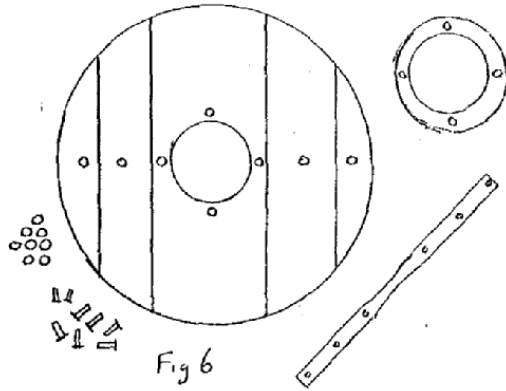


Fig 6

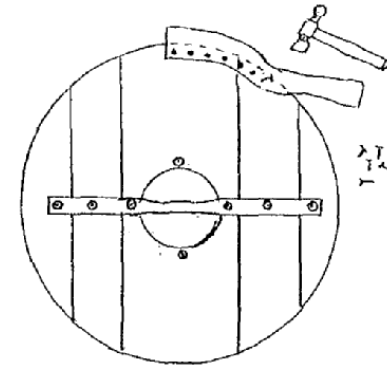


Fig 8

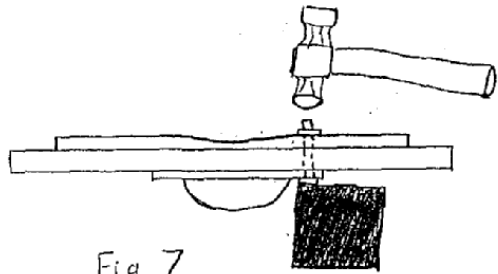
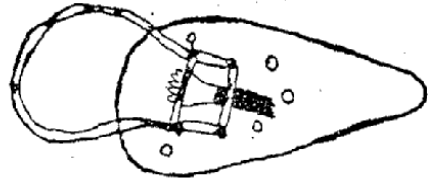
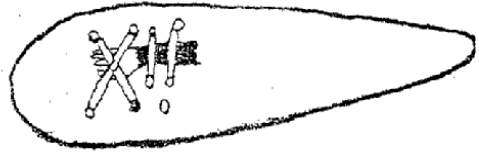
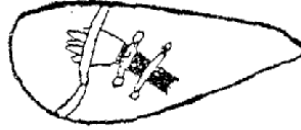
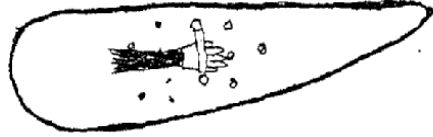
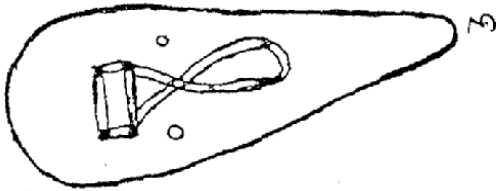
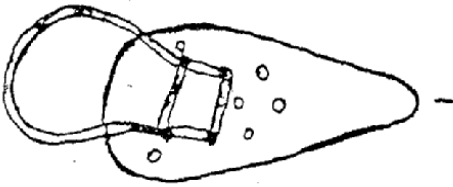


Fig 7



F. 9