

# HYDE ABBEY - REDISCOVERING THE LOST MINSTER OF ALFRED THE GREAT

## How was Hyde Abbey Built?

### Sources of stone to build Hyde Abbey

Winchester does not have a good local building stone. It lies on the Chalk is a soft friable limestone not generally suited to large scale building.

When the Old and New minsters were built in Saxon times the major source of building stone was oolitic limestone from the area of Bath.

After the Norman conquest, a new and abundant source of easily transported stone had to be found to supply the large quantities of stone needed for the new Cathedral. Transport would preferably be by boat as this was much less costly.

A good building stone was found on the north coast of the Isle of Wight in the area of Binstead between Fishbourne and Ryde. This stone was used to build a part of Winchester cathedral, Chichester cathedral and probably some of Hyde Abbey in the 11th C.

In the middle of the 12th century, Caen stone, from Normandy in France was imported and was used in many cathedrals and abbeys, including Winchester Cathedral. This stone was used in later remodelling of Hyde Abbey.



Locations of major medieval stone suppliers

### Quarr stone quarries

#### Isle of Wight

There seems to have been 2 main types of stone from Binstead. Featherbed stone (Quarr stone proper) is a pale grey or buff freshwater limestone composed of abraded shell fragments. Binstead stone is a limestone of lesser quality. Quarr stone was probably worked out by the mid 12th C.

There is no documentary evidence as to how the stone was transported from the quarries to the waiting ships. But it seems likely that the blocks were taken straight to the shoreline or to Wootton Creek. There is some archaeological evidence for wooden structures dated as Saxon on the foreshore where jetties may have been built.



Visualization of how a quarry might have looked



Location of quarries in the Isle of Wight

### Quarry methods: getting the stone out

There are few medieval illustrations of stone extraction. We do know that since ancient times the extraction of blocks of stone has been carried out using the natural lines of weakness (fractures) in beds of rock.

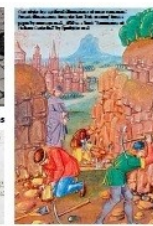
Heavy mallets, levers, crowbars and lines of wedges were used to split the rock vertically and horizontally. Large blocks were then reduced by further splitting to a size convenient for transport. The master mason may have sent templates to the quarry, so that the blocks were finished before transport. This had the advantage of less bulk to transport.



Rock showing a pattern of natural fractures



Medieval ink drawing of Men lowering stone



Medieval illustration of men quarrying



Men using sledgeshammers to bang in wedges to split stone

### Getting the stone to Winchester: Transport by water

The first stage of the journey to Winchester would have been by ship across the Solent. The stone would have been loaded on the ship by a wooden crane. Lifting devices such as the windlass crane shown in the image could have been used although it is not certain if they existed in the early 12th C. Medieval examples of windlasses survive at Tewkesbury Abbey and Salisbury Cathedral, and one dating from the 13th C at Peterborough Cathedral. In the early 12th C a typical ship design used to transport cargo was the Knarr. These ships were modelled on Viking cargo ships. Wrecks of such vessels have been found in Denmark.

Similar ships were also used for the Normans invasion of 1066, and are depicted on the Bayeux Tapestry. The largest Danish ship was a about 16.3m long (53 ft) and 4.6m broad (15 ft) with a draft of 1.27m (50 in). It could carry a cargo of 13.6 tonnes (15 tons) filling over 30 cubic meters (more than 40 cubic yards). Compared with a Viking long ship the Knarr had very high sides, and a bow and stern that were very full and rounded, increasing its cargo capacity. The shallow draft of the Knarr whilst being a disadvantage for ocean voyaging was advantageous for navigating shallow coastal areas and rivers.



A medieval ship being loaded at a jetty

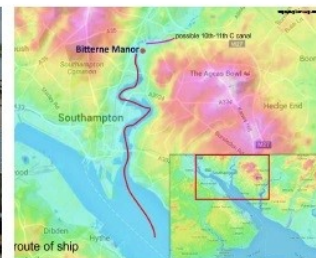
### Passage up the river Itchen

As the ship entered the mouth of the river Itchen, the crew would have seen the walled city of Southampton on the left. It is not known how far stone could be transported up the Itchen beyond Bitterne in 1100. There is archaeological evidence that a canal was built from Bitterne to Stoneham in the 10th-11th C, but there is no archaeological evidence for a canal above this point. Some believe that Stone was brought all the way up the river Itchen to Winchester by barge when the Cathedral was built in the 11th C, but there is no clear out evidence.

At the end of the 12th C Godfrey de Lucy, Bishop of Winchester, had the authority and the intention to make the river fully navigable, from Northam to Alresford, allegedly by charter from King John; whether he did so or not is unknown. Based on current knowledge in early medieval times stone from the Isle of Wight was probably brought by boat to Bitterne or Stoneham and then transferred to carts for road transport.



Walled medieval Southampton



Map showing the location of Bitterne Manor

### The road from Bitterne Manor to Winchester

When the ships bearing the stone reached the point on the Itchen where it was no longer navigable, the stone may have been off loaded for road transport.

The Romans built a straight road from the tidal apex of the Itchen at Bitterne Manor to Winchester. Analysis of the itineraries of king John, Edward I

and Edward II appears to show that the route from Southampton to Winchester was well used for royal journeys between the years 1199-1327. It seems likely that this route utilized the old roman road, and that it could have been the same route to transport stone in 11th and 12th C.



Roman roads from Winchester

### How was stone transported over land?

Unlike ships, where there is plenty of archaeological evidence for their design and construction from preserved wrecks, land vehicles are mainly known from illustrations or manuscripts or written documentary descriptions. Several types of vehicle are mentioned in early medieval literature denoted by various names not used today. It is not always easy to know the exact design and construction of these vehicles and sometimes two different names could be the same type of vehicle.

limited documentary evidence from the 11th and 12th C suggests that the most common vehicles used for road transport were carts, presumed to have two-wheels. Documents also indicate that even at this early date they were often hauled by horses. But larger, heavier carts were probably hauled by oxen.



Cart and horses, 1340



Cart and oxen, from calendar 1st half 11th C



Visualization of horse and cart on Roman road