

In April of 2015 Gestingthorpe History Group decided to undertake the building of a Saxon Watermill as part of a living archaeological project. Gestingthorpe is listed in the Domesday book of 1086 and a water mill is mentioned.

It was decided that we would build this only using locally sourced materials and using handtools and building techniques as close to the timeline as possible. The local landowner and historian donated a private area next to the Belchamp Brook that runs through the parish.

It was decided that a vertical mill wheel would be the preferred option as it required no additional gearing and was the simplest means for transferring the water power to the grinding stones. Initially a mill pool was dug with an inlet where we can regulate the water coming into the paddle and a channel that returns the water to the brook once it has passed through the mill pool.

Elm posts were driven into the corners of the square mill pool to act as corner supports for the floor and horizontal log joists were cur and jointed onto these posts to create the outline of the building. Wooden pegs were cut from the dead elm and holes drilled through the joints where the pegs were then driven in to secure everything tightly. Larger elm logs were then cut into slices running lengthways to use a boards on the floor.

Uprights from the walls were then added using 'green' ash cut from a local copse and braced to strengthen. Hazel upright poles were then added to these walls and split hazel wands were woven between the uprights in order to make wattle wall panels. Roof supports were added and rafters made of green ash poles were added in (this is currently covered with a tarpaulin in order to keep the weather off the structure).

The wattle walls were recently daubed using a mixture of local clay, chalk and straw which is now slowly drying and as this starts to shrink and naturally crack appear, these are being plugged with more clay. The walls will finally have a lime wash on the internal walls for protection and to lighten the internal area while the outside of the walls will be lime rendered to weatherproof the structure.

Reeds have been collected over the winter from the natural beds that grow beside the brook and once these are dried they will be used to thatch the roof. Offsite the paddle and mill stone mechanism have been made along with a wooden shute that tapers to one end that we can control the flow of water that reached the paddle. The paddle shaft is set into an ash block and where the shaft sits a socket of apple wood has been set in (apple wood being naturally lubricating for the turning shaft).

A lever mechanism has been built that will allow the stones to be separated prior to grinding so that they can gain some momentum from the water before they are lowered to their required grinding height.

We have cast temporary stones using concrete in order to test the torque of the water power, but we intend to source some historic stones once all the works have been completed.

The landowner is also a governor of the local primary school and a great educator to younger children, the intention is to have open mornings for the children to come and visit and see how such an ancient technology was used to provide the flour that goes towards the bread which is still a daily requirement.