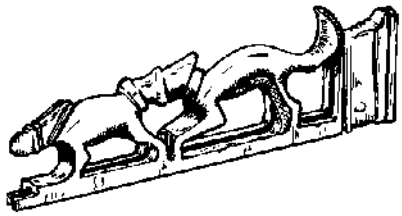
Ampthill & District Archaeological



& Local History Society

Report of a 19th Century Watermill in Flitwick
TL034364

Kevan J. Fadden

A Nineteenth Century Watermill in Flitwick. TL034364

Summary

Oral evidence for a watermill on a tributary of the River Flit that runs close to the Ampthill - Flitwick border, prompted the Ampthill & District Archaeological & Local History Society to search the banks of the stream prior to construction of the Ampthill Bypass. Brick rubble revealed the site of the mill in an area under threat from the road workings.

Introduction

On November 6th 1967, the members of the Ampthill Society were privileged to have the company of Mr. Charles Scott from Flitwick who described the town of Ampthill and the village of Flitwick as he remembered them before the turn of the century. Fortunately Mr. Scott, who died three weeks later at the age of 87, agreed to have his talk recorded thereby providing a very valuable source of information for that period.

A particular reference was made to a stream which until recently turned the wheel of Doolittle mill in the parish of Ampthill. He expressed his surprise that such a small stream had the capacity to support another mill, less than half a mile down stream, this he recalled was sited near to where the Redborne Upper School playing field is today. He remembered that the second mill, which by 1967 had completely disappeared, was closed down when he was about five years old and that he rode on the horse and cart that delivered the last load of corn to be ground.

The actual site had still not been located in 1981 when members of the Society were walking the proposed route of the Ampthill bypass. Fortunately the reference was remembered and the riverbank carefully searched. Some brickwork was found and an excavation was quickly mounted as it was known that the stream was due to be diverted near that point. It was not permissible to undermine the stream so investigations were limited to cleaning the banks and the streambed by hand.

Some brick foundations were found in the stream banks but it was only when the streambed was brushed and the silt allowed to float away that the real layout of the mill was revealed. See photo1. This shows the cleaned up site. It was then possible to accurately measure the site to establish the plan, see Fig 1.

Photo 1. (Looking West upstream). Remains of mill in stream after the silt was removed.
Brick recesses for sluice boards were clearly visible in front of the water wheel track and oak planks lined the base. The boards presumably prevented the water undermining the stream bed beneath the mill building.

Discussion about the mill and its background

Most mills have a very ancient foundation ("East End Mill" also in Flitwick was mentioned in the Domesday Book). This mill, which we were told went out of use about 1886, was not shown on the pre - enclosure map of 1793, fig 2. The parish boundary, which is unchanged today, was shown following the stream. The mill did appear however, on the 25 inch Ordnance Survey map of 1881, fig 3 with the course of the stream altered to the position it held until the bypass was constructed.

This suggests that the mill was purpose built in position and then the stream diverted to suit sometime between 1793 & 1881. As the mill was situated on such a small stream, less than half a mile below Doolittle mill, a number of questions were raised about its construction and effective working: -

1/. How did it build up a sufficient head of water?

2/. What type and size was the mill wheel?

3/. What materials were used in the mill construction?

4/. What would have happened if there had been a flash flood?
(There was no obvious way to divert the water to protect the mill).

5/. Could it be proved that the stream was moved as suggested by the early maps?

Analysis of Archaeological and Historical Evidence

1/. Study of the 1881 map, suggested that the stream had been straightened to cut through higher ground thereby making an effective millpond. Investigation on the ground supported this theory and careful study of the streambed showed that the walls of the "pond" had been puddled with gault clay to reduce leakage. As shown in Photo 2.

Photo 2. A deep channel cut through the higher ground to the South upstream formed an effective millpond. Gault clay puddling can be seen at water level.

2/. Sufficient brickwork was left in the bank to show the track of the mill wheel and allow the diameter of the wheel to be

Photo 3. The diameter of the mill wheel was clearly demonstrated by the track left in the brick wall.

calculated - 12 feet. (Photo 3). It must have been an under-shot or a low breast-shot wheel as the race was at the same height as the bed of the pond.

3/. The millrace, Photo 1, was paved with red bricks; hand made with clay common to the locality. Most were still in position. They were 100 x 42 x 210 mm and were undoubtedly specially made for the purpose. The bricks in the bank were 110 x 67 x 215 mm and made from similar clay. The bed of the stream in the vicinity of the wheel was closely boarded in oak, presumably to prevent erosion, and was still in

Photo 4. View of the millrace.(looking West)

excellent condition preserved under water for at least a hundred years. The only other artefacts found were some iron bolts of indeterminate age.

Photo 5. View of new channel cut by the road contractors exposing the brick culvert designed to take the excess water in the event of a flash flood. This was not unknown as witnessed by Mr. Christopher Ames who owned the Doo-little Mill upstream. To the lower right of the picture can be seen the massive foundation of the mill pond wall and the damaged mill foundations.

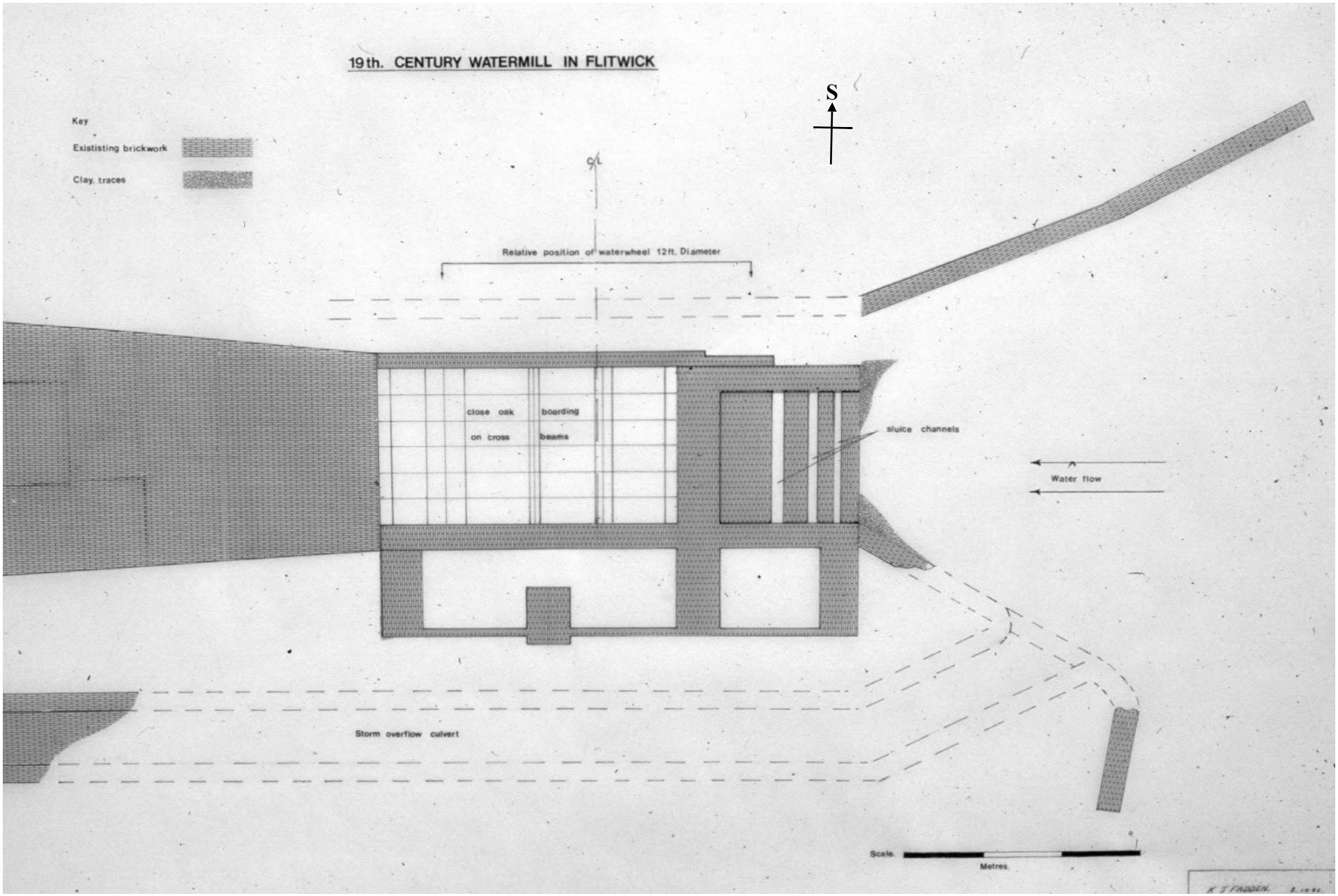


Fig 1. Plan of 19th Century Watermill in Flitwick

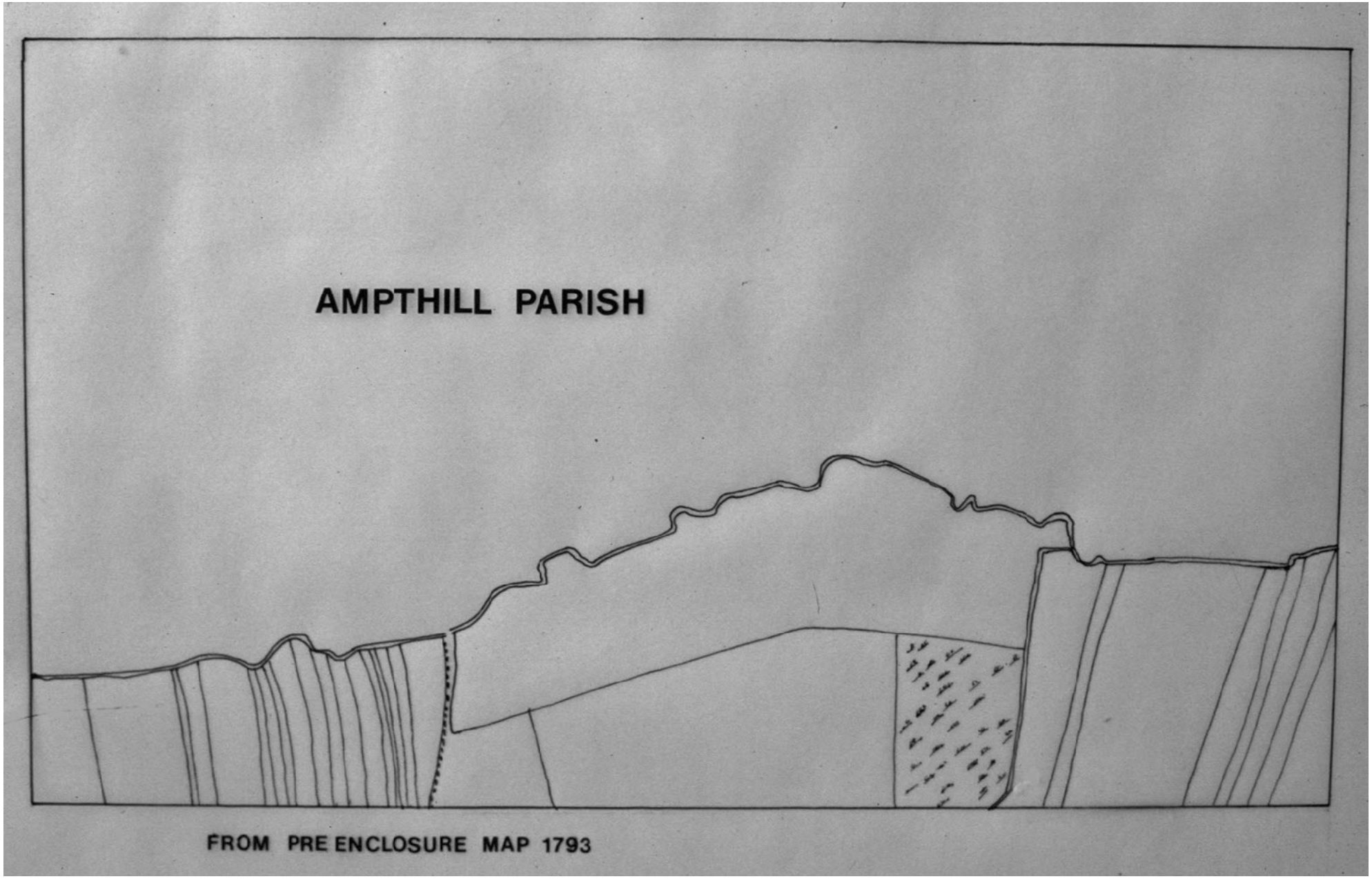


Fig 2. Pre Enclosure Map 1793

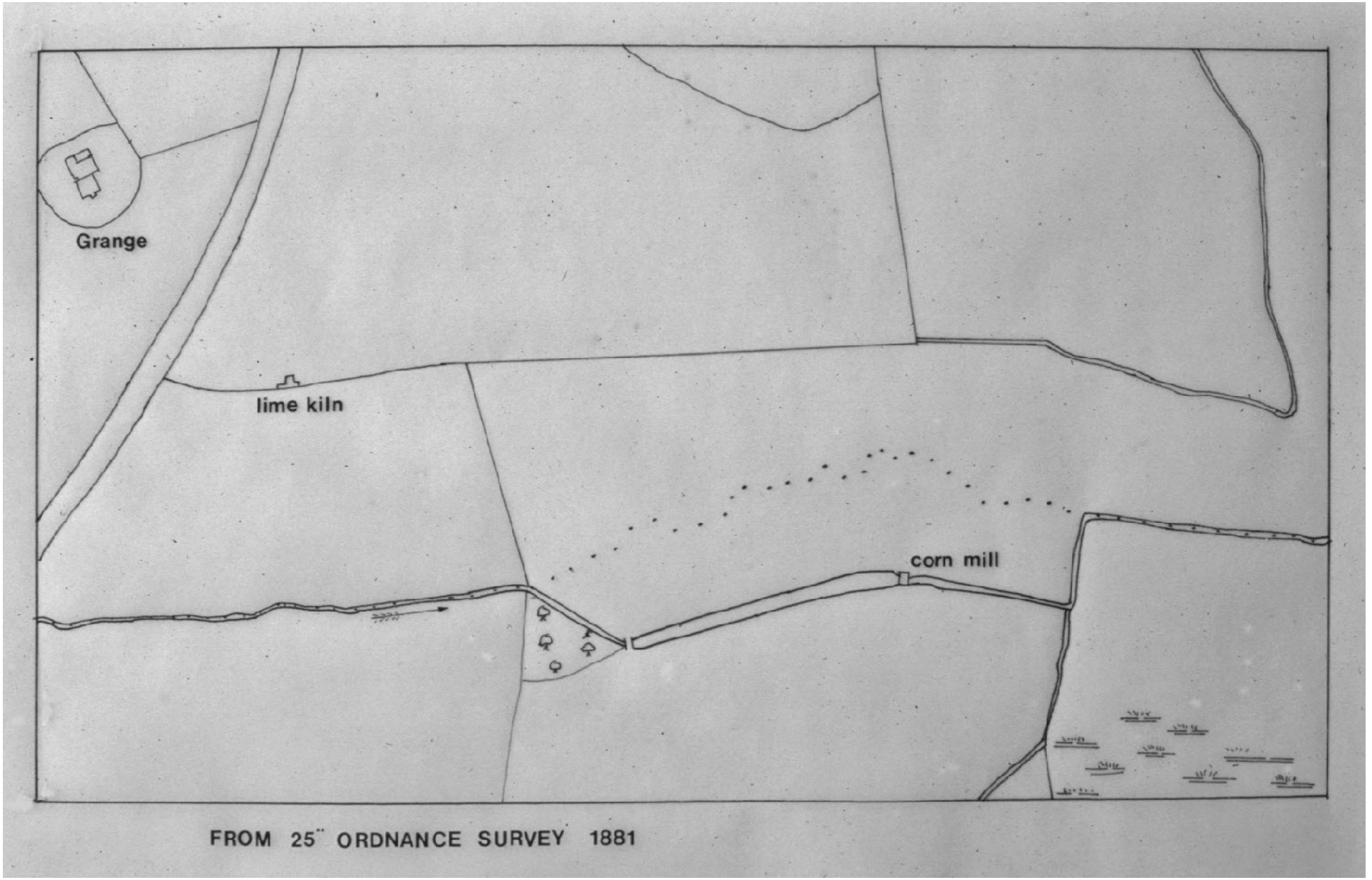


Fig 3. 25" Ordnance Survey Map 1881

Photo 6. Section of culvert exposed in 1997.

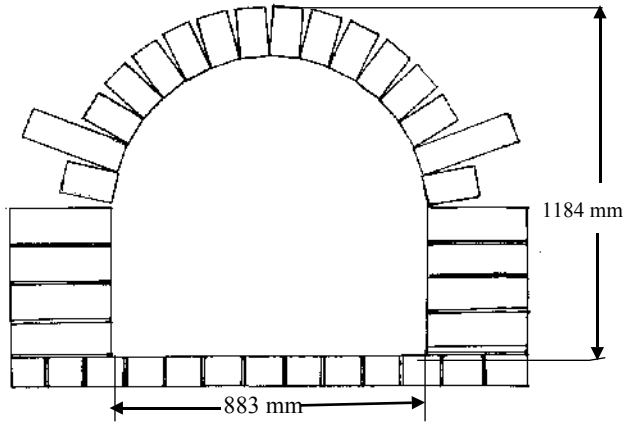


Fig 4. Measured section of culvert.

4/. The problem of how to control the water in the event of a flash flood was a puzzle that could not be solved until the contractors (destroying the evidence that we had recorded) diverted the stream. The new cut revealed a brick built culvert that bypassed the mill on the northern side. The site was revisited in March 1997 and enough of the culvert survived to be measured and photographed. Fig 4, Photo 6.

Photo 7. Evidence for the original stream bed following the parish boundary can be seen in the present bank. Above is the Redborne Upper School athletics jumping pit.

5/. A careful search of the stream where the straightening was believed to have occurred revealed a section of the original streambed in the bank (see Photo 7). The archaeological and documentary evidence agreed.

Conclusions

A comment made by an elderly man in 1967 caused the Society to intensify its search of the stream banks in the area when field walking the proposed route of the Ampthill Bypass. This led to the re-discovery of the mill site just in time to record the remains. The mill is of special interest as it proved to have been designed and built as a single unit with modifications to a small stream to gain maximum water power. There was no evidence for a progressive development as would be expected with ancient mills. We know from oral evidence

that it went out of use about 1886, and from old maps that it was in existence in 1881 and could not have been built before 1793.

Acknowledgements

All photographs were taken by the author.
Evidence for the mill's demise came from the late Mr. Charles Scott of Flitwick. A recording of his talk given in 1967 is held by the Society.
Oral evidence and advice from Mr. Christopher Ames a former owner of Doo-little Mill Flitwick.
Fig 1. adapted by the author from a drawing by the late Mr. Donald Shenton.