

FIGURE 2

TOFT GATE LIMEKILN
BEWERLEY - 6066
NORTH YORKSHIRE
SITE SURVEY
NOVEMBER 1999

Middle Tongue Road

Disused Limestone Quarry

Grassington / Pateley Bridge Road

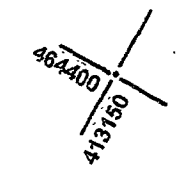
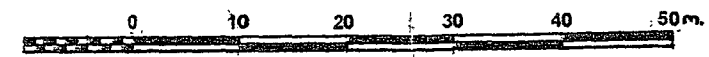
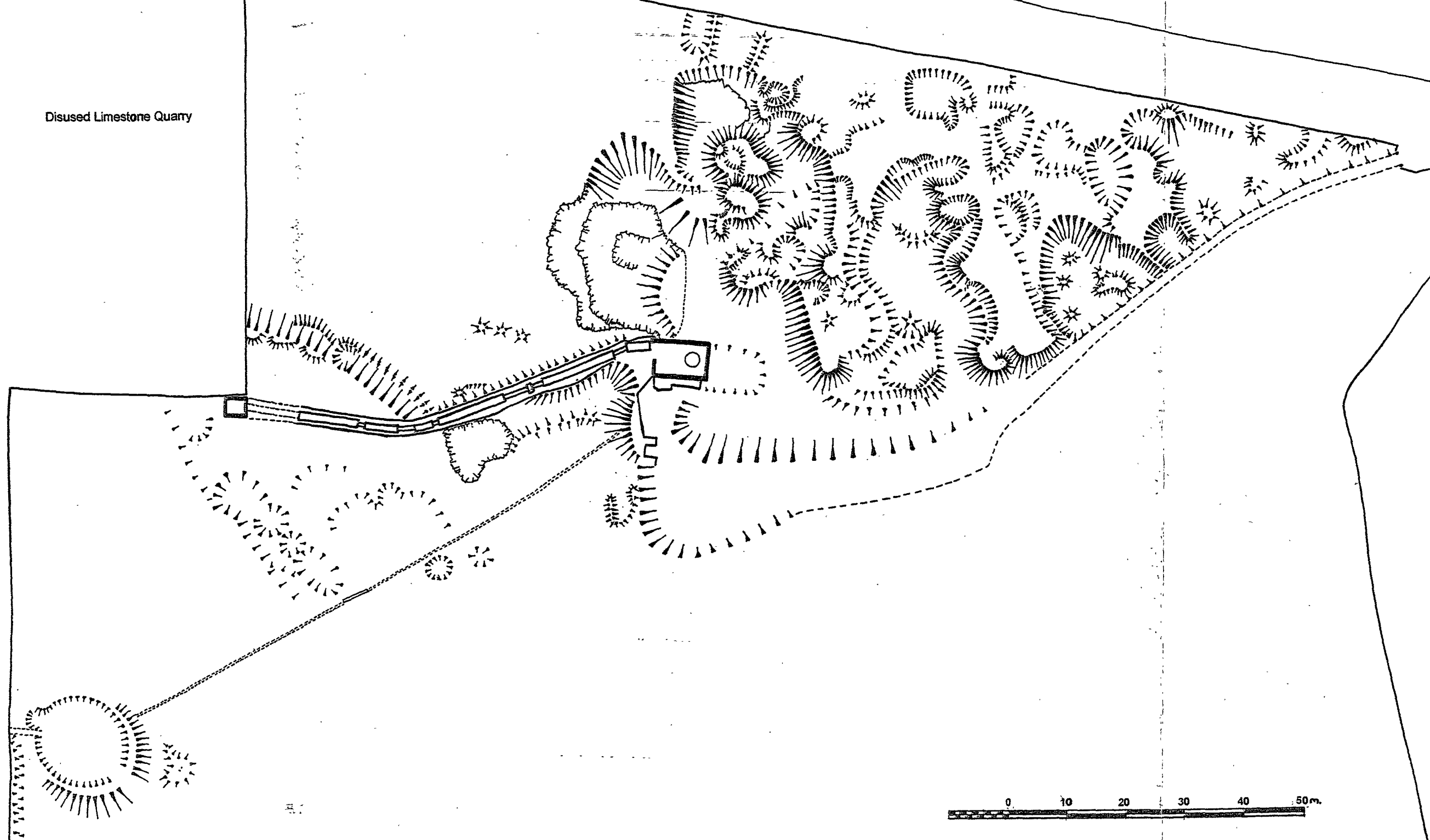
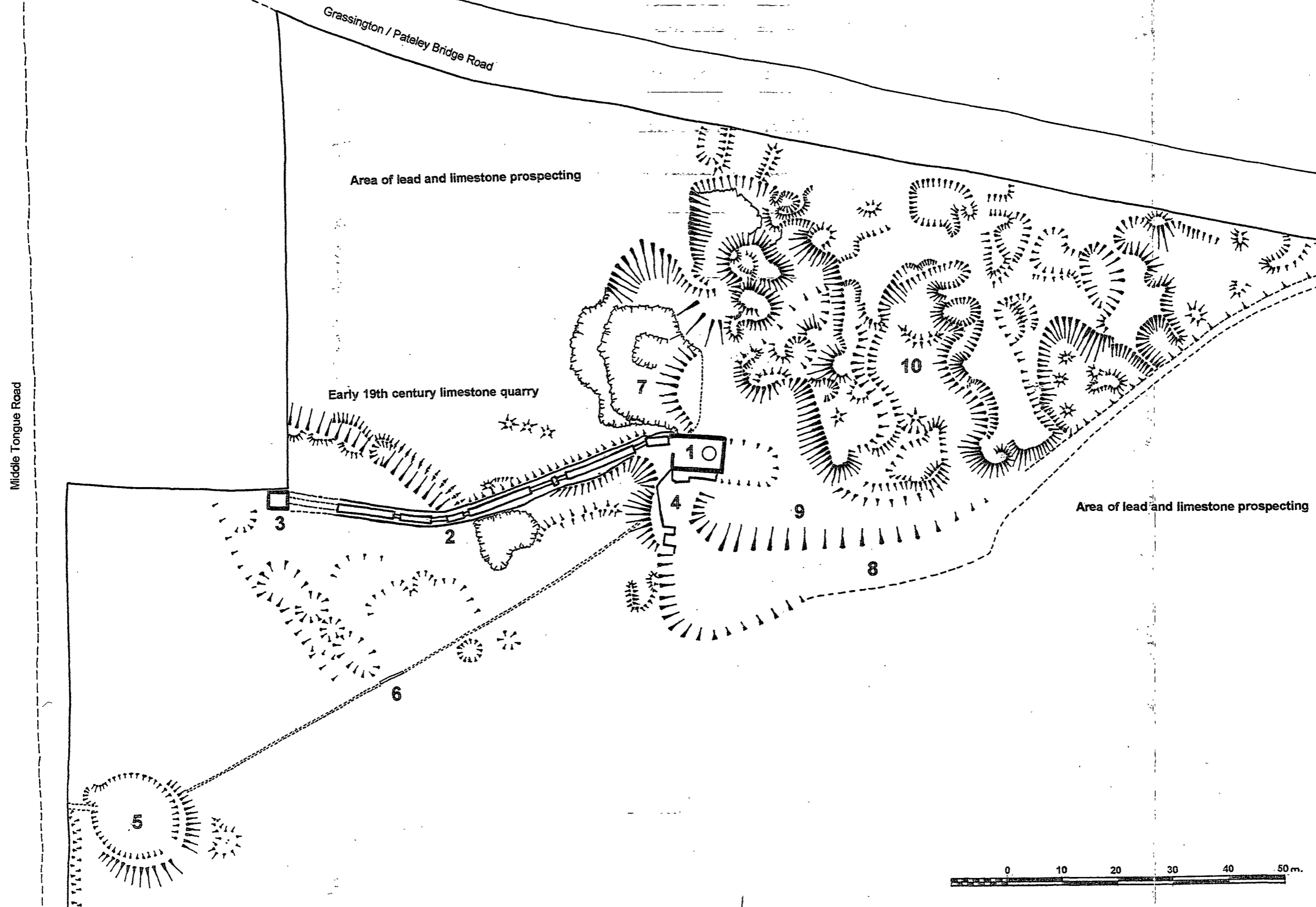


FIGURE 4

TOFT GATE LIMEKILN
BEWERLEY - 6059
NORTH YORKSHIRE
SITE SURVEY
NOVEMBER 1999



constructed. Components of which included a kiln, flue, chimney, pond, bunkers, two tracks and the excavation of a large limestone quarry together with three minor quarries driven in from the principal trackway. By the early 20th century the limekiln appears to have fallen into disuse and the site was reclaimed by agriculture.

MONUMENT DESCRIPTION

The limekiln complex at Toft Gate is composed of a number of distinct but interconnected structural elements which are in turn associated with extensive earthworks and quarries. The structural elements include;

- . The limekiln (1), located within an area of quarried limestone,
- . The flue (2), approximately 70m long, runs south-west from the limekiln to a chimney;
- . The Chimney (3),
- . Ancillary Structures which are identified in this report as bunkers (4),
- . A pond (5), south of the chimney
- . The pond which acted as a water store and supplied the workings with water via a cast iron pipe (6)

Together with associated structures, namely,

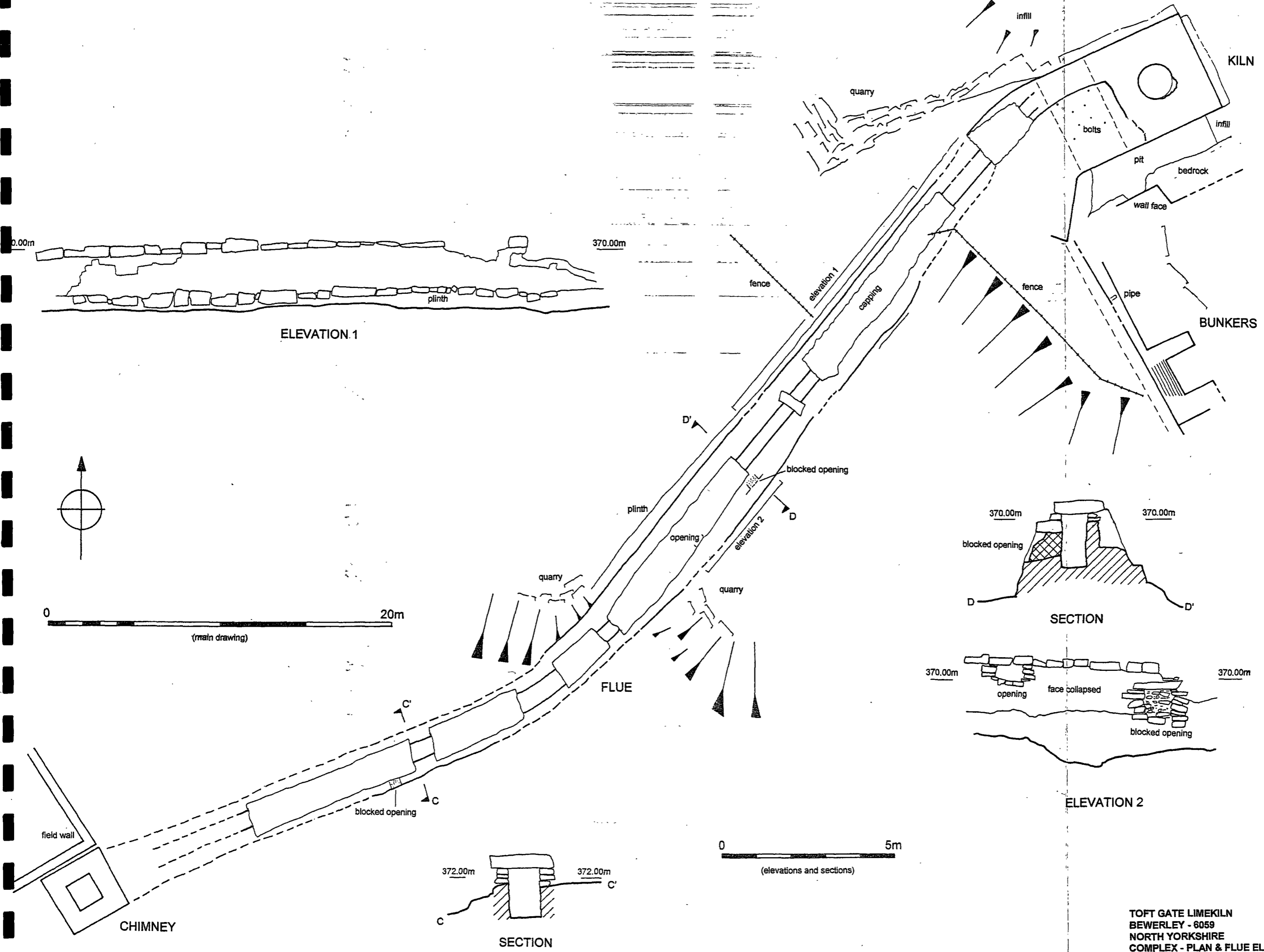
- . The main quarry (7) to the north-west of the limekiln which was the source of limestone for the site.
- . The trackways (8, 9) that afford access to the monument from the B6265.
- . The complex of earthworks to the north west of the monument (10).

Note: Numbers refer to the identification of structural elements on the annotated site survey drawing, Figure 4.

1. THE LIMEKILN

The limekiln is the dominant structure on the site and is located at the east end of the kiln/flue complex

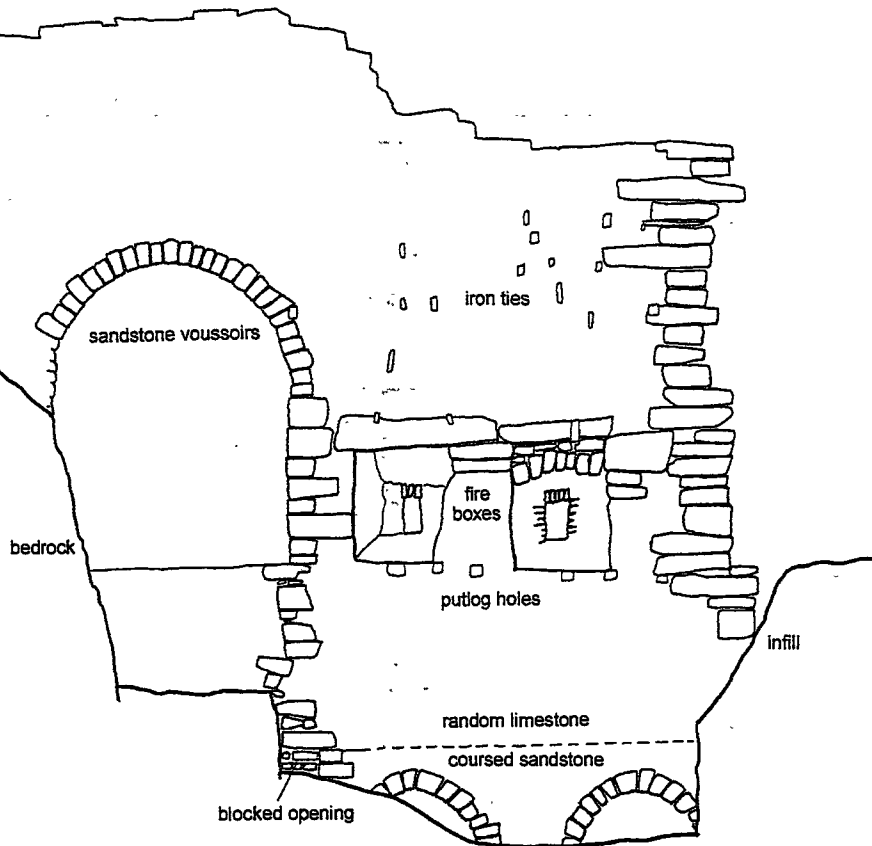




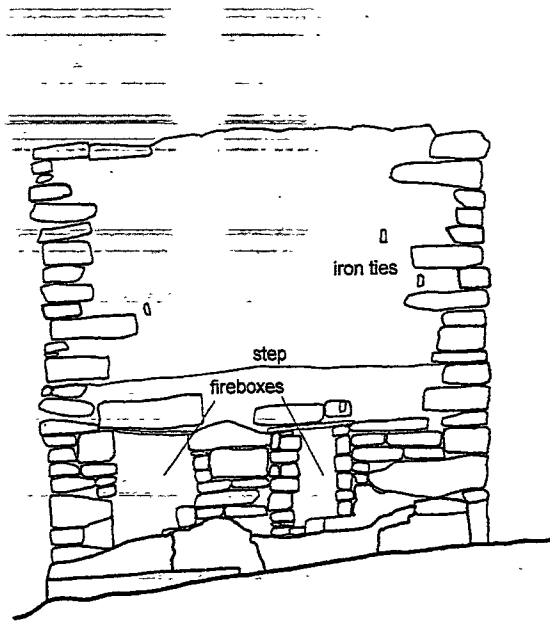
TOFT GATE LIMEKILN
 BEWERLEY - 6059
 NORTH YORKSHIRE
 COMPLEX - PLAN & FLUE ELEVATIONS, SECTIONS
 NOVEMBER 1999

external

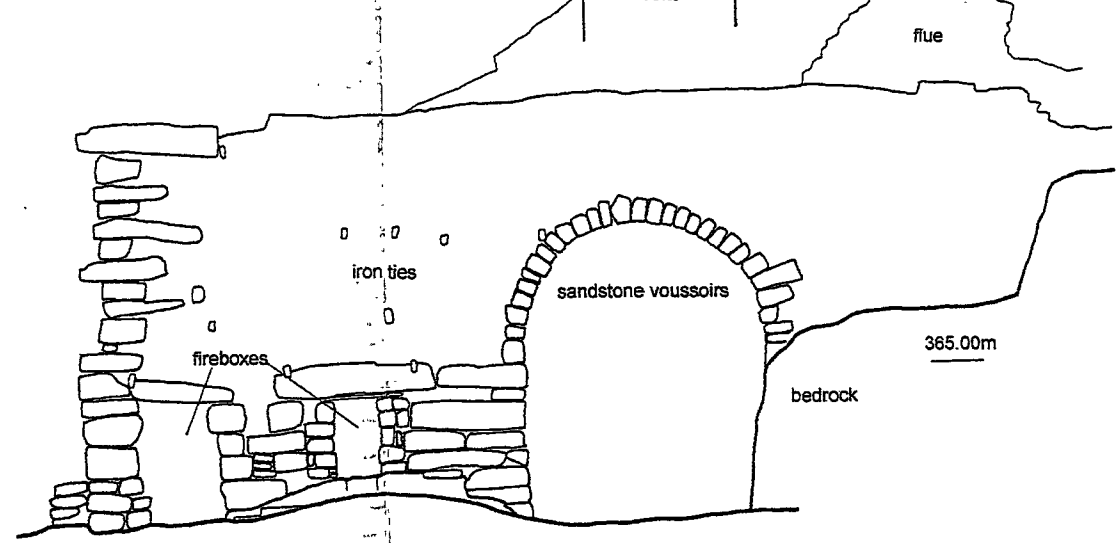
365.00m



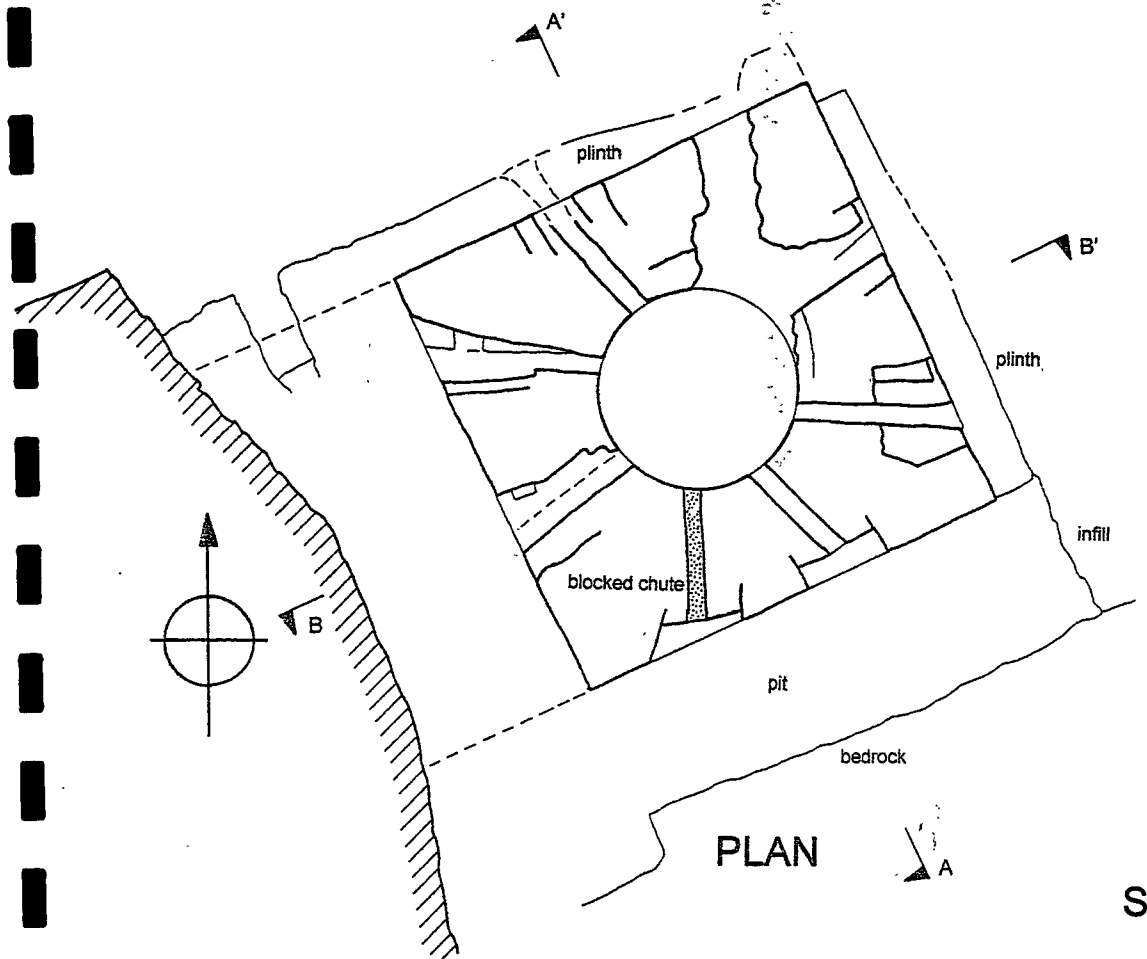
SOUTH-EAST ELEVATION



NORTH-EAST ELEVATION

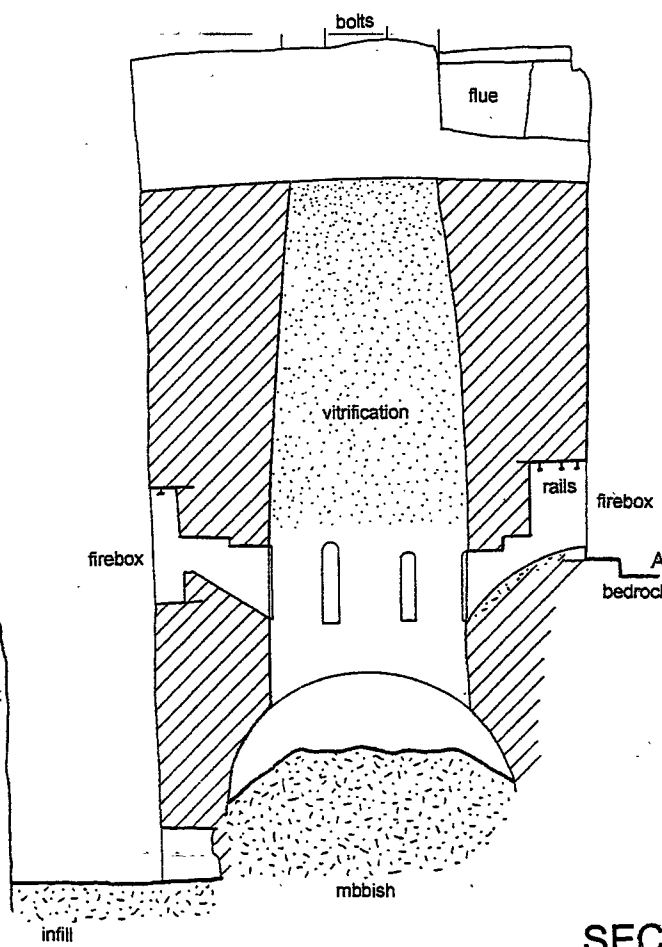


NORTH-WEST ELEVATION



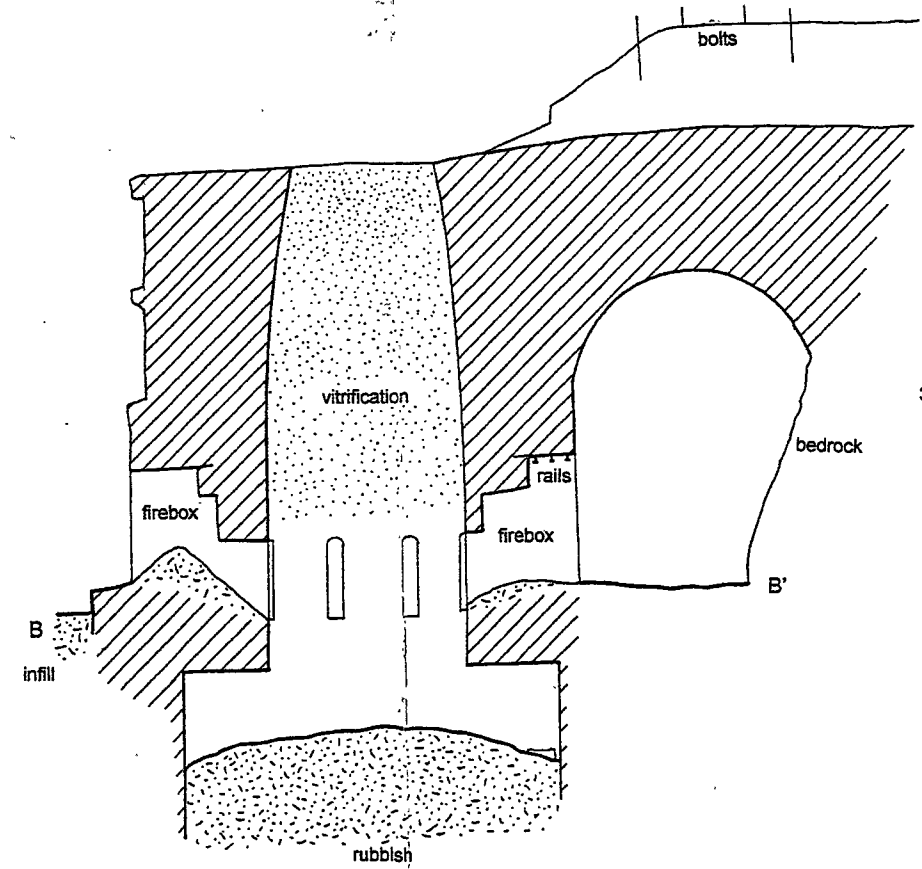
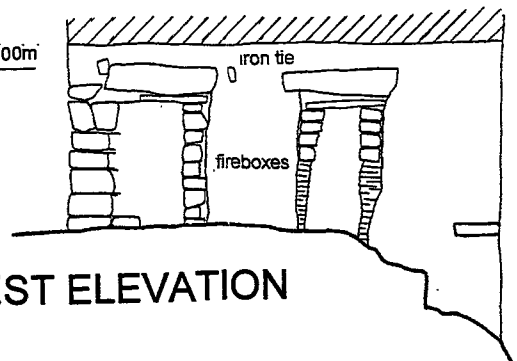
PLAN

365.00m



SOUTH-WEST ELEVATION

365.00m



365.00m

SECTIONS

365.00m

FIGURE 6

TOFT GATE LIMEKILN
 BEWERLEY - 6059
 NORTH YORKSHIRE
 KILN - PLAN, ELEVATIONS, SECTIONS
 NOVEMBER 1999

external

Much of its lower parts are buried below late twentieth century in fill and therefore its original form remains unclear to a large extent. The limekiln has a number of distinct levels: the base, which is now 3.5m below present ground level; a firing level, corresponding to present ground level; and a top, 5.5m above ground level. On the south-west side the kiln is connected with the higher, unquarried ground by an arch, over which the flue ran.

The kiln is built within a deeply quarried area of limestone, sloping down from west to east. Thus the south west and north west sides of the kiln are built against bedrock, while the other two sides are free-standing, although now buried. On the north east side the in fill extends to present ground level, while on the south east side there is believed to be some 1 to 2m depth of in fill contained within a large subrectangular shaped quarried pit that measures approximately 11m x 8m. A similar depth of accumulated rubbish also lies within the kiln.

The exterior of the base of the kiln is now visible only on the south east side. It is constructed of coursed sandstone rubble, and contains two arched openings, each approximately 1.5m wide, which appear to pass through the thickness of the wall, here measuring 0.9m. These are believed to be the draw arches. At the south west end of this wall is a small blocked rectangular opening 0.5m wide. Beyond it, the wall face becomes buried by debris but it appears that it adjoins bedrock. At the north east end of the wall, what is probably a buttress, joins the kiln face at 90°, filling the gap between the kiln and the adjacent vertical quarried bedrock face 2.0m away. The buttress is composed of roughly hewn limestone rubble, much of which is arranged in a fan shape, suggesting that it is a relieving arch over an opening buried within recent in fill. The rock face which forms the south-east side of this pit runs parallel to the kiln face but at the west end it has been quarried out underground to form a small "cave".

At firing level, the exterior of the kiln is exposed on all sides. It is square in plan. Its sides measuring 5.9m long. But on the north west and north east sides there are plinths extending a further 0.5m beyond the main faces. The exterior is built of massive roughly hewn blocks of limestone, many of them held in place by crude iron ties, their ends bent down over the tops of the stones, to hold them in place.

There are eight fireboxes distributed around the structure on the same level with two on each side. These are formed from rough rectangular openings within the limestone walling, with limestone lintels, the latter in many cases supported by iron rails. The main openings measure 1.3m wide and 1.5m high on average. Within them, narrower openings are formed from squared sandstone blocks, leaving apertures which appear originally to have measured 0.5m high and 0.3m wide. The fireboxes have undergone differential degrees of collapse. Those on the south east side, which are now inaccessible, are the best preserved although there is vegetation adhering to them. It also appears that many have been repaired so that the fireboxes vary in form.

The sandstone used to produce the narrower openings is of two types. The outer parts of the fireboxes are lined with larger blocks of sandstone, measuring



approximately 0.2m tall, and within these are smaller, brick-sized pieces, which have undergone heating as evidenced by their reddening and fracturing. In one case on the north east side, it appears that the narrower opening of the firebox continued into the plinth, but whether this was the case on the other fireboxes is not clear.

Access to the fireboxes differed around the structure. On the south west side, they are located at ground level beneath the arch which adjoins the kiln. Those on the north west side appear to have been located at ground level as well. On the south east side, six putlog holes can be seen within the fabric immediately below the fireboxes. It is believed that these would have held timbers, whose other ends would have rested on ground level on the other side of the pit, thereby supporting an access platform. The situation is less clear for the north east side, but given that there was also a deep pit here formerly, the provision of a platform can also be assumed, although no putlog holes can be seen. Alternatively the step or plinth along this face may also have supported a platform.

Above the firing level, the north east face of the kiln steps in by 0.3m, but then steps out again by a similar amount at the top surviving course. It is not clear whether any courses have been lost from the top of the kiln, and it is possible that this step increased to provide a larger area on top of the kiln. At this level, the kiln is connected with the ground level to the south west by a semi-circular arch, the voussoirs of which are of sandstone, in contrast to the limestone of the main walling. Sandstone was probably favoured here for its better working properties.

The top surface of the kiln is now largely grassed over. The top of the shaft is located within the centre, and measures 2.0m in diameter. Part of its lining is collapsed. To the south east, a low, partly collapsed wall face rises by approximately 1.0m across the southern part of the structure, while at the northern end the surface of the kiln continues round to form the base of the flue. At the corner of this wall eight bolts with threaded ends are set within the masonry, forming two concentric squares and believed to have been the base for a crane. At the south side, the kiln wall splays out at 45° and continues for 4.0m.

The interior of the kiln is partly filled and access into it is not possible. All but the north west sides of it can, however, be viewed from the enlarged firebox on the north west side. At its base, the kiln forms a barrel vault with a rectangular plan, aligned south west to north east and measuring 5.0m long and 3.8m wide. The sides are lined with small sandstone blocks mortared in place. At the south west end, which is vertical, the lining is partially collapsed and bedrock can be seen immediately behind it. The north-east end of the base compartment, which is also vertical, appears intact and there is no evidence for any openings here. In the south east side, the tops of the arches visible on the exterior are obscured by rubbish, but the small rectangular opening at the south corner is visible, apparently blocked on the inside as well.

The top of the "barrel vault" at the base of the kiln feeds into a tapering, circular shaft with a total height of 6.9m, giving an overall height within the structure of over 9.0m. At its base, the shaft has a diameter of 2.7m. The shaft is lined with similar sandstone blocks as the lower parts; there is no evidence for the support of any

