HEREFORDSHIRE ARCHAEOLOGY

Archaeological Recording of the Medieval Standing Cross in St Mary's Church Yard, Ross on Wye, Herefordshire.

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Summary:

The archaeological recording of the medieval standing cross in St Mary's Churchyard, Ross-on-Wye, has produced a documented record of a culturally significant monument within the ecclesiastical landscape of Herefordshire. Although no excavation or intrusive survey was undertaken, the detailed record provides contextual understanding of the cross's form, materials, and historical setting. This work not only aids future conservation planning but also enhances public appreciation of the site's heritage value. Continued care and interpretation of the monument are encouraged to preserve its significance for future generations.

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Introduction

This report outlines a programme of archaeological investigation and recording conducted at the medieval standing cross in the churchyard of St Mary's Church, Ross-on-Wye, Herefordshire. (EHE 80557)

Commissioned by Ross-on-Wye Town Council and undertaken by Herefordshire Archaeology, the project forms part of planned repair and conservation works to the cross, a prominent Grade II* listed monument with significant historical and cultural resonance.

The investigation aims to produce a comprehensive and accurate record of the monument's form, condition, and context, combining photogrammetric survey with traditional archaeological recording methods. Of particular interest is the inscribed socket stone, which commemorates 315 plague victims interred nearby in 1637.

The standing cross not only embodies architectural developments from the medieval period to later restorative phases, but also serves as a potent testament to the town's social and epidemiological history.

This report outlines the methodology, scope, and findings of the investigation, providing a detailed record that will inform future conservation efforts and enhance understanding of the cross's historical and architectural significance.

Figure 1: Site location in relation to the surrounding area. OS Licence 100024168

2. Site Description

The monument comprises a medieval stone cross located within the churchyard of St Mary the Virgin's Church, positioned approximately 42 metres northeast of the church itself. The structure consists of a stepped base, socket stone, shaft, knop, and cruciform head, each reflecting a combination of original and later elements.

The base features three octagonal steps constructed from large rectangular sandstone blocks. The lowest step comprises 15 stones and measures 2.79 metres (E-W) in diameter by 0.26 metres in height. Above this, the middle step includes ten stones with a 2.17 metre diameter (E-W) , also 0.26 metres high. The top step, formed of nine stones, measures 1.53 metres in diameter (E-W) and maintains the same height as the others. Resting atop this is a two-part socket stone: the lower component is square in plan, chamfering upwards to receive the smaller upper stone.

The lower stone measures 0.83 metres square by 0.16 metres deep, while the upper stone transitions from a square base to an octagonal upper face, measuring 0.81 metres across and 0.51 metres high.

An inscription carved into the east face of the socket stone reads: *"Plague A.D. 1637, Burials 315, Libera Nos Domine."* This commemorates the 315 victims of the 1637 plague thought to be buried in a pit to the west of the cross.

The shaft, mortised into the socket and bonded with lead, is square in section at its base and tapers upwards into an octagonal profile (1.71 metres). This leads to the knop, also octagonal, which connects the shaft to a foliate-decorated cruciform head. Both the knop and the head represent later restorative additions, likely from the 19th or early 20th century. The total height of the monument is approximately 4.20 metres from the ground level (57.50m OD).

Prominently sited near the church's northeast entrance, the cross serves as a visually and historically significant feature within the churchyard. Its survival from the medieval period, together with 17th-century commemorative inscriptions and subsequent restorations, underlines its enduring role as both a historic marker and a civic monument.

3. Geology

Ross-on-Wye lies within a geologically rich area shaped predominantly by the Old Red Sandstone of the Devonian period. According to the British Geological Survey, the local bedrock is primarily part of the Brownstone Formation, which was deposited around 400 million years ago as river sediments. These sediments originated from the erosion of older upland rocks and were laid down in a semi-arid environment with seasonal rivers.

The characteristic reddish hue of the sandstone is due to the oxidation of iron minerals, forming haematite—a process that occurred in oxygen-rich conditions. This geology not only defines the soil colour and texture but also influences local building materials, as seen in the sandstone used for historic structures like the Plague Cross.

In addition to the Brownstone Formation, superficial deposits such as alluvium may be present along the River Wye and its tributaries, reflecting more recent fluvial processes. These layers contribute to the fertile floodplain soils and have historically supported agriculture and settlement in the area. (British Geological Survey 2025)

4. Historic Background

The Plague Cross, often referred to as the Corpse Cross, stands as a poignant memorial to the tragic events of 1637. Erected in the churchyard of St Mary's Church in Ross-on-Wye, the monument was commissioned as a lasting tribute to the 315 individuals who succumbed to the plague that swept through the town. The inscription on the socket stone, "Plague A.D. 1637, Burials 315, Libera Nos Domine," and encapsulates not only the enormity of the loss but also the community's collective plea for divine deliverance during a time of crisis.

During the outbreak, the severity of the epidemic necessitated the hurried and unconventional burial of the victims, many interred at night in a nearby plague pit and without the usual rites that honour the departed. This practice, born of both necessity and the overwhelming impact of the plague, left an indelible mark on the local history and cultural memory of Ross-on-Wye.

By the late 19th century, the cross had deteriorated, with the upper portion lost to time and neglect. Recognising its immense historical significance, subsequent restoration efforts sought to return the monument to a condition that closely resembled its original form. Today, the Plague Cross endures as a sombre reminder of a past marked by both tragedy and resilience, a symbol of the community's enduring memory and respect for those who lived through one of the town's darkest periods.

5. Aims and Objectives

Archaeological Recording Aims and Objectives

The principal aim of the targeted programme of archaeological investigation and recording is to provide an accurate record of each face of the cross.

- The Survey record will aim to reveal details of any carvings, inscriptions and gaps between the stones.

- Establish a baseline record reflecting the present configuration of the structure.

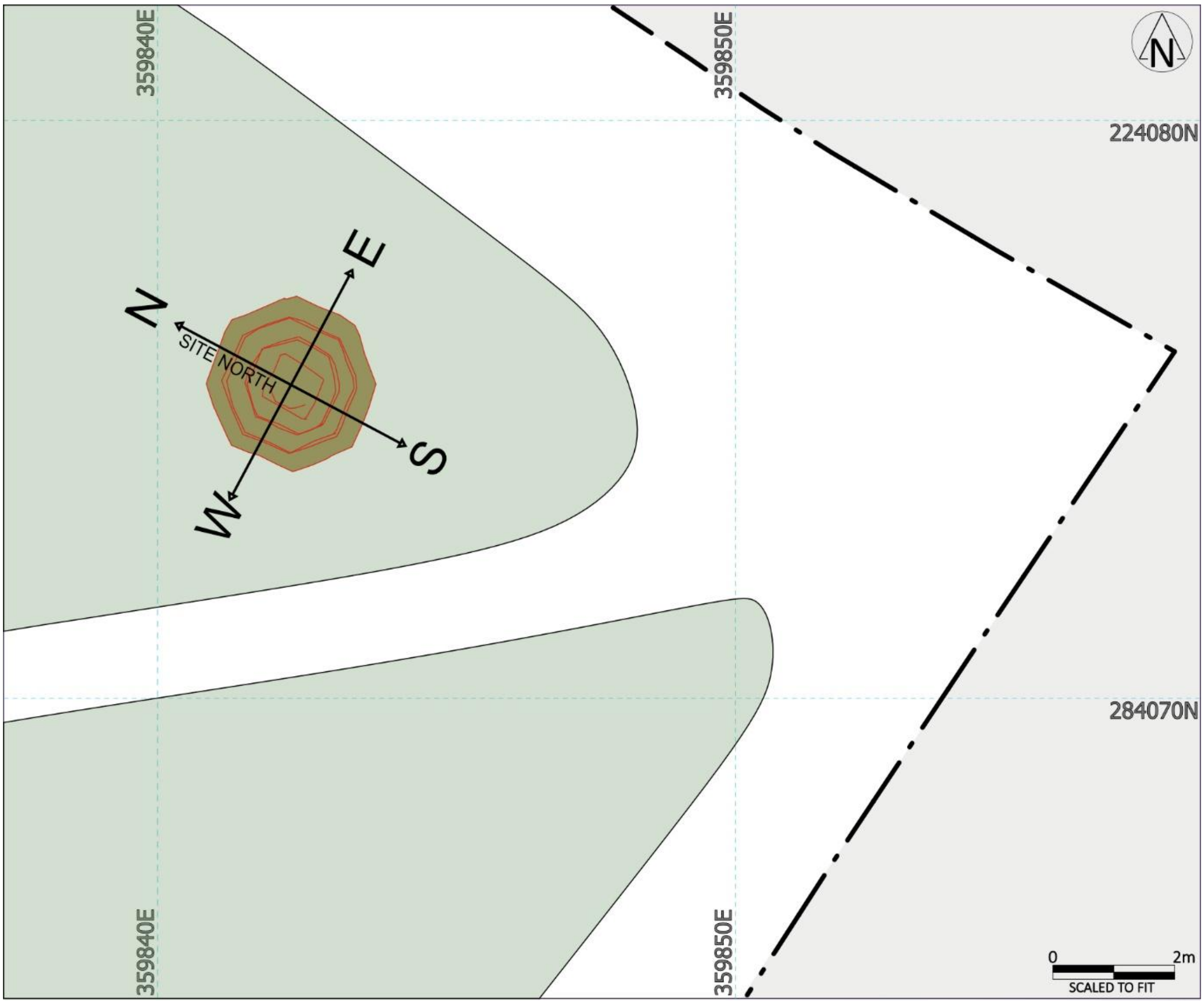

Figure 2: Plan of the survey area indicating site orientation in relation to true north

6. Recording

Coverage

The archaeological recording was completed prior to the repair works on the Standing Cross in St Mary's Church Yard, Ross-on-Wye, Herefordshire (HR9 5HN). A preliminary condition photographic record was undertaken before the initiation of the Photogrammetric Survey.

Survey

During the survey, a detailed photographic record was taken to capture both the fabric of the cross and its setting. A series of overlapping images was acquired and subsequently processed to create photogrammetric data. This data, together with electronic survey measurements and hand measurements, was used to produce a series of accurately measured illustrations.

Accuracy of Site Control

The maximum error in plan between the temporary survey stations was verified to be no greater than ±5 mm after adjustment.

Control Network

All coordinate and level values were expressed in metres to three decimal places, recorded in the order of easting (X), northing (Y) and height (Z). These values were derived from a rigorously observed traverse using a combination of TST and DGPS networks.

The traverse achieved a horizontal closure error of no more than ±10 mm and a vertical closure error within ±20 mm.

The Ordnance Survey National Grid (OSNG) was employed through DGPS observation, with WGS84 values transformed to OSNG using the OSTN02 transformation. The vertical datum was established using GNSS observations in conjunction with the OSGM02 transformation.

The control network, tailored for an image-based and measured building survey, was derived from the OSNG values and supplied in the DXF data drawings. Owing to the public nature of the site, temporary ground marks were kept as non-invasive as possible—existing site details were utilised wherever suitable, and all temporary stations were removed after the survey.

Digital Data

Digital images were created as original 16-bit RAW files along with uncompressed JPEG versions, in accordance with the Historic England Digital Standard abbreviations.

CAD Requirements

The original 3-D data, free from any additional title or border information, was provided using the following AutoCAD coordinate systems:

- the WCS relating directly to the site (ground control) and one or more UCSs, appropriately named to facilitate the viewing and editing of separate elevations in an orthogonal view.

- The origins of these UCSs were set so that all elements within the subject area maintained positive, low coordinate values (for example, the lower left-hand control point was assigned arbitrary values of 10 m for the X and Z axes), and the Y axis was aligned to the true ground control heights.

- In addition to the original 3-D data, 2-D formatted drawing sheets were provided, with all height datum lines or level ticks accurately reflecting the correct vertical dimensions.

Insertion Point and CAD Drawing Units

The default origin of (0, 0, 0) in the WCS was used for xref insertions. The CAD drawing unit was maintained at either 1 m or as specified in the DWG file. For line types, dashed lines were employed to ensure the line-type scale was commensurate with the plot scale, thus appearing as intended when printed.

CAD Drawings (Model Space)

Model space was used for drafting the survey data. Standard views, including elevations and sectional elevations were produced as orthogonal (square-on) representations to the plotted sheet.

Measured Building Survey Plans

Plans were oriented so that north faced the top of the sheet, or so that the principal axes of the monument were parallel to the sheet edges. In cases where feasible, the site grid was aligned with the sheet edges. It should be noted that site north, as represented in the model and accompanying plans, does not correspond with true (geographic) north but reflects the orientation established for site-based recording purposes.(See Figure 2)

Image-Based Survey Techniques

Photogrammetric survey methods were employed by capturing a series of overlapping images of the Standing Cross. Photogrammetry, defined as the science and art of determining the size and shape of objects through the analysis of images recorded on electronic media, was successfully implemented. In addition, rectified photographic surveys were carried out, wherein individual photographs were taken with the camera's image plane roughly parallel to the main plane of the subject.

Accuracy in Photogrammetry

To avoid impacting the integrity of the Standing Cross, targets were not applied directly to the fabric; instead, a series of clearly defined detail points, surveyed using a TST, served as the control points.

7. Survey Results

This section presents the results of the photogrammetric survey, undertaken to create a detailed three-dimensional record of the structure in its existing condition. The survey produced a high-resolution digital model, capturing both geometric accuracy and surface detail suitable for conservation, interpretive, and analytical purposes. Image acquisition and processing were carried out using established workflows to ensure spatial precision and consistency. (See Plates 1 to 8)

It should be noted that site north, as represented in the model and accompanying plans, does not correspond with true (geographic) north but reflects the orientation established for ease of site-based recording purposes.

Plate 1 North Facing elevation of Cross base and Shaft
Plate 2 East Facing elevation of Cross base and Shaft

Plate 3 South Facing elevation of Cross base and Shaft
Plate 2 West Facing elevation of Cross base and Shaft

Plate 5 South Facing elevation of Cross Head

Plate 6 West Facing elevation of Cross Head

Plate 7 East Facing elevation of Cross Head

Plate 8 North Facing elevation of Cross Head

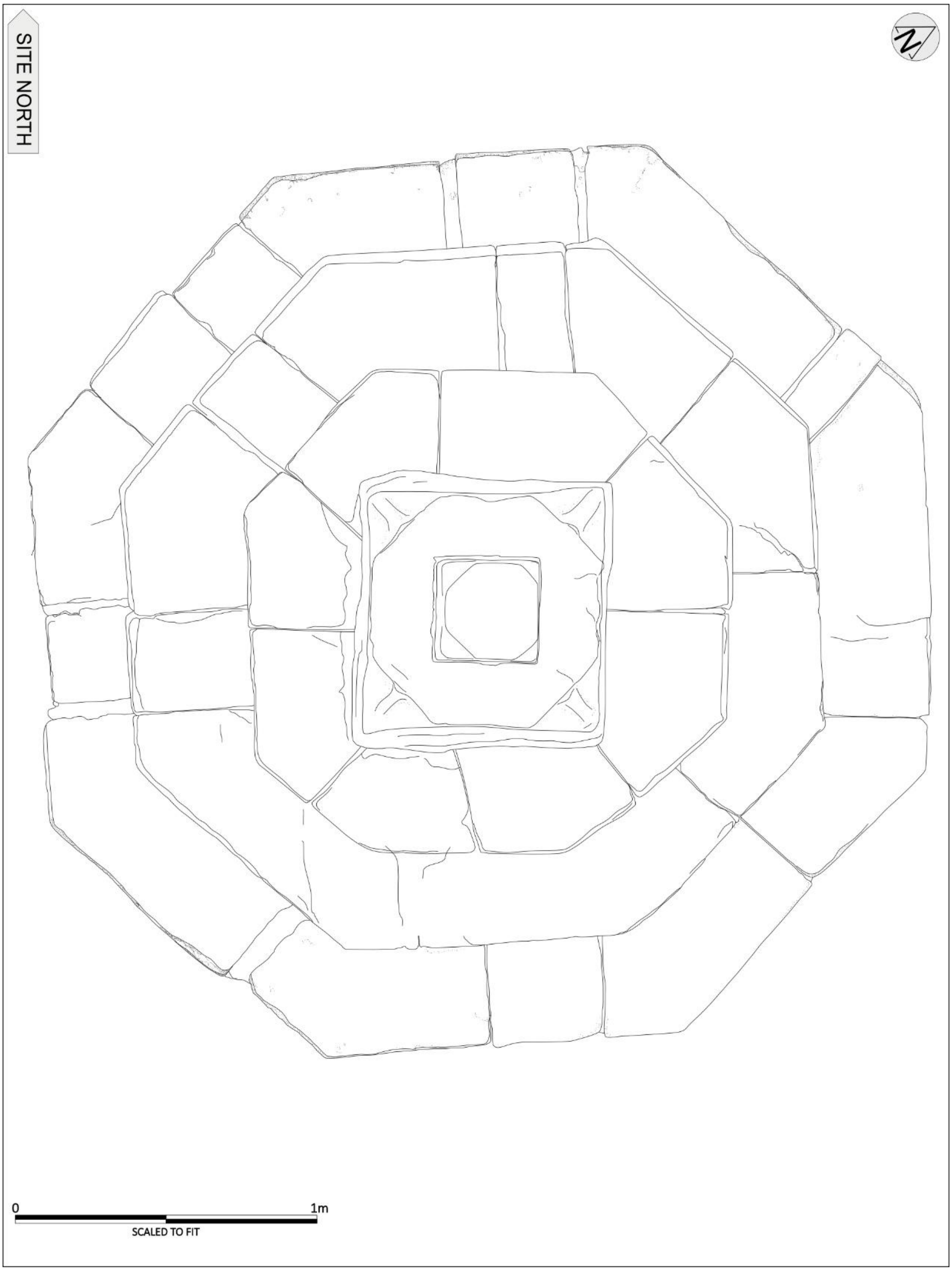

Figure 3: Plan of the Cross steps and base, indicating site orientation in relation to true north

Plate 9: Overview of the steps and cross base (top down)

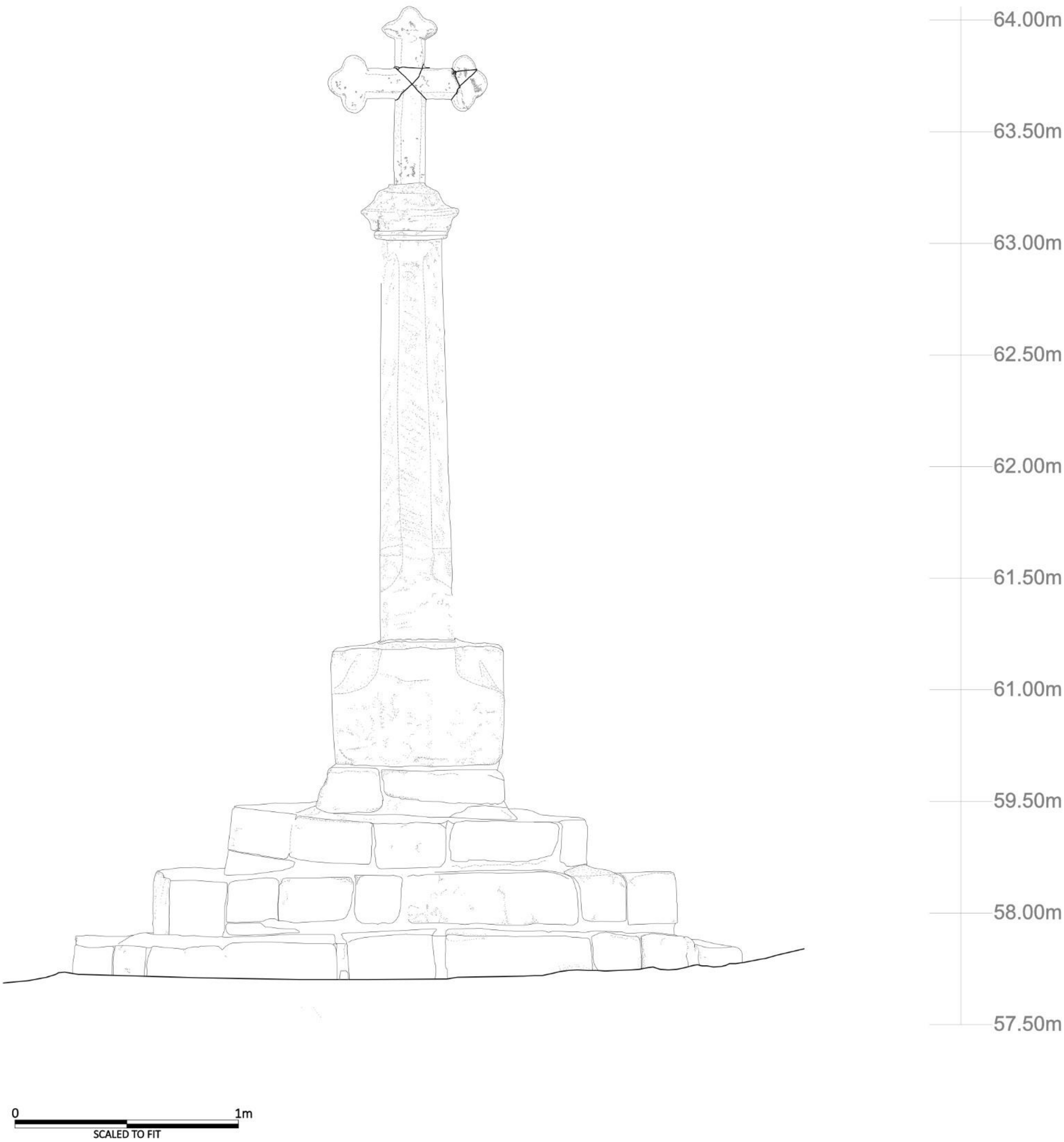

Figure 4: North facing elevation, (Perspective).

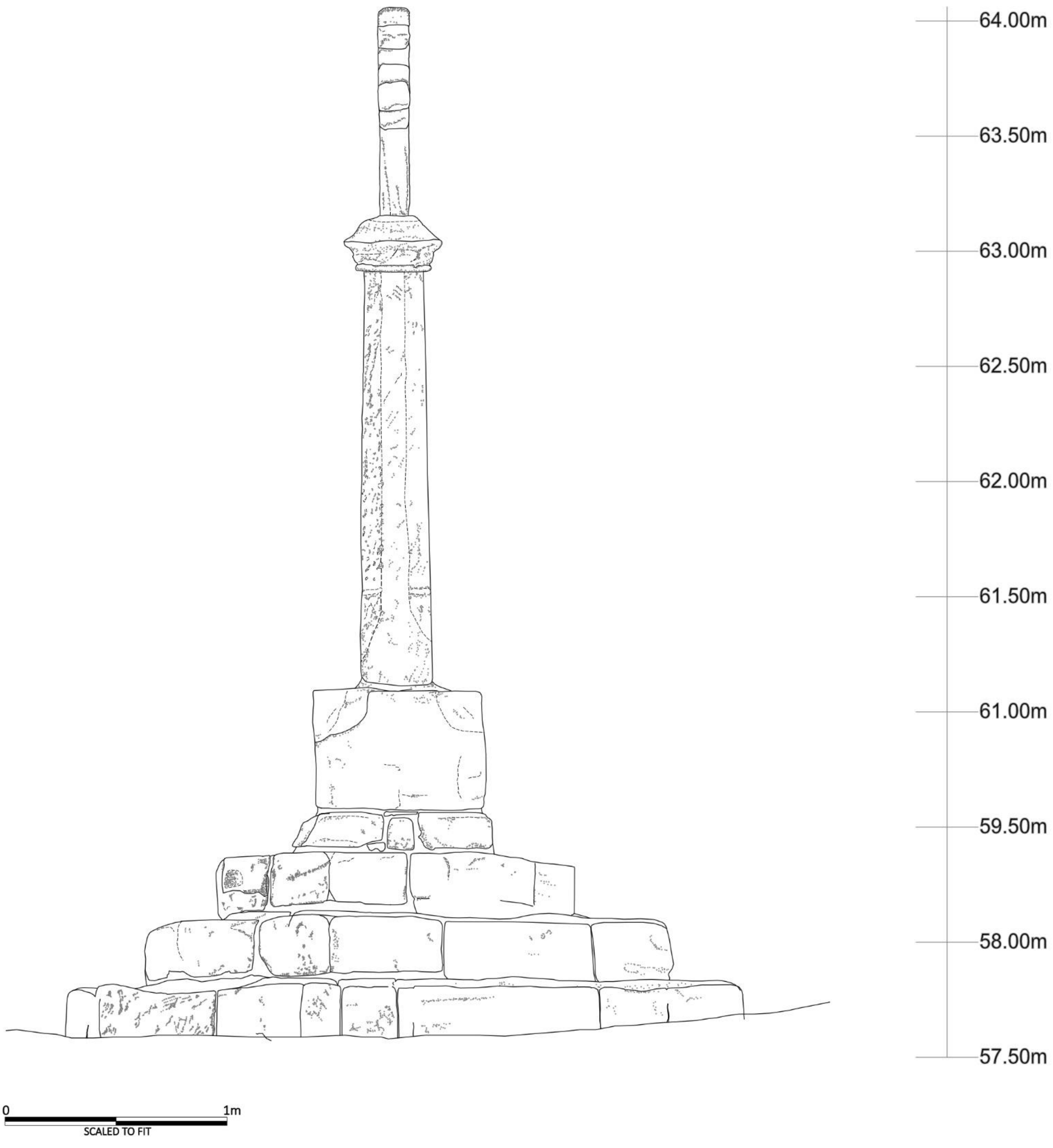

Figure 5: East facing elevation, (Perspective).

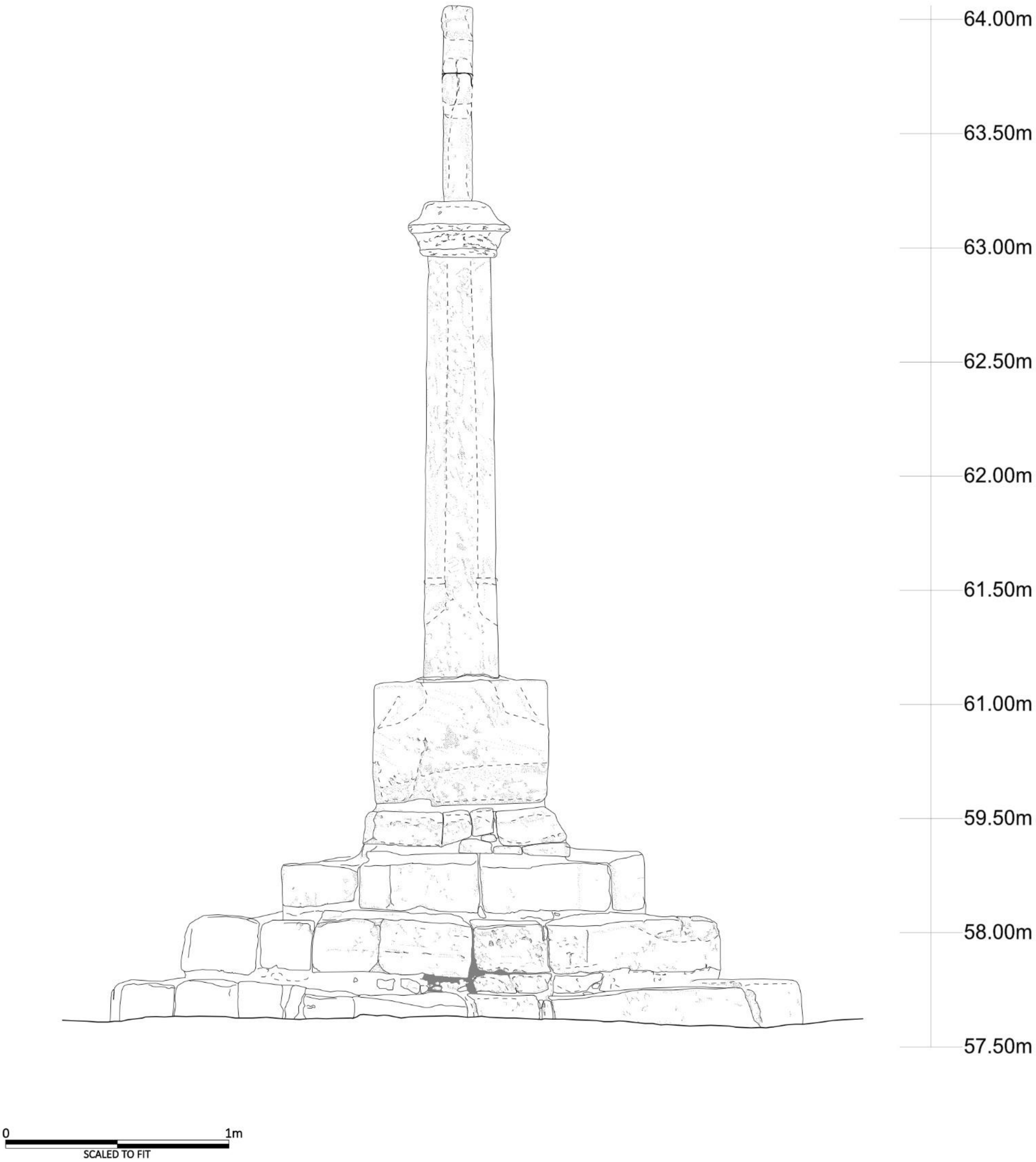

Figure 6: West facing elevation, (Perspective).

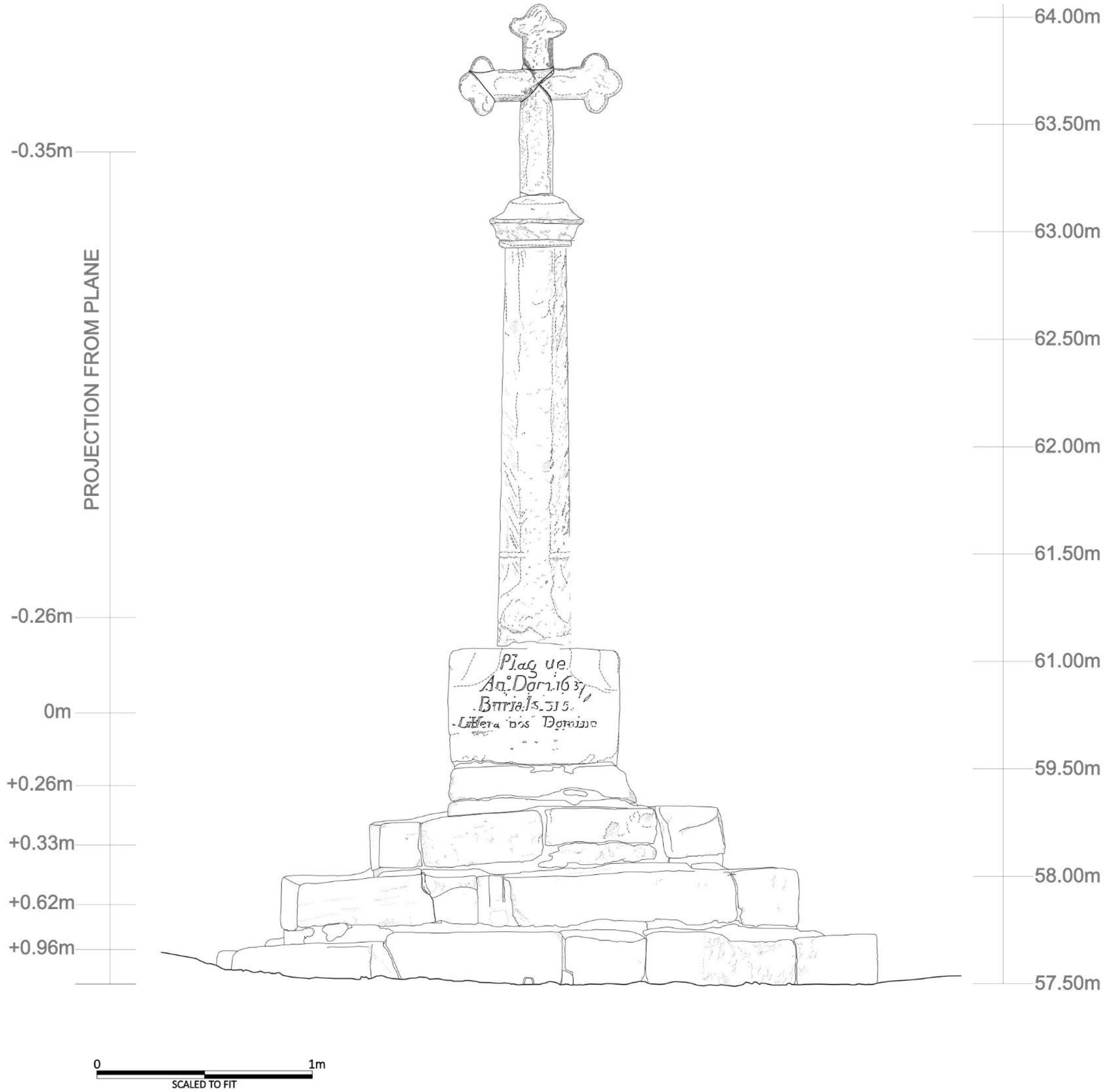

Figure 7: South facing elevation, (Perspective).

8. Condition

The following section presents a detailed description and visual record of weathering patterns and structural damage observed on the cross located in the churchyard of St Mary's Church.

Drawing on both close examination and contextual evidence, it identifies the nature, extent, and likely causes of deterioration affecting each component of the monument — including the stepped base, socket stone, shaft, knop, and head. Where relevant, distinctions are made between original medieval fabric and later interventions. This analysis aims to inform conservation planning and highlight vulnerabilities associated with prolonged exposure and previous restoration efforts.

Steps

The base of the cross comprises three octagonal steps, each constructed from large, well-dressed sandstone blocks. These steps form a graduated plinth that elevates the monument and provides structural stability. The lowest step, composed of 16 stones, measures approximately 2.75 metres in diameter and stands 0.26 metres high. Above this, the middle step, formed of 10 stones, has a diameter of 2.1 metres and maintains the same height. The uppermost step, consisting of 8 stones, measures 1.4 metres in diameter and also stands 0.26 metres high.

The stones exhibit varying degrees of weathering, with the lower courses showing more pronounced erosion , likely due to prolonged exposure to ground moisture and foot traffic.

Several joints on all elevations display minor displacement, and some blocks have suffered surface delamination, particularly along bedding planes. Despite this, the overall form remains legible, and the octagonal geometry is still clearly discernible.

The steps retain their structural coherence despite weathered and set back mortar joints visible on all the elevations , conservation monitoring is advisable to address ongoing deterioration.

Plate 10: showing weathered joints , east facing elevation.

The overall condition of the monument steps displays several weathered joints between the sandstone blocks of the lower step. These joints are visibly open and softened by erosion, particularly along exposed bedding planes, suggesting sustained exposure to moisture and temperature fluctuations. In places, minor biological growth—such as moss or lichen—has taken hold, accentuating the recessed mortar lines. Although no immediate structural concern is evident, the deterioration points to gradual material fatigue and underscores the need for continued maintenance monitoring. (See Plate 10)

Plate 11: showing split joints on lower step and later mortar patching , east facing elevation.

The east-facing elevation of the cross's lowest step exhibits several open joints between sandstone blocks, indicative of historic movement or long-term weathering. These gaps vary in width and depth, with some showing signs of biological colonisation. Interspersed among the original joints are areas of later mortar patching, applied in a visibly different mix and texture. The mortar appears to be a cement-rich repair, contrasting with the original lime-based bedding, and in places, it sits proud of the stone surface. While the patching has slowed further deterioration, its visual prominence detracts slightly from the base's otherwise uniform character. (See Plate 11)

Plate 12: showing displaced stone in lower step , the stone is solid and not currently moving.

Socket Stone

A partially displaced sandstone block is present in the lowest course of the cross’s stepped base. While the stone is visibly offset from its original alignment, it remains structurally sound and shows no evidence of movement under light manual pressure. The misalignment is likely historic in origin and may reflect minor settlement or impact damage rather than ongoing instability. The jointing gap is clean and weathered, suggesting the displacement occurred some time ago. Although not currently in need of intervention, the feature merits periodic monitoring to ensure the condition remains stable. (See Plate 12)

Plate 13: Detail showing Inscription cut into south face of the Socket stone.

Notably, the cross's socket stone is formed of two discrete components — a lower chamfered block (heavily weathered) and an upper section transitioning from square to octagonal plan.

This two-part construction is somewhat unusual and may suggest either a phased rebuilding or the repurposing of earlier masonry. The transition between the two stones is clean yet lacks the cohesive shaping often associated with integral designs, reinforcing the possibility of later intervention.

Equally curious is the placement of the carved inscription , *“Plague A.D. 1637, Burials 315, Libera Nos Domine”* , which occupies the south face of the upper socket stone. The alignment of the text appears slightly cramped within the available surface, with irregular spacing that implies it may not have been part of the original scheme. This raises the likelihood that the inscription was added retrospectively, possibly during restoration work intended to commemorate local plague burials after the cross’s initial construction.

Shaft

The shaft of the cross is a tapering monolith, square in section at its base, transitioning smoothly into an octagonal profile as it rises , a stylistic feature typical of later medieval design.

It is mortised into the socket stone and bonded with lead, suggesting a secure, if historically modified, fixing method. The shaft measures approximately 1.71 metres in height, contributing to the cross's overall vertical emphasis.

In terms of condition, the shaft exhibits moderate surface weathering, particularly along its upper faces, where prolonged exposure has softened the arises and dulled the original tooling marks.

The stone surface shows signs of laminar erosion, with shallow flaking along bedding planes, especially on the more exposed south and west elevations. There are some small traces of biological colonisation, including lichen and moss, which has taken hold in surface irregularities .

Despite these signs of age, the shaft remains structurally stable, with no visible fractures or significant displacement. Its tapering form and octagonal refinement remain legible, and the transition to the knop is cleanly defined. The shaft's weathered patina contributes to the monument's historic character, though periodic conservation monitoring is advisable to track any progression of surface loss or biological impact.

Plate 14: Details showing deterioration of the Knop (N-E-S-W facing elevations) These views collectively highlight the knop's compromised condition and its vulnerability as a key transitional element between shaft and head.

Knop

The knop occupies the transitional zone between the shaft and the cruciform head, and is carved in an octagonal section, echoing the tapering profile of the shaft below. It appears to be a later addition, likely dating from the 19th or early 20th century, and is stylistically restrained, lacking elaborate mouldings or foliate ornamentation. Its proportions are modest, serving more as a structural intermediary than a decorative flourish.

In terms of condition, the knop is in notably poor repair. The stone surface is heavily weathered, with pronounced erosion along its arises, resulting in a softened and irregular profile. Several faces exhibit laminar flaking, and there are visible cracks and surface delamination, particularly on the south and east aspects. Biological growth, including lichen and moss, has colonised the recessed areas, further obscuring the original form. The junction between the knop and the shaft shows signs of historic mortar repairs, now failing, and there is minor displacement suggesting movement or settlement over time.

While the knop remains in place, its deteriorated state compromises both its aesthetic legibility and its long-term stability. Conservation attention may be warranted to prevent further loss of material and to ensure the secure support of the cross head above. (See Plate 14)

Plate 15. Views of the cross head showing extensive deterioration, including open fractures across both vertical and horizontal arms. The stone is visibly splitting and has suffered material loss, with surface erosion obscuring original details. Later wire repairs, now corroding, have been applied to stabilise the structure, encircling the head and binding its fractured elements.

Cross Head

The cruciform head of the cross, positioned above the knop, is carved in a foliate style with projecting arms, though much of its original detailing has been lost to time. The stone is in very poor condition, exhibiting extensive fracturing and splitting across multiple planes. The arms of the cross show signs of structural separation, with visible fissures running through the vertical and horizontal elements, suggesting both material fatigue and long-term exposure to environmental stressors.

In an effort to stabilise the structure, later wire repairs have been introduced — likely during a 20th-century intervention. These consist of metal wire, now rusted, which encircle the fractured arms in an attempt to hold the head together.

While these additions have prevented complete collapse, they are visually intrusive and offer only limited structural reassurance. The wire has in places bitten into the stone, exacerbating surface loss and drawing attention to the fragility of the surviving fabric.

Given the extent of deterioration, the cross head is at risk of further failure, and its current condition significantly compromises both its legibility and long-term preservation. A conservation-led assessment would be advisable to explore options for stabilisation, potential consolidation, or sensitive replacement using archival references. (See Plate 15)

9. Conclusion

This programme of archaeological recording has provided a meaningful contribution to the recording and preservation of the medieval standing cross within St Mary's Churchyard, Ross-on-Wye. By documenting the monument's current condition, the project ensures that an enduring record exists to inform future management and public interpretation. While no intrusive interventions were undertaken, the exercise reinforces the significance of the cross as both a local landmark and a Scheduled Monument of national importance. It is recommended that the results be integrated into the wider heritage strategy for the site, supporting ongoing stewardship and appreciation of Ross-on-Wye's ecclesiastical landscape.

Site Archive

- AutoCAD drawings: four elevations and one top-down plan
- 960 RAW image files for 3d model data
- 960 JPEG image files for 3d model data
- 5 JPEG photogrammetric model renders