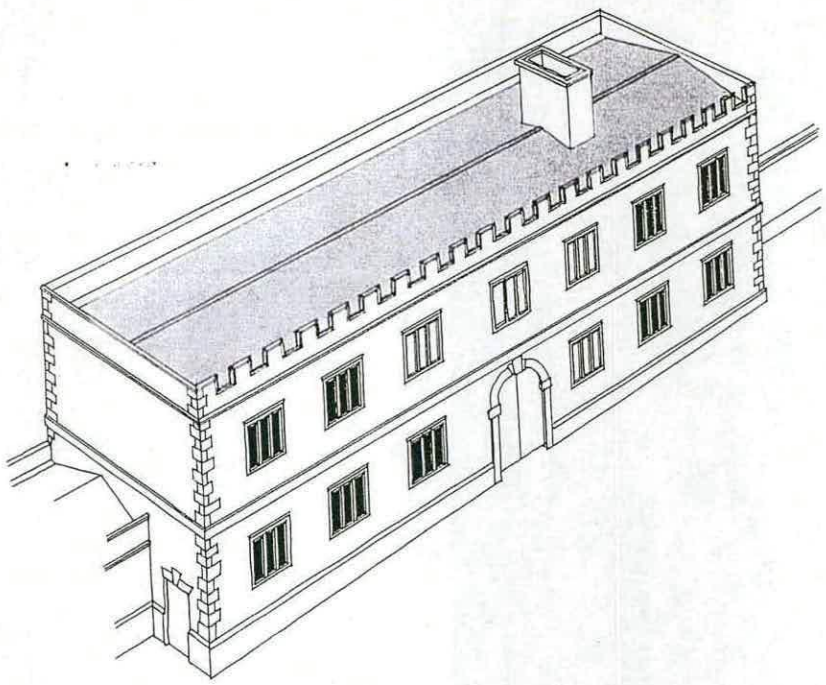
THE BREWHOUSE AT BURGHLEY HOUSE, STAMFORD

An Assessment of the Historic Fabric and Surviving Fittings of a Eighteenth-Century Building by 'Capability' Brown

by

David M. Robinson and Andy Wittrick



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Nature of Request

Set on the south-eastern edge of the handsome little stone town of Stamford in Lincolnshire, Burghley House was initially built by William Cecil (1520–98), Lord Burghley, in two campaigns over the years *c.* 1553 to 1587. Towards the end of the seventeenth century, John Cecil, the fifth earl of Exeter (1678–1700), began a major internal transformation of the house. After more than fifty years, it was Brownlow Cecil, the ninth earl of Exeter (1754–93), who in the 1750s employed Lancelot ('Capability') Brown to direct the completion of the interior renovations and refurnishing. Brown was further responsible for transforming the Burghley gardens, and for the design of a series of important architectural additions to the outbuildings. His work extended through until 1779. One apparently new building introduced as part of Brown's 'master plan' for Burghley was the brewhouse, located on the east side of what is now the Chestnut Courtyard.

This brewhouse (figs. 1 and 2), which is currently disused, is proposed as the subject of a bid to the Heritage Lottery Fund for a grant to convert it for use as an 'educational centre'. Various historic features survive in the interior of the building. There appear to be two options for these features: they might be interpreted and incorporated into the educational scheme, or removed for practical reasons to facilitate the conversion.

Advice is required on the development of the building and on the nature of the fittings. Are the fittings of value, and what advice should be given to the Burghley Trust and the local planning authority?

Burghley House is a grade I listed building.

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1
'A noble Pile!' Burghley House

The house described in 1763 by Horace Walpole as a 'noble Pile!' was Burghley (fig. 1), one of a group of magnificent English country houses built by high-ranking ministers and courtiers during the reign of Queen Elizabeth I (1558–603).[1] Its builder was the queen's enduring Principal Secretary, William Cecil, created Lord Burghley in 1571 and appointed lord high treasurer of England in 1572. Although a comprehensive survey of the development of the house has yet to be written, 'itinerant' Burghley has certainly not lacked its historians.[2] Any number of works of both specific account and general survey have contributed to our understanding of this superb country mansion, raised by Cecil over the years *c.* 1553 to 1587.[3] Indeed, in an as yet unpublished work of considerable importance, the architectural language, iconography and significance of the Elizabethan house, and its gardens, have recently been given a fresh and insightful new context.[4] This said, we are much less informed when it comes to detail of the late seventeenth-century transformation of Burghley, nor have the works in the second half of the eighteenth century, and later, been considered to anywhere near the same degree.[5]

1.1 Sixteenth-Century Burghley

The Cecil interest in the Stamford area is first recorded in the 1490s, and the manor of Burghley was acquired by David Cecil (d. 1541) in 1520s.[6] He and his son, Richard (d. 1552), served in the households of Henry VII and Henry VIII. Through royal grant, purchase and marriage, they were to establish sizeable family estates in Northamptonshire, Lincolnshire and Rutland. Richard's only son, William Cecil (1520–98), was born in the Lincolnshire town of Bourn.[7] In 1535, he entered St John's College, Cambridge, proceeding to a career in law at Gray's Inn. Cecil was made a secretary of state in 1550, and was knighted a year later. In November 1558, three days after Elizabeth was proclaimed queen, she appointed Cecil as her Principal Secretary and Privy Councillor. In 1571 he was raised to the peerage as the first Lord Burghley, and the next year he was created a Knight of the Garter and given the important and lucrative office of Lord Treasurer. His loyalty and general devotion to the queen over four full decades brought him rich rewards; throughout this time he was also the most powerful man in England.

1 The Gothic revivalist, Horace Walpole, fourth earl of Oxford (1717–97), was at Burghley during the period of landscaping and rebuilding by Lancelot ('Capability') Brown. His observations are quoted in Stroud 1975, 76.

2 Burghley lies immediately south-east of the town of Stamford, close to the borders of three present counties, at TF 044055. Historically, it was long in the Soke of Peterborough, sometime lay in the counties of Cambridgeshire and Northamptonshire, and is now claimed by Lincolnshire.

3 See, in particular, Hussey 1953; Pevsner 1968, 217–25; Girouard 1992; Summerson 1993, 67–70; Till 1997–98; Till 1999. In addition, Leatham 1992 provides much new information of the provenance of the pictures and other contents of the house.

4 This is Husselby 1996, consulted for the importance of the context it provides for those subsequent modifications to Cecil's mansion. It is to be desired that Dr Husselby publishes her views in the near future.

5 In sum, for the seventeenth-century works we remain reliant upon Hussey 1953, 2038–41, 2104–07; for the eighteenth century and later, Hussey 1953, 2164–67; Till 1975.

6 On William Cecil's family origins, see *Dictionary of National Biography*, **3**, 1315–21; VCH 1906, 523–26; and now, in particular, Husselby 1996, 72ff.

7 No biography of Cecil has appeared since Beckingsale 1967; more comprehensive is Read 1955–60; see also *Dictionary of National Biography*, **3**, 1315–21.

Cecil's power was by no means limited to state and political matters; he was, too, in a position to become the most influential architectural patron of the Elizabethan era. In fact, from the mid-1550s until his death in 1598, William Cecil seems rarely if ever to have been without some construction works on his hands. In particular, he was the builder of three great houses, all of which were self-consciously designed for the periodic entertainment of the queen and her court.[8] It is well recognised that for all men of rank, Elizabeth's summer progress provided the opportunity to preserve or increase their favour, generally through lavish accommodation and corporate hospitality. And, in order to accommodate the queen and her retinue, it was frequently in the interests of all those likely to be visited to build on a scale far exceeding their normal requirements. The result was that group of buildings dubbed by Summerson 'Prodigy Houses'.[9] Rather than serving merely as private dwellings, they were as much envisaged — it is argued — as occasional palaces for the monarch. William Cecil made the inspiration behind such houses very explicit when in 1585 he stated of Theobalds that 'it was begun by me with a mean measure but encreast by occasion of her Majesty's often coming'.[10] In sum, of his three great properties, Cecil's anonymous contemporary biographer records:

> 'He buylt three houses. One in London [Cecil House], for necessity. Another at Burghley; of computency, for the mansion of his barony. And another at Waltham [Theobalds], for his younger sonne. Which at the first, he ment but for a little pile. as I hard him saie. But, after he came to entertayne the quene so often there, he was inforced to enlarge it, rather for the quene & her greate traine, and to sett poore on worke, than for pomp of glory. For he ever said "it would be to big for the small living he cold leave his sonne". The other two are but convenient, & be not bigger than will serve for a nobleman'.[11]

The initial work at Burghley is believed to have occupied Cecil from *c.* 1553 until 1564, when he acquired Theobalds, as an estate for his second son.[12] From *c.* 1573 he was again busy at Burghley, bringing the house to its more or less final form in 1587.[13] It is generally agreed that Cecil was — in all significant matters — the master of his own building works. It is has long been known, for example, that he was accustomed to making sketches to guide his workmen at Burghley, even if these were of an elementary form.[14] This is not to say that Cecil made no use of professional expertise. On the contrary, he drew on a number of experienced architects and designers otherwise engaged with royal works. In 1578, a plan for Burghley was prepared for Cecil by a clerk in the queen's works, John Symonds (d. 1597), and Sir John Summerson was of the view that much of the later work at both Burghley and Theobalds may have been due to this craftsman.[15] In turn, Symonds was probably instructed to prepare this Burghley design by Thomas Fowler.[16] At the same time,

8 Reed 1955–60, II, 76–77; Husselby 1996, 19–71.

9 For the generally understood interpretation, see Summerson 1993, 58–74; for a more recent account, see Cole 1997; and for background, see Nichols 1823.

10 Theobalds in Hertfordshire was acquired by Cecil in 1564. For the quote, see Summerson 1959, 108, quoting Nichols 1823, I, 205, n.1.

11 Airs 1995, 19; Cole 1997, 28, quoting Peck 1779, 25–26. The biography of Cecil (by an unknown author) is called 'The Complete Statesman'.

12 For the building of Theobalds, *c.* 1564–85, see Summerson 1959.

13 Summerson 1993, 67.

14 Airs 1995, 41. Summerson (1959, 115) drew the same conclusion about Theobalds. For the point in general, see Howard 1993. In a work first published in 1953, Summerson (1993, 46) suggested that Cecil had an 'intimate knowledge of building and could put pencil to paper to express his meaning'.

15 Summerson 1959, 114. The plan is Hatfield MSS volume 143, 99. Symonds was a joiner by trade; it seems he was patronized by Cecil from 1577: Summerson 1993, 55. Colvin et al. 1982, 46.

16 Summerson 1959, 114–15. Fowler was controller of the Queen's Works from 1556 until his death in 1596: Colvin et al. 1975, 87–103.

it is clear from documentary sources, first transcribed at the end of the nineteenth century, that Cecil delegated the day to day management of the building operations at Burghley to his steward, Peter Kemp.[17]

This is not the place to attempt a summary of the many revealing discoveries made by Dr Husselby in her recent research on Cecil and his patronage at Burghley, nor to explain her interpretation of the architectural meaning in the building. Suffice it to say that Husselby's work on the documentary sources confirms much in the earlier studies, but goes a good deal further in allowing for a more precise understanding of Cecil's own role in determining and directing the plan and detailing of the house.[18]

In general, historians are agreed that the earliest phase in the construction of Burghley, that is between *c.* 1553 and 1564, involved a substantive remodeling of one of the Cecil family homes, acquired by William on his father's death in 1552. Superficially, at least, very little of this initial phase appears to have survived, with most elements masked during the more extensive second phase of building. Through her detailed research, however, Husselby has been able to construct a much clearer picture of the early work, suggesting that important cultural as well as stylistic changes were already inherent in the programme. The thesis extends to a tentative reconstructed ground plan of the house by 1566.[19]

By the time Cecil returned to the Burghley project, *c.* 1573, his ideas could scarcely fail to have been influenced by his now rich experience as a political host. Yet Husselby argues that virtually all that occurred in second programme of work was firmly anchored on the plan established by 1566. The transformation was effected by building upwards and outwards around the already ample space of an existing courtyard. This said, from the very planning stage, the whole environment of the house, along with its garden and park, was probably conceived within the context of its intended function as a venue for the queen and court. The elements might serve, Husselby suggests, 'to enhance the visual, dramatic and sporting spectacles that were such important features in the politics of staging these events'.[20] The complete transformation of the house was, to all intents and purposes, brought to fruition by 1588.

Burghley House was built largely of local Barnack and King's Cliffe stone, the quarries located almost within sight of the house. Material was also carted to the works from the dissolved monasteries in and around Stamford.[21] The site of the house is on a slight hill, in what is otherwise a generally flat location. As completed, it was of rectangular plan (figs. 1, 3 and 4), arranged around a central open courtyard, and with the longer axis running east to west. A detailed reconstruction of the disposition of the Elizabethan accommodation lies beyond the scope of this report, and readers are referred to Husselby's account.[22] We should, nevertheless, at least note the importance in this regard of the ground- and first floor plans of Burghley prepared by John Thorpe *c.* 1605/06 (fig. 5).[23]

17 Gotch 1890, 104–06.

18 Husselby 1996, *passim*.

19 Husselby 1996, 72–147, and her fig. 13.

20 Husselby 1996. 10, 247–312.

21 For recent insights into the precise sources of building stone, see Till 1997–98. Airs (1995, 109) observes that stone for some of the more exotic fittings was shipped from Antwerp by Sir Thomas Gresham: Quoting Patrick 1879, 265. On the Cecil ownership of Stamford's dissolved monastic houses, see Hartley and Rogers 1974, 54–67, *passim*. Interestingly, Hartley and Rogers (1974, 64) note that in 1566 some large building must still have existed on the site of the former Franciscan house, since Cecil wrote in his diary that the queen 'was entertained at my house, the Grey Friary, because my daughter Ann was suddenly seized with the small-pox at Burghley'.

22 Husselby 1996, 247–312.

23 Summerson 1964–66, 61, plate 27; Till 1999, 15.

The completed east range was effectively of double-pile plan, dominated by the new great hall built on to the east wall of the earlier house. It also featured a vast stone-vaulted kitchen, and — on the opposite face — a clock tower projected into the private space of the courtyard. The west range, with its Gothic-inspired gate-tower (dated 1577), was built afresh in the second phase of construction, though the arrangements may have repeated those of the 1560s. Lodging suites were housed in the ground floor, with a main reception room in the form of a long gallery above. As remodeled, the south range may well have taken on the aspect of a minor palace; it was the public part of the house, with all the facilities required for playing host to the queen and court. The north range, on the other hand, was the more privately orientated part of Cecil's mansion. It was the last area to be finished, and from 1587 a new entrance was located at the centre of this block.

To the north of the main house there was an open forecourt (the North Court), defined by lower projecting wings springing from east and west sides (fig. 1 and 3). Further service accommodation was probably arranged around 'the Court of Husbandry', a U-shaped set of buildings located west again from the projecting west wing.[24]

Hitherto, in assessing the iconography of the completed Burghley, scholars have been in broad agreement that it presents certain paradoxes, in themselves by no means unusual in great house architecture of Elizabethan England.[25] Cecil was the most powerful man in the kingdom, and an architectural patron of the highest order. He was, too, in touch with the very latest artistic developments on the Continent, and was perfectly *au fait* with the growing impact of Classicism on building design. Had Cecil desired such a scheme he would surely have commissioned one. On the contrary, there is much in the general form of Burghley — especially the west front with its prominent central gatehouse, and in the character of the hammer-beamed great hall and the huge vaulted kitchen — to suggest that Cecil was very deliberately harking back to the splendor of pre-Classical late medieval baronial building. His concept was that of a house which would underline his own position and background. It was to be resonant with symbolism, its towers, turrets, pinnacles and battlements reflective of a family with an ancient ancestry, real or invented. Yet in looking at the specific detail which punctuates the overall form of Burghley — features such as windows, mouldings, chimney-pieces, or the composition of the north staircase — it is clear that Cecil employed builders with a firm grasp on the most recent Classical influences. In sum, William Cecil's Burghley was to combine a sense of venerable antiquity with elements of the very latest refinement and comfort.

Husselby has recently expanded our understanding of Burghley. She argues it was effectively one of the earliest Prodigy Houses, with little evidence to suggest it was ever intended as a private retreat. It should not be seen, she states, as a building marking the last flowering of the medieval courtyard house, but as one of the first generation of new houses in which the scale, style and iconography all point to political entertainment and court hospitality. She reminds us that Cecil referred to it as his 'principal house', and that for his biographer it was 'the mansion of his barony'.[26]

1.2 Baroque Transformation

In 1605, William Cecil's eldest son, Thomas (1542–1623), was created the first earl of

24 The identification of this Court of Husbandry is the work of Dr Husselby. A plan of 1561 survives as PRO, SP Dom 12/20/8: see Husselby 1996, fig 12.

25 For earlier views on this point, see in particular Girouard 1963, his interpretation modified in Girouard 1992. See, also, Summerson 1993, 69; Worsley 1995, 175–76.

26 See, in particular, the chapters on 'The Courtyard as a Stage' and 'Its Purpose is its Use': Husselby 1996, 201–46, 313–54.

Exeter; his descendants have lived at Burghley ever since.[27] Essentially, we might identify several broad phases of subsequent change affecting the architectural identity of Elizabethan Burghley. The first of these took place in the late seventeenth century.

It was John, the fifth earl (1678–1700), said to have had 'a great genius for painting and architecture', who began the transformation of the state rooms in the south range, starting with the ground floor *c.* 1682 and proceeding to the upper chambers about six years later.[28] William Talman (1650–1719) was engaged as the architect to direct the creation of the sumptuous Baroque apartments,[29] the final appearance of which owes much to the individual craftsmen, including the wood carver Grinling Gibbons, the plasterer Edward Martin, and especially the painters Antonio Verrio and Louis Laguerre, who worked over the period *c.* 1686–97.[30] Meanwhile, in the façade of the range, a former open arcade along the central bays was enclosed, and large mullioned and transomed windows were introduced both here (*c.* 1682–87), and along the west front. Indeed, Husselby suggests that the structural alterations in this period were far more extensive than hitherto appreciated, with the interior plan of the south and west ranges completely altered from their form in the sixteenth-century.[31]

1.3 'Capability' Brown at Burghley

The second period of change was initiated soon after 1754, the year in which Brownlow Cecil became ninth earl of Exeter (1754–93). Almost at once, he consulted Lancelot 'Capability' Brown (1716–83) with a view to improvements to both the house and grounds at Burghley. It was a commission that proved to be one of the most important of Brown's career, lasting for more than twenty years.[32] As a first step, in 1755 the earl commissioned John Haynes, a York surveyor, to make plans and architectural and topographical drawing of the house, gardens and park as they then existed (figs. 6 and 7).[33] The drawings would have served as a guide for Brown.

In turn, the following year, Brown produced a 'master plan' of his proposed alterations to the house and outbuildings. Work on the grounds began immediately, while the suggestions for the house were under discussion. From 1756, through until 1779, Brown received £1,000 per annum for his services in directing considerable architectural alterations and additions to the fabric. Most notably, he was responsible for significant alterations to the south front, including the raising of the roofline (*c.* 1763–69). He reorganized the east courtyard, introducing the dignified brewhouse wing on its eastern side, and adding a Gothic-style orangery outside its southern margins (fig. 1). Further to the east, he raised the extensive stable courtyard, again in Gothic style. It was also at Brown's suggestion that the long, narrow service wing springing from the north-west corner of the house (fig. 3) was removed in the 1760s to open up the view.[34]

27 In sum, see Leatham, Culverhouse and Till 2000, 14–17.

28 Hussey 1953, 2038–41, 2104–07; Pevsner 1968, 217–25.

29 Talman seems to have been involved at Burghley several years before his work at Chatsworth in Derbyshire: Worsley 1995, 69, 72. For Talman's career, see Colvin 1995, 948–53, esp. 952.

30 Beard 1986, 133–37.

31 Husselby 1996, 14 and *passim*.

32 For Brown's career in general, see Colvin 1995, 165–67 (esp. 166 for Burghley). More specifically, for Burghley, see Hussey 1953, 2164–67; Till 1975; Stroud 1975, 74–79; Till 1991, 141–44; Turner 1999, 110–12.

33 On which, see Till 1975, 982. A selection of the Haynes drawings can be found reproduced in Leatham, Culverhouse and Till 2000, 10–12; Till 1991.

34 With it must have also disappeared the 'Court of Husbandry', which still featured on the Haynes survey plans (figs. 7 and 8).

1.4 Later Changes

Some elements of 'Capability' Brown's proposed alterations to the house were completed after his time. Work on the grand staircase, for example, appears to have been supervised by Thomas Lumby,[35] following a design by Robert Adam.[36] Thereafter, among the subsequent phases of building work at Burghley of note, we should mention the striking neo-Jacobean bottle lodges of 1799–1801 which form the main entrance gates to the house. The design was by the local architect W. D. Legg (1743–1806), and was commissioned by the first marquis of Exeter (d. 1804).[37]

Almost thirty years later, two-storey corridors were created around three sides of the inner courtyard, with a major new frontispiece at the west end and a ground-floor corridor at the east. This work was undertaken for the second marquis of Exeter (d. 1867) in 1828–33 by J. P. Gandy (1787–1850).[38] It allowed for circulation around the ground and first floors of the house without the need for intrusion into the principal rooms.

35 On what little is known of Lumby and his son, Thomas, see Colvin 1995, 627–28.

36 Till 1975, 984–85.

37 For Legg, see Colvin 1995, 607.

38 For Gandy, see Colvin 1995, 387–88. Drawings of Gandy's work apparently survive in the Burghley archive.

2
Country House Brewing

It is rare to find a country house of any size or age which has no record at all of the existence of a brewhouse.[39] Until the eighteenth century, or even later, beer was the staple drink of most men and women at all levels of society. Brewhouses are distinctive buildings, and should be regarded as much part of the country house complex as kitchens, stables and ice houses. Many have already disappeared, or have been converted to alternate uses. There is a need for greater recognition, appreciation and preservation.

The design of brewhouses appears to have developed over the centuries very much along standardized lines.[40] Although regional variations were to occur in building materials and stylistic detailing, there was a marked degree of continuity in the composition and arrangement of the internal functional features. The heyday of the country house brewer was the eighteenth century. At this time, in contrast with smaller scale domestic arrangements, greater country house brewhouses tended to be sited in a rather formal and specialized way, often part of an integral planned layout of 'domestic offices'. Generally purpose-built, they could be of considerable architectural pretension, designed by some of the most prestigious of architects of the day. For those gentlemen who funds might not stretch quite so far, there was in any case no shortage of guidance on the appropriate form and disposition of the brewhouse. In 1807, for example, the architect and land surveyor R. Luger published a compact design for a combined brewhouse, wash-house and bakehouse (fig. 7), providing a brief description of the elements involved.[41] By and large, because of the steam and distinct smell generated during the brewing process, late Georgian brewhouses tended to be sited away from both family and senior servants' quarters, though they were rarely tucked away entirely out of view.

In designing any brewhouse, two considerations were of paramount importance. On the one hand, a plentiful supply of water was essential, not only for the brewing process itself, but also for washing and soaking the vessels. Water could be stored in a large tank or cistern, with various inventories and bills indicating that these were often made of lead. The other feature of critical importance to the brewer was the need for appropriate ventilation. It had to be good, especially in that section of the building where cooling and fermentation took place. Windows in brewhouses were usually unglazed (or at least some of them), fitted with wooden louvres, shutters or trellises to protect from the sun, yet allowing the free movement of air. Some brewhouses were also designed with a ventilation 'lantern' on the ridge, fitted with adjustable louvred sides.

Brewing itself is essentially a chain of conversion processes.[42] To begin with, Barley — the all important ingredient — needed to be steeped in water, allowed to sprout, and dried in a kiln , thereby producing a stable malt. Some country houses did their own malting, though increasingly the process was contracted out and the malt bought in. The next stage was mashing, in which the malt was first ground and then mixed with hot water (called by brewers 'liquor'), and allowed to stand for some two to three hours. Invariably, in the country house brewhouse, this process was carried out in an open coopered 'mash tun'. When complete, the resulting liquid, known as 'wort', was run off and boiled for several hours with hops in an open 'copper'. Again, the resulting hot liquid would be run off, or

39 Much of the following text is heavily dependent upon Sambrook 1996; but see also Harteup 1980. For one of the better eighteenth-century instruction manuals on private brewing, see Poole 1783.

40 Sambrook 1996, 21–88.

41 Lugar 1807, 24, plate 21.

42 Sambrook 1996, 18–19, 90–92.

pumped into shallow open tanks and allowed to cool. The cooled wort was then run into fermentation vessels, and yeast added. In the country house brewhouse, it might be expected that the fermentation vats took the form of large coopered tuns, located usually in the brewhouse, or sometimes in cellars. Finally, after around five days, the beer would have been run into casks, either in the brewhouse or the cellars.

3
The Burghley Brewhouse

Such was the scale of its household, Burghley would almost certainly have been equipped with a brewhouse from the late sixteenth century.[43] In the Tudor and Stuart periods, it was presumably located among the outbuildings adjacent to the house itself. The most likely siting is among those ranges forming the 'Court of Husbandry', identified by Husselby to the north and west of the house.[44] In the late eighteenth century, however, as part of a widespread reorganization of Burghley's domestic offices, the brewhouse was moved to the east side of what is today known as the Chestnut Courtyard (fig. 1).

Fortunately, this courtyard was surveyed in a reasonable amount of detail by John Haynes in 1755, when it was labelled 'The East Court' (fig. 9). His principal plan now survives in a large frame in the main house at Burghley. The courtyard in question was already surrounded by service accommodation, and — to judge from the drawing — featured a grass plot at the centre, apparently ornamented with five mature trees. On the Haynes plan, several of the blocks around the court are annotated in the hand of Brownlow Cecil, ninth earl of Exeter, showing the functions of the various chambers at that time. We see that the north and east ranges comprised service and storage buildings. Beginning on the north side, the sequence began with 'the Black room'; continuing to 'Scalding room';[45] 'Poultry House'; 'Ditto cont'; and 'Shed for Billiting &c'. The outer wall of the east range faced onto an open area, noted as the 'Wood yard for faggots'.

In 1756, Lancelot ('Capability') Brown prepared plans for an extensive redevelopment of the service ranges at Burghley, [46] works which in due course seem to have been executed very much as planned. Prominent among the additions was a fairly grand Gothic-style stable courtyard, built on the north-east side of the complex. At much the same time, it was on Brown's advice that the former service ranges to the north-west of the house were demolished, in order to open up the view. Presumably, both Brown and the earl took into account the need to reorganize other areas so as to accommodate the now displaced functions. Indeed, Brown's 'master plan' (fig. 10) shows several significant proposed modifications to what he labels 'The Kitchen Court'.

Although the northern and southern ranges were to be less affected (figs. 11 and 12), the east range was to be fully rebuilt in order to accommodate a 'Coal Hole', 'Slaughter House', 'Brewhouse' and 'Bakehouse'. Those areas he intended to leave untouched were shaded grey on his plan, with open line used to depict new building. Hence, we see that apart from the new east range, Brown also planned to locate 'The new Greenhouse' (or orangery) to the south of the angled southern range (figs. 1 and 10).

The orangery, we know, was built by Brown in the 1760s, much as he had intended in his 'master plan' (fig. 13). Furthermore, there is little reason to doubt that the building which now stands along the east side of the Chestnut Courtyard also follows Brown's 1756 'master plan' very closely. As demonstrated in the following text, the footprint of the building survives almost intact, as does much of its upstanding fabric. Before progressing further, however, one needs to bear in mind that the single label 'Brewhouse' is something

43 The best known surviving sixteenth-century brewhouse is probably that at Lacock in Wiltshire: see National Trust 1999, 21; Sambrook 1996, *passim*.

44 Husselby 1996, fig. 7. The court also appears on the Haynes's plans (see fig. 6 and 7).

45 A 'scalding house' appearing on the Whitehall Palace plan of 1670 is identified as a room where dead poultry was dipped into boiling water to ease the removal of feathers: Thurley 1998, 51–52.

46 See above, p. 10.

of a misnomer for a building which was — from the outset — specifically designed to be multi-functional.

3.1 Outline Description of the Brewhouse Today

As it stands, the brewhouse is virtually a freestanding rectangular range running north to south along the east side of the Chestnut Courtyard (figs. 1, 2, 14–18). Narrow boundary walls run off from the northern and southern ends, and there is a stone-walled enclosure attached to the south-west side. The natural ground level falls noticeably to the north, resulting in a consequent heightening of the elevations. Overall, the building measures approximately 87 feet (26.5m) long by 25 feet (7.7m) wide, and it is some 28 feet (8.5m) high to the eaves at the northern end. The brewhouse is built of squared coursed rubble, with ashlar quoins, and a broad ashlar string on the east, south and north façades. Clearly, the building has been raised in height at some point after its initial construction, with a marked change in the colour of the masonry in the upper courses. The hipped roof on the brewhouse today is covered with stone slates, broken only by a single stack set over the ridge near the southern end.

The courtyard elevation (figs. 2 and 17) is symmetrically arranged in seven bays, with two tiers of two-light, square-headed windows featuring plain chamfered sills, moulded jambs and a moulded projecting cornice. There is a projecting plinth at the base of the elevation, deepening to the north in line with the topography, and broken centrally by a doorway with square ashlar jambs and a depressed arch of ashlar voussoirs with keystone (fig. 19).

The north elevation (fig. 20) is now dominated by a large projecting chimney-stack, gabled at mid-height, with an unusual flue arrangement above. There is a small ground-floor doorway near the west corner (fig. 21). The south elevation (fig. 22) is largely without features, apart from the stringcourse carried through from the courtyard, a small doorway (matching that on the north elevation) close to the west corner, and a square opening near the centre, just below the roof-line. The east elevation (fig. 18) differs considerably from that towards the courtyard; clearly this largely unseen side was never intended to have the same architectural distinction. There are three openings with ashlar jambs and louvred fittings at the centre of the upper levels, two of them notably tall (fig. 23), and two tiers of two-light windows at the northern end. The window jambs and heads are of a plainer form than those on the courtyard side.

Internally, the brewhouse is subdivided into three very distinct sections by full-height cross-walls (figs. 14 and 15). In the central three bays, a single floor structure (which incorporates timber of several periods) now divides the space horizontally into two levels (fig. 16). The much taller upper storey (figs. 24 and 25) is open to the roof. The floor levels at either end of the building, however, do not accord with these central arrangements. In the southern two bays, the ground-floor currently serves as an office. There is a staircase climbing to first-floor level situated against the gable wall, and a further stair leads on up to an unused room on the second floor. Finally, in the two northern bays of the building, there are ground- and first-floor chambers equivalent to those at the southern end (fig. 16), but here there is no surviving second floor.

3.2 Brown's Original Building

'Capability' Brown's original building seems to have replaced the earlier, somewhat insignificant range described on the Haynes survey plan of 1755 as a 'Shed for Billiting &c' (fig. 9).[47] It was positioned alongside (and part included) the western boundary wall of the former 'Wood Yard', immediately to the east. Brown's new range was to be

47 This is interpreted here as probably a dry storage area for wood.

considerably wider; its east to west width apparently connected to the dimensions of the former 'Poultry House' marked at the north end of the Haynes survey (fig. 9).

To accommodate the new building work, almost the entire existing east range must have been demolished, along with the 'Poultry House' at the northern end.[48] Having said this, it seems clear that parts of the rear (east) wall retain elements of the older building. A section of random coursed rubble walling (fig. 26) fills an area roughly equivalent to the outline of the former projecting privy block which can be seen on Haynes survey (fig. 9). It appears this block was retained during construction, and incorporated into Brown's overall design; his brewhouse range was at least partly built around the existing structure. Indeed, it is possible to identify the line of its lean-to roof in the differing rubble patterns on the outer east face (fig. 26).

In its ground plan at least (fig. 27), Brown's layout for the brewhouse range was much as survives today. It was to be of seven bays, subdivided by cross-walls into three quite separate functional areas. To the north, a 'Slaughter House' was to occupy the first two bays, with two windows towards the courtyard, a doorway in the gable wall, and another in the middle of the east wall. The central three bays were to serve as the 'Brewhouse' proper, fitted with opposing doorways in the west and east walls. To the south, the remaining two bays were to accommodate a 'Bakehouse'. On the basis of Brown's ground plan, coupled with the interpretation of the surviving fabric of the building given in the following paragraphs, a conjectural reconstruction of the brewhouse in its original form is offered by way of discussion (fig. 28).

Beginning at the northern end, in the 'Slaughter House' marked on the 1756 plan a staircase is depicted rising on the south wall (fig. 27), its length and number of treads indicating a comparatively high upper level, almost certainly the floor which survives today. The size of the ground-floor chamber suggests the slaughter of small animals, especially as there appears to have been little room for the preparation and hanging of larger carcasses. The 'Slaughter House' was sited adjacent to the former 'Poultry House', and it seems reasonable to assume that it was for the processing of fowl and game. Above this chamber, the structure for the upper floor supports a traditional and rare, lime-ash surface (fig. 29). No indication of an earlier boarded floor structure is apparent, and it is quite possible that the entire assembly is original, though successive surface repairs and filling layers have been introduced. The access arrangements relating to first floor have been altered, and the staircase seen on Brown's plan lost. Nevertheless, the underside of the floor assembly, which remains exposed (fig. 30), exhibits the trimming timbers of former structural openings. The doorway seen on Brown's plan giving access from the north (that is from 'The Kitchen Court') survives (fig. 21), whereas that opening eastwards into 'The Wood Yard' has been blocked (fig. 31). There was no internal communication between the 'Slaughter House' and the 'Brewhouse'.

In the centre of the building, apart from the opposing doorways, the only features depicted on Brown's plan of the 'Brewhouse' proper are likely to be principal and secondary boiling 'coppers', located in the south-east and south-west corners (fig. 27).[49] They were devised, it seems, so that they would form part of a large heating range, which was also intended to serve the adjoining 'Bakehouse'. Such an arrangement was not uncommon, allowing as it did for the sharing of flues. Although later alterations to the 'Brewhouse' have removed all obvious trace of these coppers, there is no real reason to doubt they were not constructed to Brown's design. The provision of two coppers suggests brewing on a fairly large-scale,

48 As this stage, a precise construction date has not been established, though the 1760s seems likely.

49 As Sambrook (1996, 32–46, *passim*) points out, many eighteenth-century brewhouses had two coppers, the secondary one often half the size of the main boiling vessel.

perhaps to be expected in a grand country house the size of Burghley.[50] In any case, we may assume that in the completed 'Brewhouse' much of the remaining floor area was taken up by the other equipment needed for the manufacturing process, including the mash tun, cooling trays, fermentation vessels, and so on.[51] It was perhaps the generally less fixed nature of such fittings which accounts for their omission from the basic plan.[52] On the other hand, another notable absence from Brown's drawing of the 'Brewhouse' section of the building is any indication of a stair. In fact, in this case, there is no convincing evidence in the surviving fabric to suggest the existence of an upper floor level within the initial design. On the contrary, the 'Brewhouse' was probably open to its roof, giving the necessary space for ventilation. The opposing doorways, both of which survive (figs. 19 and 23),[53] gave access to the 'Brewhouse' from the 'The East Court' and from 'The Wood Yard'.

South of the 'Brewhouse' proper, Brown's plan shows a 'Bakehouse' within the last two bays of the building (fig. 27). Access to the ground-floor chamber was by way of the single (surviving) doorway on the south-west side. The plan shows a large oven in the north-east corner of the room, and probably a boiling copper in the north-west corner. The oven still survives. As noted above, both would have shared the heating range with the adjoining 'Brewhouse'. The plan also shows a staircase rising on the southern wall, and — as in the 'Slaughter House' — the length and number of treads indicate a relatively high upper floor. Indeed, the bulk of the staircase, as well as the upper floor structure, survives from the late eighteenth-century period (fig. 32).

Taken as a whole, the surviving evidence points to the fact that Brown's original brewhouse range stood no more than two storeys high (fig. 28), with the 'Brewhouse' proper almost certainly without horizontal sub-division. In considering the roofing arrangements, it is fortunate that a late eighteenth-century shallow tie-beam truss, together with associated framing, survives at either end of the building. One of these is located in the chamber above the 'Slaughter House' (figs. 16 and 33); the second is situated over the 'Bakehouse'. The purlins associated with these trusses, which in part also survive, were supported at the walls by projecting corbels (fig. 34). These features suggest the original roof was of low pitch (fig. 34), that it was boarded, and almost certainly covered with lead. Furthermore, the building may have featured raised parapets, perhaps not unlike those which survive on Brown's Gothic stable range (figs. 35 and 36).[54] Such parapets, possibly castellated in part, would have 'hidden' the roof structure from ground level. The evidence from the surviving fabric also suggests that the original roof was not of hipped form, but that it was gabled to both north and south elevations.[55]

Although the current pattern of fenestration in the building seems to reflect Brown's initial intentions (figs. 2, 17 and 27), at least to the main 'East Court' elevation (now the Chestnut Courtyard), the existing windows do not follow the precise arrangements seen on his 1756 plan. On the plan, each window to this principal elevation is shown in three-light form,

50 Alas, there are apparently no records in the Burghley archive which may provide a clue as to the quantity of beer produced and consumed by the household each week, in any period: information from Mr Jon Culverhouse. At Shugborough in Staffordshire, there were two large coppers which held up to 425 and 200 gallons: Sambrook 1996, 37.

51 See above, p. 12; and Sambrook 1996, 21–88.

52 Given the fact there is no known cellar attached to the 'Brewhouse', we might also consider the possibility that storage vessels were accommodate within the this building.

53 Though it survives, as outlined below, the east doorway was modified at a later date.

54 In 1763, Walpole commented that 'Brown is ornamenting the Park [at Burghley] and has built a gothic greenhouse and stables which are not bad, except that they do not accord with the house, which is not Gothic': quoted in Stroud 1975, 76.

55 It may be noted that Brown's stable ranges, and his orangery, are also now covered with hipped roofs, though we have not examined these in any detail.

whereas all of the present openings are of two lights, with the spaces between them rather narrower than shown on the drawing. The existing windows all have plain chamfered sills, moulded jambs and heads, a modest projecting moulded cornice, and a single ovolo-moulded mullion. Essentially, we must first recognize that there is nothing within these details which might contradict a late eighteenth-century date, though one would of course have to accept that modifications were made to the scheme as initially drafted by Brown.[56] Superficially, at least, the fabric of the building itself does not offer conclusive evidence (fig. 19); the nature of the rubble coursing may have disguised all but the most obvious traces of replacement.[57] In short, we must make some allowance for the possibility that the current windows were later insertions, in which case it is a question of identifying an appropriate opportunity when this work might have been undertaken. The two windows at the northern end of the ground floor do, however, reveal definite evidence of later modification (figs. 37 and 38). These are the only examples which feature transoms, though there are clear indications that these were cut into the existing jambs. At the same time, the sill level was lowered, with a strong indication that the original position was in line with that of the other ground-floor windows.

On the opposite (east) elevation of the building (figs. 18 and 23), three openings appear to have been provided in the original upper storey. Closer inspection may reveal whether they were originally windows, or if they were used for ventilation purposes, with the appropriate louvered fittings.

In the conjectural reconstruction of Brown's brewhouse range offered here (fig. 28), we have opted to show three-light windows in line with the detail seen on Brown's 'master plan'. Their disposition, or spacing, also reflects the pattern shown on the 1756 plan. In the upper level, there were presumably two windows at either end, just as we see today. In addition, despite the fact there is no structural evidence for an upper floor in the 'Brewhouse', the upper tier of windows in these three central bays would have been necessary to retain the symmetry in the elevation.

3.2 Nineteenth-Century Modifications

A major modernization and refurbishment of Brown's building appears to have been carried out sometime during the early nineteenth century. In particular, the entire range was significantly heightened and a completely new, hipped-roof-structure added. The present somewhat architecturally unbalanced main elevation seen today is the result of these works.

The principal reason for these alterations seems to have been a desire to improve and expand the operation of the brewhouse, and to modernize the production process beyond that of a simple horizontal approach to one with vertical or gravitational emphasis.[58] The brewing and preparation floor was raised to allow for the accommodation of a storage area at ground level. Here, three small brick-arched vaults (for the storage of beer) were constructed on the south wall, and these must have replaced Brown's coppers (figs. 39 and 40). A substantial new floor was constructed immediately above, partially supported on the

56 They would, in fact, be the only obvious modifications made to the draft scheme. However, we must of course remember the scale of Brown's full 'master plan', and the fact that the brewhouse was just one element. More detailed plans and elevation drawings were presumably drawn up for the various buildings, but nothing of the brewhouse seems to have been discovered in the Burghley archive: Till 1975, 984.

57 Though it is difficult to resolve the fabric evidence without further fieldwork, one should point to the contrast between the simplicity of the doorway and stringcourse detailing and that of the windows (fig. 19). It should be possible to reach a conclusion on whether this reflects chronological differences.

58 The new first-floor arrangements must have borne comparison to those at Aynhoe in Northamptonshire: Sambrook 1996, 43 (fig. 23).

vaults (fig. 16). Staircase access to the upper floor was provided in the north-west corner (fig. 41), and was later extended to provide access on towards the floor over the 'Slaughter House' (fig. 25). The inserted floor (fig. 42) cuts across the internal heads of both central doorways into the brewhouse (fig. 43); that door to the east also seems to have been reduced in width (fig. 23).

The queen-post trusses that form the heightened roof structure are well engineered, and follow a standard form (figs. 16, 44 and 45). They exhibit late technical features such as the simpler approach to trussing up the tie-beam, with a bolt set into a caged nut. They also appear to have been designed to provide the necessary support for an extensive gravitational delivery platform. This platform, or landing, constructed within the roof space of the brewhouse, still survives (figs. 44 and 45). It was presumably milled barley or grist which would have been delivered to the mash tun (or similar) from this platform, via the extant hopper.[59] Though awkward, access to the platform must have been by way of a ladder to the opening at the southern end (fig. 45). Materials would then have been hoisted up through a hatch in the walkway (fig. 44).

Related to the increased height of the building, two of the earlier openings on the east elevation were considerably lengthened (fig. 23). The existing tall, adjustable, timber louvres were introduced here (fig. 46), probably replacing earlier vents, ensuring a good circulation of air. The centrally placed, pivoting, timber 'ladder' racks appear to be a later addition to each assembly and are of some interest (fig. 47). Their framework could have been used as a background for fabric to catch and control the vertical passage of air over the cooling vessels, which were almost certainly located below these openings.

Meanwhile, the former open heating range at the southern end of the ground floor was sealed and reduced in size, using brick. A fireplace with hob grate was introduced at the new floor level (figs. 24 and 48). To accommodate the new flue arrangement, a projecting breast was constructed. Later, this seems to have been hacked back (thereby exposing flues), and providing a flush, if unfinished, wall surface.

The masonry 'stump' surviving above one of the brick vaults, and located against the east wall of the upper floor (fig. 49), is possibly the remains of the former support structure for a boiling copper during this period. The partial brick filling of the window opening immediately above could have been associated with this construction (fig. 50).[60] If so, it may have been necessitated by the height required for the new copper, and the need to construct a working platform around the device.

There is much evidence within the brewhouse, in the form of empty wall sockets on both east, west and north walls, to suggest the later insertion of a secondary floor structure. It appears to have been 'stepped' at the southern end of the room. If, as is likely, this later floor was constructed at about the sill level of the surviving upper windows, it would have severely restricted headroom to the preparation floor below. The alterations which may be observed to the base of the hopper shoot (fig. 24) may well have been associated with the insertion of this later floor. Access to the dispatch point could now only be gained if

59 Our colleague Sheila Ely (Architectural Investigation, Swindon), suggests that barley could have been milled into grist on the landing, though the lack of any obvious power source suggests this was done elsewhere.

60 The partial blocking of one of the upper two-light windows in this phase brings us back to the date of surviving fenestration. If, as we believe, the modernization of the brewhouse took place in the early nineteenth century, this was one opportunity for the introduction of new windows. Indeed, in further investigation, it might repay to compare the detail of the brewhouse windows with that of J. P. Gandy's modifications of 1828–33 (see above, p. 11) in the central courtyard of the house. Drawings of Gandy's scheme survive in the Burghley archive: Colvin 1995, 388. Having said this, if the two-light brewhouse windows were first introduced in the early nineteenth century, one must accept that this particular area of blocking was inserted very soon afterwards.

standing at the former floor level. The restricted headroom would almost certainly have prevented effective brewing, and it is therefore likely that the process must have ceased at this time.

A number of probable nineteenth-century alterations to the fabric of Brown's original 'Slaughter House' may also be recognized. In particular, it appears that a smoking chamber, for preserving and flavouring foods, was constructed on the ground floor. This involved the construction of a large, brick open range on the north wall (fig. 51), faced and dressed externally with stone (fig. 20). Smoke blackening of the floor timbers, walling and window frames in this area would appear to confirm this secondary use (fig. 52). The slender external stack above this range is either a rebuilding or alteration to the flue arrangements of the assembly. At the same time, the three large flat-chamfered cross windows, with metal casements, were introduced to the east elevation (fig. 31), with the same brick used in the range employed as internal dressing The positioning of two of these new windows meant the blocking of the earlier doorway out to 'The Wood Yard', the lower jambs of which survive on the outer face. It was presumably in the same period that the staircase to the upper floor was removed, with brick buttressing provided in order to support the floor filling (fig. 53).

The upper floor of the former 'Slaughter House' was probably given over to a brewing function, with access provided through the dividing wall. Three, flat-chamfered, central mullioned windows with metal casements were also introduced to the east elevation (fig. 18). The raising of the building here also appears to have provided an additional floor within the roof space (now mainly lost). Openings for dormers to both the west and east elevations (now all sealed externally) are evident within this area (fig. 54) An opening in the centre of the north wall also appears to have been provided. Here, a dressed stone jamb is evident behind the external stack.

At the 'Bakehouse' end of Brown's building, little alteration seems to have been carried out at this time. This said, modifications and adjustments were made to the upper room, which appears to have served as an office, presumably for a steward or senior household official. The modifications were due to the introduction of an upper floor, with staircase access (fig. 55), although the ceiling arrangement appears to date to Brown's initial works. Plasterwork to this room is largely original, and traces of painted (banded) decoration also survive and are of interest (fig. 56). Odd sections of eighteenth- and nineteenth-century paneling form cupboards in the north-east corner of the room (fig. 32). The upper floor which was formed here during this period appears to have been ceiled, although the ceiling has now completely collapsed (fig. 57).

3.3 The Twentieth Century

It has been argued that the social and economic changes which came about in the early twentieth century led to the gradual disappearance of large-scale country house brewing.[61] At Burghley, as pointed out above, it would appear that brewing could no longer be carried out in Brown's 1760s building following the introduction of a secondary floor structure in the central bays. It seems likely that this floor, which is itself now lost, was introduced around the turn of the nineteenth century. From then on, much of the space may have been used for storage, though with a workshop on the ground floor.[62] The fact that the hopper shoot was truncated (fig. 24), for use at the new floor level, suggests that the gravitational delivery platform may still have served for the bagging of materials.

61 See, Sambrook 1996, 247–67.

62 It may be that an exhaustive search of the Burghley archive might reveal documentary evidence for the decline of household brewing, and may even provide a clue as to the later use of the Chestnut Courtyard building.

The smokehouse function carried out on the ground floor of Brown's original 'Slaughter House' seems to have continued through until comparatively recent times. The survival of the oven in the 'Bakehouse' at the southern end of the building also suggests that it remained in use, certainly through the early decades of the twentieth century, and probably until the introduction of alternative forms of supplied power.

In more recent years, extensive repairs have been undertaken to the roof construction of the range (fig. 45), with the loss of dormers to the two northern bays, above the former 'Slaughter House' (fig. 54), and a replacement roof covering.

4
Summary and Conclusions

Burghley is one of the best know country houses in England; a magnificent construction initially raised by the most powerful man of the Elizabethan era. Vast sums were spent in transforming the interiors in the late seventeenth century, and from 1756 'Capability' Brown was employed to make further architectural changes and to create the present parkland setting. New insights into the architectural meaning of the sixteenth-century house and its gardens have been provided in an important recent study, though as yet the later architectural history of Burghley lacks anywhere near such comprehensive contextualization. The domestic offices and constructional features of the gardens and parkland are integral to our understanding of the development of the house, though (with the exception of Brown's landscape additions) they are these least explored element of Burghley's architectural history.

The brewhouse range, located on the east side of the Chestnut Courtyard, is without doubt an important structure, one which adds considerably to our understanding and appreciation of the operation of country house life in the eighteenth and nineteenth centuries. This report demonstrates, quite conclusively, that the range was built in the third quarter of the eighteenth century, as part of 'Capability' Brown's extensive modifications to the domestic offices at Burghley. Brown's Burghley commission was one of the most significant of his career, carried out over a long and happy period, and one in which the designer took great pride. Thus, in considering any alteration or conservation of the brewhouse range, it is essential to bear in mind its position within Brown's 'master plan' for the site.

As emphasized in this report, the single label 'brewhouse' is in fact a misnomer for a building which — although architecturally unified in its principal façade — was quite clearly designed to house three distinct domestic household functions. In Brown's original design, the internal functional areas ('Slaughter House', 'Brewhouse' and 'Bakehouse') were divided one from another by solid cross-walls, with no lateral communication one to another. At the centre of the building was the brewhouse proper, almost certainly open from ground level to the roof, with no horizontal sub-division. In contrast, both ends of the building were arranged in two storeys, with the domestic functions carried out at ground-floor level

Around half a century after its initial construction, that is in the early decades of the nineteenth century, the building was considerably modified. Brewing remained central to the overall arrangements, though henceforward the process was carried out on a newly introduced floor. This floor was inserted at a level below that of the end bays, bearing no direct relationship, with the need for sufficient vertical space to accommodate equipment and to allow for ventilation remaining paramount. In line with these changes, the entire building was raised in height and a new roof introduced. This increase in height allowed for the introduction of an additional storey at either end of the range. The slaughter house function at the northern end appears to have been removed, the ground-floor chamber instead given over to use as a smoke house.

A further floor appears to have been introduced to the central three bays of the building, probably towards the end of the nineteenth century. This phase probably marks the end of large-scale domestic brewing at Burghley. Thereafter, one can but guess as to the uses made of the space, though storage seems a distinct possibility.

Though the fabric appraisal given in this report is based on a single site visit, there is sufficient evidence to demonstrate the complexity of this late eighteenth-century brewhouse range. In total, the building is likely to include a great deal of very significant information

on eighteenth- and nineteenth-century building techniques, and on these grounds alone the full course of its development ought to be fully understood and appreciated before any development works are undertaken.

It is clear that the basic shell of Brown's original design for the range survives, and we do well to remember the significance of this fact. This said, the internal alteration which has occurred since, particularly to the central brewhouse proper, means that little physical evidence of eighteenth-century brewing now survives. What we do have are several important remnants of nineteenth-century brewing, including the delivery platform within the roof structure, and a set of ventilation louvres in the east wall. Well-preserved examples of eighteenth/nineteenth-century country house brewhouses are comparatively rare, particularly those still housing equipment used in the brewing process,[63] and so the Burghley fragments are not to be considered lightly.

In any scheme for the conversion of the building, the historic importance of the differing floor levels has to be taken into account. For example, to introduce a level at the centre of the building which aligns with those at either end would be to completely overlook the significance of the existing structure, a remnant of large-scale nineteenth-century brewing. Similarly, proposed modifications to the structure of the floors at either end must be regarded as sensitive, since they are clearly of historic architectural importance, notable the rare lime-ash surface at the northern end.

Before any works take place, a comprehensive survey and analysis of building is essential. Apart from the observations made in this report, particular attention should be paid to the outstanding questions. The Burghley archive should be examined for any light it may throw on the original construction, its modification, and on the process carried out within. A closer examination of the west front windows should be carried out, and the work compared to other features at the house. Finally, architectural paint research in the room above the 'Bakehouse' is to be much desired.

63 A short list is given in Sambrook 1996, 275–77. A trawl through the CD version of the *Buildings of England* (Pevsner) may provide further guidance; and, were time available, the English Heritage LBS database should be capable of narrowing down the number of sites of potential importance.

5
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Acknowledgements

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Fig.1 An aerial view of Burghley from the north-east. The house was originally built by William Cecil, Lord Burghley, over the years *c.* 1553 to 1587. The Chestnut Courtyard is to the bottom right, labelled No. 5. The eighteenth-century brewhouse is on the east (left) side, labelled No. 6.
(*Burghley Estate/Skyscan Balloon Photography*)

Fig. 2 A general view of the eighteenth-century brewhouse located on the east side of the Chestnut Courtyard at Burghley House. It was first built in the 1760s to a design by Lancelot 'Capability' Brown (1716–83), though was extensively refurbished and modernized in the early nineteenth century.

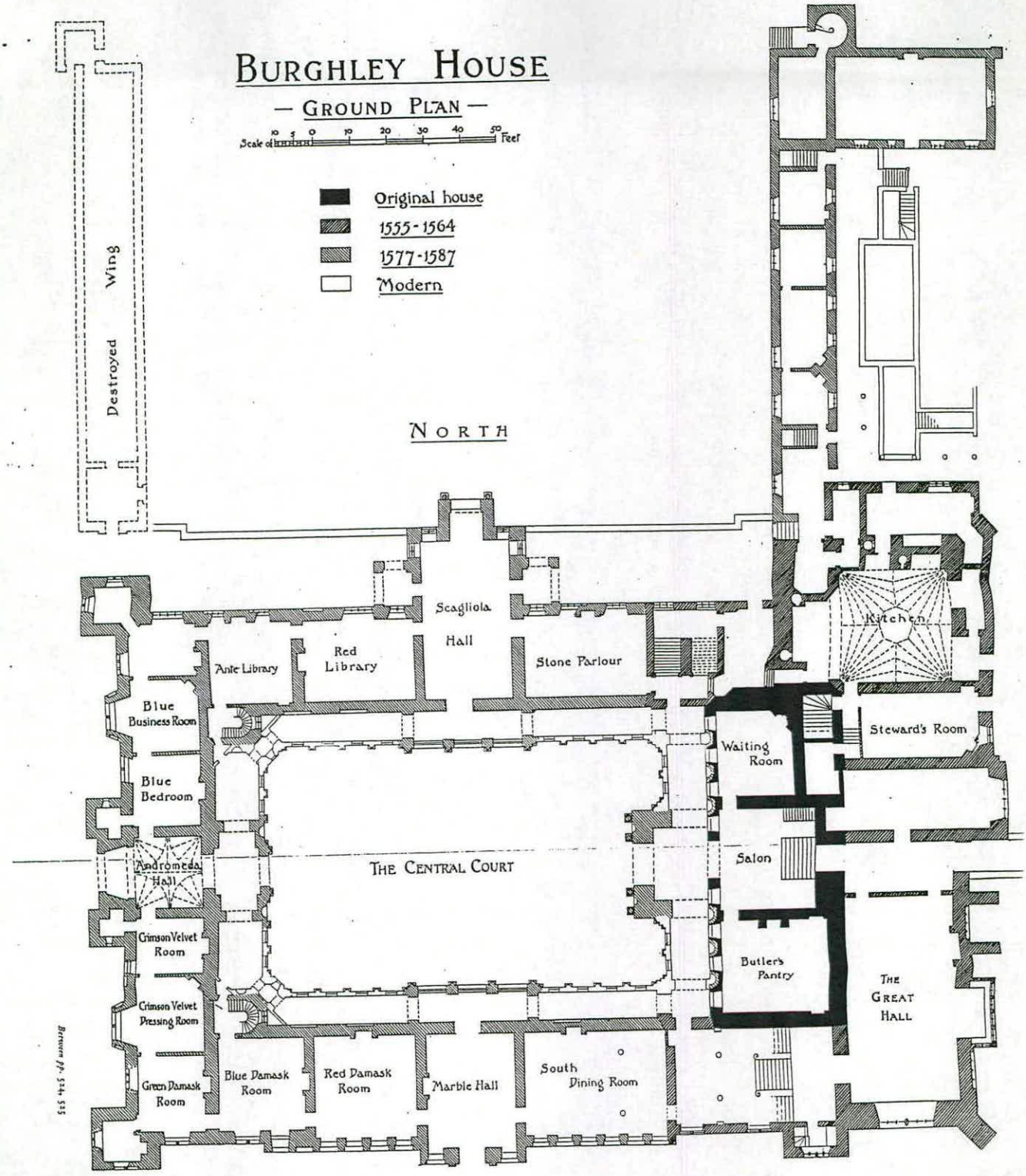

Fig. 3 A ground plan of Burghley House, published in 1906. The wing to the north-west side of the house was pulled down in the eighteenth century on the advice of 'Capability' Brown, to open up the view. Additional service ranges lay further to the west. Their removal necessitated a reorganization of the service accommodation to the north-east of the house.
(*After VCH 1906*)

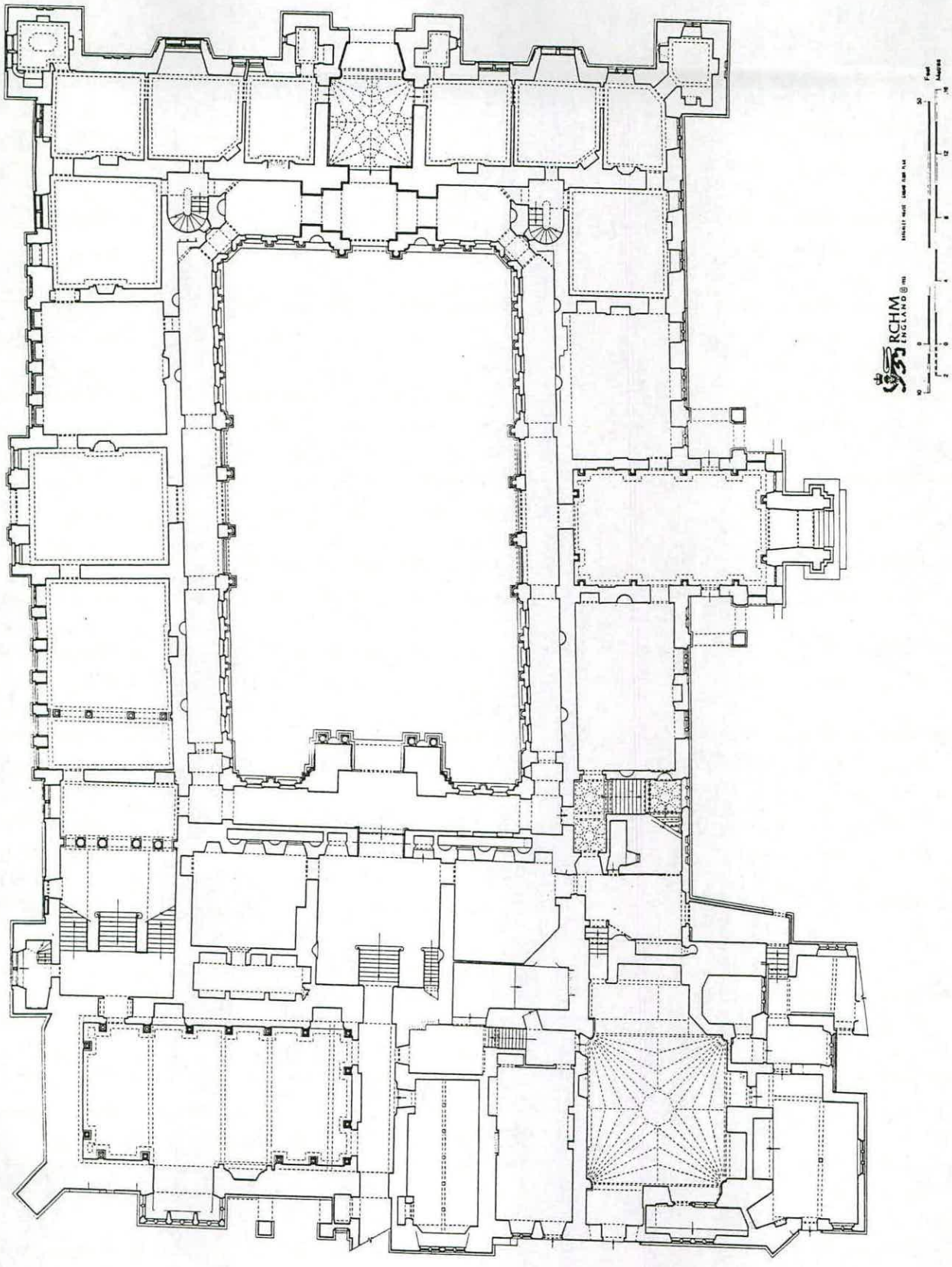

Fig. 4 Ground plan of Burghley House, *c.* 1990. The plan was prepared in connection with the Royal Commission's investigation of Northamptonshire country houses. It is the most accurate plot of Burghley available, but remains unphased.
(*Royal Commission on the Historical Monuments of England*)

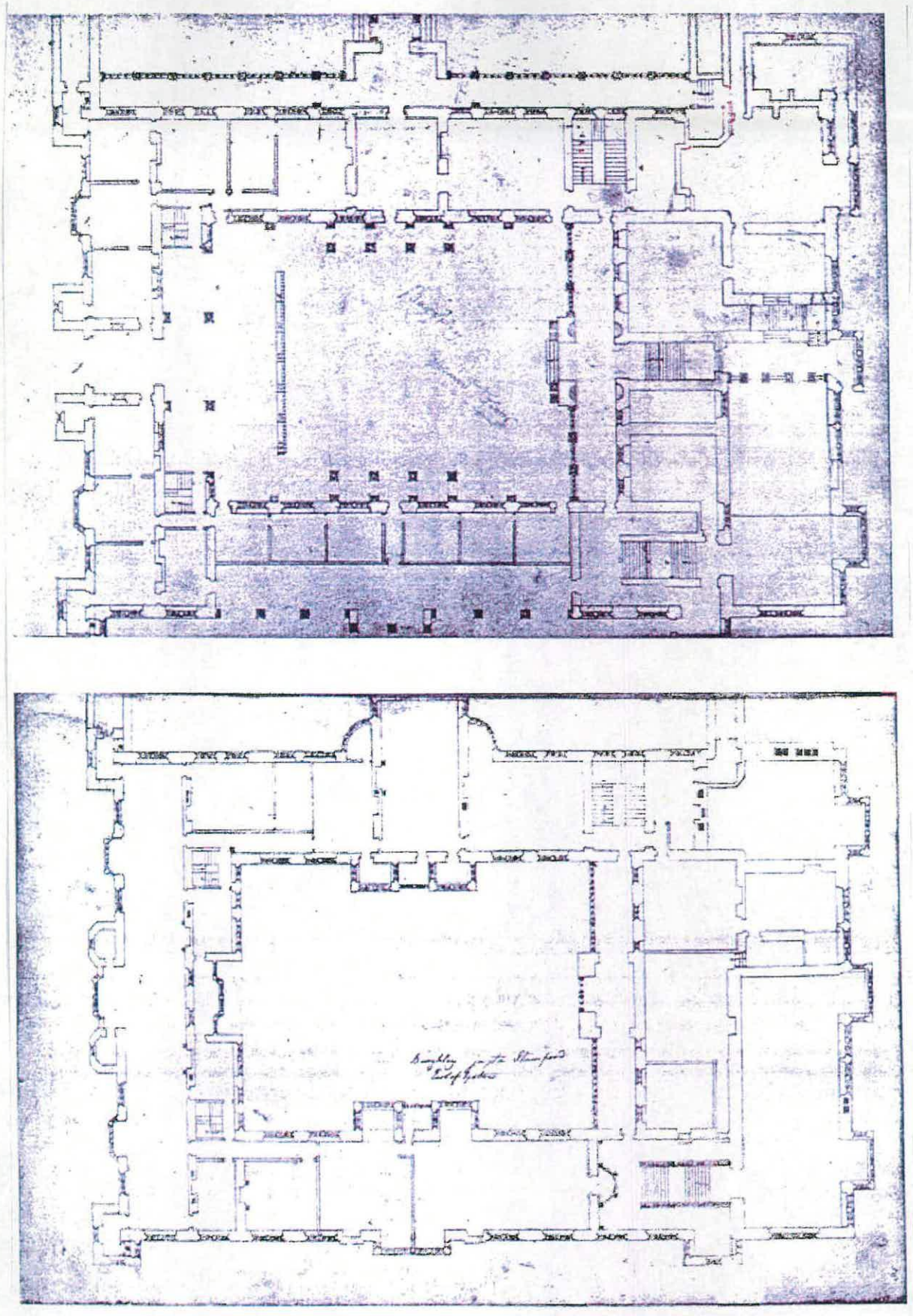

Fig. 5 Ground- and First-Floor Plans of Burghley House by John Thorpe, *c.* 1605/06. The plans are of great significance in our understanding of the earliest arrangement of rooms at the house.
(*Summerson 1964–66*)

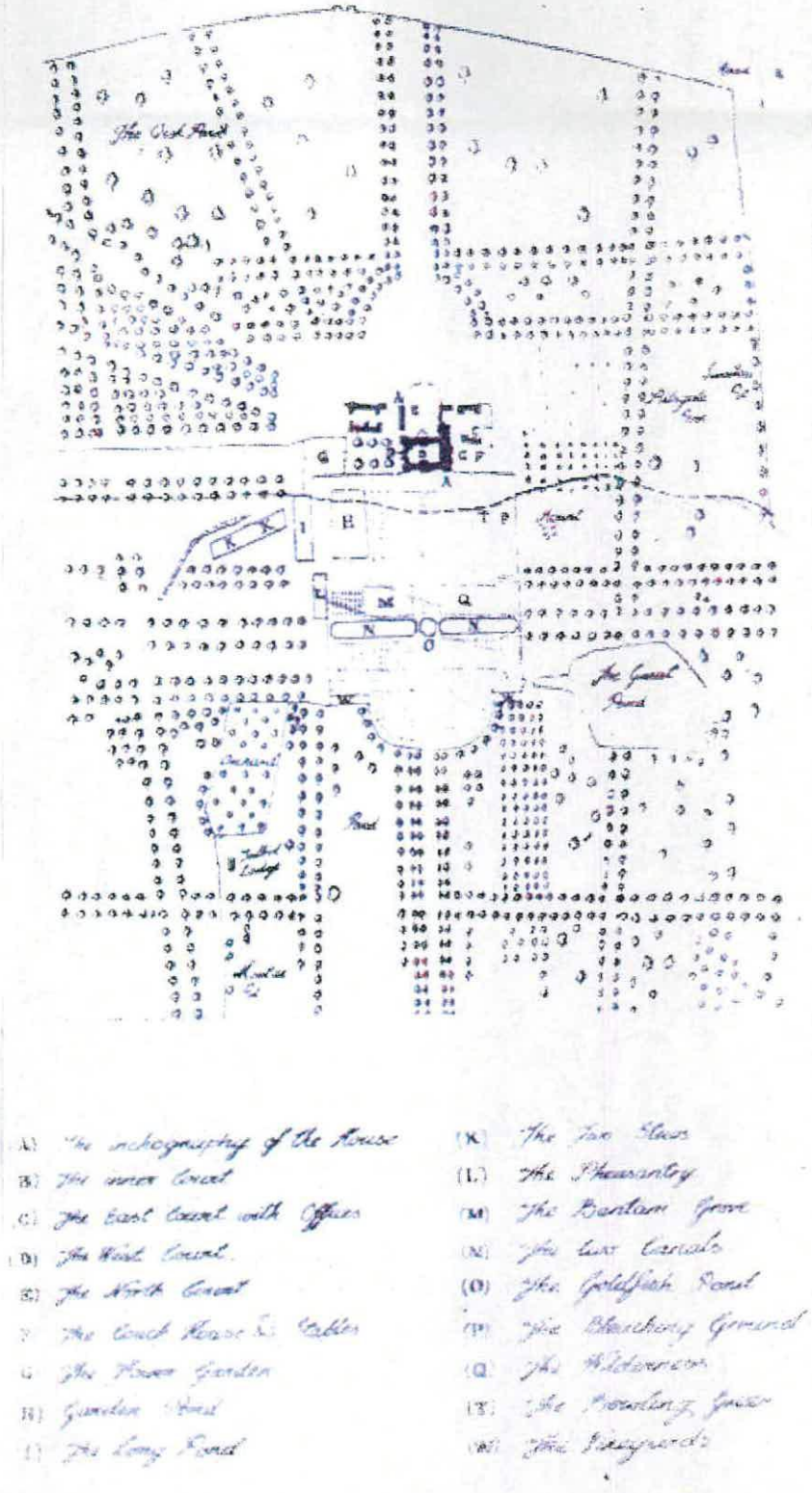

Fig. 6 Brownlow Cecil, ninth earl of Exeter (1754–93), employed the York Surveyor, John Haynes, to prepare various plans and drawings of the Burghley gardens and adjacent parkland in 1755. On this version (north to the top), the courtyard where the brewhouse was soon to be built by Brown is labelled 'C': 'The East Court with Offices'.
(*After Till 1991*)

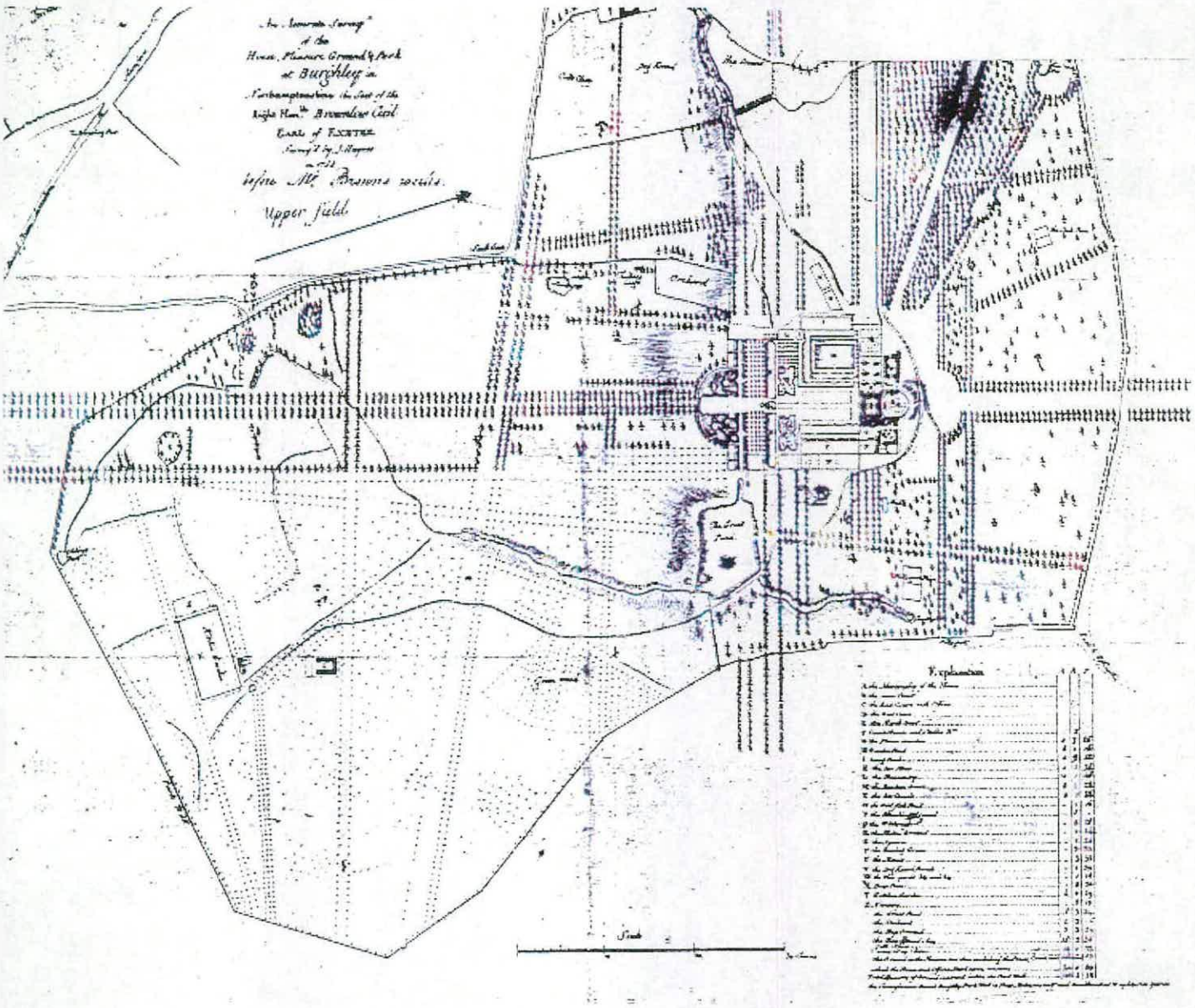

Fig. 7 A second plan of the Burghley gardens and adjacent park by John Haynes, 1755, with north to the right. 'The East Court' is shown in the form of the more detailed plan by Haynes (fig. 9).
(*By courtesy of Mr Jon Culverhouse, Burghley estate*)

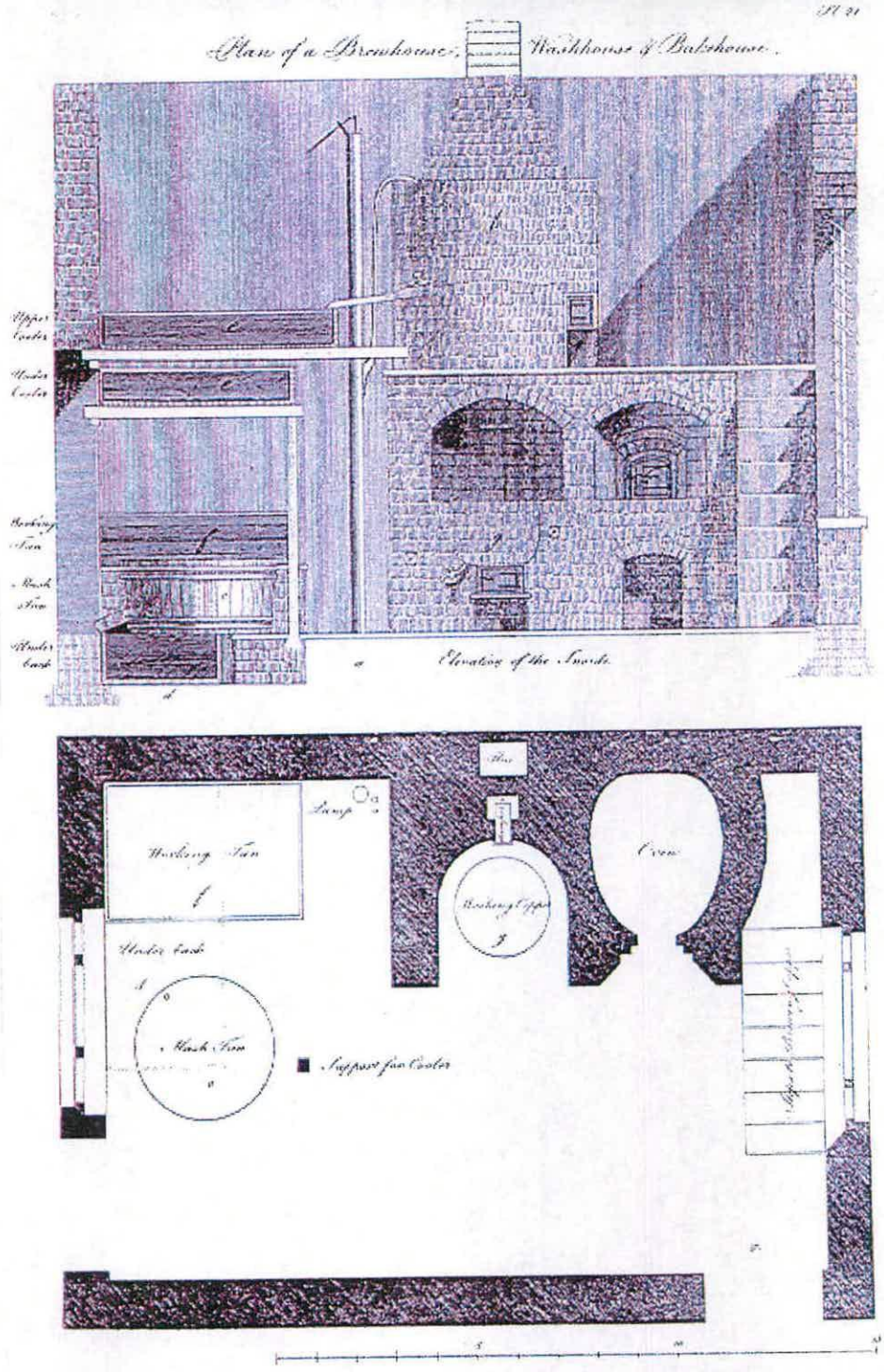

Fig. 8 Design for a combined brewhouse, washhouse and bakehouse, 1807. Note the combined range housing both a 'Mashing Copper and 'Oven', and the further space (taken on several levels) by the 'Mash Tun' and 'Working Tun'. Note also the ventilation louvre to right side of the building.
(*After Luger 1807*)

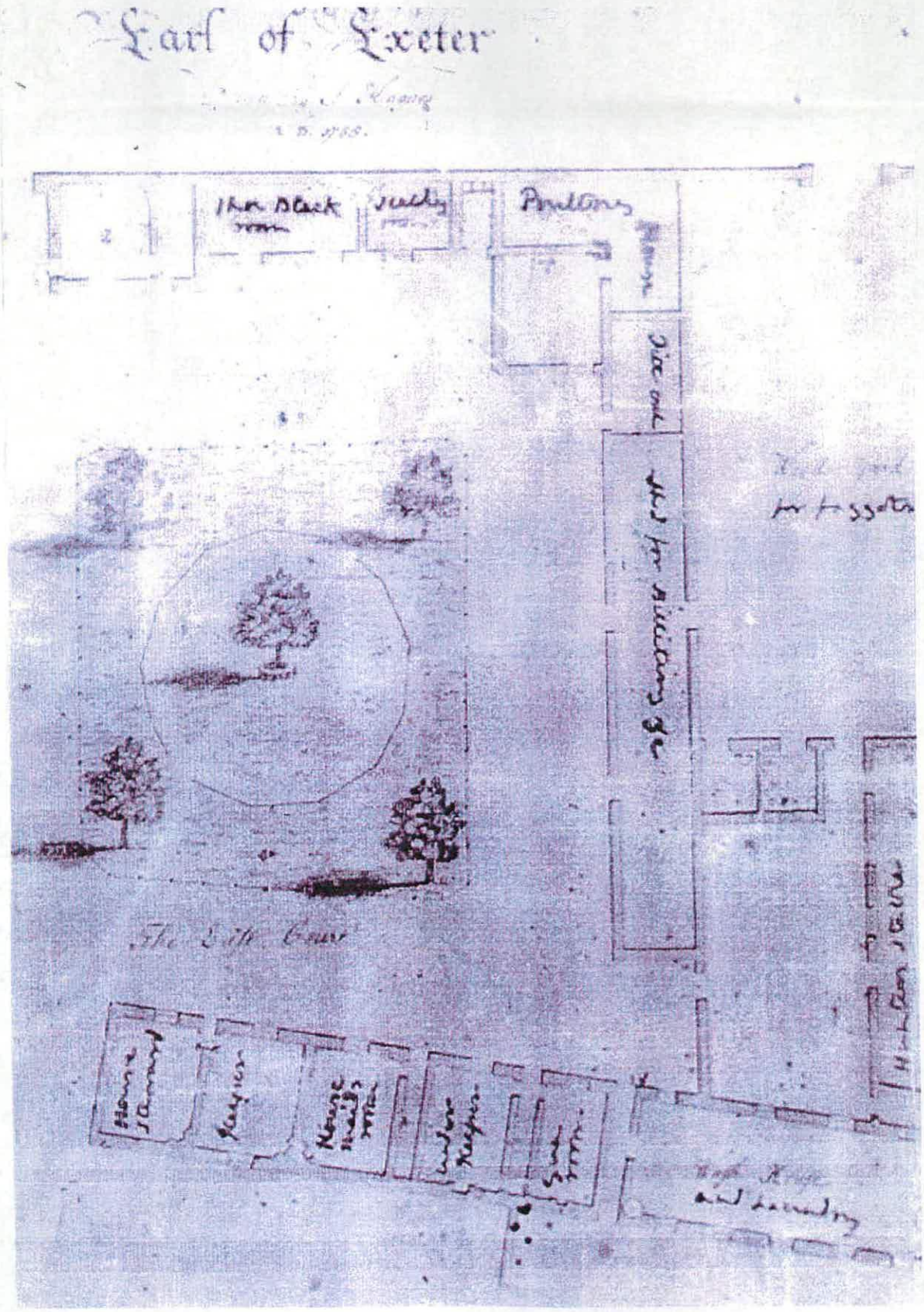

Fig. 9 Detail of 'The East Court' at Burghley from a survey by John Haynes, 1755. The buildings around the north-east side of the courtyard, labelled in the hand of Brownlow Cecil, were 'The Black room'; 'Scalding room'; 'Poultry House'; 'Ditto cont'; and 'Shed for Billiting &c'.
(*By courtesy of the Burghley estate*).

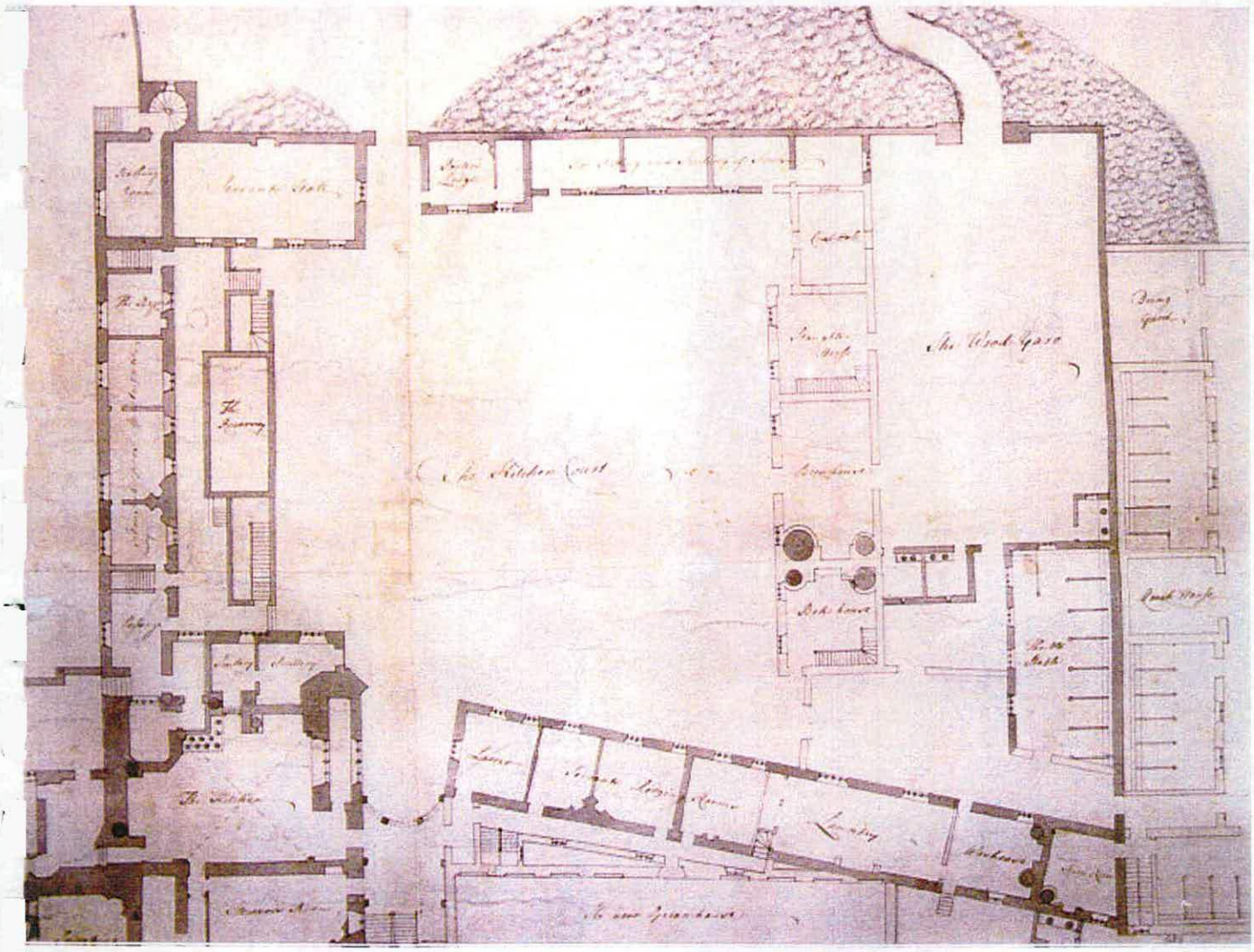

Fig. 10 'The Kitchen Court' at Burghley, from the 'master plan' by Lancelot 'Capability' Brown, 1756. His proposed new buildings are shown in open line, with existing structures shaded grey. The east side of 'The kitchen Court' was to be rebuilt; the stable courtyard lies further east, beyond 'The Wood Yard; and 'The new Greenhouse' is shown to the south. (*By courtesy of the Burghley estate*)

Fig. 11 The north range in the Chestnut Courtyard pre-dates the Brown 'master plan' of 1756, though it has been much modified. This view shows the east end of the range.

Fig. 12 The south range of the Chestnut Courtyard also pre-dates the 'master plan' of 1756, though a Gothic-style orangery was built to the south in the 1760s.

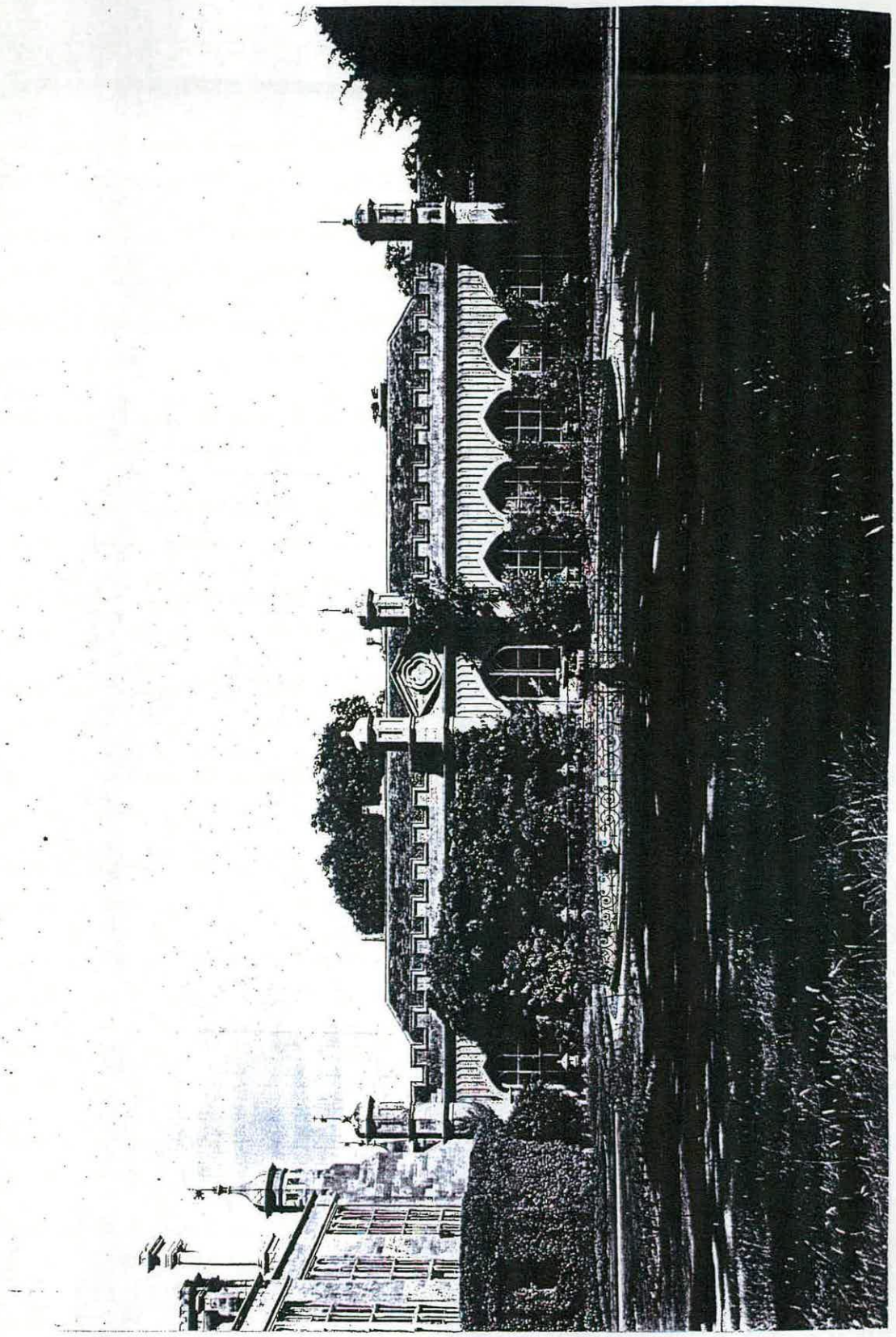

Fig. 13 Brown's 'master plan' for Burghley included the addition of a 'new Greenhouse', to the south side of 'The East Court'. It was built in Gothic style in the 1760s. (*English Heritage, National Monuments Record*)

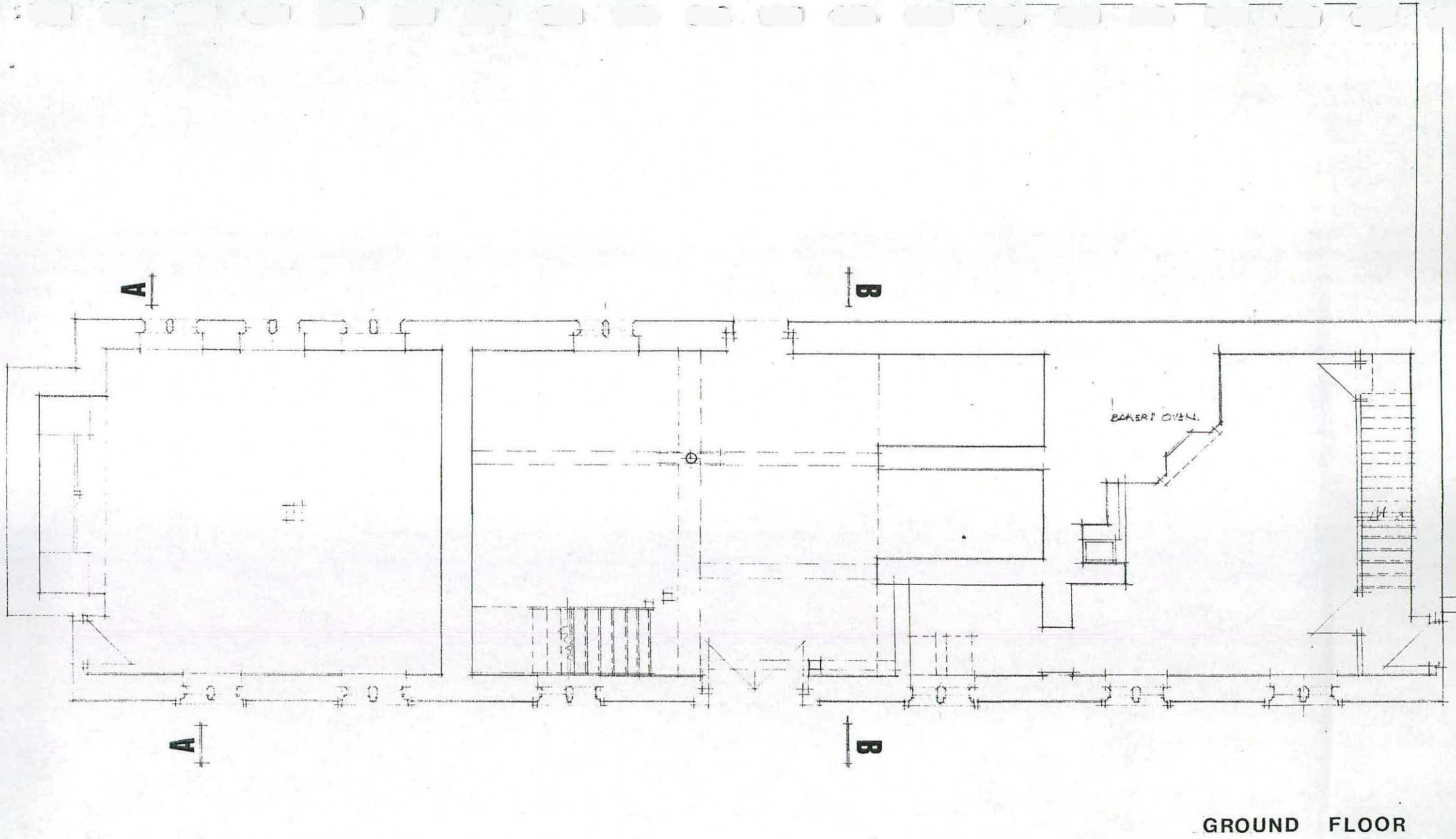

Fig. 14 Ground-floor plan of the brewhouse range as it appears today (north to the bottom of the page), at 1:100. For the section lines see fig. 16.
(*By courtesy of the Burghley estate*).

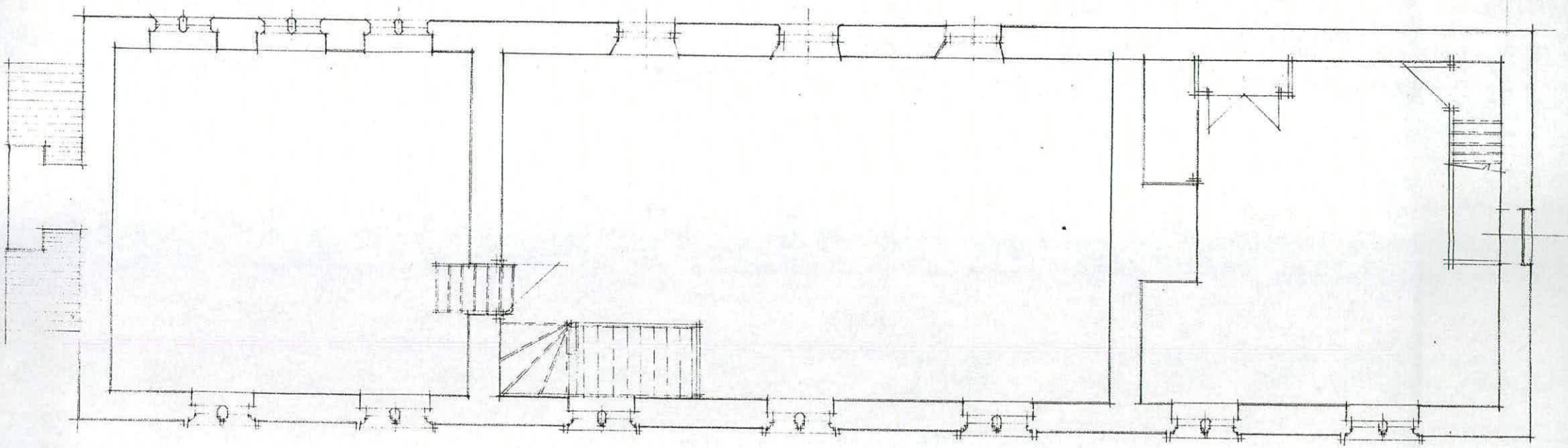

Fig. 15 First-floor plan of the brewhouse range as it appears today (with north to the bottom of the page), at 1:100.
(*By courtesy of the Burghley estate*)

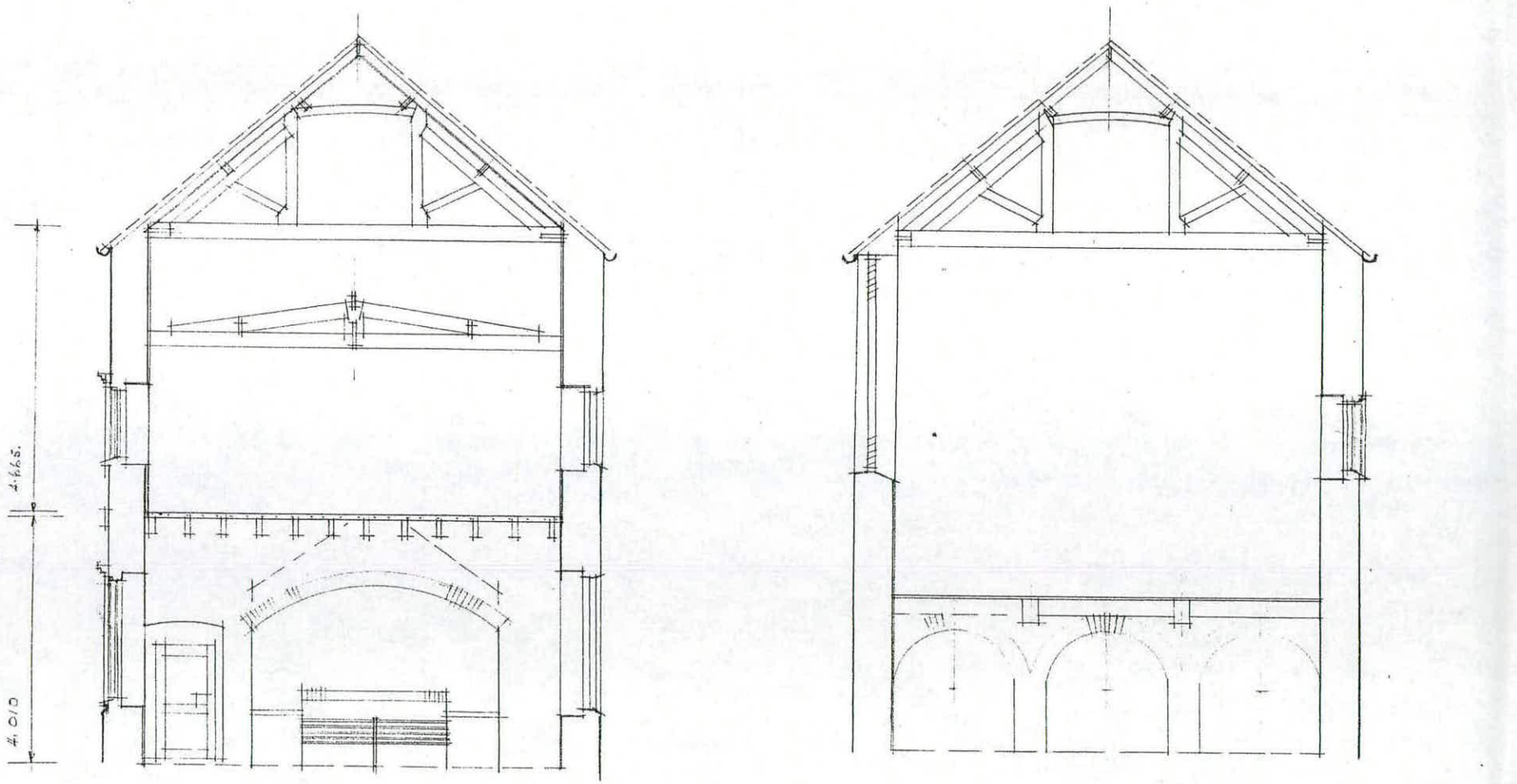

Fig. 16 Cross sections through the brewhouse range as it stands today, at 1:100. In Section AA, looking north, note the two roof truss levels; and in Section BB, looking south, note the arched vaults which part support an inserted floor.
(*By courtesy of the Burghley estate*)

Fig. 17 A general view of the brewhouse from the south-west.

Fig. 18 A general view of the brewhouse from the north-east. In origin, this largely unseen elevation was not given the same architectural distinction as that to the opposite courtyard.

Fig. 19 Detail of the doorway in the courtyard façade of the brewhouse, with one of the ground-floor two-light windows to the right.

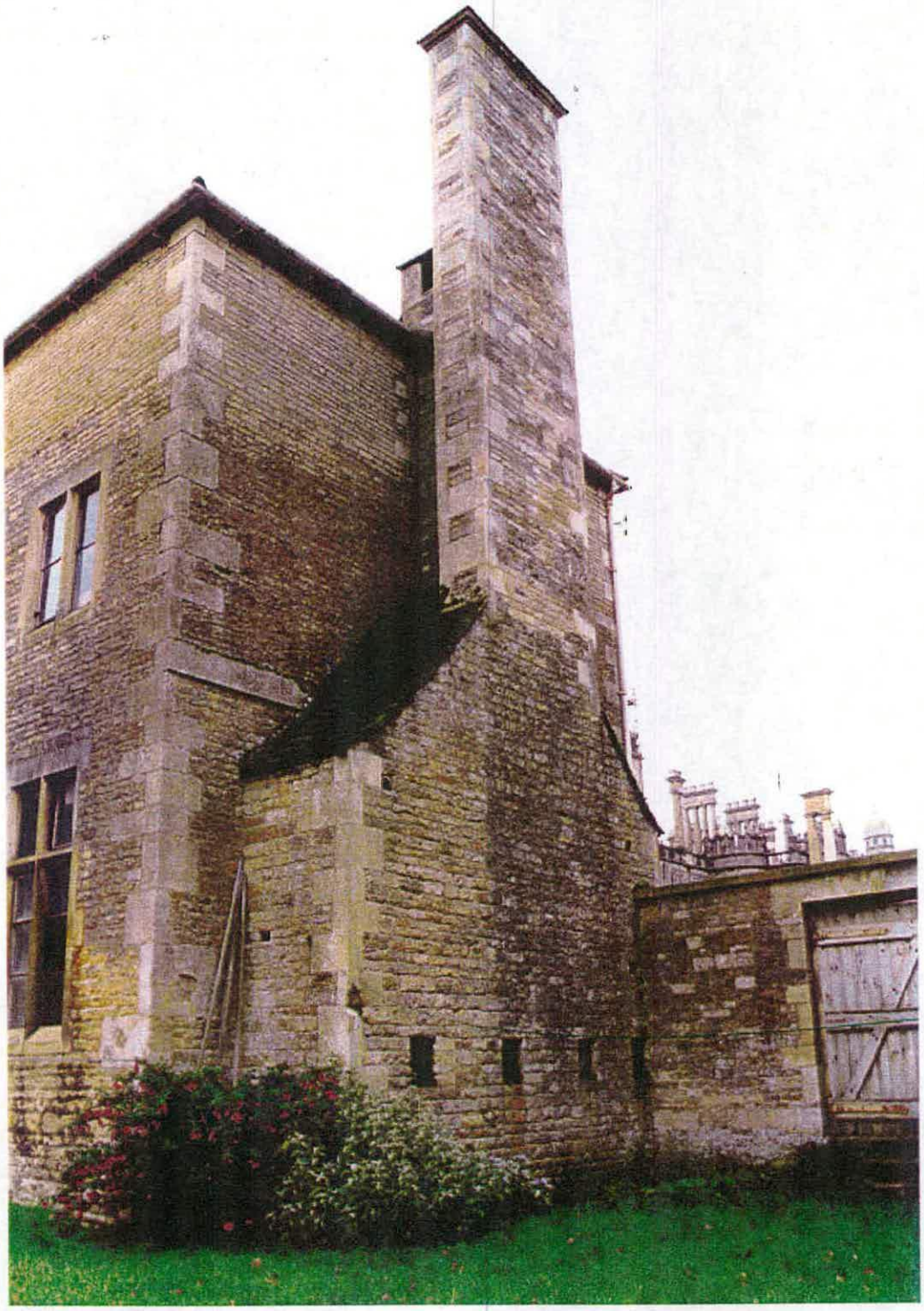

Fig. 20 The north elevation of the brewhouse, with its large projecting chimney-stack. The arrangement of flues above the mid-height gable is distinctive, and related to function.

Fig. 21 The doorway with plain dressed jambs and head in the north elevation of the brewhouse. The left jamb stones are in part obscured by the base of the large chimney-stack.

Fig. 22 The markedly plain south elevation of the brewhouse. A single doorway lies hidden behind the boundary wall to the left.

Fig. 23 A partial view of the east elevation of the brewhouse, showing the central bays, with louvre fittings to the upper openings and the central doorway below. The wall running out from the buildings marks the position of a privy block pre-dating the Brown building.

Fig. 24 A general view showing the interior of the upper levels in the three central bays of the brewhouse, looking south.

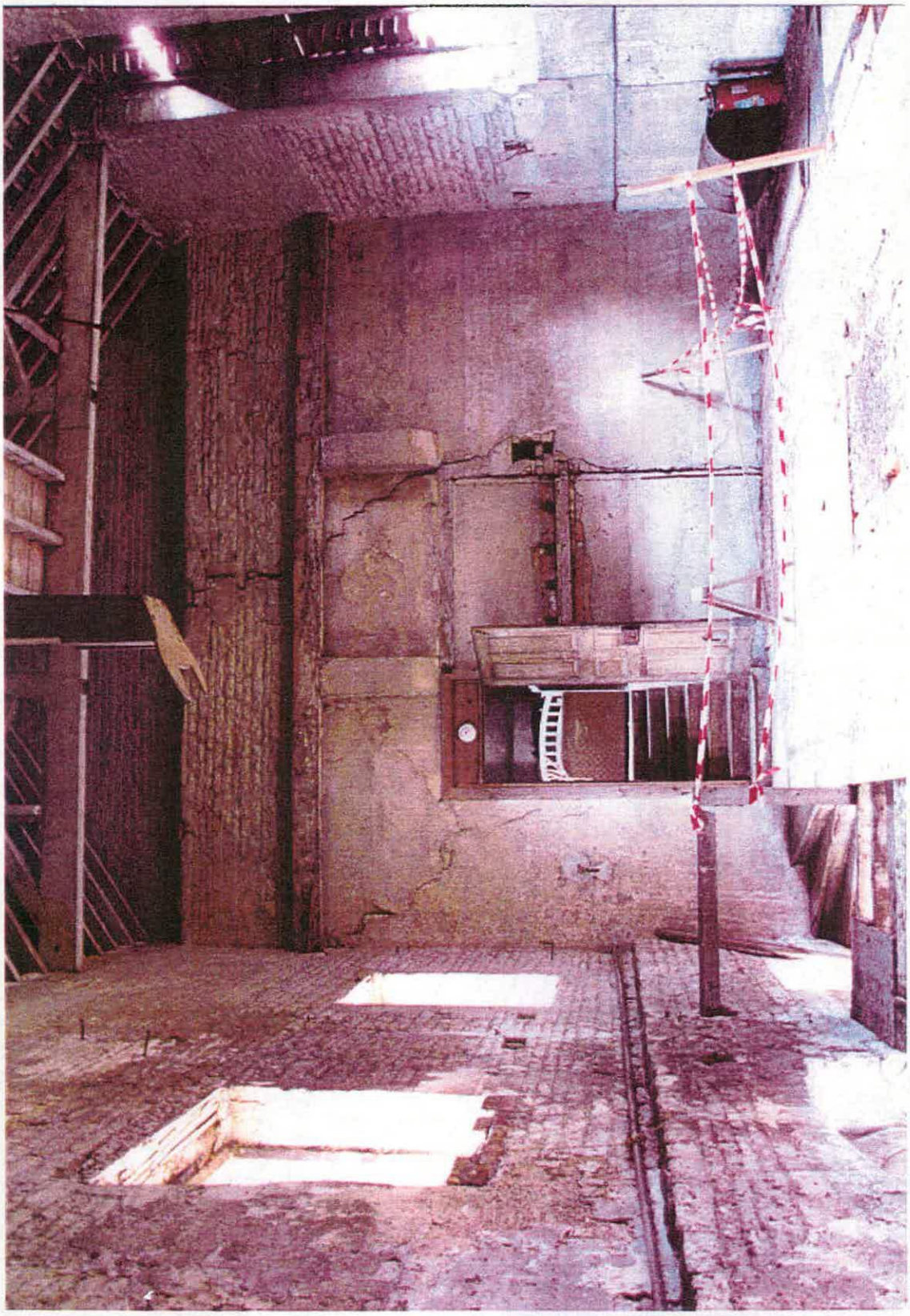

Fig. 25 A general view of the interior of the upper levels in the three central bays of the brewhouse, looking north.

Fig. 26 This section of random coursed rubble walling on the east side of the brewhouse marks the position of a pre-Brown privy block with a lean-to roof, sloping here from right to left.

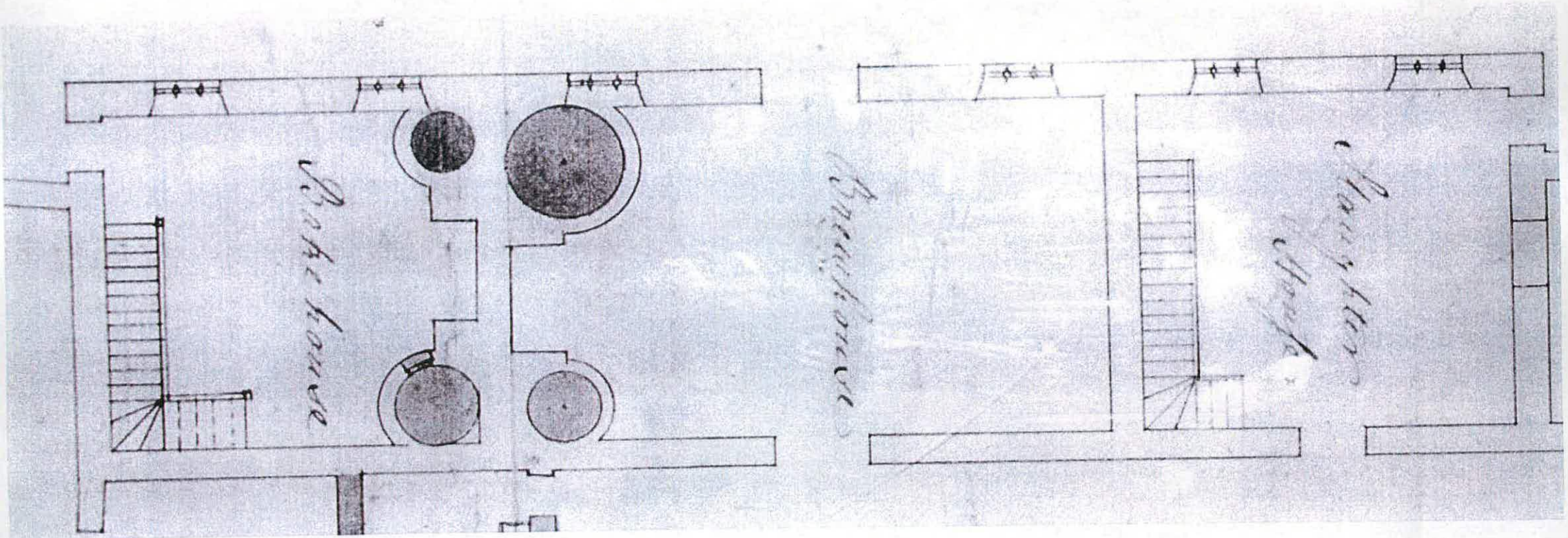

Fig. 27 A detail taken from 'Capability' Brown's 'master plan' of 1756, showing his proposed brewhouse range (with north to the top of the page). The range was in fact to be divided into three distinct functional areas, a 'Slaughter House', 'Brewhouse', and 'Bakehouse'. Enlarged to 1:200.
(*By courtesy of the Burghley estate*)

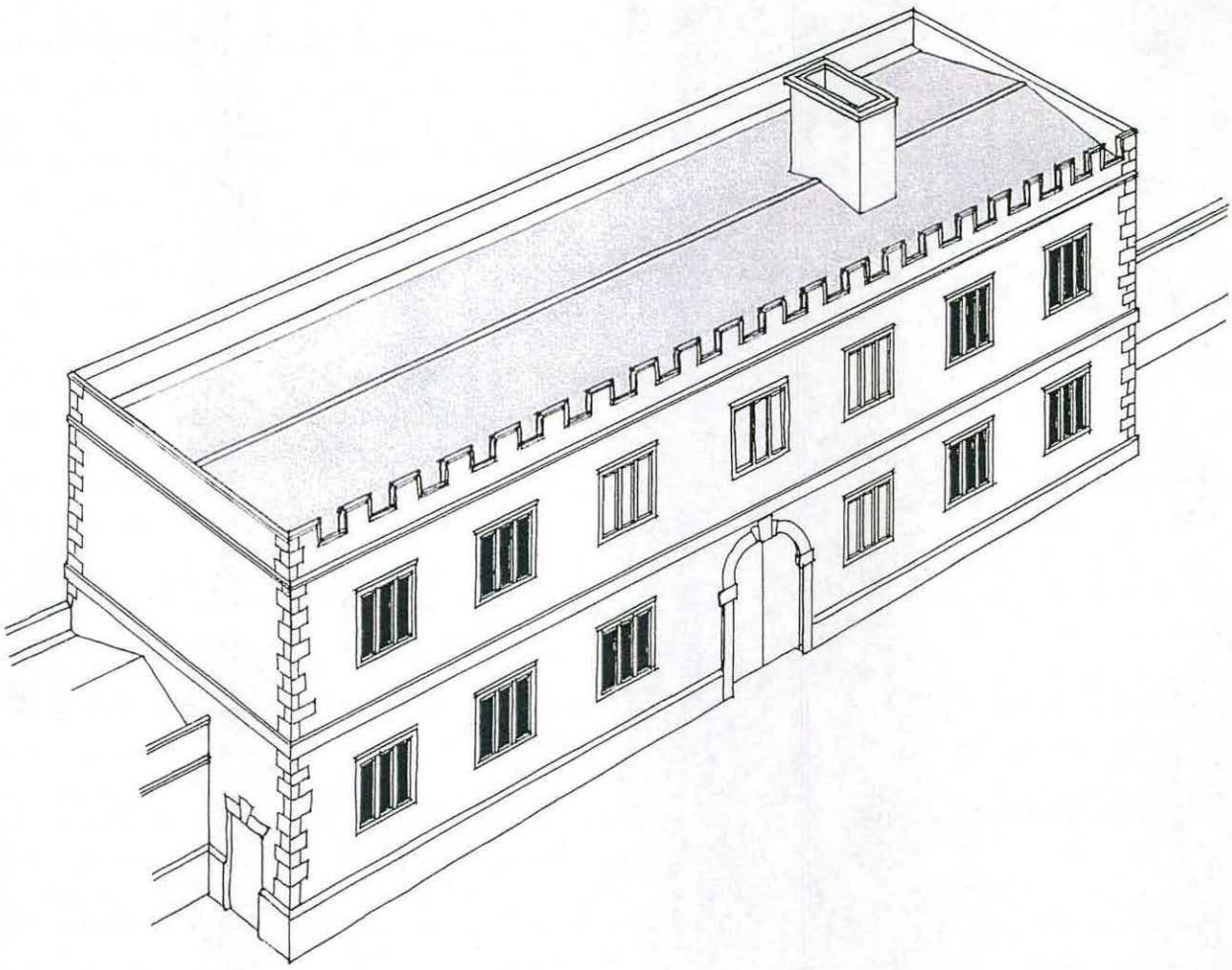

Fig. 28 A conjectural reconstruction showing the possible form of the original brewhouse range, seen from the north-west. The drawing is based in part on the detail from Brown's 1756 'master plan', and in part on an analysis of the surviving fabric.
(*Andy Wittrick*)

Fig. 29 The structure for the upper floor over the 'Slaughter House' supports a rare, and traditional lime-ash surface. Though repaired, it may well be original to Brown's building.

Fig. 30 A detail of the underside of the floor assembly above the 'Slaughter House'. The longer trimming timbers running top to bottom on the right mark the position of an original opening to the upper floor.

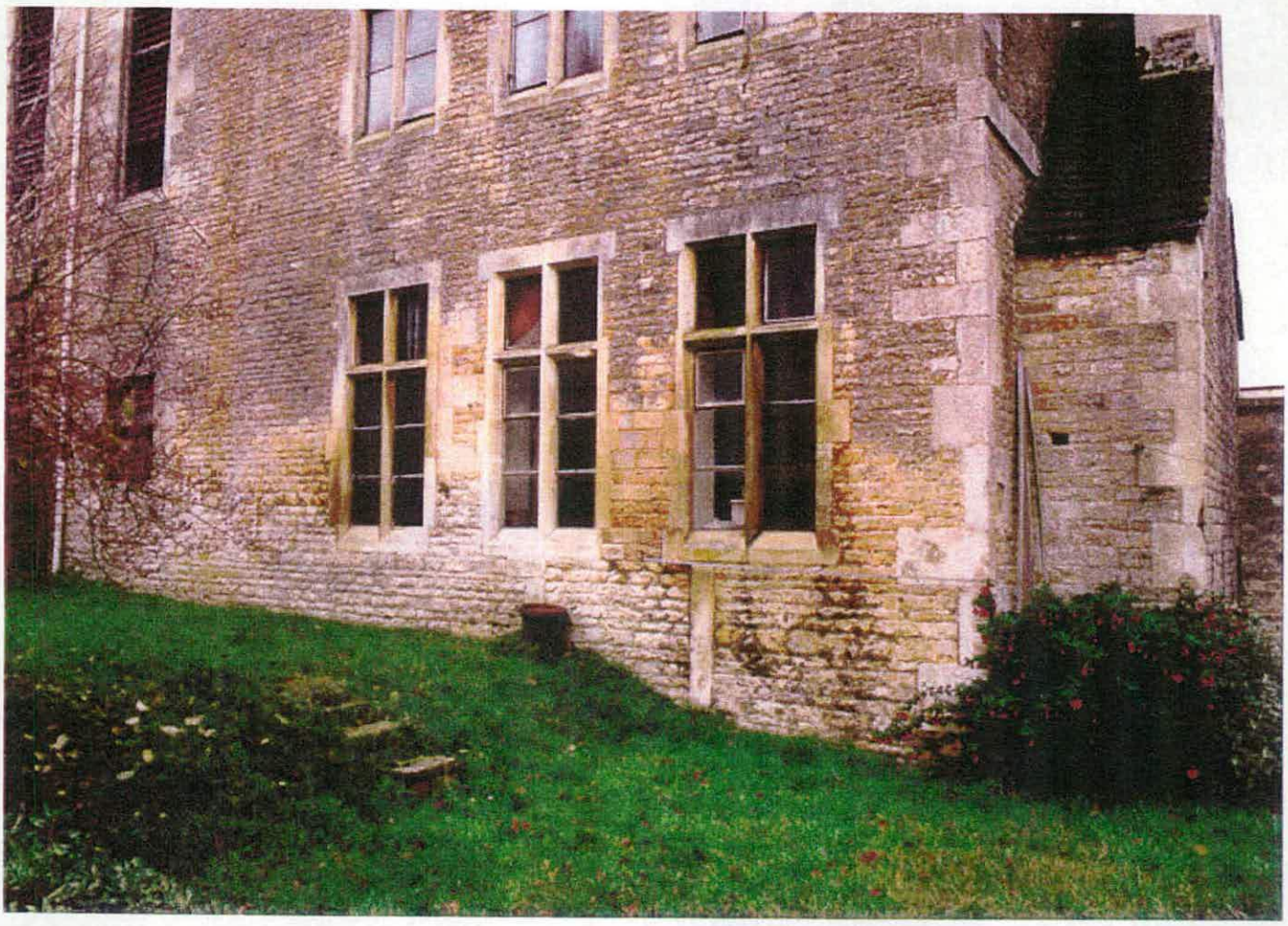

Fig. 31 The northern end of the east elevation of the brewhouse, showing the surviving lower jambs of an original doorway into the 'Slaughter House'. The windows were inserted as part of the nineteenth-century modifications to the building.

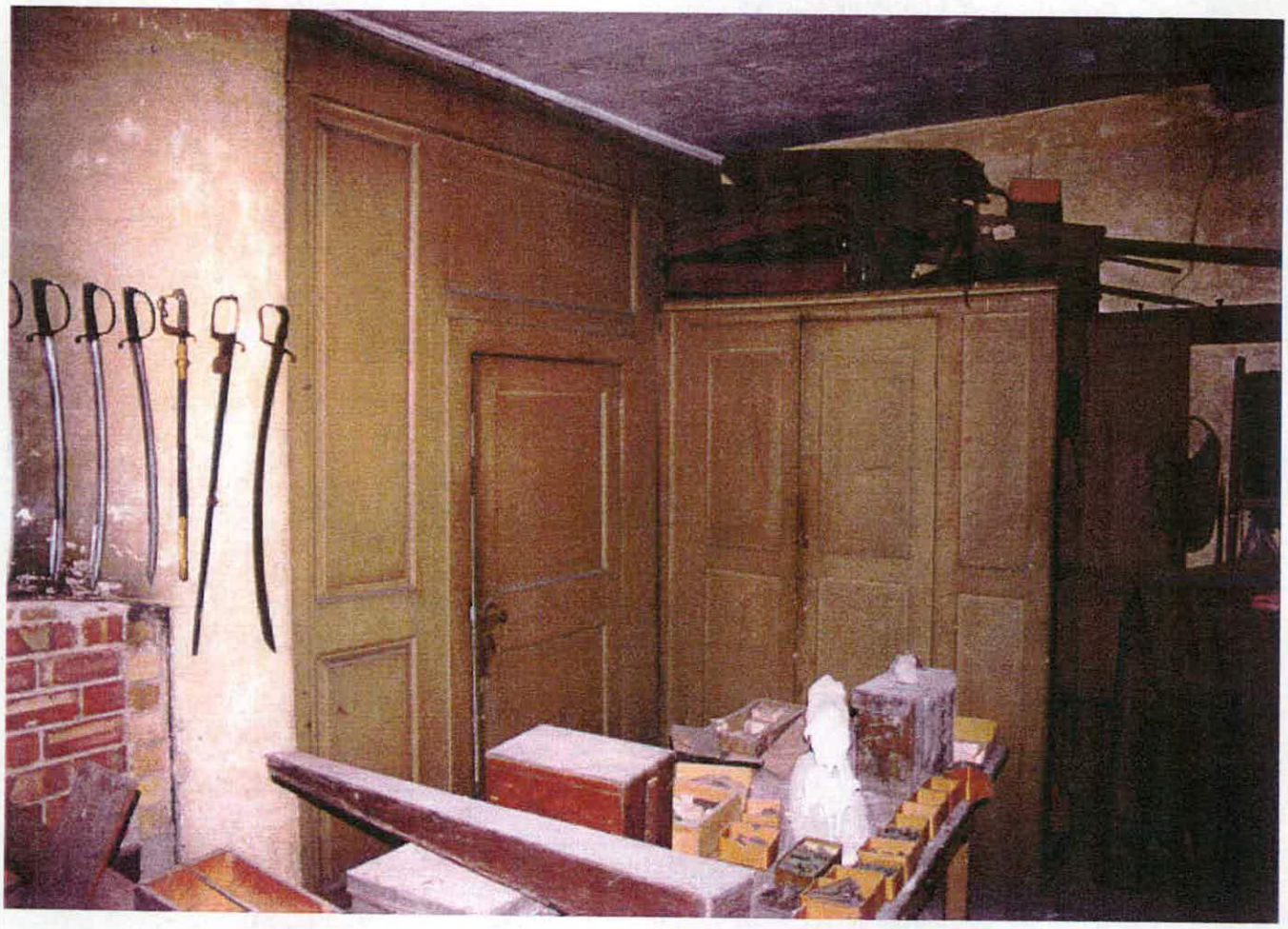

Fig. 32 The first-floor chamber over the 'Bakehouse' retains much of the structure and some of the fittings of Brown's original building.

Fig. 33 Two of the trusses which supported the original roof over Brown's brewhouse range survive. They are of low pitch, with tie beams. This view shows the truss in the chamber over the 'Slaughter House'. The purlins are also original. Above is a truss of the later roof.

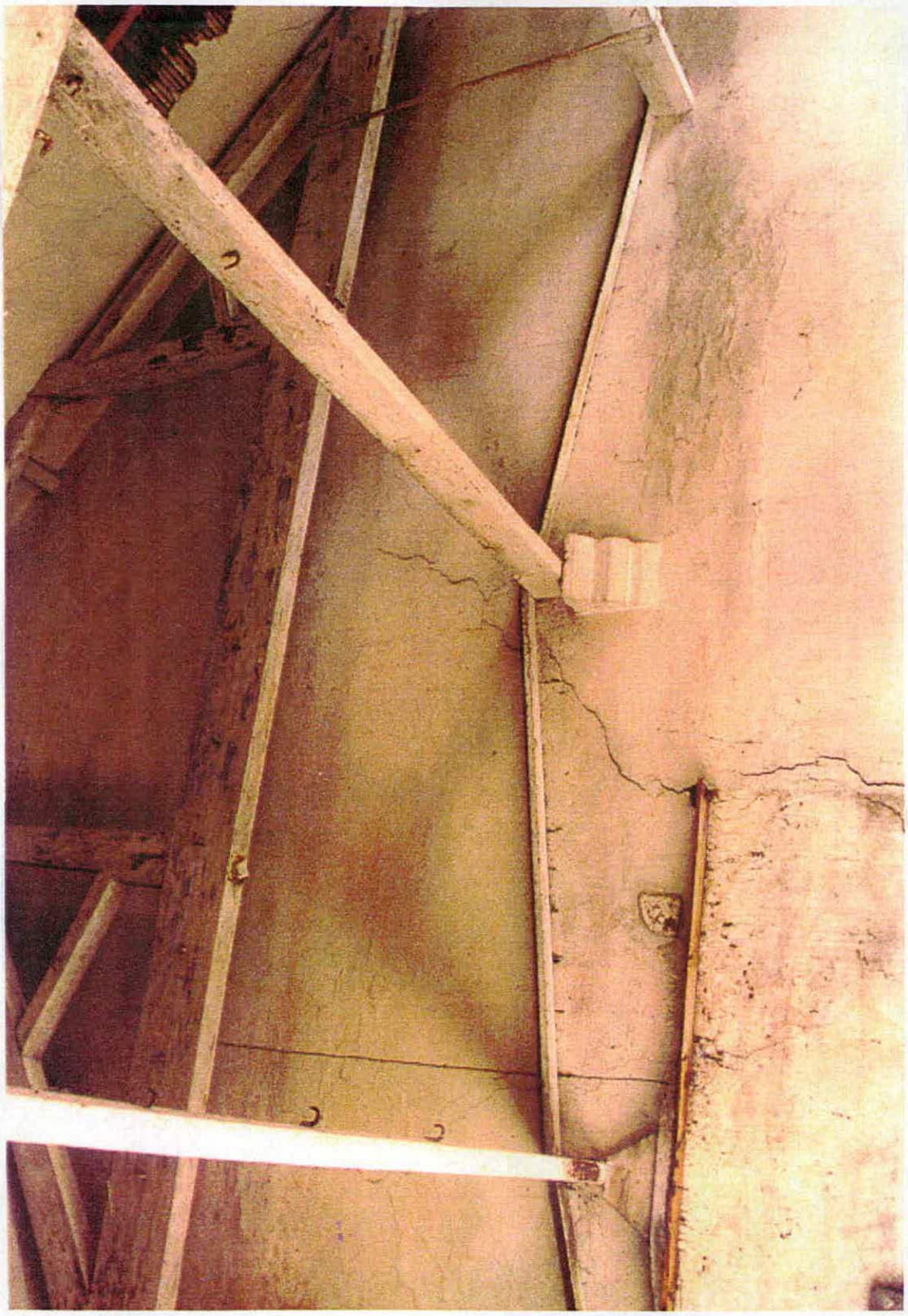

Fig. 34 The purlins associated with the original trusses in Brown's range were supported at the wall on projecting corbels. This view looks south in the chamber over the 'Slaughter House'.

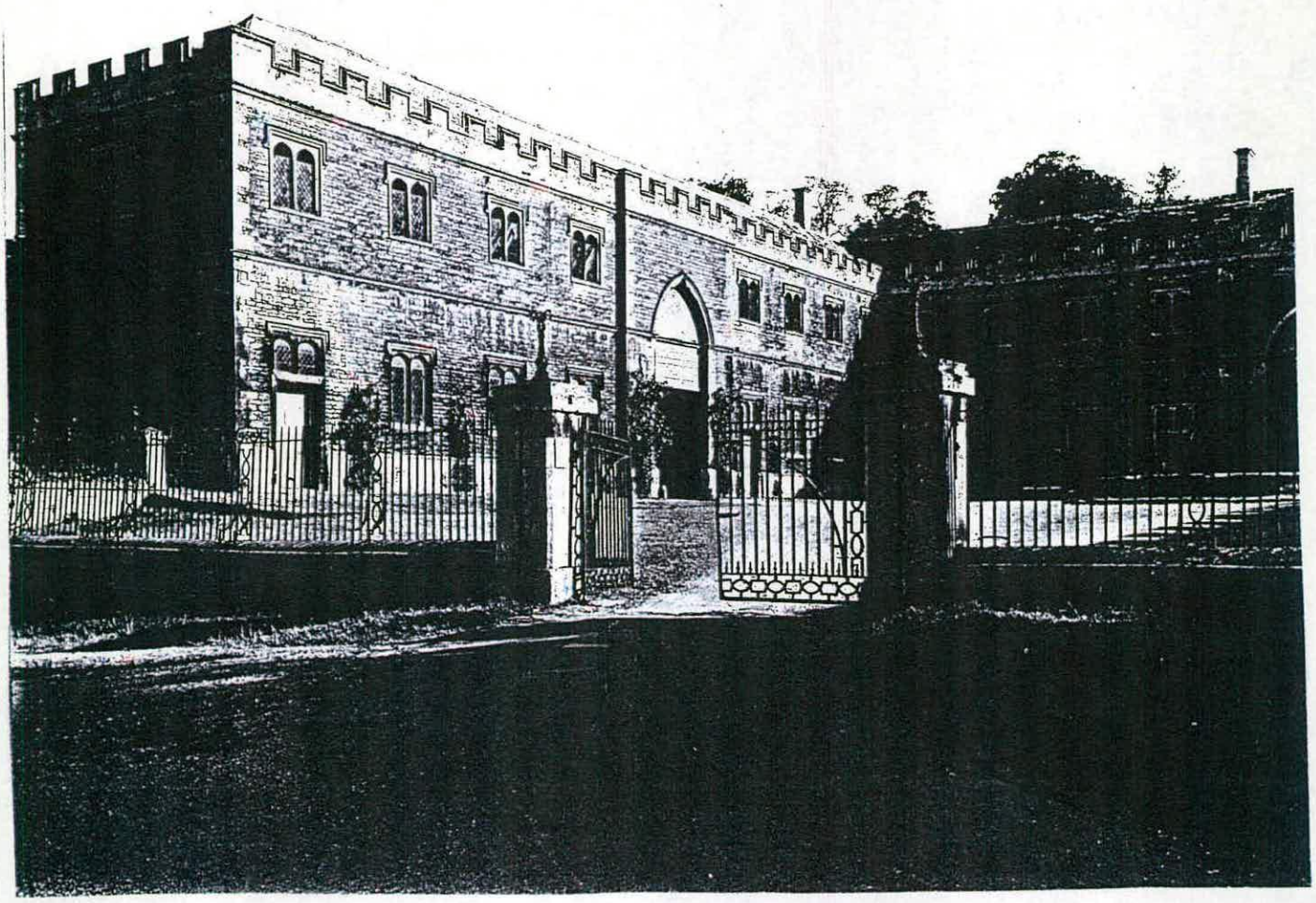

Fig. 35 The most extensive of Brown's additions to the service ranges at Burghley was the new stable courtyard, added to the north-east of the house in the 1760s. It was designed in Gothic style, with castellated battlements. This view is from the north-west.
(*English Heritage, National Monuments Record*)

Fig. 36 The west wing of the stable courtyard, seen from the north-west. The back of this particular wing faces on to the back of the brewhouse range.

Fig. 37 One of the two extended windows at the northern end of the brewhouse east façade. The sill was lowered, and the transom introduced, as part of one of the secondary phases of work on the building.

Fig. 38 Detail (of fig. 37) showing the lower right jamb of one of the windows at the northern end of the brewhouse east façade. Note the stones to the lower right of the jamb, cut to accommodate the extended window. Differences in mortar can also be observed.

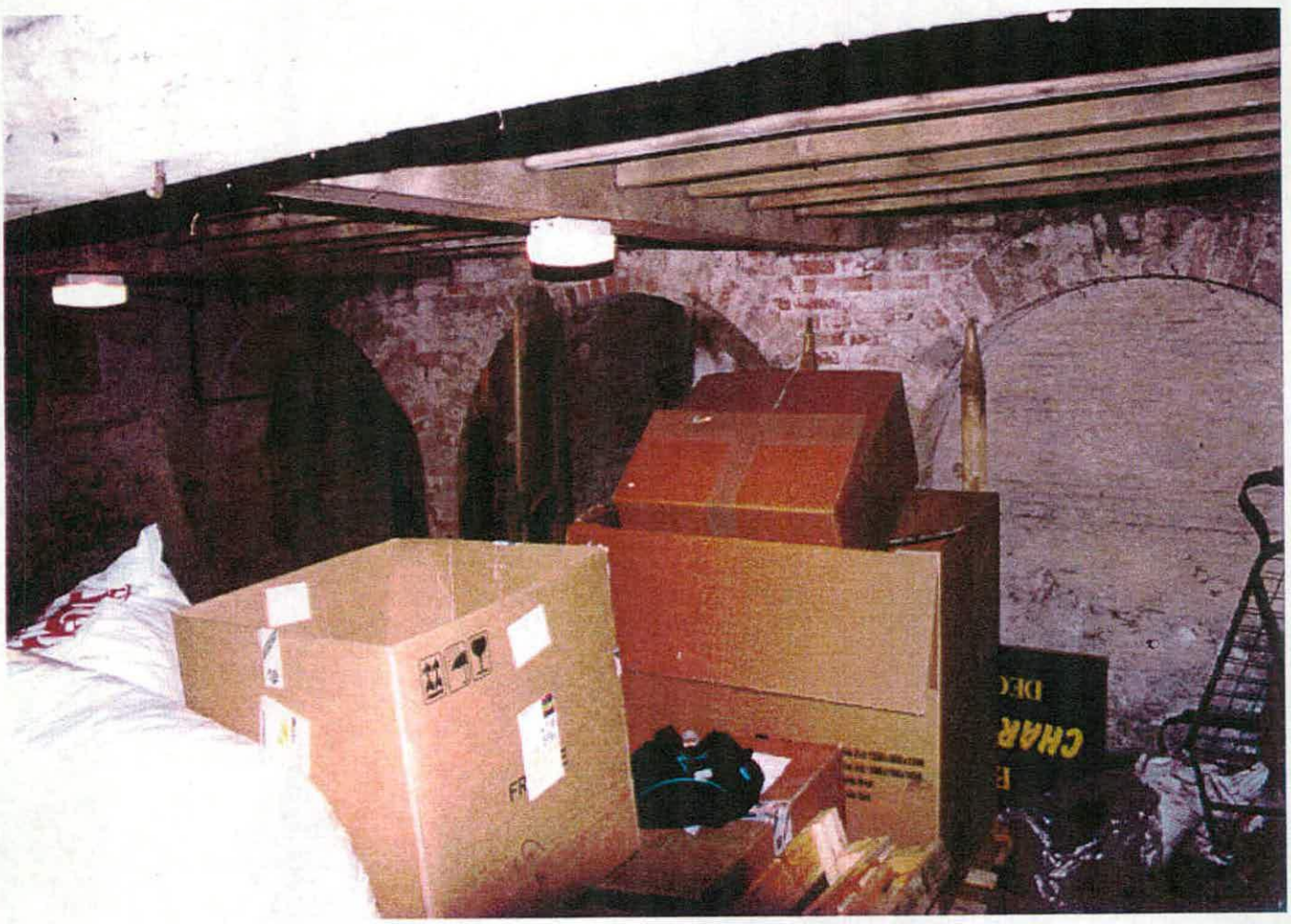

Fig. 39 As part of the early nineteenth-century modifications to the brewhouse range, three brick-arched storage vaults were introduced at the south end of the central bays. These vaults seem to have removed all trace of the brewing coppers shown on Brown's plan (fig. 27).

Fig. 40 Detail of the one of the brick-arched storage vaults in the central bays of the brewhouse range.

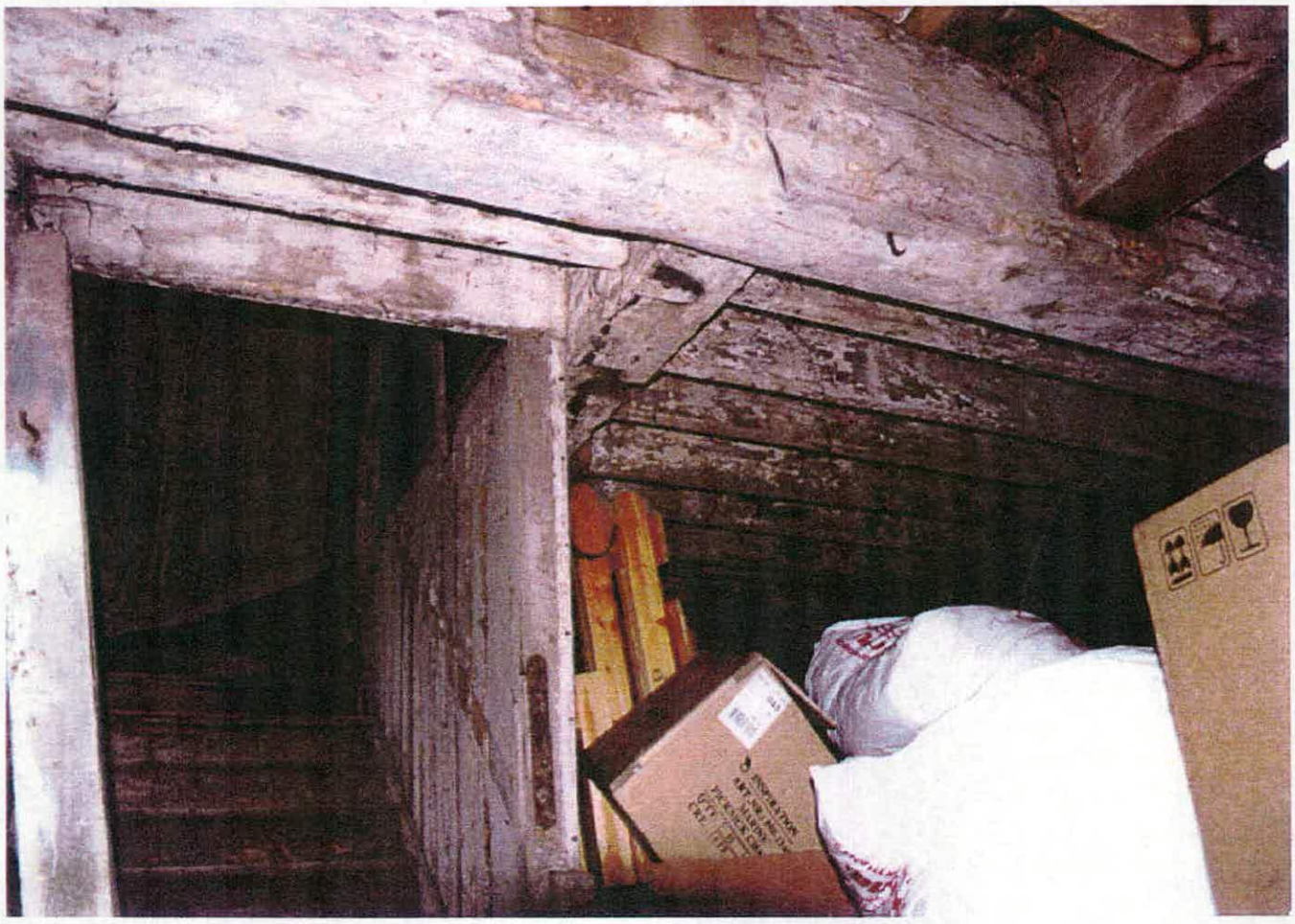

Fig. 41 With the introduction of a floor into the central three bays of the brewhouse range in the early nineteenth century, access to the upper level was provided by a staircase in the north-west corner.

Fig. 42 General view of the ground floor in three central bays of the brewhouse range, showing the early nineteenth-century inserted floor. The structure incorporates a good deal of later repair work.

Fig. 43 The interior of the east doorway (fig. 19) into the central bays of the brewhouse. The early nineteenth-century inserted floor truncated the rounded head of the original doorway.

Fig. 44 The existing roof structure over the brewhouse range probably dates to early nineteenth century. It is raised on well-engineered queen-post trusses, which also support a platform designed for the gravitational delivery of milled barley or grist to a mash tun located on the floor below. This view, looking south, shows the hatch through which materials were hoisted up onto the platform.

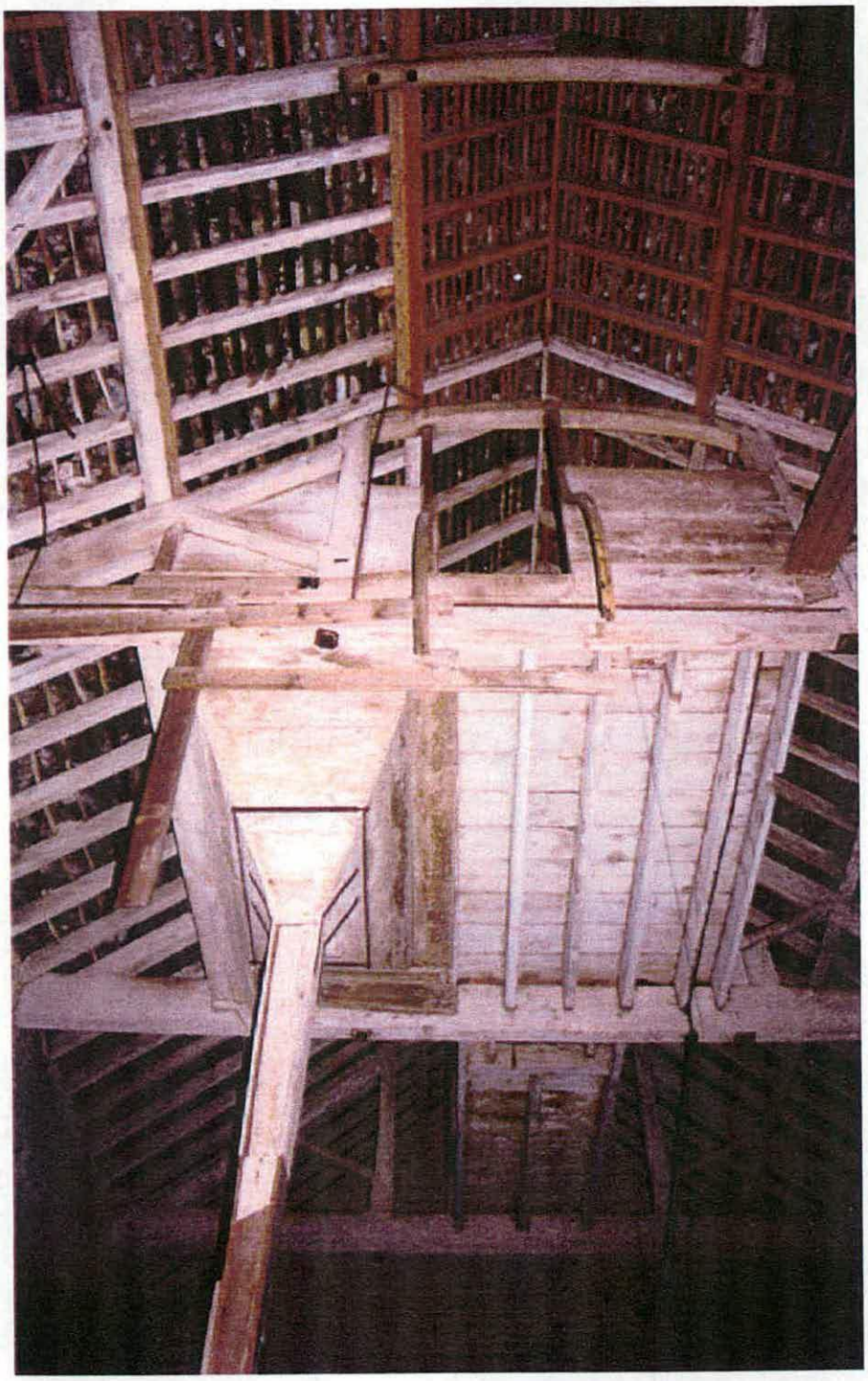

Fig. 45 Access to the delivery platform in the nineteenth-century brewhouse must have been by way of ladder to the opening seen here at the southern end of the construction.

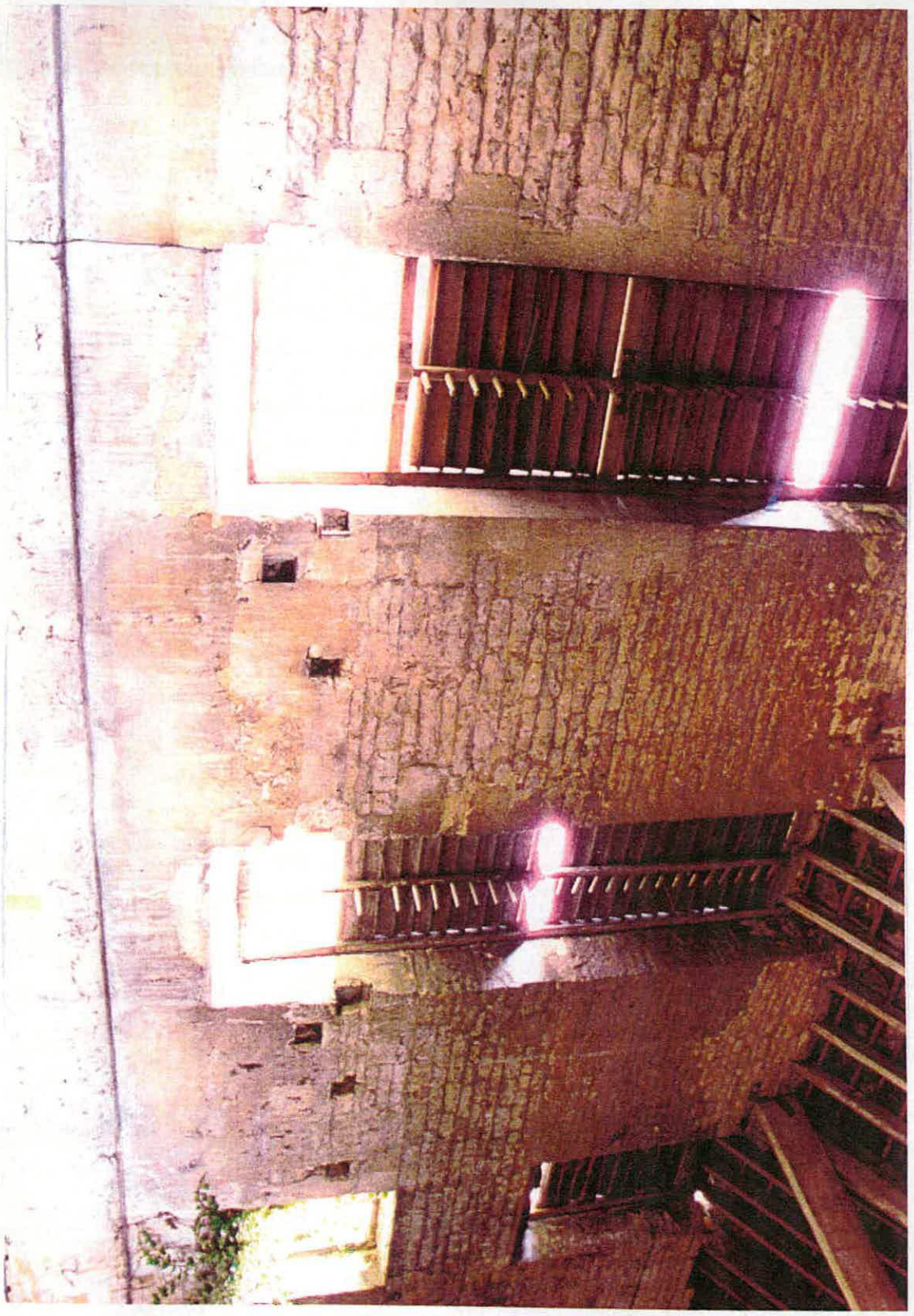

Fig. 46 When the brewhouse range was heightened in the early nineteenth century, two of the earlier openings on the east side of the central bays were lengthened. They were fitted with ventilation louvres.

Fig. 47 Detail of one of the ventilation louvres on the east side of the brewhouse. The purpose of the pivoting ladder rack is uncertain, though was presumably connected to the passage of air.

Fig. 48 With the introduction of a new floor in the brewhouse proper during the early nineteenth century, a fireplace with hob grate was inserted against the south wall.

Fig. 49 The masonry 'stump', seen here against the east wall on the first floor of the brewhouse, may well represent the remains of a support structure for the nineteenth-century boiling copper.

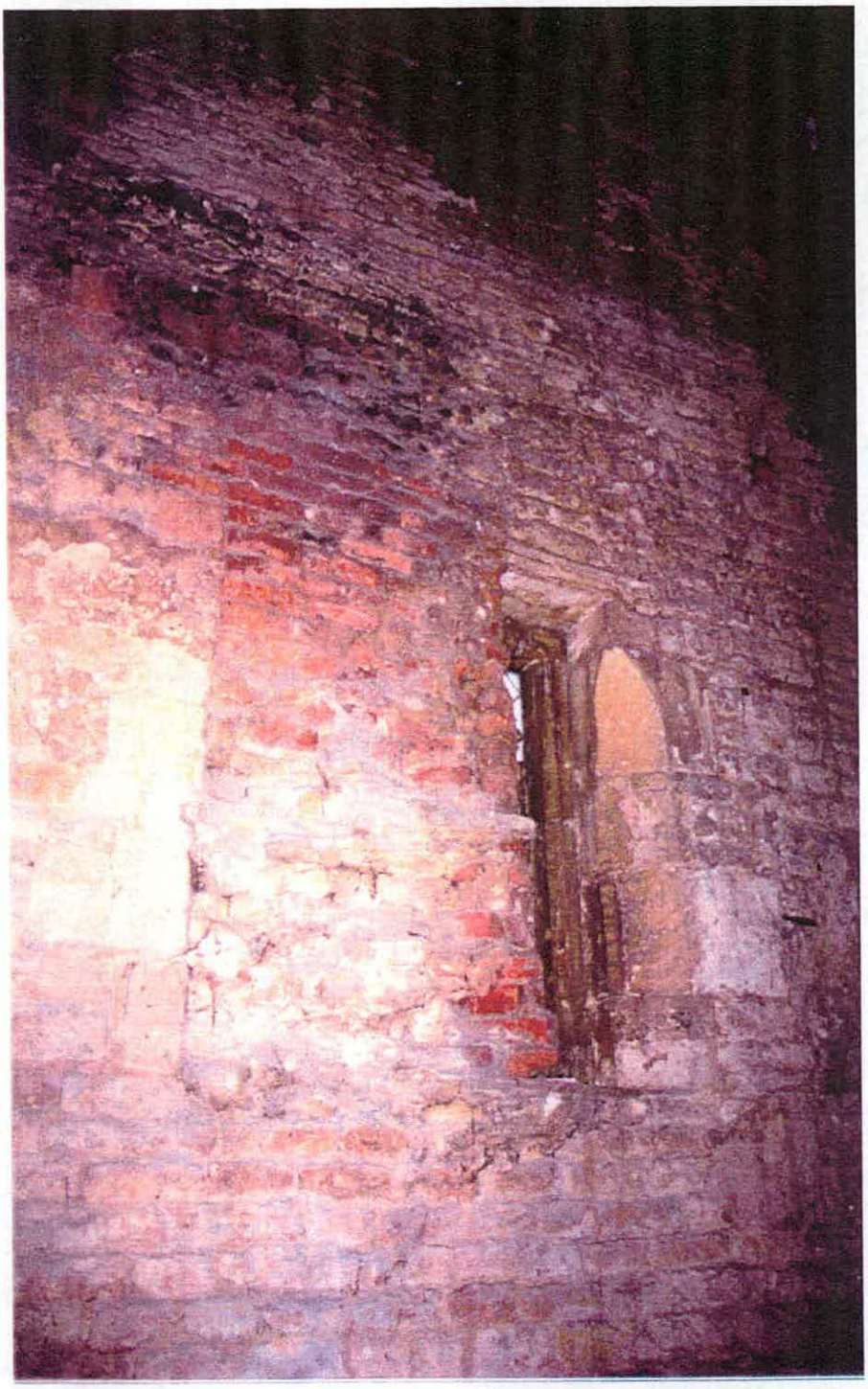

Fig. 50 Above the masonry 'stump' on the first floor of the brewhouse (fig. 49), one of the upper east windows is partially blocked with brick. This may have been necessary in order to accommodate the boiling copper and its associated working platform. The right jamb of the window has been cut back to form a splay, borrowing some light from the much reduced opening.

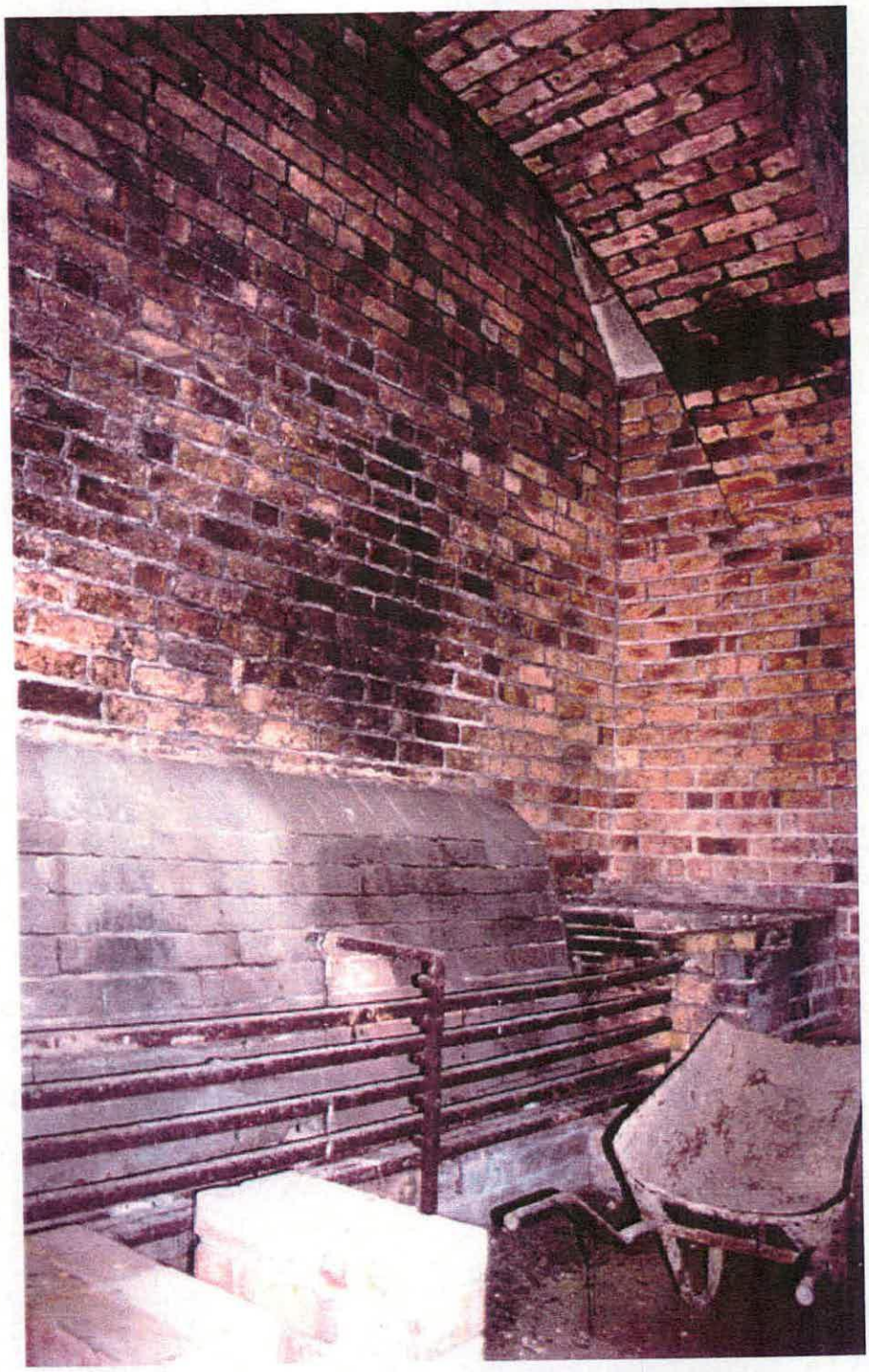

Fig. 51 Almost certainly part of the nineteenth-century modifications to the brewhouse building, a large range was built on to the north wall of the former 'Slaughter House'. It marks the conversion of this room to a smoking chamber.

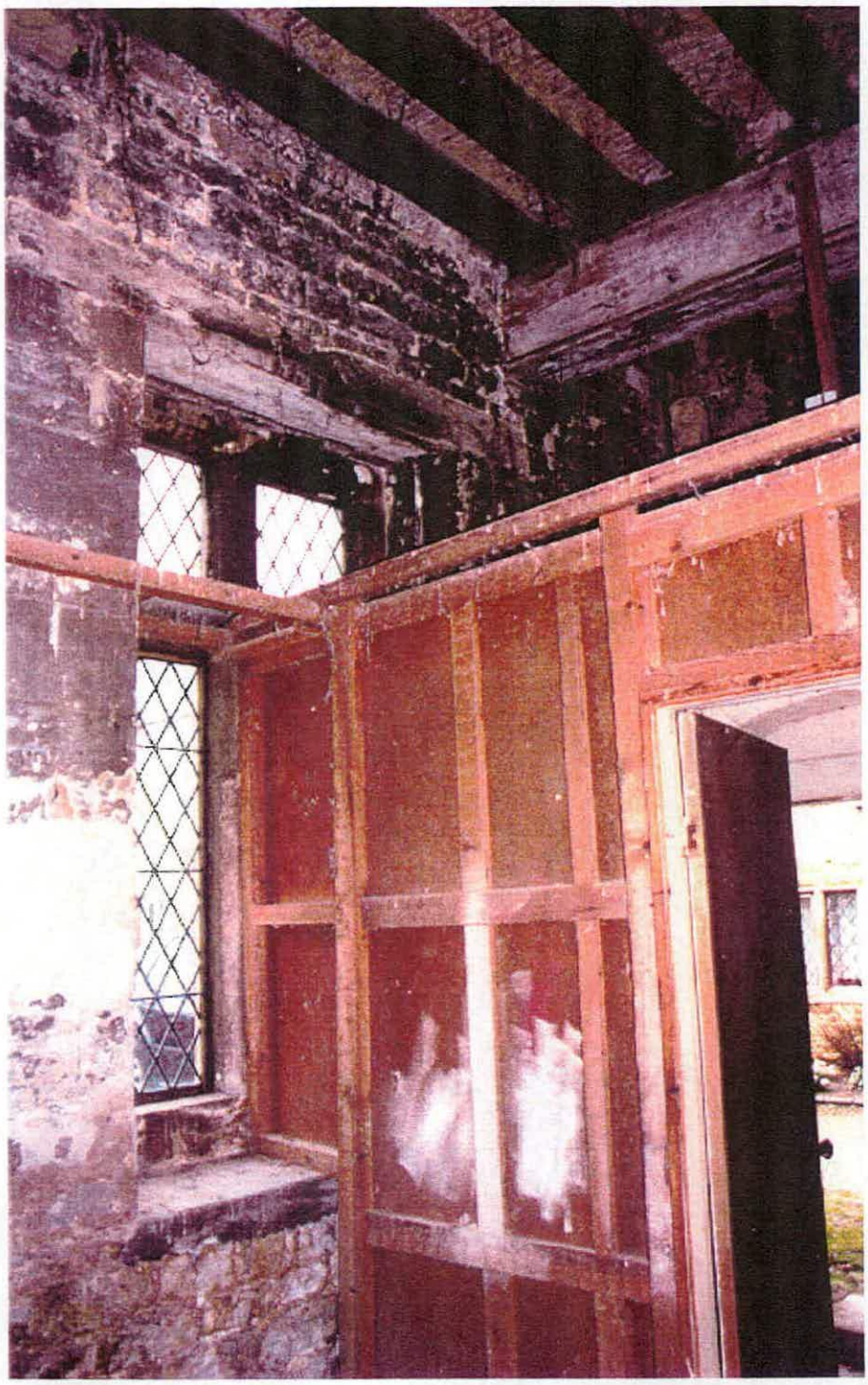

Fig. 52 The smoke-blackened walls and timbers at the north end of the brewhouse range confirms the later use of the 'Slaughter House' as a smoking chamber.

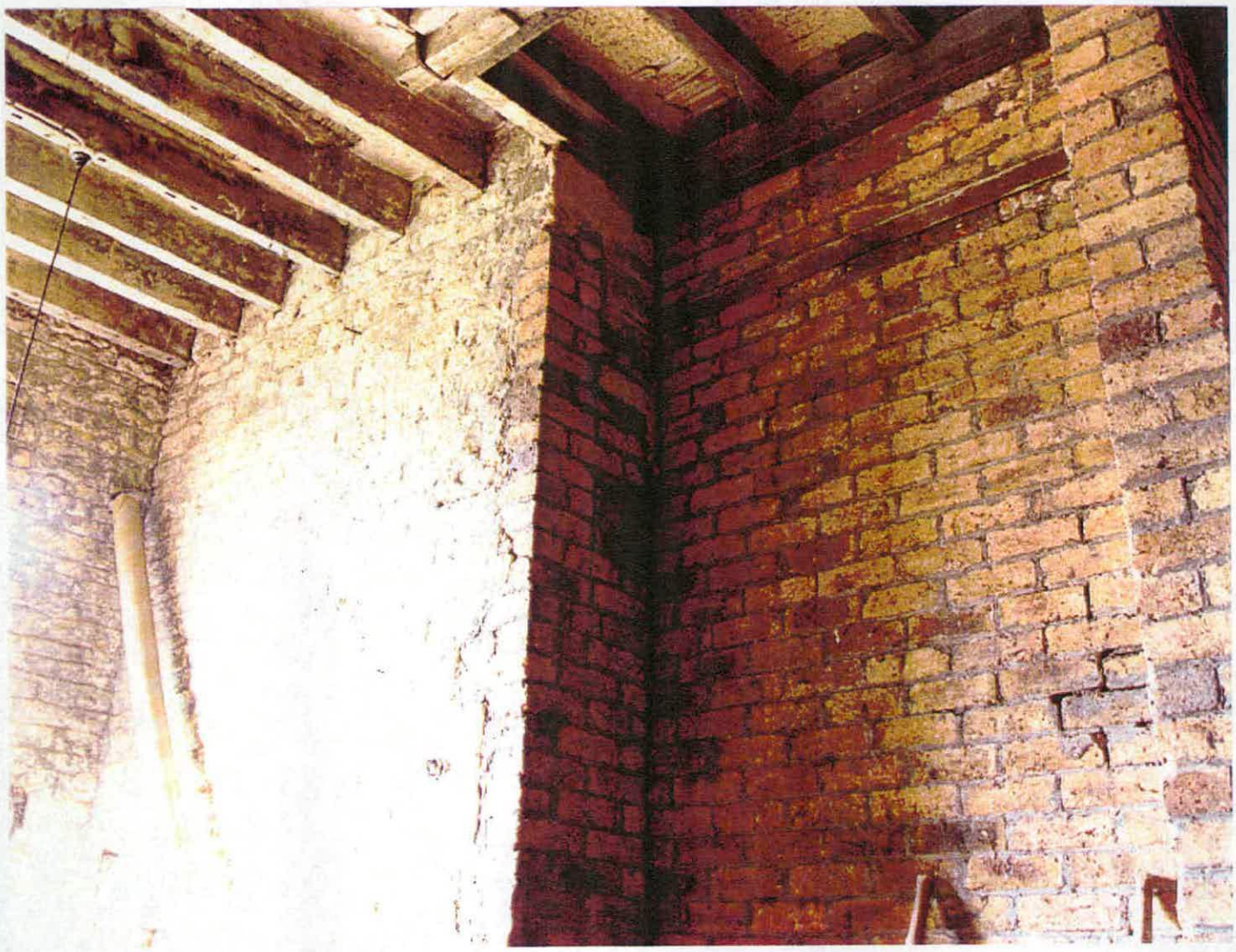

Fig. 53 The eighteenth-century staircase in the 'Slaughter House' ran against the south wall, seen here. It was presumably removed in the early nineteenth century, when brick buttressing was provided in order to support the floor filling at this point..

Fig. 54 In the nineteenth century, the upper floor above the former 'Slaughter House' was probably given over to a brewing function. The raising of the roof appears to have created room for an additional floor within the roof space, lit by the now-blocked dormer openings.

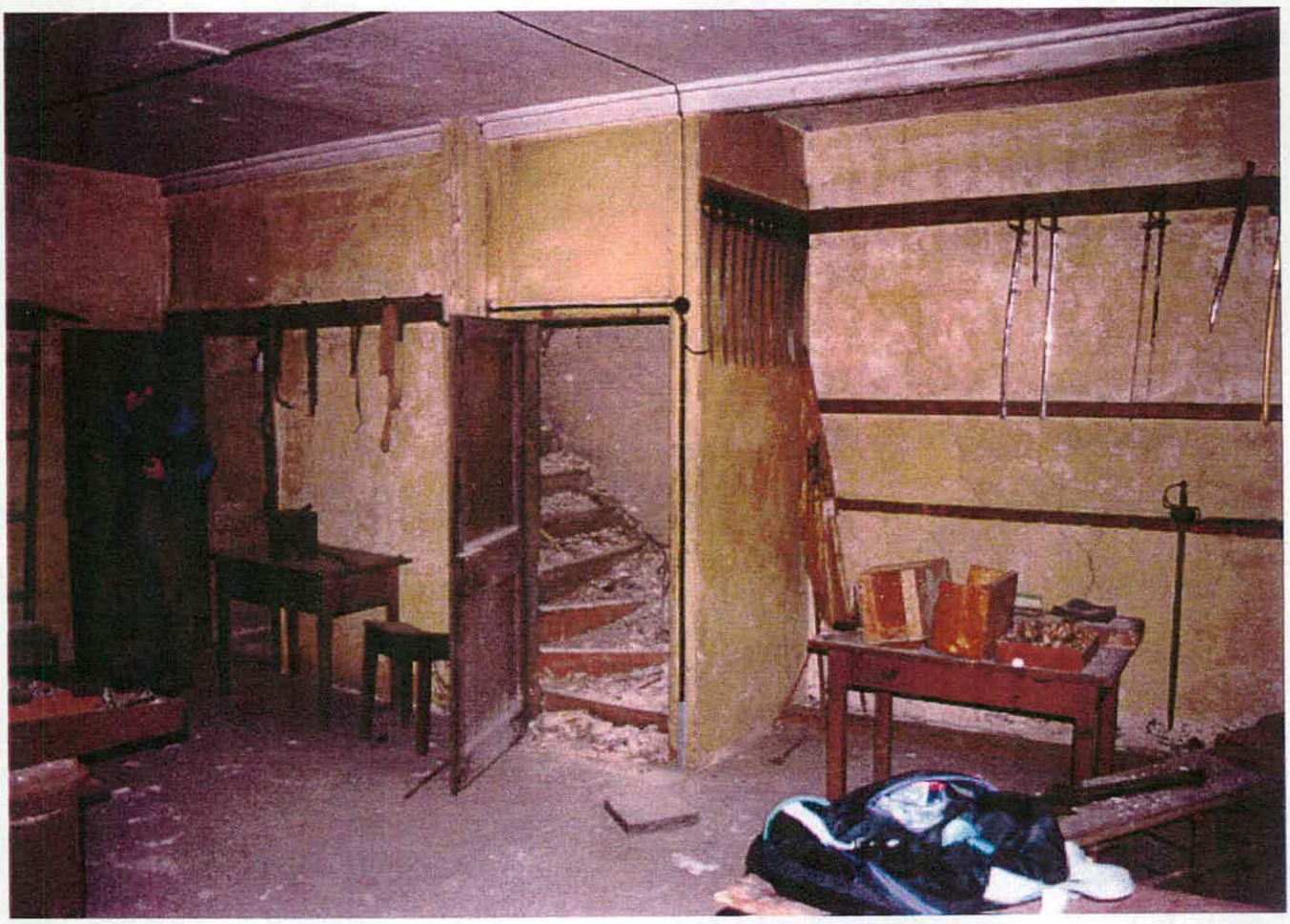

Fig. 55 Much of the original structure of the room over Brown's 'Bakehouse' at the south end of the brewhouse range seems to survive, including the ceiling. The staircase leading on up to a second floor was probably one of the nineteenth-century modifications to the range.

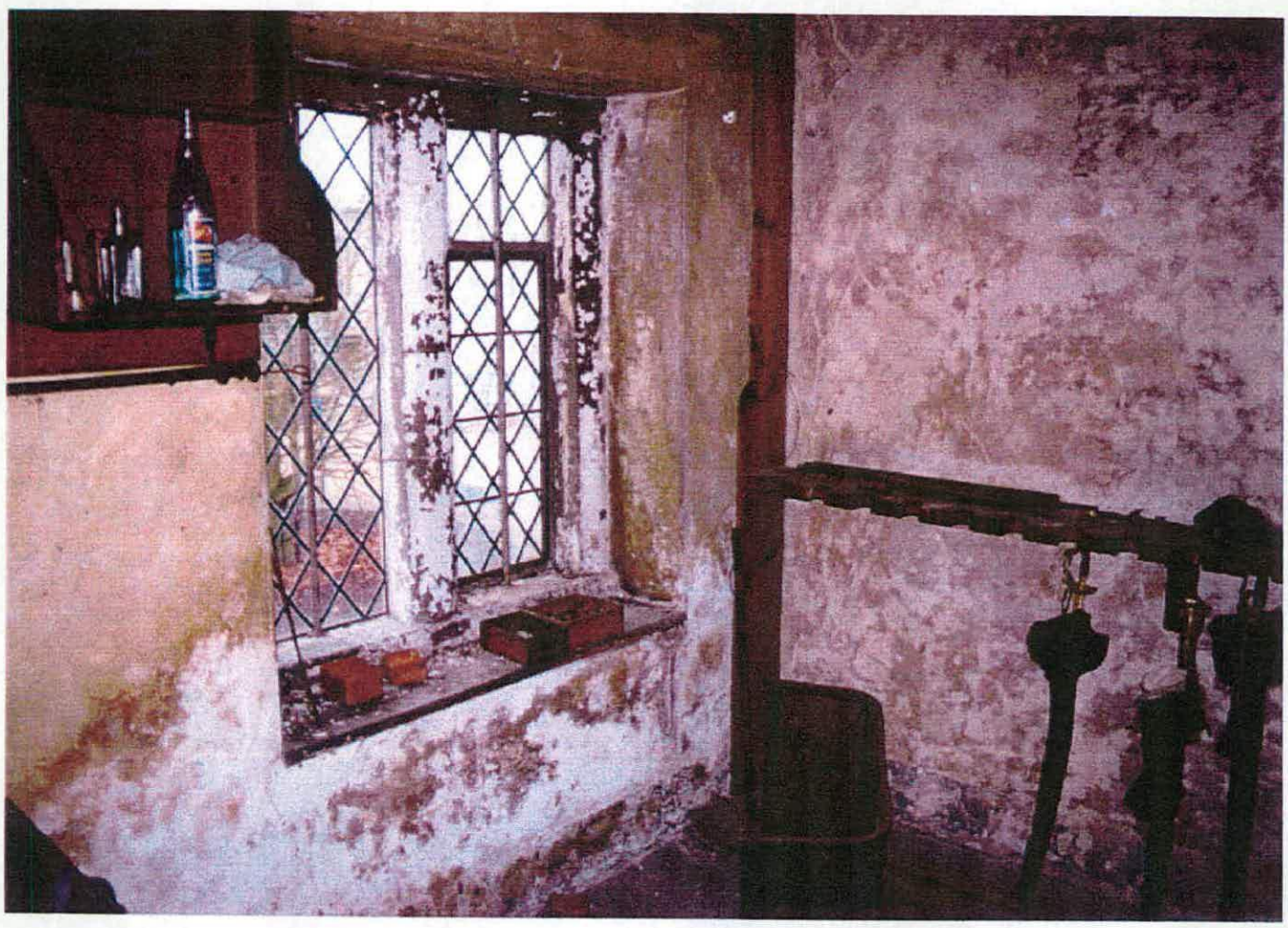

Fig. 56 Traces of paintwork with banded decoration survive in the room over the 'Bakehouse', and are of considerable interest.

Fig. 57 The second-floor chamber over the 'Bakehouse' was created above one of the original eighteenth-century roof trusses, the crown of which appears in this view. The room was once ceiled, though this has completely collapsed, its debris now scattered.