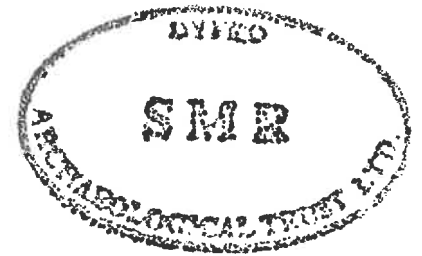
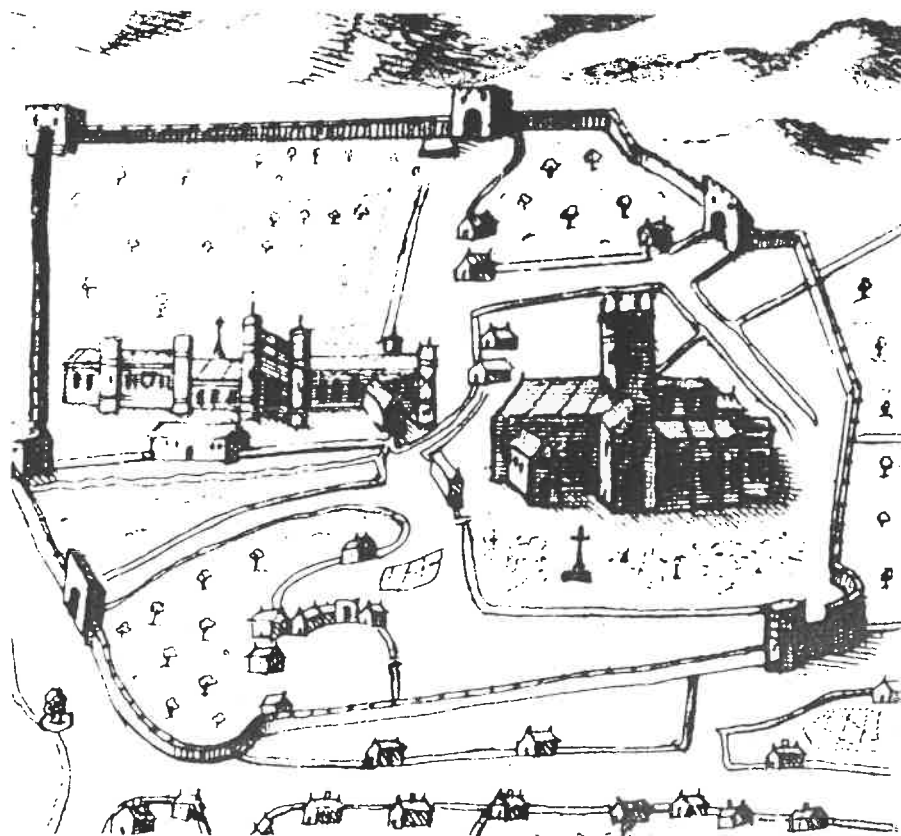


PRN 43834



ST DAVIDS CATHEDRAL PORTH Y TWR



ARCHEOLOGICAL REPORT 1999

Caroe & Partners

CHARTERED ARCHITECTS

Penniless Porch, Market Place, WELLS, Somerset BA5 2RB

Survey Drawings [all at 1:10 scale]

Page 1	West parapet, South end, section through wall-head to show position of wall-plate and drainage system
Page 2	North-south section of parapet drainage system, south side of west elevation
Page 3	southward continuation of page 2
Page 4	West elevation, south end of parapet, drainage channel northward continuation of page 2
Page 5	West elevation, south end of parapet, plan of drainage channel and steps to south tower parapet
Page 6	North end of gatehouse chamber, trace of original roof-line

Contents

1. Introduction....	....2
2. Historical summary....	....2
3. The earlier history of the upper works of Porth y Tŵr....	....5
4. Summary....	....8
5. The Caroe repairs, 1929-1951....	....9
6. The parapets in 1998....	....13
6.1. The parapet gutters....	....13
6.2. Additional traces of the merlons....	....14
6.3. The roofs....	....15
Bibliography....	....17

Illustrations

Porth y Tŵr - The Archaeological Survey 1998

1 Introduction

- 1.1 Between April and September of 1998 repair and conservation of the parapets of the south-eastern gateway to the Close at St Davids took place for the first time since 1951. One component of this project was the archaeological recording of the fabric thus affected before work began, together with a watching brief during the course of the dismantling of the upper courses, and the photographic recording of the parapets on completion.
- 1.2 The record presented here relates solely to the parapets and upper works of the gate, being restricted to those areas which were liable to disruption during the campaign of repair and consolidation.
- 1.3 The survey was carried out by Jerry Sampson, the Archaeological Consultant to Caroe and Partners, Architects for the project.

2 Historical summary

- 2.1 Porth y Tŵr consists of a central gateway with chamber above and a slightly higher tower at the southern end, built abutting a somewhat earlier octagonal tower which is currently used as a belfry serving the cathedral. The belfry is generally dated (on stylistic grounds) to the Episcopate of Bishops Martin (1293-1328, by Jones and Freeman) or Bek (1280-93, by Caroe), placing the construction of the adjacent gatehouse in the first half of the fourteenth century, probably (in the opinion of

Jones and Freeman, and A.D.R. Caroe)¹ during the episcopate of Bishop Gower (1327-47).

- 2.2 No documentary references to the construction, use or repair of the gates to the Close have been located from the middle ages; the first written record of Porth y Tŵr being the brief notice of it given by Browne Willis in 1717:

"There were formerly four large Gates in the outward Wall of the Close, three of them are still standing. The Tower-Gate to the East, leads directly from the Church-yard into the Town. There are still some Chambers standing in it, in which (as we are told) the Episcopal Courts were formerly kept; and it has a Dungeon, in which (as I suppose) they confin'd Hereticks. White-Gate (now demolish'd) look'd towards the West, Patrick's-Gate to the South, and Bonning's-Gate to the North."²

- 2.3 Canon Yardley's account in 'Menevia Sacra', written before 1761, adds considerably more detail concerning the gateways to the close and the condition and function of Porth y Tŵr:

"The Cathedral of St. Davids, together with the Palace of ye Bishop, & ye Houses of ye Dignitaries and officers, lay all together, in that which is called The Close or Citadel; and are still surrounded by a wall of stone of about 1200 yards or 3600 feet in circumference. This wall was embatteled & had a walk on it clear round called there ye Garret, but the battlements are in many places perished. It had formerly four gates over which were lodgings for the Porters; three of which, viz. (1) The South west or St Patricks Gate; (2) Port Gwyn [sic], ye White Gate, the North West Gate; & (3) Bonnings Gate on ye north side of ye close, are in ruins. [p.4]

"...The East Gate, or Tower-Gate, as it is called, though something ruinous, carries with it an air of strength & magnificence. It stands high in respect of ye Close, though lower than ye Town. Adjoining to the north side of this gate is a large octagonal or Canted Tower,

¹ Caroe, 1954, p.16.

² Browne Willis, 1717, p.30.

beautifully built, about 60 feet high; from ye churchyard which is contiguous to it, is ye entrance into a large room on ye ground floor hereof, which is said to have been a Common Hall; & the room over this is taken to have been ye Court of Judicature. On the left hand as you enter, adjoining to ye south side of ye gate is a lesser tower, pretty near ye form of ye other; on ye ground floor of this was, as we learn by tradition, ye prison, & under that a dungeon, in which there is no entrance but by an hole which is in the centre of ye prison floor, through which it is thought ye prisoners were let down. So far being all within ye gate, is thought to have been under ye Bishop's jurisdiction.

"Over ye Gate itself is a large room, which was perhaps a Common Hall; within which, over ye prison before mentioned, is another room, which is said to have been a Court for ye Mayor of the Town; and this appears ye more probable, there being a stair-case leading to these apartments from ye outside of ye Gate, & they having no communication with what belonged to ye Bishop."³

- 2.4 On Lord's plan Porth y Tŵr is annotated as: "The East gate and rooms adjoining to it where the Bishops & Mayors courts were held." Yardley says of this plan drawn in 1720 that Lord "likewise adapted a description to this plan, gathered from his own observation on ye spot & from ye tradition of ye inhabitants."⁴
- 2.5 Fenton, writing in or before 1811, gives slightly different functions to the rooms of the gatehouse, and may have been drawing from different sources:

"The Tower-gate, through which is the principal entrance into the close as leading from the town immediately, and connecting with all the main roads from the interior, consists of a large octagon tower sixty feet in height, with a noble door-way facing the east end of the church, and opening into the church-yard. This building, divided into stories, formed the consistory court and the record office of the see.

In the opposite wing, consisting likewise of a tower, but of a very different form, and connected with the other by a range of buildings

³ Yardley, 'Menevia Sacra', p.4-5.

⁴ Yardley, Menevia Sacra, p.5.

extending over the gateway, were the council chamber and other large apartments, supposed to have been appropriate to the mayor of the town, as they were only entered by a door and stair-case on the town side. Under these apartments were the porter's lodge on one side of the gate-way, and on the other a prison with dungeon in the centre, a dark subterraneous vault or cavern, with no other adit than a circular opening in the floor, covered with a strong grating of iron, by which the malefactors were let into it."⁵

2.6 Jones and Freeman are dismissive of the gatehouse:

"We have here nothing very remarkable, - a mere rude piece of defensive work, without any strictly architectural pretensions...a rough military erection of no architectural character whatever."⁶

Their description is of a state of general dilapidation so great that they have clearly eschewed the attempt to explore the interior of the southern tower.

3 The earlier history of the upper works of Porth y Tŵr

- 3.1 The early descriptions and illustrations of the gateway do not add greatly to our knowledge of the form of the medieval parapets or their survival into the post-medieval period.
- 3.2 The view of the town from Speed's map of Pembrokeshire [c.1610] is ill-drawn and unreliable, but illustrates Porth-y-Tŵr as certainly the major gateway of the four entrances to the Close, the others being shown as simple four-square structures pierced by central arches. The southern tower of this south-eastern gateway to the Close is, in this representation, the major part of the building, but on neither it nor any part of the rest of the gate can the form of the roof be identified from Speed's drawing.

⁵ Fenton 1811, p.35.

⁶ Jones and Freeman, 1856, p. 209 and 210.

- 3.3 John Lord's plan of the close c.1720 confirms the status of Porth y Tŵr as the major gatehouse of the Close, the others being represented (as by Speed) as single arched gateways without associated lodgings. The building is identified in the key as, "The East gate and rooms adjoining to it where the Bishops & Mayors courts were held."
- 3.4 Samuel and Nathaniel Buck drew the northern half of the gatehouse at the right hand edge of their south-eastern prospect of the cathedral in 1740, at which time considerably more of the western parapet of the central section of the gatehouse seems to have survived. The engraving shows a clear horizontal line near the head of the wall, above which the fabric appears paler - presumably a way of representing the line of the corbel-table with the parapet above. One of the merlons seems still to have stood to a good height above the arch of the gateway (its northern angle broken), and it is possible that the narrow, taller, section of wall at the southern margin of this was the chimney of the main fireplace still standing above parapet level. The opening of the gate beneath is represented in some detail, with the line of the narrower section of arch associated with the portcullis plainly visible, and a suggestion of the door at the western end of the north side of the passage. The top of the bell tower is also of interest, since close scrutiny suggests that it could have been complete at this date, and bore a series of very shallow merlons, the wall head being slightly raised at the angles and the centres of each side. The roof-line of the chamber over the gate is known to have been very low, and it is possible that even if it had still existed at this date it would not have shown above the parapet when viewed from this angle. The bell tower was either unroofed at this time or (perhaps less likely) supported an almost flat roof.
- 3.5 Pugin's drawing of c.1791 - known not to be particularly accurate in regard to the Bishops Palace - would tend to support this interpretation of the gatehouse chamber parapet on the Buck engraving, since the horizontal line of the corbel table is clearly indicated (though at an unrealistically low level in relation to the windows of the bell tower), with a good height of masonry surviving above it. The southern tower, not shown by the Buck brothers, has wide, apparently complete merlons. Similarly Sparrow's engraving of March 9th 1776 also appears to show a surviving merlon at the centre of the western elevation (as in the Buck engraving represented as lighter than the rest of the fabric).
- 3.6 Colt Hoare drew the cathedral from the north-north-west c.1801, and, although this does show Porth y Tŵr, the bulk of the eastern elevation is concealed behind the

octagon of the bell tower.

- 3.7 By the time of the earliest photographs the western elevation seems not to have been significantly different in appearance to its pre-1940 form, with only a small amount of masonry surviving above the corbel table, and with this concentrated towards to the centre. The dark shadow above the central span of the gatehouse visible in the Frith collection pre-1880 view from the site of Porth Gwyn suggests that the wall-tops were infested with ivy at that time. Foliage had infested the wall-tops of the east end of the cathedral in Colt Hoare's eastern prospects, and it is not unlikely that some at least of the 'masonry' shown by Buck and Pugin could actually have been ivy growth.
- 3.8 An undated postcard, probably produced around the date of the Great War, shows the western elevation more clearly, its ivy restricted to the northern end, but with plentiful vegetable growth over the face of the elevation at first floor height. By this time all of the openings in the upper floor chambers on the west side had been blocked up with masonry infill - though the windows of the belfry remained open. The profile of the remains of the parapet appears to be exactly as in the drawing prepared by A.D.R. Caroe in 1951 showing the gatehouse 'after repair and reconstruction' - although the line of the parapet of the **bell tower** is considerably more complete than Caroe's drawing of its pre-repair profile: the north-western elevation possibly being as complete as in 1740. On this elevation Caroe's drawing shows the line of the top of the masonry dipping down above the window almost to the top of the hood-moulding, but the postcard shows the elevation finishing with a flat top except at the north-north-west angle, where it steps up slightly as in the Buck engraving. The masonry for three or four courses below the top of the wall is of a lighter colour, this paler fabric ending with a horizontal lower margin parallel to the wall top, suggesting that the parapet could have recently been rebuilt. The situation with regard to the south-south-western and southern elevations is less easy to identify with certainty, since the baulk of masonry which appears to survive here may be no more than the stonework of the eastern elevation the tower appearing above the western wall-top, and the parapet may have been degraded to the position shown by Caroe approximately 30 years later. Nonetheless it is evident that a major part of the wall top of the bell tower was lost over that period.
- 3.9 The view of the west elevation before his father's alterations to the bell-tower published by Caroe in his 1954 paper [Pl. 1B] shows the building in much the same condition as the earlier postcard, but the blocking had been removed, much of the minor plant growth seems to have gone, but the ivy had spread somewhat and the

parapet of the north-north-west elevation of the bell-tower had deteriorated.⁷

- 3.10 Views of the eastern elevation of the gatehouse are considerably rarer - the engraving by Charles Norris of the view of the market cross shows only the bell tower. The best illustrations of this face are the photographs reproduced in Foord 1925 and Caroe 1954, together with the 1951 drawing by A.D.R. Caroe, all of which show the parapet in much the same condition as it was in 1998. Foord's photograph (facing p.21) does not show the whole of the south tower, but it is evident that the whole of the parapet was swathed in vegetation at that time, some of which had been removed by 1939, the date of the Caroe picture.⁸

4 Summary

- 4.1 Thus the history of the gatehouse appears to consist of a gentle decline into dereliction, with few (if any) attempts to halt it. Once its defensive and possible judicial purposes became obsolete no obligation to maintain it, beyond ensuring that it could still function as an entrance, seems to have been felt by the cathedral authorities. It seems to have fallen out of use early, as excavation of the base of the south tower in the 1940s suggests, the infilling here containing stones and rubbish, *"...which had apparently been thrown in, rather than having just accumulated..."* while the pottery associated with this fill was all *"...of much the same date, none being earlier than the sixteenth or later than the seventeenth century..."* thus giving a rough indication of when this part of the gateway went out of use:

"It would seem that the Bishops lost some of their civil jurisdiction, and therefore the need for a gaol, as a result of the Act of Union of 1536."⁹

⁷ This appears to be the same photograph as that reproduced five pages from the end of Lovegrove and Mendus, 1951.

⁸ The wall which enabled the lower north room to be used as a pound for animals (see Caroe 1954, p.) appears in Foord's photograph.

⁹ Caroe 1954, p.11.

- 4.2 In 1717 there were "*still some Chambers standing in it*", suggesting that it may only have been semi-derelict; Yardley calls it "*something ruinous*" before 1768. It seems likely that - if the roof were leaded - that it was stripped relatively early, probably when the lead was taken from the eastern arm of the cathedral during the Civil War. Since it took until the beginning of the twentieth century to full restore the eastern chapels of the cathedral it is hardly surprising that the redundant gateway was left to its slow decline.
- 4.3 The parapets were clearly more complete in the eighteenth century, though the almost complete western merlons shown by the elder Pugin may be something of an exaggeration. The western side certainly stood much higher in 1740, perhaps with the chimney of the first floor room's fireplace still partly preserved. By the end of the nineteenth century the state of the parapets appears to have been much as in 1950, the position of the northern merlon echoed by the slight rise of the masonry where it had stood. The eastern elevation, in the absence of early depictions is less easy to assess, but more had survived into the early twentieth century than on the west, as is to be expected from its more sheltered position away from the prevailing maritime winds.
- 5 The Caroe repairs, 1929-1951
- 5.1 In 1929 the late thirteenth century octagonal tower at the north end of the gatehouse was restored and converted into a belfry for the use of the cathedral, entailing, amongst other works, the rebuilding of the parapets. A photograph of the eastern elevations of the tower with the repair scaffolding in place but before the work was much advanced is published in Alban Caroe's article on the gatehouse in Arch. Camb., Plate ii, having Dean Williams, W.D. Caroe (the architect for the project) and R. Fry, the builder, in the foreground. A series of photographs in the archive of J. Vile & Sons, Builders, currently held by Mr Dean, show the tower after the completion of the work to the exterior but with the scaffolding still in place.
- 5.2 In March 1940 stabilization of the upper floor of the gatehouse began, but this

seems to have been restricted to the exterior at this time [see below].¹⁰

- 5.3 In his report to the Dean and Chapter of 23.9.1944 (contingent upon the inspection which he undertook on 11-12.9.1944 during leave from the R.A.F.) Alban Caroe noted that:

"24. Few people see the interior of the upper floor of the Gateway since it can only be approached by a ladder, and it may therefore easily be forgotten that war-time restrictions stopped repair work before the pointing of the interior had been completed. Large growths are now spreading rapidly and the walls will begin deteriorating again if this pointing is not undertaken in the next three years.

"25. I hope also, when normal conditions return, to be able to finish my archaeological researches into what was, I think, the unique arrangement of the ground floor rooms on either side of the gate. I compared notes about these rooms with Mr. O'Neil while the previous work was going on and he agreed that the extreme interest of the plan [sic]. The aim here should be merely to reveal what the original plan was, and to stabilise its structural condition, without any attempt to restore it to completeness."¹¹

- 5.4 In 1945/7 the underground vault beneath the south-east chamber was excavated by Mr. Herbert de Hamel. In 1949 the stabilization of the ground floor took place;¹² and the ground-floor chamber between the roadway and the octagonal chamber was excavated under the supervision of Alban Caroe. Following this, in 1950/1 the ground-floor chamber between the roadway and the octagonal chamber was repaired and restored.

¹⁰ "...work necessary to prevent the collapse which threatened important parts of the gateway itself...to stabilize the upper floor, which is most exposed to weather." [Caroe 1954, p.1].
"In 1940 the upper floor was both cleared and repaired." [Caroe 1954, p.8]

¹¹ Caroe, 1944, p.5.

¹² "...through the generosity of the Pilgrim Trust...this has been completed by Messrs. E.G. Thomas and Sons, of St Davids..."

- 5.5 The completion of these works enabled Caroe to prepare the paper which summarised his findings, and his assessment of the parapets of the gatehouse is of particular interest in this context:

"The part which lies nearest the bell tower and contains the gateway itself was covered with a roof of rather low pitch. The position of the wall-plate which supported the rafter feet along the wall facing the Close can be traced so clearly that we can estimate the size of the timber plate itself at 6 in. by 6½ in. This roof drained on to a stone parapet gutter very cunningly waterproofed with interlocking channels most carefully worked out of Caerbwddy stone. These discharge in most cases through specially pierced corbels which are spaced at intervals for this purpose along the corbel course supporting the parapet. This medieval system of rainwater disposal is most interesting and more highly developed than anything that remains in the Bishop's Palace (where the main roofs had dripping eaves and did not discharge over parapet gutters). It is remarkably complete, for we can trace how the builders brought the chimney of the first-floor fireplace through the parapet gutter without blocking it, and even how they led the water away in steps from the pocket which occurs between the sloping roof and the external steps which lead down on to the south-east end of the parapet facing the Close.

"The parapets which bound these gutters resemble very closely indeed the upper parts of Bishop Gower's parapets round the Palace, though the arcading below is, of course, missing in the gateway. Both exhibit wide embrasures alternating with narrow slots which were lintolled over, the parallel being most closely seen at the west end of the Great Hall and in the adjoining Chapel. It is noteworthy, however, that not only are the interlocking stone channels missing in the Palace but also that the builders there adopted the more usual practice of discharging their water through gaps between the corbels, instead of providing pierced corbels as was done in all cases except one on the gateway.

"Less remains of the upper parts of the south-eastern end of the gateway where the parapet was at a higher level. All traces of the roof itself have disappeared, and almost all the parapet gutter. But most of the corbels which supported the parapet remain, and they

include the pierced corbels through which this gutter also drained. There are signs which appear to indicate that the arrangement of parapet and gutter was modified almost as soon as it was built, where the steps descend to the lower level on the Close side. It looks as if at first the circular sweep of the parapet round the southern side may have continued on towards the turret on the other or outer side. This turret, which gave staircase access to the roofs, lacks its upper part; but enough remains to show that this took the form of a very roughly dressed finial with five tapered sides set out with remarkable irregularity."¹³

- 5.6 Caroe's account is all the more valuable since large parts of what he describes were rebuilt or rebbed in Portland cement during the works carried out at this time, so that only from his description can we be certain that these perpetuate the original configuration.
- 5.7 At least the top course of the parapets and the whole of the wall-tops was taken up and rebbed in the late 1940s and early 1950s, and this included the lifting and rebbeding of the gutters which remain on the wall tops of the southern end of the west elevation and the northern end of the east elevation of the central room above the gateway. The turret, described by Caroe as lacking its upper part, seems to have been completed by him, since it terminated in a low pyramidal cap in 1998.
- 5.8 The parapets were somewhat altered in c.1951, since comparison of the before and after photographs provided in the 1954 Arch. Camb. article shows that on the eastern elevation the gap between the two southern merlons has been built up, and the southern end of the parapet of the south tower has been made more level than it was. On the west the rather shapeless 'mound' of masonry where the first merlon south from the junction with the belfry existed in the 1740s seems to have been slightly remodelled to suggest the form of the lost merlon directly above the corbel table
- 5.9 The rebbeding of the wall-tops included the resetting of the stones which perpetuate the roof line of the central room at the southern end, where the roof abutted the southern tower's north elevation, so that this is no longer an entirely trustworthy indicator of the form and pitch of the structure. However, the much more complete

¹³ Caroe, 1954, p.8-9.

abutment of the roof at the north-western corner (more complete in preserving both upper and lower edges of the slot for the rafters) seems to have been left untouched, and was therefore recorded in detail during the 1998 survey.

6 The parapets in 1998

6.1 The parapet gutters

- 6.1.1 The top of the southern tower showed no sign whatsoever of the original form of the parapets or roof, the situation being as Alban Caroe indicated - "*All traces of the roof itself have disappeared, and almost all the parapet gutter*". Indeed the parapet gutter had by this time also disappeared, but Caroe's indication of its presence in 1951, and the existence of five pierced corbels in the corbel table to take the discharge from it, are sufficient to imply its previous existence.
- 6.1.2 The parapet gutters on the gatehouse chamber appear to remain much as described by Caroe. His plate iv in the 1954 article shows the southern end of this parapet viewed from the north after the work of consolidation had been completed, and the status of the stonework is indistinguishable from that in 1998. At the southern end of the west elevation [Slides 5/1-35; Prints 15/19, 17/4] the roof drained down onto three gutter stones of progressively lower level which served to feed the main parapet gutter at the base of the steps up to the south tower parapet, the lowest step of this stair being angled in order to accommodate the lowest of these gutter stones. On this end of the western elevation the gutter channel ran down from a little south of the chimney of the chamber below, and also down from the steps at the south end, to feed a chute through one of the corbels midway between these two features. Almost immediately [27 cm south of the inner face of the flue] south of the chimney was another chute which must have taken off rainwater from the vicinity of the chimney itself. This is presumably what Caroe refers to as showing "*how the builders brought the chimney of the first-floor fireplace through the parapet gutter without blocking it, and even how they led the water away in steps from the pocket which occurs between the sloping roof and the external steps which lead down on to the south-east end of the parapet facing the Close*". The gutter does not survive to the north of the chimney, but it must be

assumed that a similar arrangement existed here, with the rainwater draining away from the chimney to the north and feeding a chute adjacent to the junction with the belfry. It is noteworthy that the existing gutters are so steeply sloping that they feed a chute which discharges through the wall below the corbel table, rather than through a pierced corbel. [See drawings 1-5]

- 6.1.3 The steps which rise at the southern end of the parapet of the gatehouse chamber served to provide access to the higher-level parapets of the southern tower - the corresponding area on the eastern elevation being occupied by the stair from the first floor of the tower. It is not obvious how access to the eastern parapet of the gatehouse chamber was obtained without skirting the stair turret and sliding down the roof - perhaps a ladder was laid down the pitch of the lower roof for the purpose.
 - 6.1.4 The gutter also survives on the northern end of the eastern parapet, [Slides 4/22-27, 16/5-16; Prints 9/21, 12/1-3, 7-8, 15-17, 14/2-3] the flow presently running down from the junction with the belfry to discharge through a pierced corbel (seven south of the belfry). Despite the rebedding of the gutter stones it is clear that this must have been the original configuration. The northern gutter must have continued sloping southwards, or have had a central watershed like the corresponding gutter on the western side, since the next pierced corbel is at the junction with the stair turret at the southern end of the gatehouse chamber parapet.
- 6.2 Additional traces of the merlons
- 6.2.1 It is evident from the existing traces of the eastern parapet of the gatehouse chamber that it does not survive to its full height at any point. However, against the northern elevation of the stair turret there is a clear vertical scar where the merlon originally formed its junction with the higher fabric of the south tower, and this provides evidence of the missing vertical dimension, running up to one course above the corbel table of the adjacent tower.
 - 6.2.2 In the pre-consolidation photograph published by Caroe there is a ragged scar in the southern margin of the stair turret which is suggestive of the withdrawal of the bonding stones of the merlon which must have junctioned against the turret. This scar terminates at the same relative height above the corbel table of the tower as the height of the gatehouse chamber parapet above its corbel table. The

consolidation of the turret in 1950-1 has partly obscured this evidence, but the voids of the upper missing stones are still apparent at the present time.

- 6.2.3 The narrow slit openings in the merlons on the eastern elevation were apparent from what survived of the northern battlement, but a further survival in the fragmentary second merlon to the south of the belfry confirms that this was the normal form throughout the battlemented parapets of the gatehouse. At the base of the surviving northern part of the merlon the sill survived, providing the position and form of the base of the narrow opening.

6.3 The roofs

- 6.3.1 No sign of the roof of the southern tower was noted by Caroe, and the only possible indicator which was observed in 1998 was the very slight angled scar against the base of the western elevation of the stair turret, suggestive of the line of junction of a pitched roof over the southern tower.
- 6.3.2 The roof over the main chamber of the gatehouse is much better represented. The general form of its southern end is preserved against the northern elevation of the south tower; this, however, has been rendered somewhat imprecise by the 1950-1 capping of the scar with new or rebbed stone, which masks the exact line of the underside of the roof-slope. A 1.5 metre length of the north-western roof slope is, however, reliably preserved as a scar in the stonework of the infilling masonry between the south-south-west angle of the belfry and the western wall of the gatehouse. The higher sections of this roof-line were lost with the destruction of the south elevation of the belfry in antiquity - the existing fabric here dates from 1929.
- 6.3.3 Here a slightly tapering recess for the foot of a rafter or truss remains in the masonry. Beneath its foot is a 20 cm square x 42 cm deep hole running horizontally into the end wall; this has its inner edge in line with the inner face of the wall, and its outer edge corresponds with a step in the wall, indicating that it was occupied by a beam which sat on the inner edge of the wall head and ran into the end wall. A similar slot exists at the southern end of the wall, showing that this was a feature which occupied the whole length of the elevation, and could therefore be assumed to be the wall-plate of the roof. Its relationship to the scar above suggests that the end of the rafter/truss was slightly curved, an assumption which is also suggested

by the form of the scar in the masonry which widens from 12 to 18 cm at the base. Such a feature could also account for the curved profile of the base of the scar of the roof slope on the western side of the south end, which was rebbed in c. 1950-1 and may therefore not be original.

- 6.3.4 There is a possibility that this end truss could have been built in during the construction of the gatehouse, since the course surmounting it has stones laid along its line whereas the rest of the fabric is built in horizontal courses. However, although no sign of disruption to fabric is visible in terms of over-wide jointing or changes in the bonding mortars, it is possible that these stones are subsequent insertions.

Bibliography

- Caroe 1944 Alban D.R. Caroe, report to the Dean and Chapter of 23.9.1944 (contingent upon the inspection which he undertook on 11-12.9.1944)
- Caroe 1954 Alban D.R. Caroe, 'Porth y Tŵr, St David's', *Archaeologia Cambrensis* vol. ciii (1954), p.1-17.
- Evans & Worsley J.Wyn Evans and Roger Worsley, 'Eglwys Gadeiriol Tyddewi; St Davids Cathedral 1181-1981', Oriel Fach, 1981
- Fenton 1811 Richard Fenton, 'A Historical Tour Through Pembrokeshire, 1811, (1994 facsimile of the 1903 reprint), Bristol 1994.
- Foord 1925 Edward Foord, 'Cathedrals Abbeys and Famous Churches: St David's Llandaff and Brecon', J.M. Dent, London and Toronto, 1925.
- Jones & Freeman W.B. Jones and E.A. Freeman, 'The History and Antiquities of St David's, London and Tenby, 1856.
- Lovegrove/Mendus E.W. Lovegrove and W. Morris Mendus, 'The Cathedral Church of St David: Festival of Britain Souvenir', Hoods of Middlesborough, 1951.
- Willis 1717 Browne Willis, 'A Survey of the Cathedral Church of St. Davids...', London 1717.
- Yardley Edward Yardley, 'Menevia Sacra', ed. Francis Green, Cambrian Archaeological Association, 1927.

Survey Drawings

Survey Drawings [all at 1:10 scale]

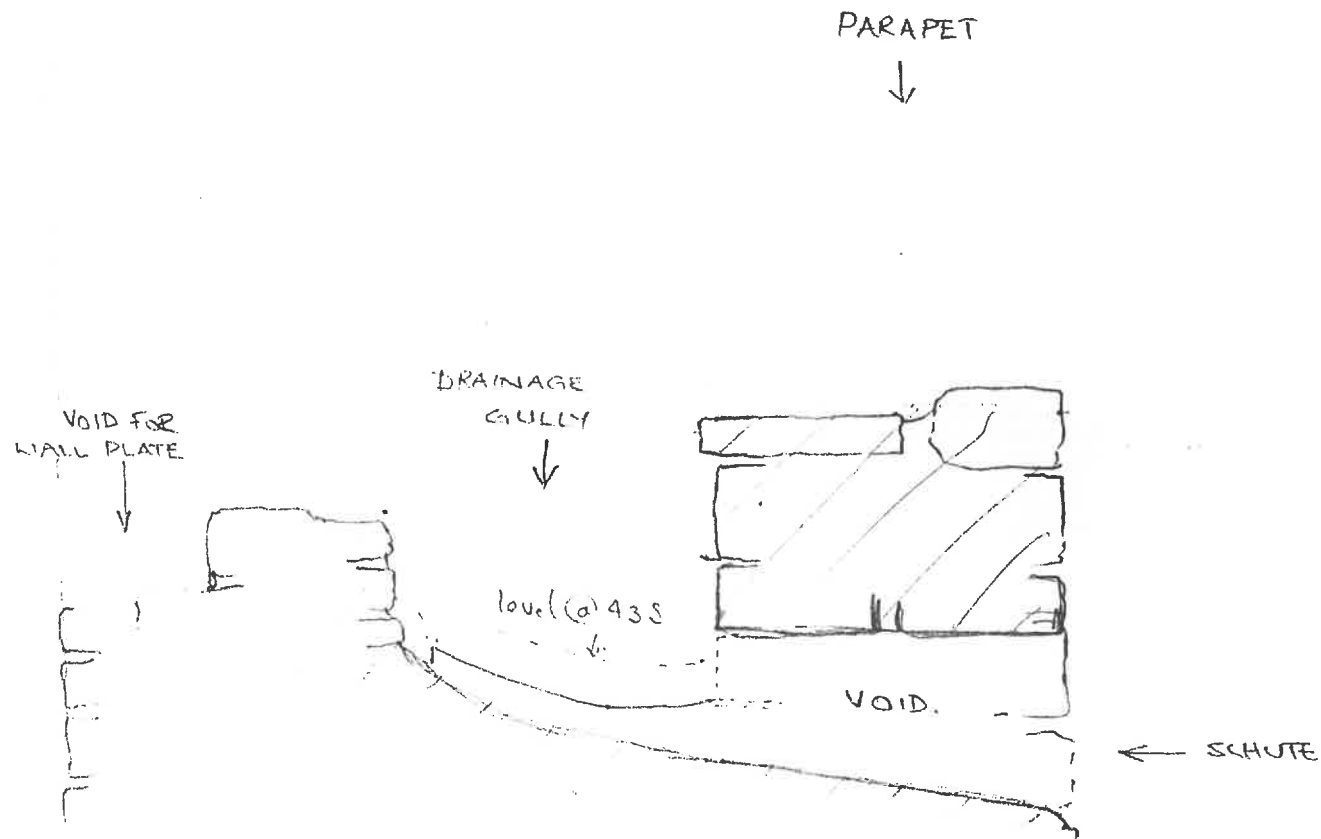
- | | |
|--------|-------------------------------------------------------------------------------------------------------|
| Page 1 | West parapet, South end, section through wall-head to show position of wall-plate and drainage system |
| Page 2 | North-south section of parapet drainage system, south side of west elevation |
| Page 3 | southward continuation of page 2 |
| Page 4 | West elevation, south end of parapet, drainage channel northward continuation of page 2 |
| Page 5 | West elevation, south end of parapet, plan of drainage channel and steps to south tower parapet |
| Page 6 | North end of gatehouse chamber, trace of original roof-line |

ST DAVIDS : PORTH Y TWR

W. PARAPET, S END - SECTION THROUGH WALL-HEAD

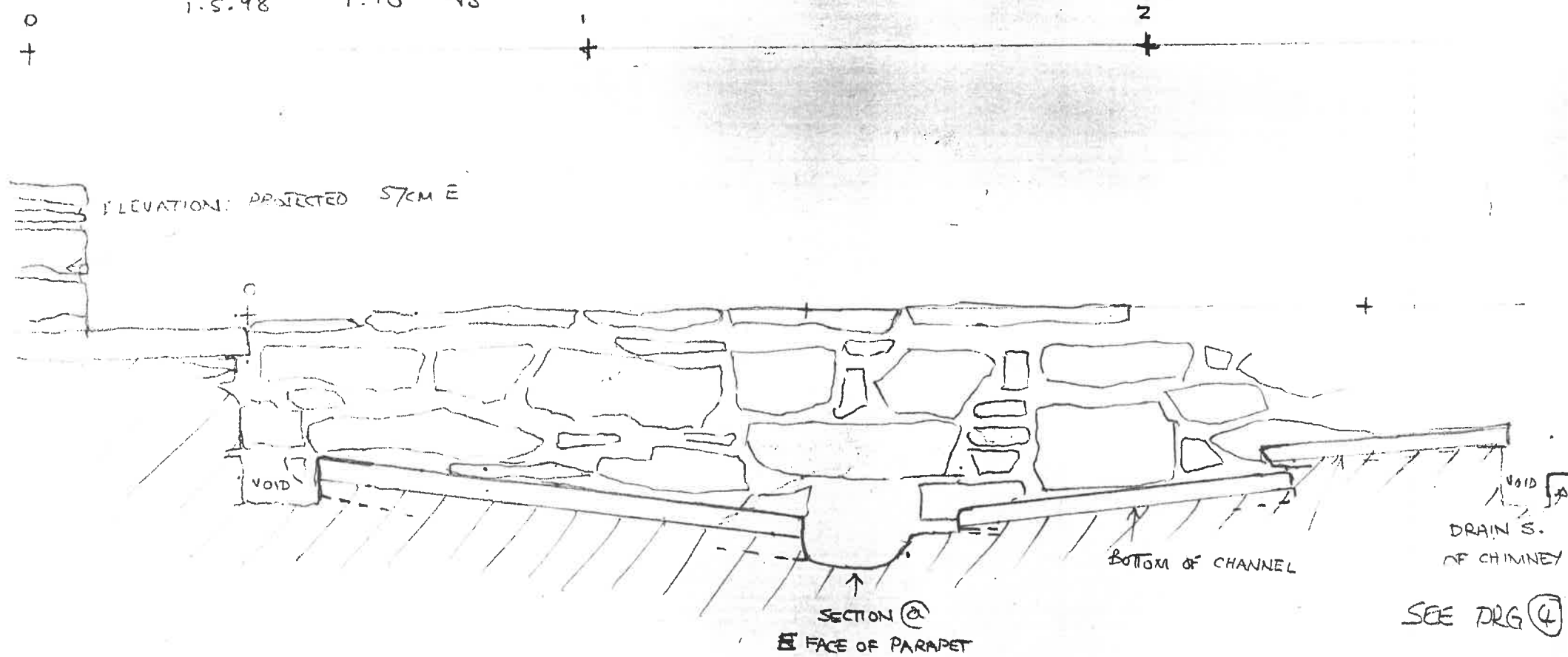
TO SHOW POSITION OF WALL PLATE + DRAINAGE SYSTEM.

1.5.98 N.S. 1:10.



N-S SECTION OF PARAPET DRAINAGE SYSTEM, S SIDE OF W. ELEVATION
1-5-98 1:10 NS

(2)

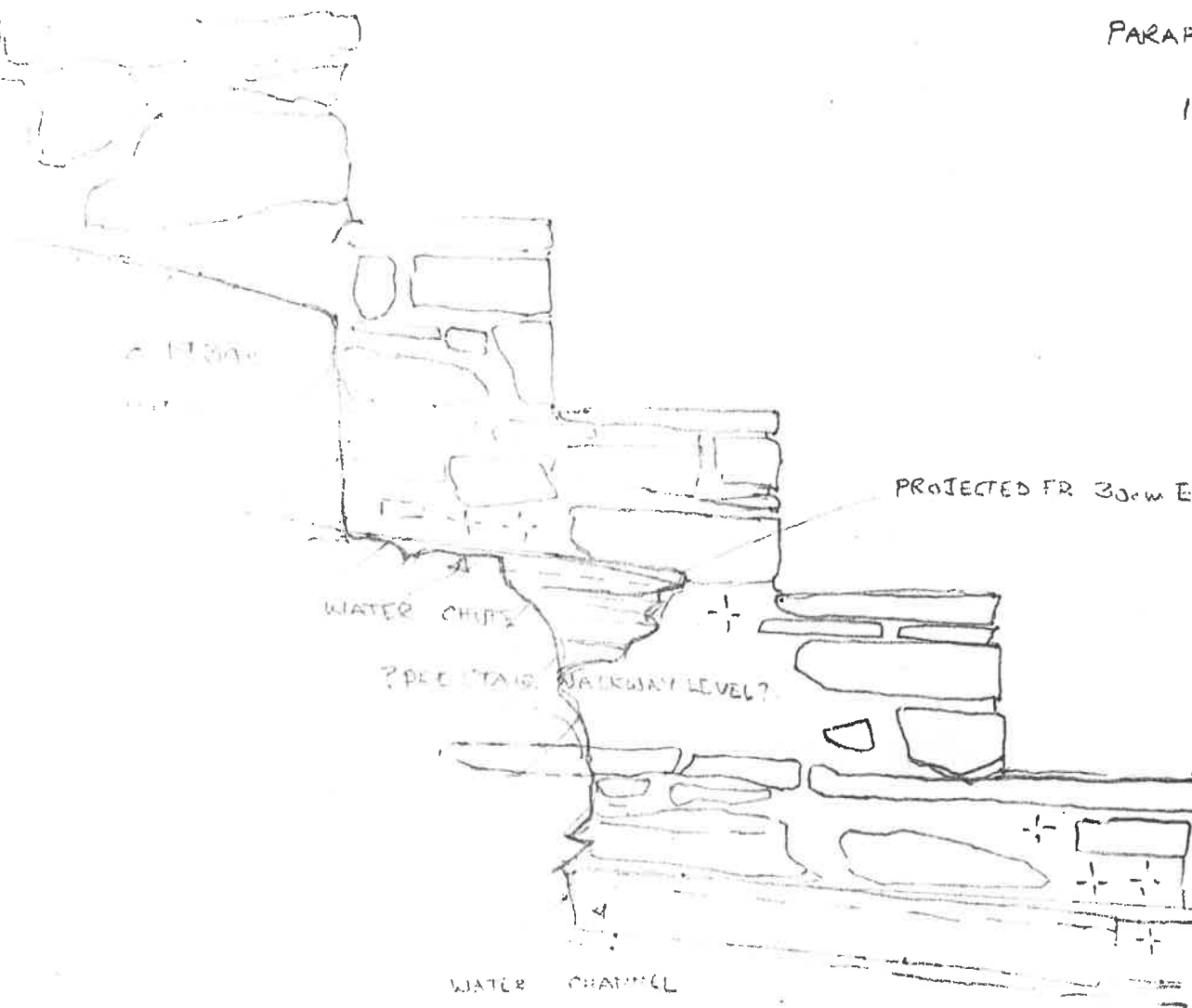


ST DAVIDS: PORTH 4 TWR

(3)

PARAPET, W SIDE SEND STAIR + DRAINAGE
CHANNELS

1.5.98 1:10 NS



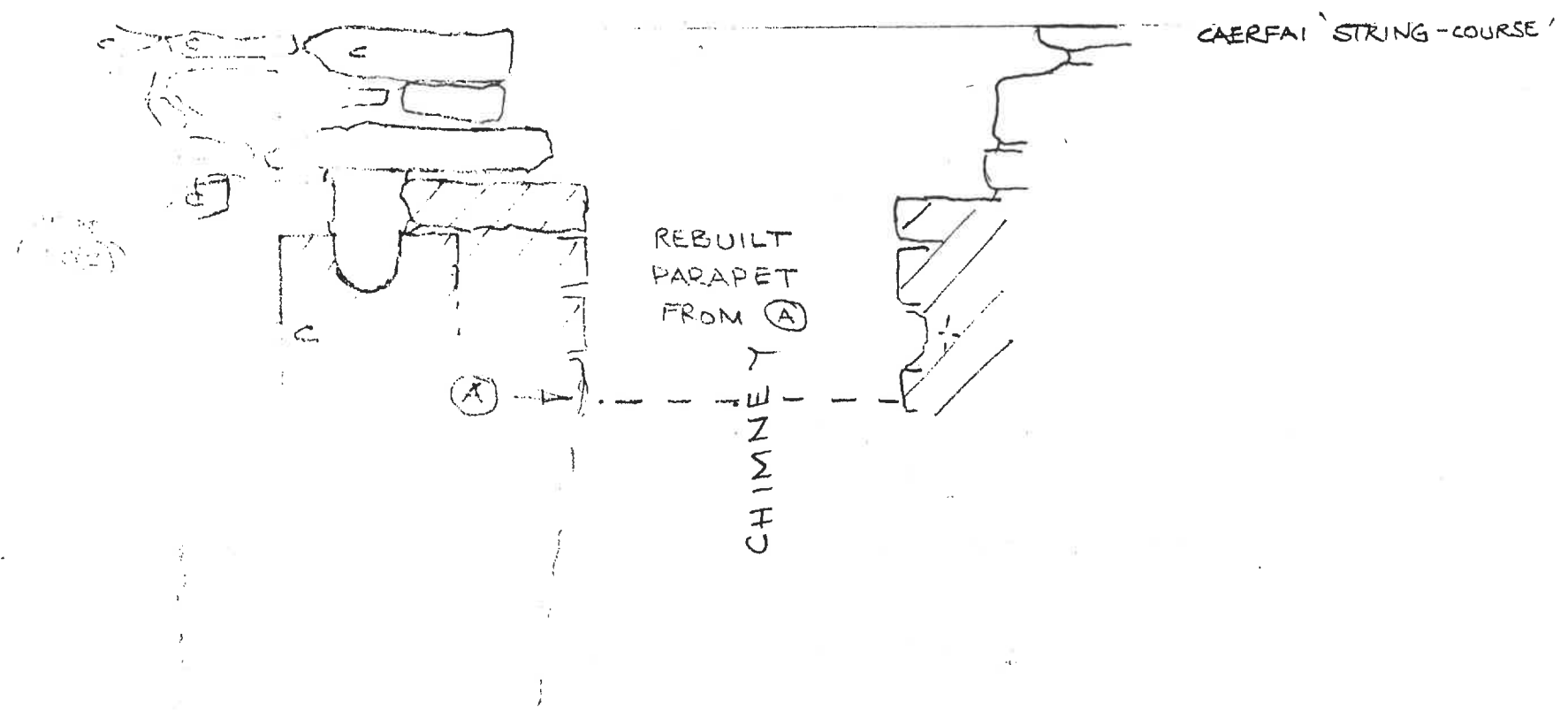
WATER CHANNEL
FORMING IN FACE OF SLOT FOR WALL PLATE

SEE DRAWING (2)

PORT - FORTH Y TWR

W. ELEVATION, S. END OF PARAPET - DRAINAGE CHANNEL CONTD. FROM DRG. 2)

1-5-98 1:10 N.S.



WATER DRAIN

PARAPET REBUILT 1972

DRAIN

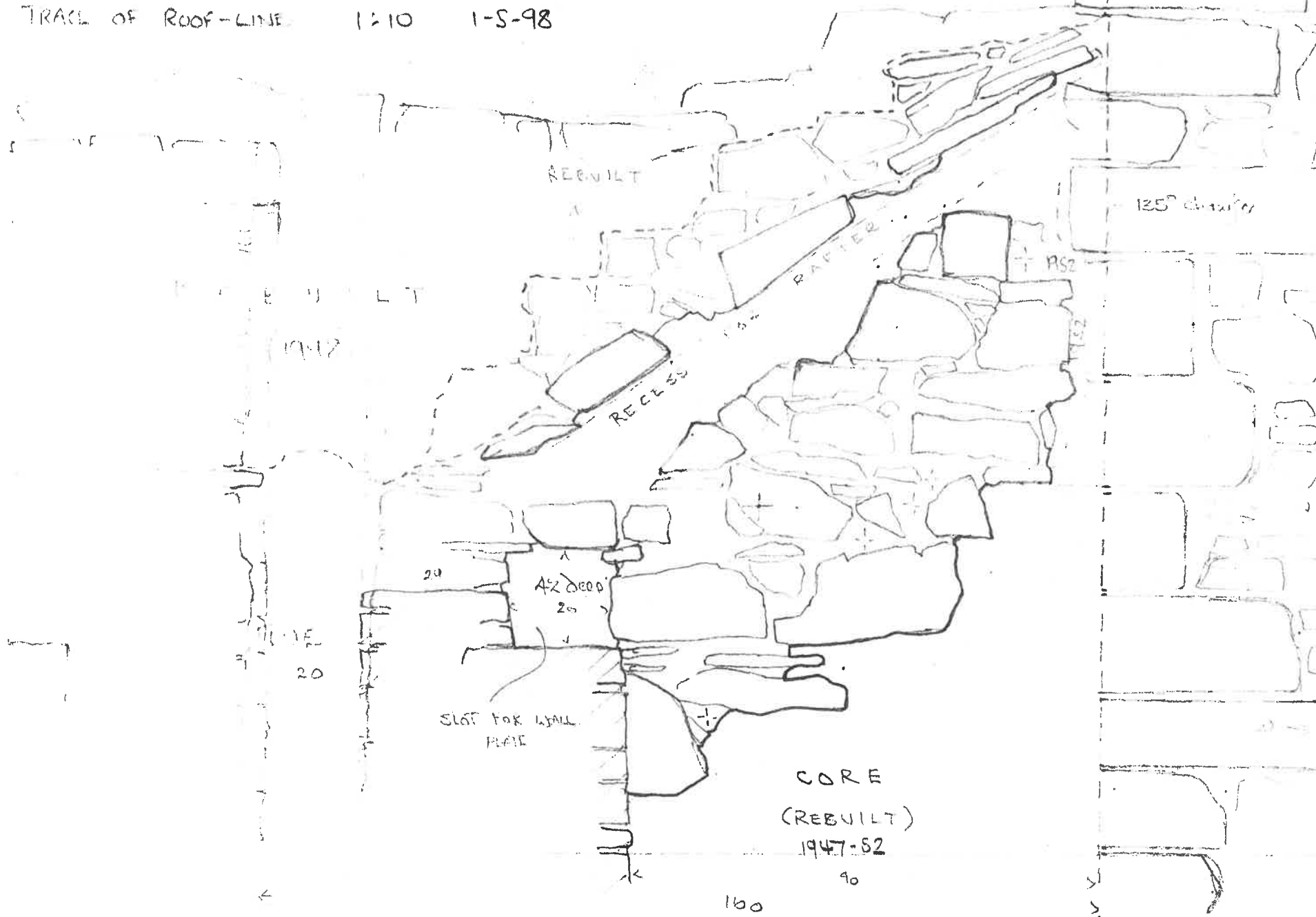
DRAIN

REBUILT OF POINTED 1972

site of well - plate

site of well at S. most after

TRACE OF ROOF-LINE 1210 1-S-98

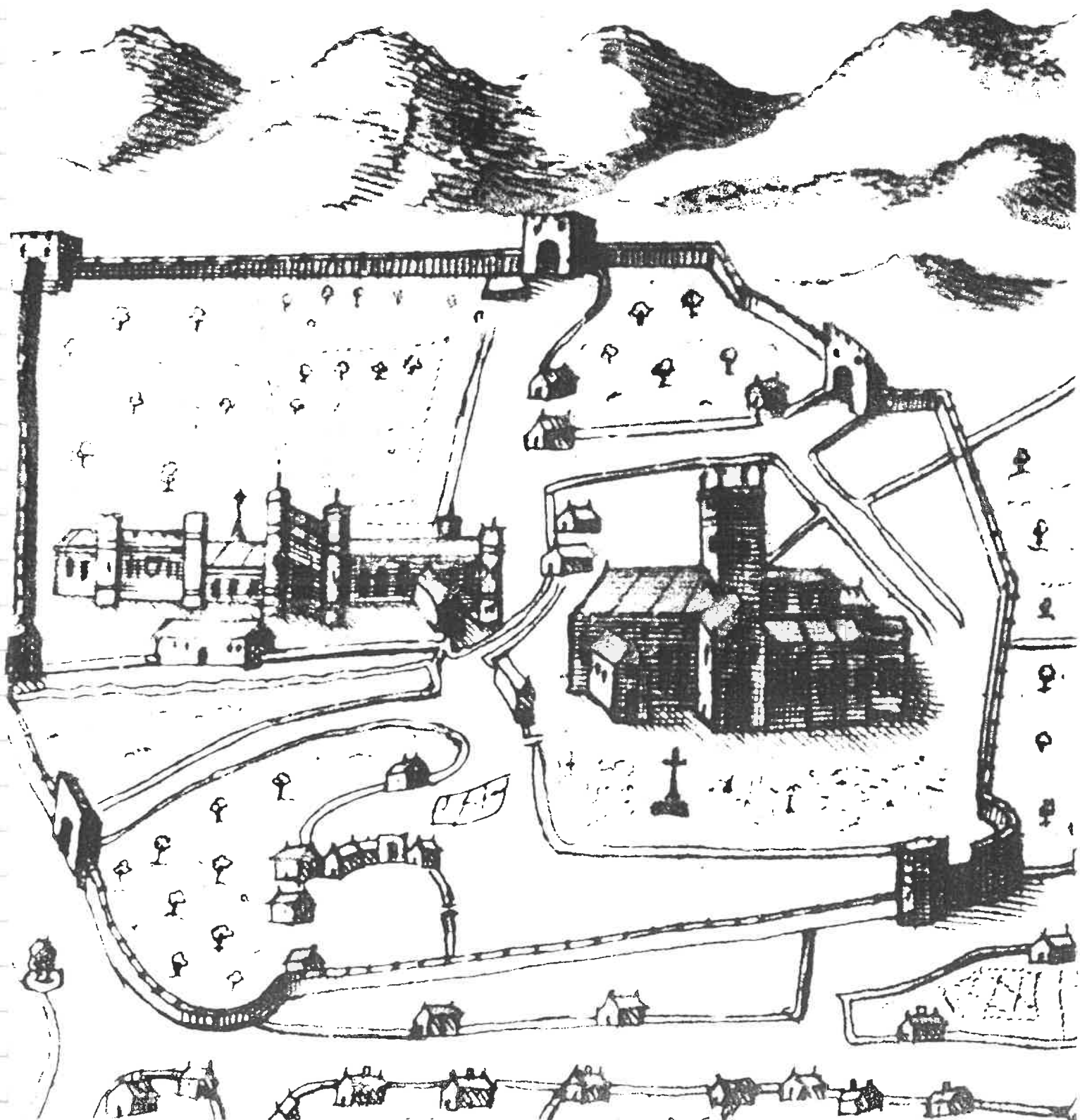
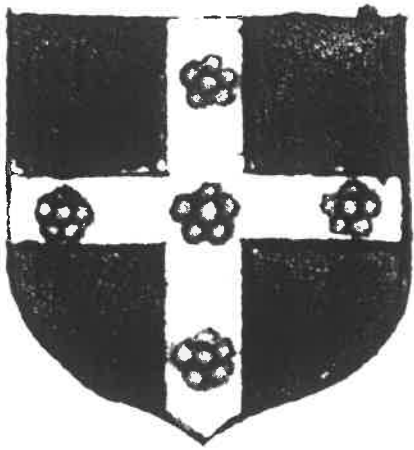


Illustrations

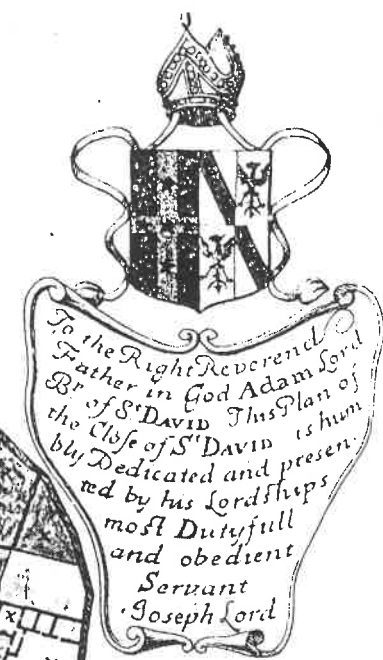
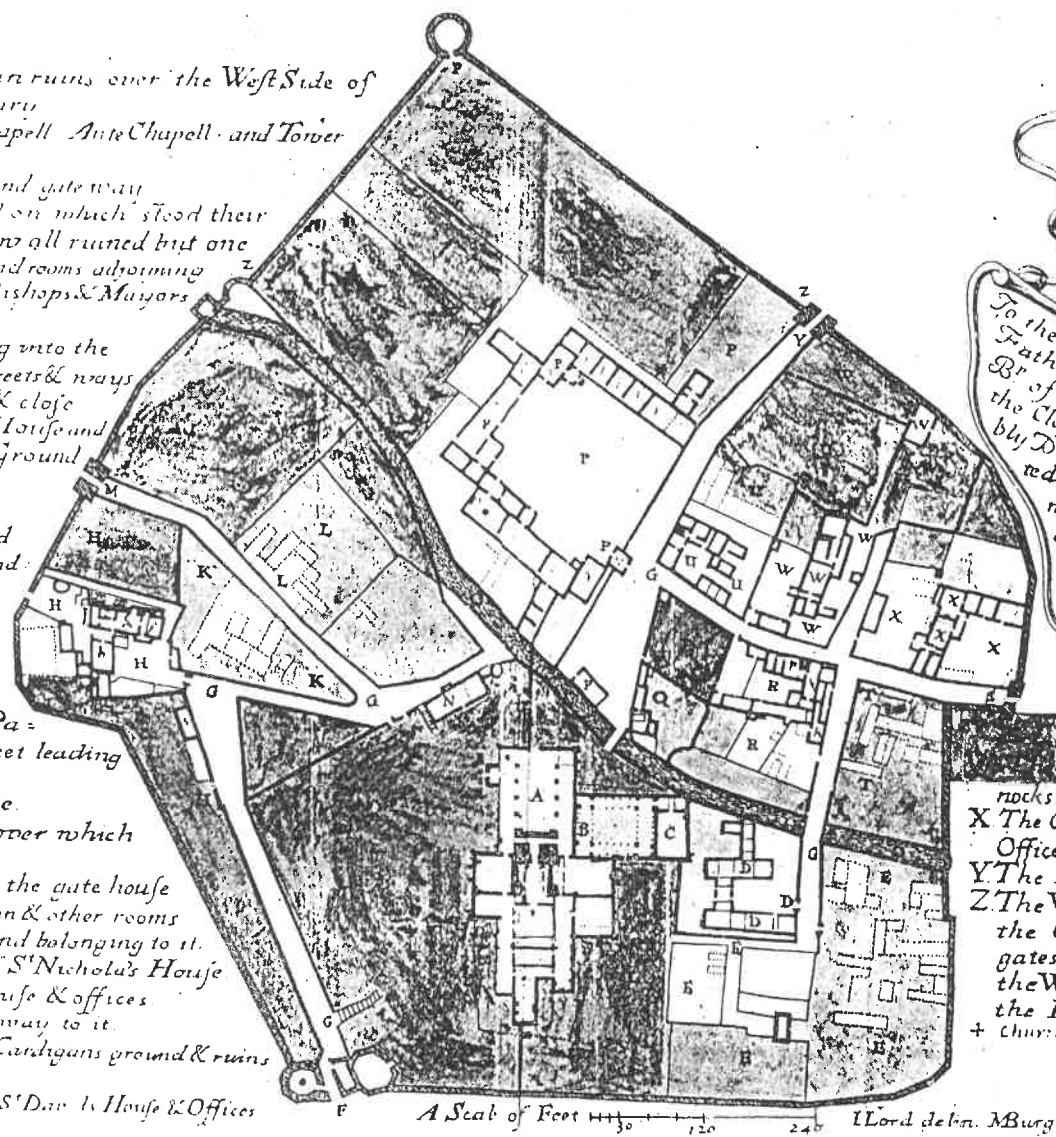
Illustrations

Page 1	St Davids from Speed's map of Pembrokeshire, c.1610
Page 2	Lord's plan of the Close of St Davids, c.1720.
Page 3	Enlarged extract from the Buck brother's engraving of the south prospect of St Davids Cathedral
Page 4	The western elevation c.1900 with blocked openings on the first floor
Page 5	Plate 1 reproduced from Caroe's 1954 Arch. Camb. article
Page 6	Plate 2 reproduced from Caroe's 1954 Arch. Camb. article
Page 7	The 1951/4 drawings of Porth y Tŵr
Page 8	The east parapet gutter
Page 9	The scar of the merlon against the north elevation of the stair turret
Page 10	The west parapet gutter
Page 11	The traces of the roof-line of the gatehouse chamber
Page 12	Reconstruction of the form of the merlons on the east elevation
Page 13	The 1998 work: red indicates new work; green indicates rebuilding or refacing of the original

SAINT



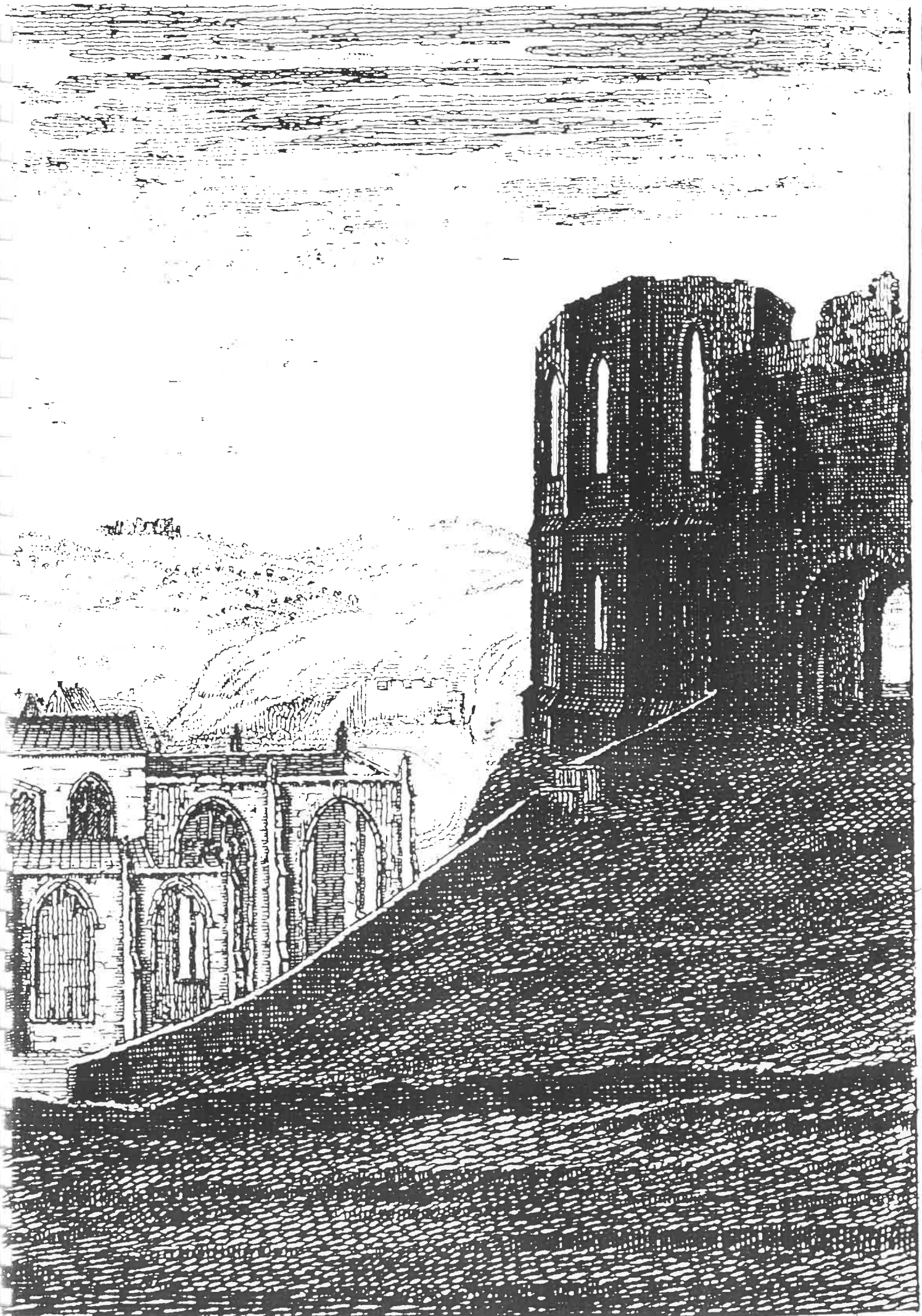
- A The Cathedral
- B The Cloysters now in ruins over the West Side of which was a Library
- C S^t Marys College Chapell Ante Chapell and Tower now in ruins
- D S^t Marys College and gate way
- E The Vicars Ground on which stood their College & Houses now all ruined but one
- F The East gate and rooms adjoining to it where the Bishops & Mayors courts were held
- G The Stepps leading into the Churchyard & Streets & ways about the Church & Close
- H The Chaunters House and offices Court Yard & Ground belonging to it
- I Ground called the Chaunters Orchard
- K Prebendary of Llanddewi's Ground
- L Archdeacon of Cardigan's Ground and ruins of his House
- M South West alias Patrick's gate & Street leading to it
- N The Free Schoole
- O The River Alan over which are 2 Bridges
- P The B^t Palace with the gate house Chapell, Hall, Kitchen & other rooms & Offices and ground belonging to it
- Q The Prebendary of S^t Nichol's House
- R The Treasurers House & offices
- S Bonnings gate & way to it
- T The Archdeacon of Cardigans ground & ruins of his House
- U The Archdeacon of S^t Davids House & Offices



- Archdeacon of Brecon's House & Offices.
- X The Chancellors House & Offices.
- Y The North West gate
- Z The Walls Surrounding the Close which has four gates Leading into it & in the West angle stands the B^t Dove House.
- + Church Yard.

A Scale of Feet 0 30 60 120 240 I Lord de la. M. Burghers Transcription

PLAN OF CATHEDRAL CLOSE AT ST. DAVIDS.

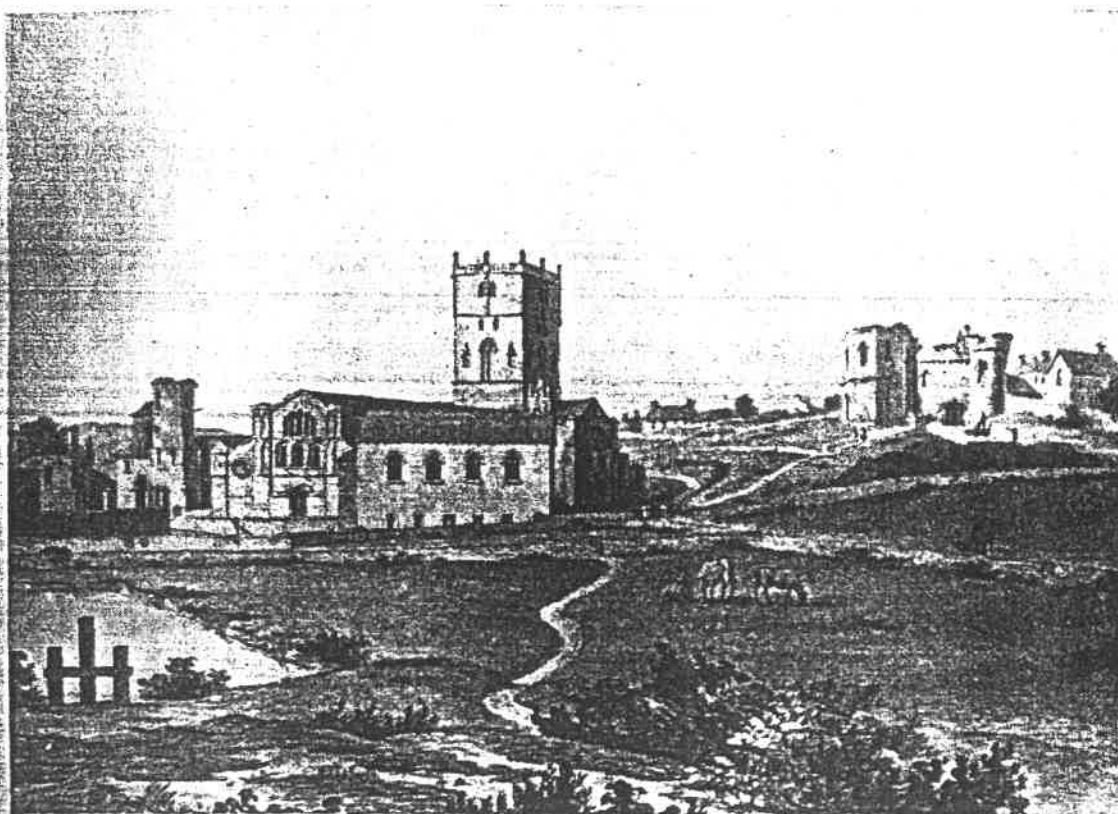


ed in the Western extremity of y^e County, within a Mile of y^e Sea. & with

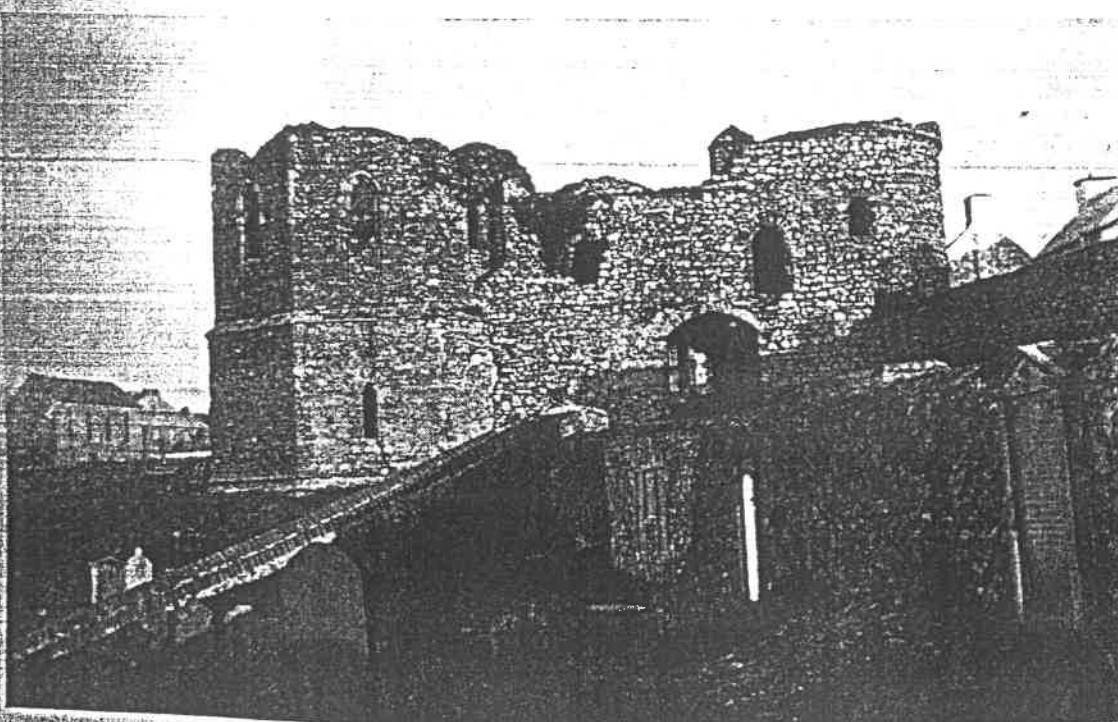
Photographs



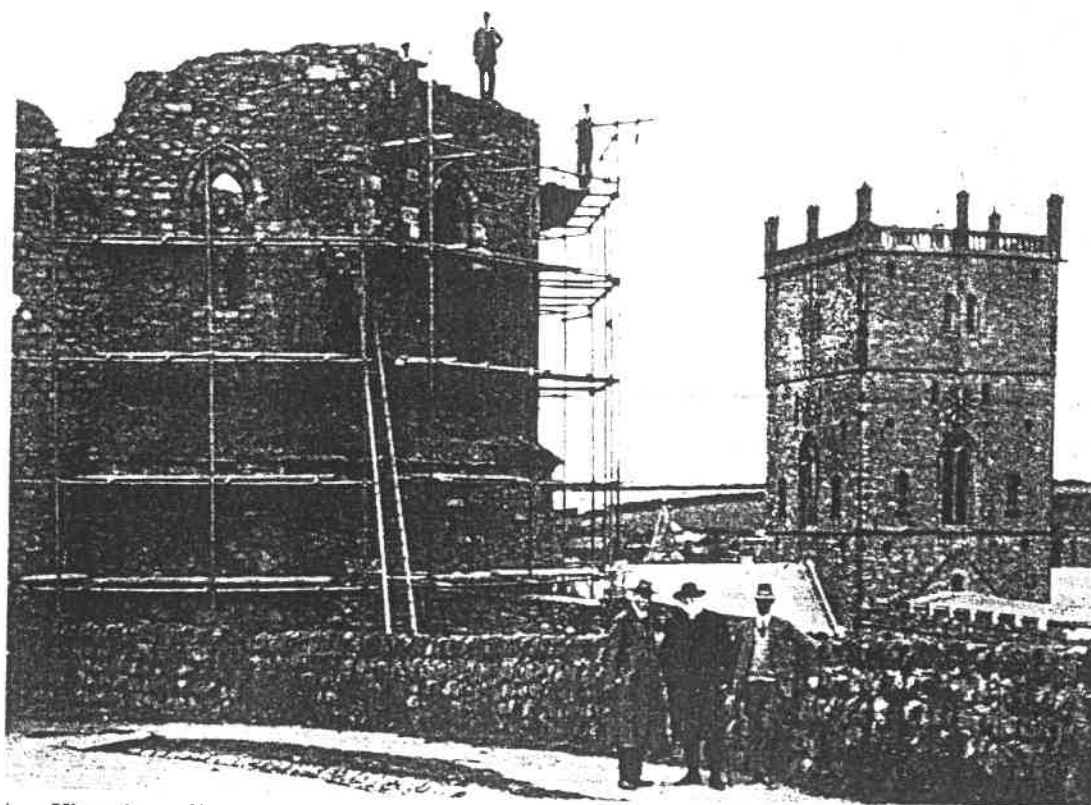
The western elevation of the gate around the turn of the century, showing the first floor openings blocked with masonry, but with considerably more masonry at the top of the north-north-western elevation of the belfry. By c.1925 the western window and first floor doorway had been reopened, but the belfry parapet had been reduced. [postcard from the collection of J.Viles and Sons]



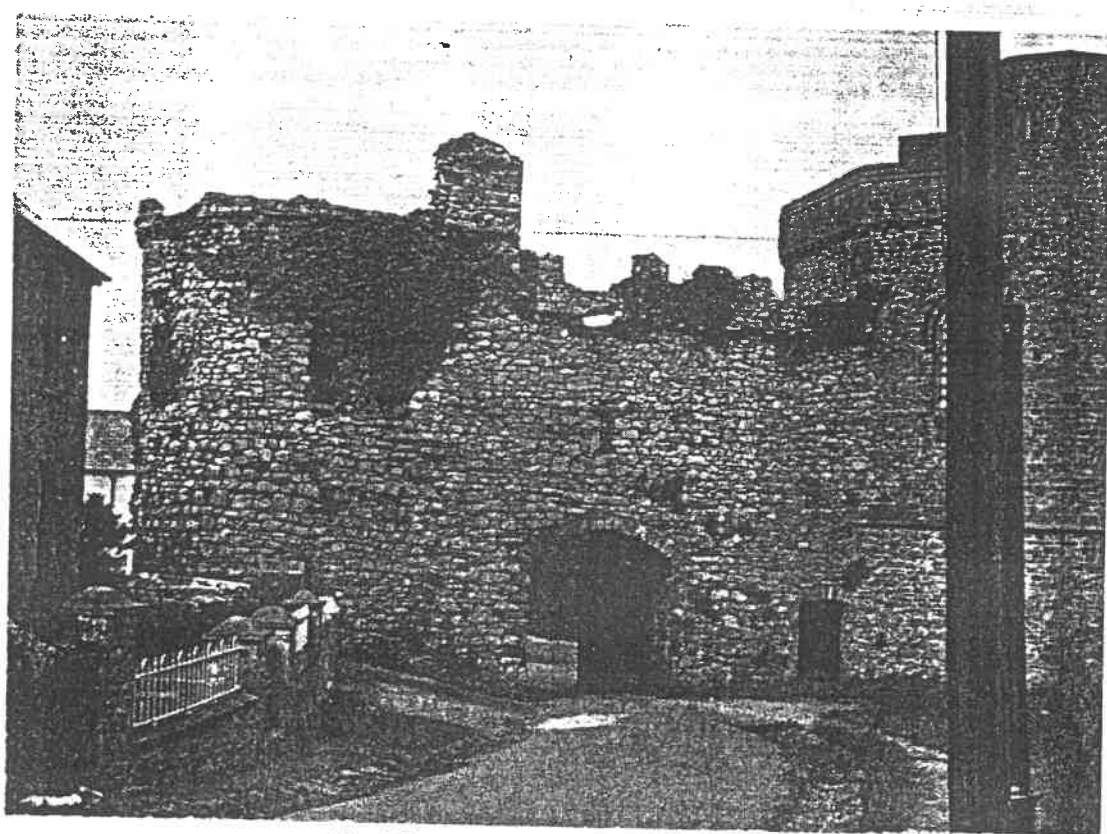
A. Watercolour by Pugin for Nash, painted before 1791.



B. View from Close before 1929.



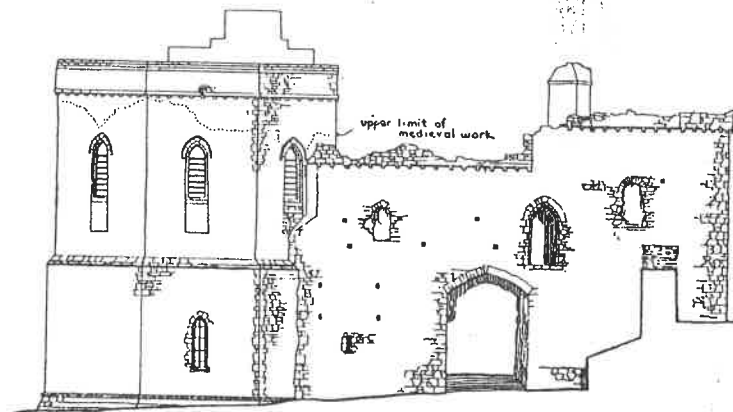
A. View from The Pobbles in 1929: showing Dean Williams, W. D. Caroe (architect), R. Fry (builder).



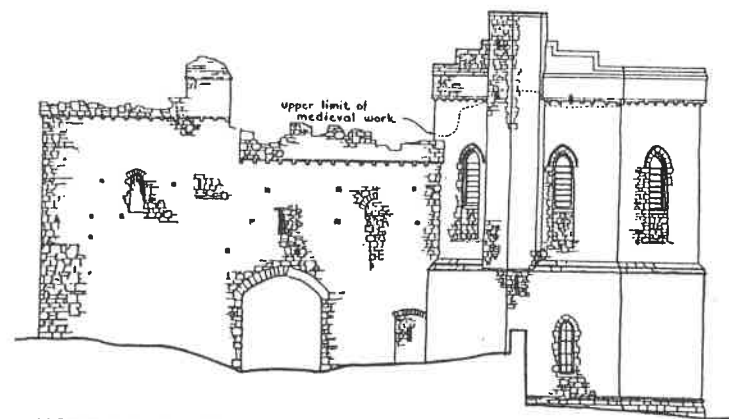
B. View from The Pobbles in 1939.

PORTH Y TWR ST. DAVIDS PEMBROKESHIRE

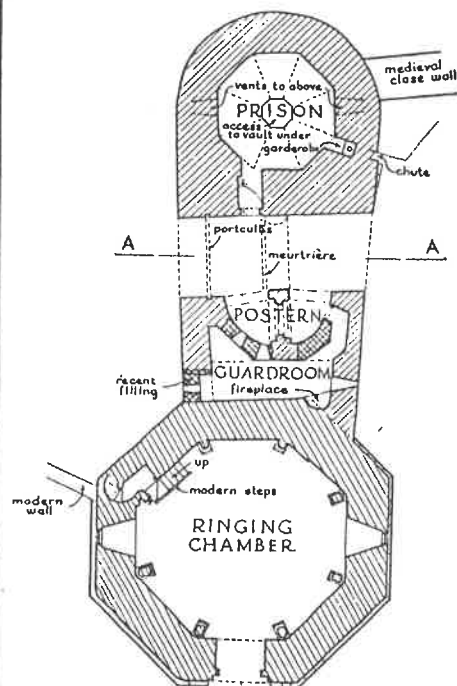
AFTER REPAIR AND RECONSTRUCTION 1951



SOUTH WEST ELEVATION

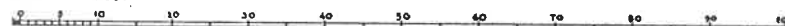


NORTH EAST ELEVATION

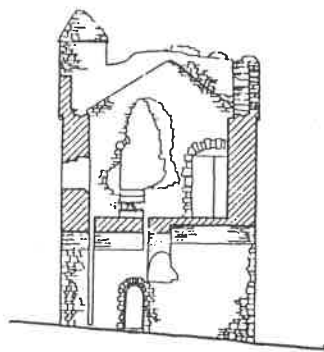


GROUND FLOOR PLAN

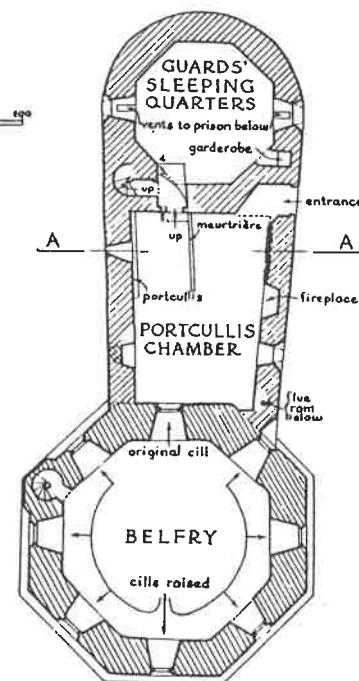
SCALE OF FEET



late 13th century 2nd quarter 14th century modern reconstruction



SECTION AA



FIRST FLOOR PLAN

A. R. Evans
10, GREAT COLLEGE ST.
WESTMINSTER, S.W.1.
November 1951.

Photographs



PT98/12/8: The remains of the gutter on the northern end of the east parapet, rebbed when the parapet was repaired under Alban Caroe in 1950-1. At this time the wall top was rebuilt removing any traces which may have survived of the slot along the inner margin of the wall to accommodate the wall plate of the medieval roof.

Photographs



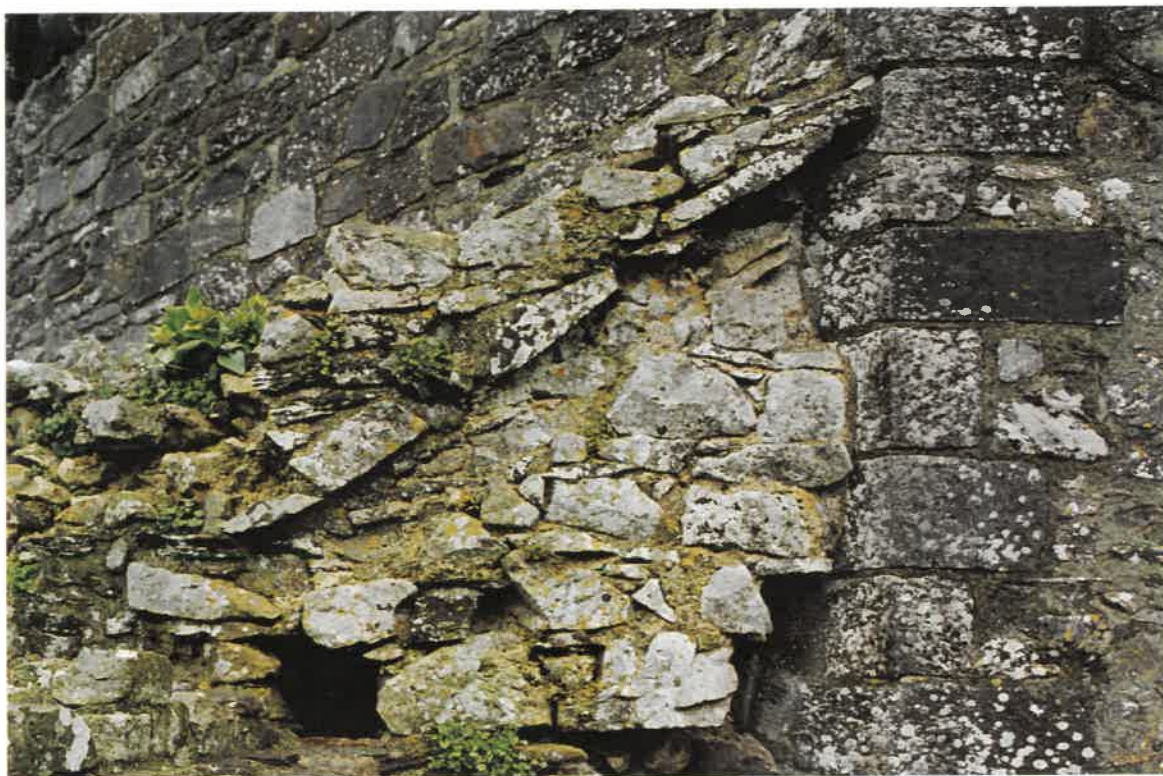
PT98/11/27: The northern elevation of the stair turret at the north-east angle of the south tower, showing the scar of the junction of the parapet occupying the course above the tower string-course. This provides evidence for the original height of the merlons over the gatehouse chamber. The cap of the stair turret was renewed by Caroe in c.1950-1.

Photographs



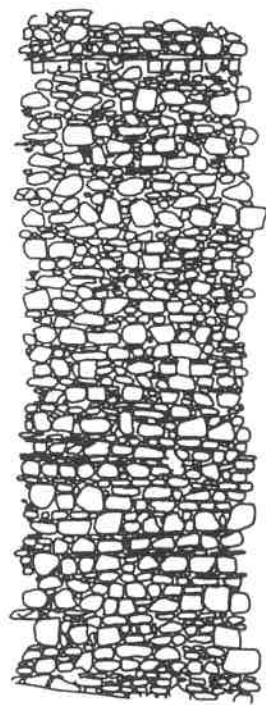
PT98/15/19: The south end of the parapet of the west elevation showing the gutter to carry off water from the chimney and parapet steps emptying through the exterior wall; the two gutter-slabs to the east of the steps which rose to the tower parapets; and the ledge and socket to accommodate the wall plate of the gatehouse chamber roof. [After repair]

Photographs



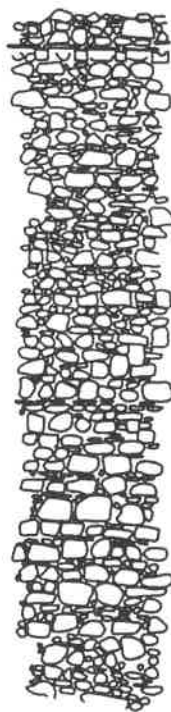
PT98/7/32A: The north-west corner of the gatehouse chamber showing the remains of the original roof-line, with the socket for the wall-plate beneath

PT98/7/34A: The south-west corner of the gatehouse chamber showing the rebuilt roof-line against the south tower, with the shallow 'trough' and the socket for the wall-plate.



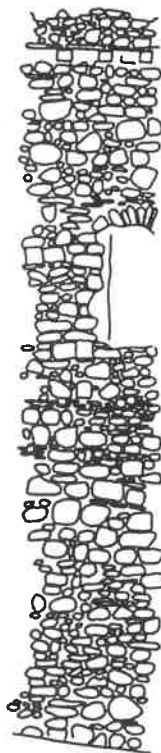
PORTH Y TWR
East Elevation

ELEVATION D

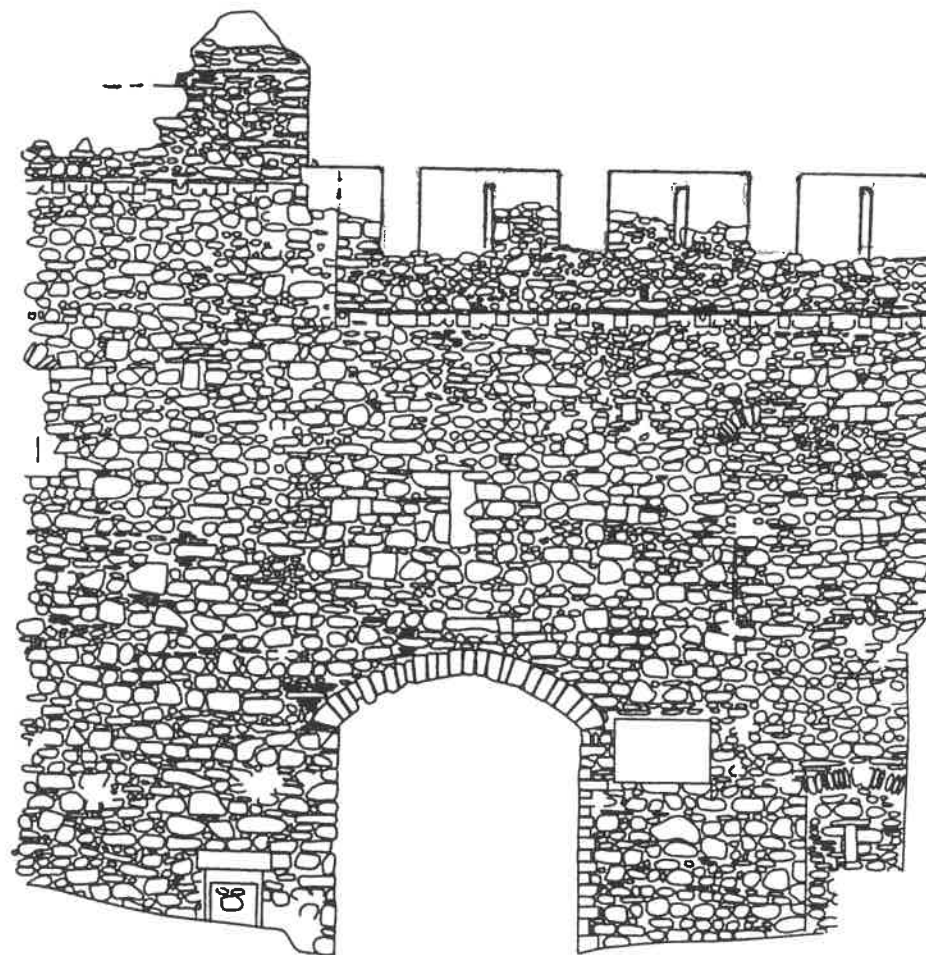


ST DAVIDS CATHEDRAL
Repair of parapets 1998 Scale 1:100

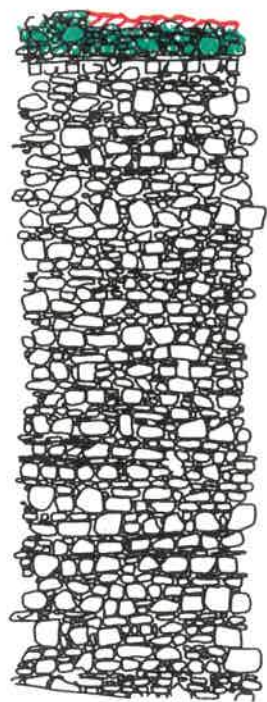
ELEVATION E



ELEVATION F



ELEVATION G



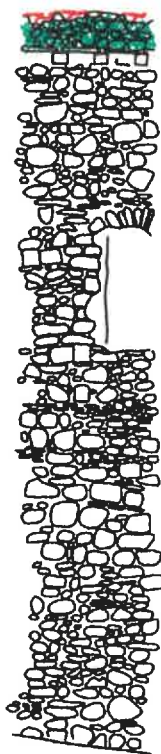
PORTH Y TWR
East Elevation

ELEVATION D

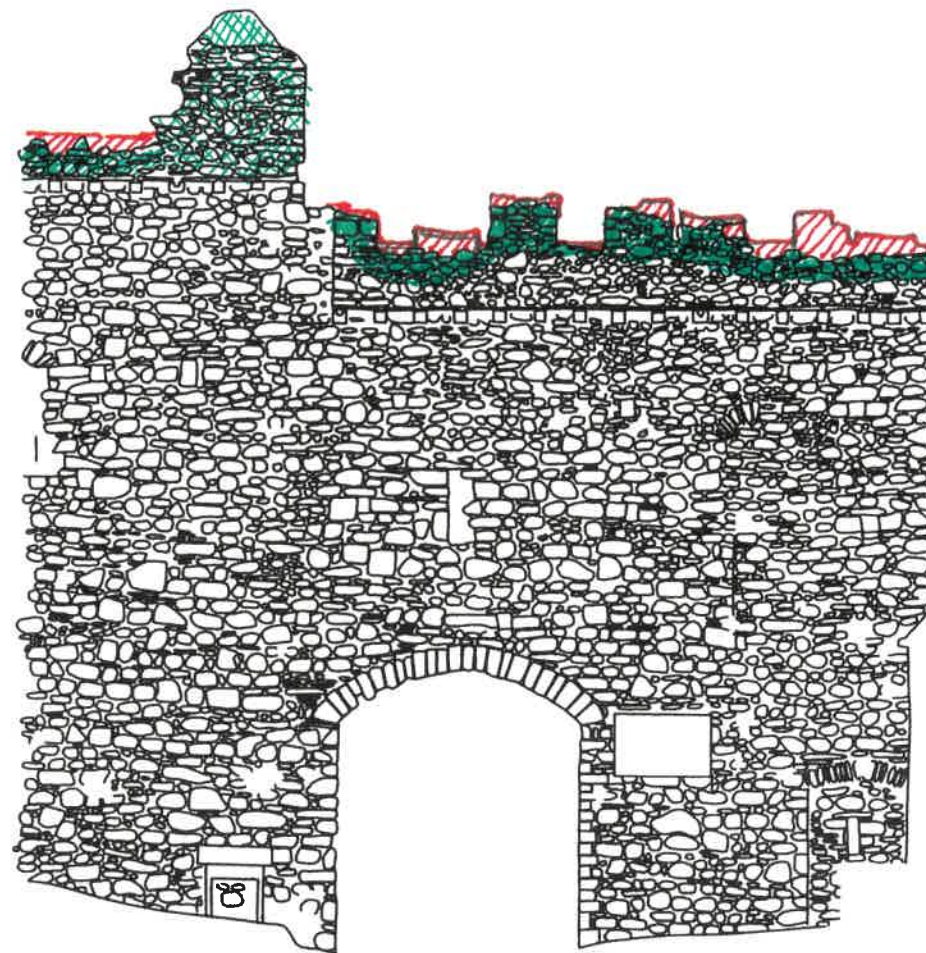


ST DAVIDS CATHEDRAL
Repair of parapets 1998 Scale 1:100

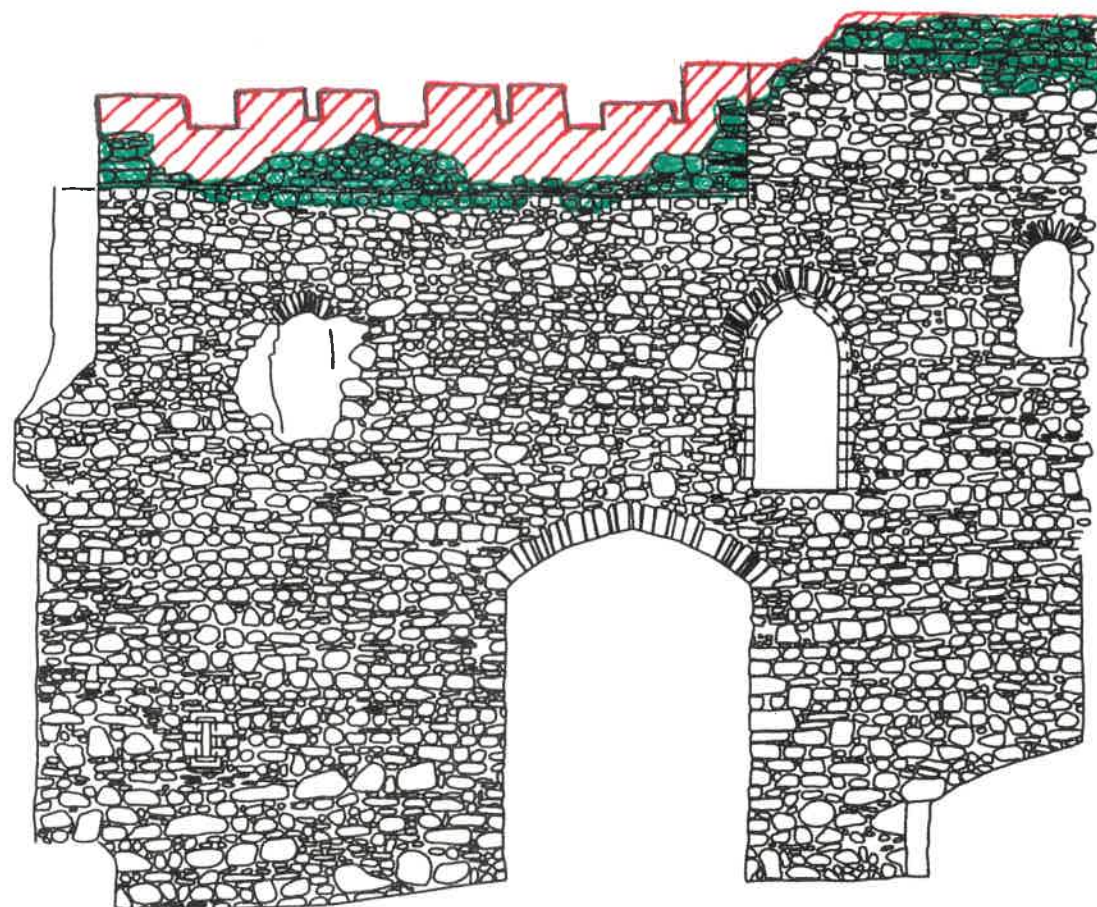
ELEVATION E



ELEVATION F



ELEVATION G

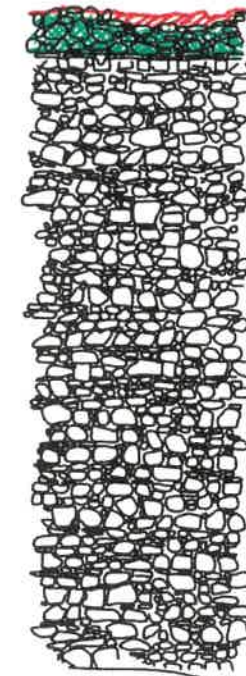


PORTH Y TWR
West elevation

ELEVATION A



ELEVATION B



ELEVATION C

ST DAVIDS CATHEDRAL
Repair of parapets 1998

Scale 1:100

No.	Site	Description
-----	------	-------------

Film title: PT98/1/0 to 23

PT98/1/0 St Davids

28mm lens with natural light

1 Porth y Tŵr

2 Porth y Tŵr - the main first floor chamber from the belfry roof

3 ditto - the southern tower and the south wall of the main first floor chamber from the belfry roof

4 ditto - the western wall of the main first floor chamber: wall top from the belfry roof

50mm macro lens

5 ditto - the south west corner of the main first floor chamber - wall top from the belfry roof

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21 Porth y Tŵr - the eastern wall of the main first floor chamber, north end of wall top from the belfry roof

50mm macro lens

22 ditto - southern wall top between main first floor chamber and south tower: parapet stair - from belfry roof

23 ditto - pitch of first floor chamber roof preserved against north wall of south tower - from belfry roof

24

Film: Kodak Royal Gold RB200-135-24

Date: February 1998

Camera: OM4 with 28mm, 35mm shift, 50mm macro and 200mm lenses

No.	Site	Description
-----	------	-------------

Film title: PT98/2/02 to 39

PT98/2/2	St Davids	East elevation, main chamber, interior face of parapet at junction with bell-tower - before repair	50mm macro lens
3	Porth y Tŵr	ditto, next section south	
4		ditto, next section south [northern merlon, dexter half]	
5		ditto, next section south [northern merlon, sinister half]	
6		ditto, next section south [gap between merlons]	
7		ditto, next section south [southern merlon, dexter half]	
8		ditto, next section south [gap between merlons]	
9		ditto, next section south [merlon forming junction with stair turret]	
10		South tower, interior elevation, interior face of wall-top at junction with stair turret	
11		ditto, next section south	
12		ditto, next section south	
13		ditto, next section to sinister	
14		ditto, next section to sinister	
15		ditto, next section to sinister	
16		ditto, next section to sinister	
17		ditto, next section to sinister	
18		ditto, next section to sinister	
19		ditto, next section to sinister [junction with S wall of main chamber]	
20		Main chamber, west elevation, north end against bell-tower, interior face of wall above top lift of scaffolding [from E scaffold]	
21		ditto, next section south [including top of chimney]	
22		ditto, next section south [to junction with tower]	
23		ditto, remains of roof-line against bell-tower	
24		ditto	35mm shift lens
25		ditto, general view of upper part of bell-tower elevation within main chamber	
26		ditto	
27		Main chamber, west elevation, north end against bell-tower	50mm macro lens
28		ditto, next section south	
29		ditto, next section south	
30		ditto, next section south	
31		ditto, next section south [chimney head]	

No.	Site	Description
32		ditto, next section south
33		ditto, next section south
34		ditto, next section south
35		ditto, next section south
36		ditto, next section south [junction with south tower]
37		ditto, stonework above No.36 - steps to tower parapet
38		ditto, stonework above No.35 - base of steps to tower parapet
39		ditto, stonework above No.34

Film: Kodachrome KR64-135-36P

Camera: OM4 with 35mm shift and 50mm macro lenses

Date: April 1998

No.	Site	Description	Film title: PT98/3/01 to 37
PT98/3/1	St Davids	Main chamber, west elevation, interior of wall-head just north of tower [above PT98/34] before repair	50mm macro lens
2	Porth y Tŵr	ditto, area above chimney	
3		ditto, next section north	
4		ditto, next section north	
5		ditto, junction with bell-tower	
6		Main chamber, north elevation, west end - preserved fragment of roof-line	
7		Main chamber, south elevation, west end - partial indication of roof-pitch	
8		ditto	
9		Main chamber, south elevation, east side of remains of doorway arch into S tower [showing crack]	
10		ditto [soffit]	
11		ditto, north face of east side of arch head from scaffolding [showing cracking]	
12		Main chamber, south elevation, general view of E side of doorway into S tower	28mm lens
13		Stair turret, capping, looking ENE	
14		ditto, looking SE	
15		ditto, looking SW	
16		ditto, looking NW	

No.	Site	Description
17		ditto, looking NE
18		Stair turret, top, W elevation
19		ditto, looking SE
20		ditto [lower part]
21		ditto [top] looking SW
22		ditto [lower part]
23		ditto [top] looking NW
24		ditto [lower part]
25		South tower, general view of wall-head, looking W from stair-turret scaffolding [WNW wall of octagon]
26		ditto, looking SW [NW elevation of octagon]
27		ditto, looking SW [W elevation of octagon]
28		ditto, looking S [SW elevation of octagon]
29		ditto, looking S [S elevation of octagon]
30		ditto, looking S [SE elevation of octagon]
31		ditto, looking SE [E elevation of octagon]
32		ditto, looking E [NE elevation of octagon]
33		ditto
34		ditto
35		ditto, junction with stair turret
36		ditto, next section S
37		Main chamber, interior, looking N from stair turret scaffolding

Film: Kodachrome KR64-135-36P

Camera: OM4 with 50mm macro, 35mm shift and 28mm lenses

Date: April 1998

Film title: PT98/4/1 to 38

PT98/4/1 St Davids
 2 Porth y Tŵr

Close wall [E section], from Porth y Tŵr scaffolding
 ditto

35mm shift lens

No.	Site	Description	
3		Main chamber, east elevation, exterior of wall-head, N end before repair	
4		ditto, next section south [double merlon]	
5		ditto, next section south [S end of double merlon]	
6		ditto, next section south [next merlon]	
7		ditto, detail of opening in merlon	
8		ditto	
9		ditto, detail of base of middle merlon, showing position of opening	
10		ditto, more general view	
11		ditto	
12		ditto, side elevation	
13		ditto	
14		ditto, inside elevation of opening in main merlon, looking E [portrait]	
15		ditto	
16		ditto [landscape]	
17		ditto	
18		ditto, inside elevation of second merlon, showing base of opening	
19		ditto	
20		ditto, more general view	
21		ditto	
22		Main chamber, east elevation, wall-head [with original parapet gutter], N end from above looking N.	
23		ditto	
24		ditto	
25		ditto	
26		ditto, with outflow drain	28mm lens
27		ditto	
28		ditto, remains of opening in main merlon, interior from above	35mm shift lens
29		ditto	
30		ditto, remains of opening in second merlon, interior from above	
31		ditto	
32		Main chamber, east elevation, junction with stair turret	
33		ditto	
34		Main chamber, east elevation, drainage outflow on wall-top	

No.	Site	Description	
35		ditto	
36		Main chamber, east elevation, junction with stair turret [more detailed]	50mm macro lens
37		ditto	
38		Main chamber, east elevation, exterior, junction with stair turret	

Film: Kodachrome KR64-135-36P

Date: May 1998

Camera: OM4 with 50mm macro, 35mm shift and 28mm lenses

No.	Site	Description	Film title: PT98/5/1 to 38
PT98/5/1	St Davids	Main chamber, west wall interior of parapet - water chute fed by two lengths of gutter at south-centre of wall	50mm lens
2	Porth y Tŵr	ditto	
3		ditto	
4		ditto - wider view	
5		ditto	
6		ditto	correct exposure
7		ditto	
8		ditto - view looking along the gutter from the south	
9		ditto	
10		ditto	strongly lit
11		ditto	
12		ditto - more oblique view	
13		ditto	
14		ditto	brighter exposure
15		ditto	
16		ditto - water chute looking west	strongly lit
17		ditto	
18		ditto	brighter exposure
19		ditto - view further to the north	
20		ditto	
21		ditto - second water chute immediately south of chimney	

No.	Site	Description	
22		ditto	
23		ditto - general view showing both water chutes and associated gutters	
24		ditto - general view showing both water chutes and associated gutters	
25		ditto	brighter exposure
26		ditto	
27		ditto - second water chute immediately south of chimney	
28		ditto	
29		ditto - tighter view	
30		ditto	
31		ditto - view along gutter from south	
32		ditto	
33		ditto	brighter exposure
34		ditto	
35		ditto - general view of gutter from north-north-east	
36		ditto	
37	St Davids	S. Transept, SE pinnacle, from the south	200 mm lens
38	Cathedral	ditto - lower sector below parapet level	

Film: Kodachrome KR64-135-36P

Date: June 1998

Camera: Olympus OM4 with 50mm macro and 200mm Zuiko lenses

No.	Site	Description	Film title: PT98/6/1 to 34
PT98/6/1	St Davids	West elevation - general view under scaffold	35mm shift lens
2	Porth y Tŵr	ditto	
3		ditto - northern third only	
4		ditto - central third only	
5		ditto - southern third only	
6		ditto - whole elevation from just north of frontal	
7		West elevation - exterior of parapet from ground (under scaffold) north end (junction with bell tower)	200 mm lens
8		ditto - next section south	
9		ditto - next section south	

No.	Site	Description	
10		ditto - next section south	
11		ditto - next section south (junction with south tower)	
12		West elevation parapet exterior (from the ground) - south tower north end	
13		ditto - next section south	
14		ditto - next section south	
15		East elevation parapet exterior (from the ground), north end against bell tower	
16		ditto - next section south	
17		ditto - next section south (including stair turret)	
18		ditto - next section south (south tower)	
19		ditto - next section south	
20		East elevation general view under scaffolding	50mm macro lens
21		ditto	
22		ditto - southern third (south tower)	35mm shift lens
23		ditto - central third	
24		ditto - northern third	
25		ditto - general view	
26		ditto - general view (slightly wider)	
27		ditto	
28		ditto	
29		Bell tower general view from the south-east	
30		ditto	
31	St Davids		
32	Cathedral		
33			
34			
35	Meare: Abbot's		
36	Fish House		
37			

Film: Kodachrome KL200-135-36P

Camera: Olympus OM4 with 35mm shift, 50mm macro and 200mm Zuiko lenses

Date: April 1998

No.	Site	Description
-----	------	-------------

Film title: PT98/7/0A to 36A

PT98/7/0A	St Davids	E. wall of main chamber, interior, general view from scaffolding on W. wall: N. end against belfry	Before	35mm shift lens
1A	Porth y Tŵr	ditto - next section southwards		
2A		ditto - next section southwards		
3A		ditto - next section southwards (south end against tower)		
4A		North end of the west wall looking north to show the remains of the roof flashing-groove		
5A		South wall of belfry within the main chamber, looking north from the west wall interior scaffolding		
6A		ditto - slightly higher view showing base of parapet		
7A		West wall of main chamber, interior, north end - detail of wall top looking west		50mm macro lens
8A		ditto		
9A		ditto - next section southwards		
10A		ditto - next section southwards		
11A		ditto - next section southwards		
12A		ditto - next section southwards		
13A		ditto - next section southwards		
14A		ditto - next section southwards		
15A		ditto - next section southwards		
16A		ditto - next section southwards		
17A		ditto - next section southwards (south end against tower)		
18A		ditto - side elevation of steps of parapet walkway onto the south tower		
19A		ditto - socket of wall-plate at south end of west wall		
20A		South-west corner of main chamber, showing pitch of chamber roof against tower wall, socket of wall plate, and side of steps		
21A		ditto - showing socket of wall plate and side of steps		
22A		ditto - showing side of steps and wall of parapet beyond		
23A		West wall of main chamber, interior, parapet, south end		
24A		ditto - next section northwards		
25A		ditto - next section northwards		
26A		ditto - next section northwards		
27A		ditto - next section northwards		
28A		ditto - next section northwards		
29A		West wall of main chamber, interior, north end, showing western end of roof flashing-groove and socket for wall-plate		

No.	Site	Description	
30A		ditto - view further to the east	
31A		ditto - general view of remains of north-west corner of main chamber showing remains of roof flashing-groove etc.	35mm shift lens
32A		ditto [landscape]	
33A		South wall of main chamber (against north elevation of tower) showing remains of roof line	
34A		ditto - the western half	
35A		South-west corner of main chamber. Showing parapet steps and socket for wall-plate	50mm macro lens
36A		semi-collapsed eastern side of arch into tower from main chamber	135mm lens

Film: Kodak Gold 200-135-36

Camera: Olympus OM4 with 28mm, 35mm shift, 50mm macro and 135mm Zuiko lenses

Date: May 1998

No.	Site	Description	Film title: PT98/8/00A to 36A
PT98/8/00A	St Davids	Semi-collapsed eastern side of arch into tower from main chamber	Before
0A	Porth y Tŵr	West wall of main chamber (interior) from east wall scaffolding - southern end	50mm macro lens
1A		ditto - next section northwards	
2A		ditto - next section northwards	
3A		ditto - next section northwards	
4A		South tower, north wall top from scaffolding around stair turret - eastern end	
5A		ditto - central section	
6A		ditto - western section with part of north west wall	
7A		ditto - northwest wall of tower, wall top from scaffolding around stair turret	
8A		ditto - west wall of tower	
9A		ditto - south west wall of tower	
10A		ditto - south west wall of tower (working east)	
11A		ditto - south wall of tower	
12A		ditto - south wall of tower (working east)	
13A		ditto - south east wall of tower	
14A		ditto - south east wall of tower	

No.	Site	Description
15A		ditto - east wall of tower
16A		ditto - east wall of tower
17A		ditto - east wall of tower
18A		ditto - east wall of tower
19A		East wall of main chamber, wall top viewed from scaffolding around stair turret - showing exterior face and top of wall - north end
20A		ditto - next section southwards
21A		ditto - next section southwards
22A		East wall of main chamber, wall top viewed from scaffolding around stair turret - showing interior face and top of wall - north end
23A		ditto - next section southwards
24A		ditto - next section southwards
25A		West wall of main chamber, wall top viewed from scaffolding around stair turret - north end
26A		ditto - next section southwards
27A		ditto - next section southwards
28A		ditto - middle section repeated
29A		Parapet stair at south west corner of main chamber from scaffolding around stair turret [portrait]
30A		ditto [landscape]
31A		North wall of tower, north side of wall top, viewed from scaffolding around stair turret - western end
32A		ditto - eastern end
33A		ditto - middle section
34A		Stair turret, looking north-east, capping
35A		ditto - side elevation
36A		ditto - capping from above

Film: Kodak Gold 200-135-36

Date: May 1998

Camera: Olympus OM4 with 50mm macro Zuiko lens

No.	Site	Description	Film title: PT98/9/0 to 37
PT98/9/0	St Davids	Stair turret, looking south-east, capping from above Before	28 mm lens
1	Porth y Tŵr	ditto - capping from the side	
2		ditto - side elevation	

No.	Site	Description	
3		Stair turret, looking south-west, capping from the side	
4		ditto - side elevation	
5		ditto - capping from above	
6		Stair turret, looking north west, capping from above	
7		ditto - capping side elevation	
8		ditto - side elevation	
9		Tower wall top, east and south east elevations - from scaffolding on stair turret	
10		ditto - east elevation	
11		ditto - south east and south elevations	
12		ditto - south and south west elevations	
13		ditto - west, north west and north elevations	
14		ditto - north elevation	
15		Main chamber west wall, general view from the scaffolding on stair turret	
16		Main chamber east wall top, view from the scaffolding on the stair turret, northern section	
17		ditto - southern section	
18		ditto	
19		Stair turret, capping, south elevation from above	
20		Junction of eastern parapet of main chamber with stair turret north elevation	35mm shift lens
21		Main chamber east wall (interior) parapet at north end showing remains of stone gutter channel	
22		Main chamber, north-west corner (interior) showing remains of roof flashing etc, from east wall scaffolding	
23		ditto	
24		Exterior parapets (from the ground) - main chamber east elevation, north end	135 mm lens
25		ditto - next section southwards	
26		Exterior parapets (from the ground) - stair turret and east wall of tower	
27		ditto - east and south east walls of tower	
28		Exterior parapets (from the ground) - main chamber west elevation, north end	
29		ditto - next section southwards	
30		ditto - next section southwards including parapet steps and tower west elevation	
31		ditto - tower west elevation	
32		ditto - tower west elevation (working southwards)	
33		ditto - tower west and south west elevations	
34		Porth y Tŵr - west elevation, general view with scaffolding erected	50mm macro lens

No.	Site	Description	
35		ditto - northern third of west elevation	
36		ditto - central third of west elevation	35mm shift lens
37		ditto - southern third of west elevation	

Film: Kodak Gold 200-135-36

Camera: Olympus OM4 with 28mm, 35mm shift, 50mm macro and 135mm Zuiko lenses

Date: May 1998

No.	Site	Description	Film title: PT98/10/0 to 24
PT98/10/0	St Davids	Main chamber, east parapet, interior, northern end against belfry Before	
1	Porth y Tŵr	ditto - next section southwards	50mm macro lens
2		ditto - next section southwards	
3		ditto - next section southwards	
4		ditto - same position, higher part to show vertical extent of merlon	
5		ditto - next section southwards	
6		ditto - same position, higher part to show vertical extent of merlon	
7		ditto - next section southwards	
8		ditto - next section southwards	
9		ditto - same position, higher part to show vertical extent of merlon	
10		ditto - next section southwards	
11		ditto - next section southwards	
12		ditto - next section southwards	
13		ditto - same position, higher part to show vertical extent of merlon	
14		Main chamber, east wall top, interior, northern end against belfry	
15		ditto - next section southwards	
16		ditto - next section southwards	
17		ditto - next section southwards	
18		ditto - next section southwards	
19		ditto - next section southwards	
20		ditto - next section southwards	
21		ditto - next section southwards	

No.	Site	Description
22		ditto - next section southwards
23		ditto - next section southwards (southern end against tower)
24		Main chamber, west wall (interior), southern end, view from the east wall internal scaffolding

Film: Kodak Royal Gold RC400-135-24

Camera: Olympus OM4 with 50mm macro Zuiko lens

Date: May 1998

No.	Site	Description	Film title: PT98/11/00 to 37	
PT98/11/00	St Davids	E. section of close wall N. of Porth y Tŵr from the exterior scaffolding on the E. face of the main chamber	Before	35mm shift lens
0	Porth y Tŵr	Main chamber, east parapet, exterior, northern end against belfry [portrait and oblique]		28mm lens
1		ditto - next section southwards		
2		ditto - next section southwards		
3		ditto - next section southwards		
4		ditto - next section southwards		
5		ditto - next section southwards		
6		ditto - next section southwards		
7		ditto - next section southwards		
8		ditto - next section southwards		
9		ditto - next section southwards		
10		ditto - next section southwards		
11		ditto - next section southwards		
12		ditto - next section southwards		
13		ditto - next section southwards		
14		ditto - next section southwards		
15		ditto - next section southwards [southern end against stair turret]		
16		Main chamber, east parapet exterior, southern end against stair turret - upper part to show vertical extent of merlon		
17		ditto - second merlon from south end, southern part		
18		ditto - second merlon from south end, northern part		
19		ditto - slot between second and third merlons from south end		
20		ditto - third merlon from south end, southern part		
21		ditto - third merlon from south end, central part		

No.	Site	Description	
22		ditto - third merlon from south end, central northern part	
23		ditto - third merlon from south end, northern part	
24		ditto - third merlon from south end, central part [landscape]	
25		ditto - slot between second and third merlons from south end [landscape]	
26		ditto - second merlon from south end [landscape]	
27		North side elevation of stair turret	35mm shift lens
28		Tower/stair turret, east wall exterior, northern end immediately north of main chamber - corbel table	28mm lens
29		ditto - next section southwards	
30		ditto - next section southwards	
31		ditto - corbel functioning as water-chute	
32		ditto - next section southwards	
33		ditto - next section southwards	
34		ditto - next corbel functioning as water-chute	
35		ditto - next corbel functioning as water-chute	
36		ditto - next corbel functioning as water-chute	
37		ditto - next corbel functioning as water-chute	

Film: Kodak Gold 100-135-36

Date: May 1998

Camera: Olympus OM4 with 28mm, 35mm shift, 50mm macro Zuiko lenses

No.	Site	Description	Film title: PT98/12/0 to 25
PT98/12/0	St Davids	Main chamber east parapet - remains of slit in merlon	Before
1	Porth y Tŵr	ditto - drainage chute at end of gutter on wall top [portrait]	35mm shift lens
2		ditto [landscape]	
3		ditto - general view of gutter on wall top, looking north	
4		ditto - junction of parapet and tower/stair turret wall	
5		ditto - trace of base of slit in merlon second from north	50mm macro lens
6		ditto - side elevation of merlon showing base of slit	28mm lens
7		ditto - gutter on wall top, looking south	
8		ditto - gutter on wall top, looking south	

No.	Site	Description	
9		ditto - slit in third merlon from north, viewed diagonally from above [landscape]	50mm macro lens
10		ditto [portrait]	
11		ditto - trace of slit in second merlon from north, looking east	
12		ditto - junction of east wall with north wall of tower/stair turret	35mm shift lens
13		Main chamber south wall - showing traces of roof pitch, east side	
14		ditto - general view from east wall scaffolding (north end)	28mm lens
15		Main chamber east parapet - remains of gutter at north end of wall - southern section	50mm macro lens
16		ditto - middle section	
17		ditto - northern section	
18		Main chamber east parapet, interior - third merlon from the north	35mm shift lens
19		ditto - second merlon from the north	
20		North elevation of the stair turret	
21		South-west corner of the main chamber, showing parapet steps and socket of wall plate (from east wall scaffolding)	135mm lens
22		North west corner of the main chamber, showing traces of roof flashing (from east wall scaffolding)	
23		ditto, looking north along west wall scaffolding [landscape]	50mm macro lens
24		ditto - portrait	
25		ditto - landscape	

Film: Kodak Royal Gold RB200-135-24

Date: May 1998

Camera: Olympus OM4 with 28mm, 35mm shift, 50mm macro and 135 Zuiko lenses

No.	Site	Description	Film title: PT98/13/0 to 24
PT98/13/0	St Davids	Exterior of west elevation, northern end [from ground after scaffold strike]	After repair
1	Porth y Tŵr	ditto - next section to south	200mm lens
2		ditto - next section to south	
3		ditto - next section to south	
4		ditto - next section to south	
5		ditto - next section to south	
6		ditto - next section to south	
7		ditto - next section to south	

No.	Site	Description	
8		ditto - next section to south	
9		ditto - next section to south [but joint with south tower]	
10		ditto - next section to south [beginning of south tower corbel table]	
11		ditto - next section to south	
12		ditto - next section to south	
13		ditto - next section to south	
14		ditto - next section to south	
15		ditto - next section to south [small area missing in overlap?]	
16		ditto - next section to south [south elevation]	
17		ditto - next section to south [south elevation]	
18		blank frame	
19		South elevation of southern tower [from ground after scaffold strike - from further away]	
20		ditto - next section to east	
21		Interior of east elevation, northern end against bell tower	28mm lens
22		ditto - next section to south	
23		ditto - next section to south	
24		ditto - next section	

Film: Kodak Royal Gold RB200-135-24

Date: August 1998

Camera: OM4 with 28mm f3.5 and 200mm f4 Zuiko lenses

No.	Site	Description	Film title: PT98/14/0 to 25
PT98/14/0	St Davids	Interior of east elevation [continuing south from PT98/ 24 After repair	
1	Porth y Tŵr	ditto - next section to south [junction with stair turret]	35mm shift lens
2		Eastern interior parapet (with drainage gutter) northern end looking north	
3		ditto - southern end looking south	
4		Northern elevation of stair turret from eastern interior parapet	
5		Northern elevation of south tower from interior scaffolding	28mm lens
6		Interior of main first floor chamber, north west corner (disrupted area of walling)	35mm shift lens
7		Interior of main first floor chamber, chimney in centre of west wall	

No.	Site	Description	
8		Interior of main first floor chamber, main entrance in south-west corner	
9		Interior of main first floor chamber, exterior doorway in south-west corner	[very strongly lit]
10		Interior of main first floor chamber, south elevation, doorway to south tower chamber	[too strongly lit]
11		Interior of south tower first floor chamber, doorway to stair turret in north-east corner	
12		ditto - wider view	
13		Interior of south tower first floor chamber, doorway to main first floor chamber	
14		Interior of south tower first floor chamber, window in east elevation	
15		Interior of south tower first floor chamber, window in west elevation	
16		Interior of south tower first floor chamber, entrance to garderobe in north-west corner	[too strongly lit]
17		Stair turret head, west elevation, showing ledge forming flashing of original roof	
18		South tower, interior of east elevation of rebuilt parapet immediately south of stair turret	50mm macro lens
19		ditto - next section to south	
20		ditto - next section to south	
21		ditto - next section to south	
22		ditto - next section	
23		ditto - next section	
24		ditto - stair turret looking north-north-east from scaffolding of opposite wall of south tower	
25		ditto - north elevation of stair turret from scaffolding of opposite wall of south tower	

Film: Kodak Royal Gold RB200-135-24

Date:

Camera: OM4 with 28mm f3.5, 35mm shift f.2.4 and 50mm macro f.3.5 Zuiko lenses

No.	Site	Description	Film title: PT98/15/0 to 25
PT98/15/0	St Davids		
1	Cathedral		
2			
3			
4			
5			
6	Porth y Tŵr	Exterior of east elevation, north end of parapet against bell tower After repair	200mm lens

No.	Site	Description	
7		ditto - next section south	
8		ditto - next section south	
9		ditto - next section south [head of stair turret], portrait	
10		ditto - as no.9, landscape	
11		ditto - next section south (south tower)	
12		ditto - next section south (onto south elevation)	
13		East elevation exterior, general view	
14		West elevation, exterior, general view	35mm shift lens
15		West elevation, exterior, northern half	
16		West elevation, interior of parapet looking north-north-west [landscape]	
17		West elevation, interior of parapet looking south-south-west landscape]	
18		West elevation, interior of parapet showing scar of chimney stack	
19		West elevation, interior of parapet looking south-south-west, showing gutters and steps onto tower parapet [portrait]	
20		West elevation, interior of parapet looking north-north-west [portrait]	
21		West elevation, interior of parapet showing scar of chimney stack	
22		ditto - looking slightly downwards	
23		East elevation, interior of parapet with stair turret and roof-line of main chamber, from west side scaffolding looking south-east	
24		East elevation, interior of parapet from west side scaffolding looking east-north-east	
25		Ground floor, interior of northern chamber of gatehouse, looking north-west	

Film: Kodak Royal Gold RA100-135-24

Date: August 1998

Camera: OM4 with 28mm f.3.5, 35mm shift f2.8, 200mm f.4 Zuiko lenses

No.	Site	Description	Film title: PT98/16/01 to 38
PT99/16/1	St Davids		
2	Cathedral		
3			
4			

No.	Site	Description		
5	Porth y Tŵr	Western parapet, interior, remains of guttering looking north	During repair	35mm shift lens
6		ditto		
7		ditto		
8		ditto		
9		The Bishops Palace and nave of the Cathedral from the Porth y Tŵr scaffolding		
11		Western parapet, interior, remains of guttering looking north		28mm lens
12		ditto		
13		ditto		
14		ditto		
15		ditto		
16		ditto - wider angle view		
17				
18		Eastern parapet, exterior, northern section against bell tower	Before repair	
19		ditto - next section south		
20		ditto - next section south		
21		ditto - next section south		
22		ditto - next section south		
23		ditto - next section south		
24		ditto - next section south		
25		ditto - next section south		
26		ditto - next section south		
27		ditto - next section south		
28		ditto - next section south		
29		ditto - next section south		
30		ditto - next section south		
31		ditto - next section south		
32		ditto - next section south [junction with turret at south end]		
33		ditto - upper part of parapet, south end		
34		ditto - upper part of parapet, next section north		
35		ditto - upper part of parapet, next section north		
36		ditto - upper part of parapet, next section north		
37		ditto - upper part of parapet, next section north		

No.	Site	Description
38		ditto - upper part of parapet, next section north

Film: Kodachrome KR64-136-36P

Date: August 1998

Camera: OM4 with 28mm f.3.5, 35mm shift f.2.8 and 200mm f.4 Zuiko lenses

Film title: PT98/17/02 to 38

PT98/17/1	St Davids	Eastern elevation, interior, parapet adjacent to north end	After repair	50mm macro lens
2	Porth y Tŵr	ditto - next section south		
3		ditto - next section south		
4		Eastern elevation, interior, parapet, remaining drainage gutter looking north		35mm shift lens
5		ditto - parapet looking south		
6		ditto - north elevation of stair turret		
7		ditto - north elevation of south tower from eastern scaffolding of main chamber [landscape]		28mm
8		South elevation of bell tower from eastern scaffolding of main chamber		
9		General view of Porth y Tŵr from near the cathedral north porch		35mm shift lens
10		ditto [withdrawn and despatched to Cathedral for funding application]		
11		Western elevation, exterior, north end of parapet against bell tower		200mm [from ground]
12		ditto - next section south		
13		ditto - next section south		
14		ditto - next section south		
15		ditto - next section south		
16		ditto - next section south		
17		ditto - north end of parapet against bell tower		
18		ditto - next section south		
19		ditto - next section south		
20		ditto - next section south		
21		ditto - next section south		
22		ditto - next section south		
23		Western elevation, exterior, north end of parapet against bell tower		200mm lens with doubler

No.	Site	Description
24		ditto - next section south
25		ditto, next section south
26		ditto, next section south
27		ditto, next section south
28		ditto, next section south
29		ditto, next section south
30		ditto, next section south
31		ditto, next section south
32		ditto, next section south
33		ditto, next section south
34		ditto, next section south
35		ditto, next section south
36		ditto, next section south
37		ditto, next section south
38		ditto, next section south

Film: Kodachrome KL200-135-36P

Date: August 1998

Camera: Olympus OM4 with 28mm f.3.5, 35mm shift f.2.8, 50mm macro f.3.5, 200mm f.4 Zuiko lenses with a Tokina doubler

No.	Site	Description
PT98/18/1	St Davids	Stair turret, south and western elevations After repairs
2	Porth y Tŵr	ditto
3		South tower, interior of eastern elevation, parapet against stair turret
4		ditto
5		ditto - next section clockwise
6		ditto
7		ditto - next section clockwise
8		ditto
9		ditto - next section clockwise
10		ditto

Film title: PT98/18/1 to 37

35mm shift lens

28mm lens

No.	Site	Description	
11		ditto - next section clockwise	
12		ditto	
13		Stair turret, south and west elevations [from opposite side of interior scaffolding	
14		ditto	
15		South tower, north wall, south elevation (from opposite side of interior scaffolding)	
16		ditto	
17		Stair turret, upper doorway looking north-east	50mm macro lens
18		ditto	
19		ditto	
20		ditto	
21		Interior of main first floor chamber, north elevation of doorway to south tower chamber	
22		ditto	
23		Eastern parapet, interior, south end against south tower	35mm shift lens
24		Western parapet, interior, north end against bell tower, showing remains of roof line [from opposite scaffolding]	50mm macro lens
25		South tower, west elevation window, interior	
26			
27			
28	St Davids		
29	Cathedral		
30			
31			
32			
33			
34			
35			
36			
37			

Film: Kodachrome KR64-135-36P

Camera: Olympus OM4 with 28mm f.3.5, 35mm shift f.2.8, 50mm macro f.3.5 Zuiko lenses with Olympus T32 flashgun

Date: August 1998