St Piran's Oratory, Perranzabuloe, Cornwall

Results of evaluation











Historic Environment Projects

St Piran's Oratory, Perranzabuloe, Cornwall

Results of evaluation

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The archive photos in this report are derived from a variety of sources, including old post cards, and images lent to us by Eileen Carter from her collection; the Courtney Library of the Royal Institution of Cornwall and Perranzabuloe Parish Church also provided images.

The views and recommendations expressed in this report are those of Historic Environment Projects and are presented in good faith on the basis of professional judgement and on information currently available.

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Cover illustration

Photographs of St Piran's Oratory through the ages (from top left clockwise): 1890s, 1910, 1955 and 2006.

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Abbreviations

CRO Cornwall County Record Office

EH English Heritage

HBSMR Cornwall and the Isles of Scilly Historic Buildings Sites and Monuments Record

HE Historic Environment, Cornwall Council

NE Natural England

NGR National Grid Reference

OS Ordnance Survey

PRN Primary Record Number in Cornwall HER

RIC Royal Institution of Cornwall SAC Special Area of Conservation

SM Scheduled Monument

SSSI Site of Special Scientific Interest

Summary

This report presents the results of work carried out in 2009 and 2010 at St Piran's Oratory, Perranzabuloe, Cornwall, an iconic Cornish site of probable early medieval date, covered by a concrete shell since 1910 and buried beneath a sand mound since 1980.

The work comprised a survey of the Oratory mound and its surrounding landscape, followed by targeted evaluation trenching. The aim of the project has been to gain a better understanding of the condition of the concrete block structure and the monument — in particular the likelihood that the buried remains are waterlogged and to establish and assess the feasibility of drainage. This information is required in order to inform a HLF bid proposal to be prepared by St Piran's Trust for excavation of the monument, returning the oratory to its condition prior to being rediscovered in the 18th century.

The work was carried out by Historic Environment, Cornwall Council, with the assistance of members of St Piran's Trust and was funded by the Scheduled Monument Management Project.

1 Introduction

1.1 Project background

St. Piran's Oratory (NGR SW 7685 5639) is a historically significant and culturally iconic site for Cornwall, located on Gear Sands about 2km to the east of Perranporth (Fig 1). It is an early Christian chapel with cemetery, with tradition claiming that this chapel was built by Cornwall's national saint (St Piran).

The monument acquired fame in the 19th century when shifting sands uncovered the building and excavations in 1834 and 1843 completed the discovery of what was claimed at the time to be the oldest Christian building on the British mainland. A concrete block shell was constructed around the remains of the building in 1910 and the Oratory was reburied in 1980.

In more recent years, the iconic status of the site has increased still further, because of its association with St. Piran. Thousands of people visit the site each year and there is a well-supported annual procession to the site on St. Piran's Day (5th March; Fig 23).

The Oratory is protected as a Scheduled Monument (Cornwall no 29670).

Some 300m to the east of the Oratory are the remains of the medieval parish church of Perranzabuloe, which was abandoned to the sands in the early 19th century. This church, with its cemetery and associated cross, is also a Scheduled Monument (number 15009). Historic Environment, Cornwall Council (HE CC) excavated the Church in partnership with the St Piran Trust in 2005 (see Cole 2007a and 2007b) to improve its presentation, in a high-profile heritage project with large-scale community involvement, funded by English Heritage and the Heritage Lottery Fund.

The St Piran Trust is a local charitable trust, whose principal aim is to uncover the Oratory and make it accessible to present and future generations. The Trust believes that the reexcavation of the site would be a defining cultural project, of immense significance to Cornwall. This evaluation was carried out by Historic Environment as a preliminary assessment of the feasibility of undertaking such a project, for which the Trust is currently seeking grant aid from the Heritage Lottery Fund and others. The work involved a desk-based assessment, a levelled survey and small-scale evaluation trenching.

1.2 Present ownership and management

The site of St Piran's Oratory lies within a SAC (Special Area of Conservation) and a SSSI (Site of Special Scientific Interest). It is owned by Perranzabuloe Parish Council. The surrounding land to the south, probably including part of the complex's cemetery, is owned by Bourne Leisure (Perran Sands Holiday Park) and the land immediately to the north is the Penhale Training Area. All the above parties co-operate in the running of the area through the Penhale Sands SAC Management Group.

1.3 Aims

The aim of this report is to present the results of recent desk-top assessment, survey and evaluation work, undertaken to aid grant application by the St Piran's Trust.

The report considers a number of complex issues which include the likely condition of the monument and its conservation needs, the management needs of the wider landscape, as well as issues relating to the hydrology and the natural environment. In particular, this report:

• Assesses the nature and extent of the archaeological remains, and the likely survival/condition of the monument, the impact of 19th and 20th century works on the site, including the construction of the concrete shell, etc.

• Presents the conclusions of updated survey and evaluation trenching

Note that an original intention of the project was to produce a detailed plan for the final excavation of the Oratory. This element has not been undertaken, however, as circumstances have changed: the St Piran's Trust is now applying to the Heritage Lottery Fund for a Phase 1 Project Planning Grant, whose scope will include the further evaluations and feasibility studies needed to inform the final project design, as well as the Project Design.

1.4 Method

1.4.1 Desk-top study

This report has been produced following selective desk-based research. The resultant history of the Oratory (section 2) focuses in particular on the earliest and fullest descriptions of the site and accounts of its deterioration and condition.

1.4.2 Updated survey

A survey was carried out by Historic Environment, Cornwall Council in 2009 to update information regarding levels on the site, and re-appraise the feasibility of drainage, one of the main issues in the re-excavation of the oratory. The plan produced by RCA Hooper's feasibility survey in 1959, which shows the concrete covering structure before it was buried in relation to some elements of the surrounding topography, has been used in an attempt to compare levels and topography today to those of 1959.

Survey was carried out using a Leica Total Station EDM with survey data drawn using AutoCAD. The area of the buried oratory, surrounding dunes, pond, tracks and watercourses were surveyed in order to produce a detailed plan of the current topography including changes in contour. The survey was tied in to Ordnance Survey mapping using available landscape features.

1.4.3 Excavation of trial trenches

In January 2010 three test pits were dug in order to better understand the topography of the site, the condition of the concrete shell and issues relating to the hydrology and drainage. It was hoped that these would reveal the concrete lintel over the central doorway in the shell used by Hooper as a datum benchmark. Small areas outside the oratory structure were also assessed.

2 History of St Piran's Oratory

2.1 Summary

St Piran's Oratory is a compact building (Fig 2) with a small nave and chancel, possibly separated in the past by a wooden rood screen. A stone bench extends around much of the interior and there are doorways to the south and east. The oratory ruins became visible in the early eighteenth century as a result of shifting sands and subsequent excavation revealed the extent of the structure. Persistent flooding led to the construction in 1910 of a concrete 'shell' encasing the oratory and various consolidation measures such as internal buttresses and a concrete floor. This did little to alleviate flooding and an alternative solution in 1980 resulted in the partial demolition of the concrete structure and its infilling with sand in order to stabilise the building.

2.2 Early references/Results of desk based assessment

The first definite reference to the Oratory can be dated to 1586, when William Camden's

Magna Brittannia was published (Dexter 1919, 359). The Oratory is described as a sacellum, a 'small sanctuary or chapel', - a term which Dexter suggests is unlikely to have been used to describe the nearby, much larger, Parish Church (Dexter 1919, 360).

Various histories in the 18th century by, for example, Tonkin and Borlase, made no reference to the site (Dexter 1918, 361), which could imply that by that time, it was masked by the sands. Dexter however also notes that there were a number of documented mentions of the site in "1805, 1820, 1821 and 1833" which, he said, "all point unquestionably to the fact that the Oratory was visible above the sands for centuries" (1919, 367).

Writing in 1905, Thurstan C. Peter meanwhile noted that: "an old man called Jenkin observed the tops of the walls very early in the last century; in 1817, when Gilbert wrote his 'Survey of Cornwall,' the two end walls were partly visible, and on the south side was observable the burial ground, full then (as it still is) of human bones" (Peter 1905, 135).

2.3 Early investigation and description of the Oratory

In 1835, the chapel and a building to the south with an associated midden were thoroughly excavated by William Michell. Fig 2 shows the Oratory plan as revealed by Michell, while Fig 3 gives an idea of the condition of the remains when it was excavated. Comparison with Fig 4 shows the extent of degradation which followed. Figs 5-9 show the Oratory following the erection of a surrounding fence to protect it and give some idea of its condition around the turn of the 20^{th} century.

Writing to the West Briton, in a letter dated September 15th 1835, William Mitchell said -

Sir

I have just removed the sand from the oldest church in this parish, which appears to have been overwhelmed by it, according to tradition, supported faintly by records, 500 or 600 years ago. This church is probably one of the most ancient ever laid open, and wants nothing to render it as complete as when first erected, except its roof and doors. The length of the Church within the walls is 25 feet; without 30; the breadth within, 12 and a half feet; and the height of the walls the same. At the eastern end is a neat altar of stone, covered with lime, 4 feet long, by 2 and a half wide and 3 feet high. Eight inches above the centre of the altar is a recess in the wall, in which probably stood a crucifix, and on the north side of the altar is a small doorway, through which the priest must have entered. The chancel was exactly 6 feet; leaving 19 feet for the congregation, who were accommodated with stone seats, 12 inches wide and 14 inches high, attached to the west, north and south walls of the nave. In the centre of the nave in the south wall, is an extremely neat Saxon arched doorway, highly ornamented, 7 feet, 4 inches high, by 2 feet 4 inches wide. The key stone of the arch projects 8 inches, on which is rudely sculptured a tyger's head. The floor was composed of sand and lime, under which bodies were unquestionably buried; the skeletons of two having been discovered. It is very remarkable, that no vestige of a window can be found, unless a small aperture of inconsiderable dimensions in the south wall of the chancel, and which is 10 feet above the surface of the floor, should be considered one. It must therefore be presumed that the services must have been performed by the light of tapers.

Around this interesting building lie thousands of human bones exposed to desecration; the winds having removed the sand in which they were deposited.

If this description should appear of sufficient interest to obtain a place in your columns, it is at your service for that purpose.

I am, Sir, yours very truly,

WILLIAM MICHELL

(from Tomlin 1982, 16-17).

A slightly more comprehensive description of the building was published in 1905 as part of an article by Thurstan C. Peter (1905, 136-137). The main details of the text are printed below as it does tally exactly with the earlier letter.

"The church, which is built nearly east and west ... is but of small dimensions, the length without the walls being 30 feet, and without the walls, 25 feet; the breadth within, 13 feet in the chancel, and 12 feet in the nave, and the height about thirteen feet ... there is a very neat Saxon arched doorway, 7 feet 1 inch, by 2 feet 4 inch. In a good state of preservation, ornamented with pretty tracery, the arch itself having on its key stone the head of a tiger, and [at] the points of the curve the head of a man and that of a woman rudely sculptured of stone most assuredly of very remote antiquity, in the centre of the nave in the south wall, and another door-way in the north east corner near the altar of similar dimensions and style ...if one may judge from the remains of its arch lying near it; and which may be assumed to be that intended for the priest himself, leading into the chancel.

"The chancel is exactly 9½ feet long, and shows in its north and south walls the precise spots where the railway separating it from the nave was fixed. Attached to the eastern wall of the chancel is an altar nearly equidistant between the north and south walls, 5 feet 3 inches long, by 2 feet 3 inches wide, and 4 feet high, built of stone and neatly plastered with lime; 8 inches above this altar is a recess or niche about 12 inches high, by 8 inches wide, in which, undoubtedly, was once Saint Piran's shrine, so much frequented for many ages by thousands of devout, but mistaken, pilgrims who flocked from every quarter to present their offerings to the departed saint.

"As there is only one small aperture or window 12 inches high by 10 inches wide, about 10 feet above the level of the floor in the south wall of the chancel, we may almost take it for granted that the service must have been carried on chiefly, if not altogether, by the light of the tapers.

"A stone seat raised 14 inches above the level of the floor, and 12 inches wide, covered with lime plastering runs all round the walls except the east and south walls of the chancel.

"The nave is exactly 15½ feet long, its floor, together with the floor of the chancel, being composed of lime and sand apparently as perfect as when first laid down. Each door has two low steps to descend into the church, and the church is plastered with beautifully white lime. The masonry is of the rudest kind, and is evidently of very remote ages; there is not the slightest attempt at regular courses, but the stones, consisting of granite, quartz, sand stone and porphyry, &c., appear to have been thrown together almost at random horizontally, perpendicularly, and at every angle of inclination just as the hand, not the eye of the workman happened to direct him. To render the church as perfect as when it was originally erected, nothing seemed wanting but its doors and roof, and not an atom of wood, except a piece of about 8 inches long by 2 inches wide, and 1 inch thick, was found within or without the walls."

2.4 Other 19th century activities at the Oratory

A further excavation of the site was undertaken in 1843 by William Haslam, then curate of Perranzabuloe. He rebuilt the altar and inserted a slab inscribed 'Sanctus Piranus.'

An article contributed by Haslam to the Archaeological Journal of 1845 adds further information about how the Oratory fared after Michell's excavation. In particular, it shows how, a few days after the sand was cleared from the interior of the church, the carved stones of the door frame were stolen.

"In the year 1835 the sand was removed from the ancient edifice, and once more the oratory of St Piran stood forth in its original condition, after a lapse of many centuries. It was then in as perfect a state as when it was forsaken and left to be overwhelmed. The doorways, and the apertures in the walls, had been closed up with stone, and the roof removed, but in other respects the building appeared to have been left in its original condition.

"But it has nevertheless been wantonly injured; even within three days after the discovery was announced the doorway was destroyed, and the only cut stones of the building were carried away, excepting one broken stone of the ornamental moulding of the doorway, which I found in 1840 in clearing away the sand for the purpose of rebuilding the tomb of St Piran and measuring and examining the remains of the structure. Its present state is ruinous, the wall on each side of the doorway with a great portion of the eastern wall have fallen down, and the sand seems again to be gathering around the despoiled relic, which it so long preserved from desecration and ruin.

"Its dimensions are 29ft in length externally and 16½ft in breadth; and the western gable, which is still standing, measures in height 19ft; the side walls were about 14ft in height." (Haslam 1845, 228).

After this, the chapel again filled with blown sand. It was excavated in the early 1890s and a railing was put up around it in 1892 (Dexter 1922, 368), though this did not solve the problems of the building. Speaking to the Annual Meeting of the Royal Institution of Cornwall in December 1910, Mr Morley B Collins outlined what happened:

"Unfortunately, not long after Mr Mitchell's excavations were complete the sand again enveloped the building, which remained buried until about 25 years ago when several gentlemen of the locality excavated the sand from the interior only, and erected a strong iron railing around the same. This was an unfortunate course as the pressure of the sand externally at once exerted itself and forced the masonry out of the perpendicular ..." (Collins 1911, 391).

2.5 The 1910 excavation

In the first decade of the 20th century, an appeal to protect the Oratory was launched. As a result, a concrete block building was constructed over the Oratory. The works were undertaken in 1910 and are fully described by Collins (1911). Figs 10 – 17 show the impact of the work on the Oratory and its surroundings, including disturbance to burials (Fig 15). Fig 16 illustrates the 1910 reconstruction of the south doorway, and Fig 17 its condition as excavated. Figs 18 – 20 show the concrete shell structure. The red arrows on Fig 20 mark the blockwork revealed by the 2010 evaluation. Comment was mostly limited to discussion of the concrete structure (see below), but Figs 21 and 22 show the extent of interior consolidation works. Flooding at floor level was an obvious issue during the 20th century, as illustrated by duckboards (Fig 22).

"A contract for the building of the preserving structure ... was signed on the 11 May 1910 ... the first operations consisted of the manufacture of about 1,500 hollow concrete blocks at the Bolingey Mine, Perranporth, the sand and gravel from the mine heaps being used for the purpose. The actual work at the oratory commenced on the 6 July last ...

"The south wall is buried in the sand, and there is a considerable growth of coarse reed and other vegetation. The general level of the sand in the interior approximately corresponds with the height of the top of the altar stone which we have ascertained to be four feet above the original floor level.

"After having shored up the old walls a trench was taken out all around the oratory, about five feet wide at the sides and from seven to eight feet at the ends. As this trench sank deeper we discovered at intervals many pieces of coarse sand stone similar to that used for the carved work around the south doorway, as well as several carved stones corresponding with the moulding on the door jambs ..." (Collins 1910, 391)

Describing the condition of the structure, Mr Collins reported:

"In the east elevation the features existing are – priest's doorway, believed by Mr Mitchell to have been arched over and of similar design to the south doorway, but no worked jamb stones or carved architrave have been found, nor are there any evidences pointing to their existence ...

"The north wall has still a quantity of the outside face remaining in fair condition, but the inner face has fallen with the exception of about two feet from the floor. There are no apertures in the north wall.

"... the south elevation: the position of the doorway has not, I think been interfered with, but the window and the masonry around it are somewhat puzzling and have the appearance of having been disturbed.

"... the western end of the building which is the highest portion now remaining. There are no openings in this wall, but at the base is an erection, which for my purposes I refer to it as a dam: this structure runs the whole length of the western end. It is constructed of yellow clay and stones, the masonry being entirely different in character from that of the oratory itself. A peculiar feature of this dam is, that it is carried around the north-western corner, the clay and masonry being carried into the north wall and underpinning it." (Collins 1911, 391-393)

"The excavations inside revealed the rough stone benches as shown, also the lime plaster floor which has a brownish appearance on the exposed surface, and is quite soft owing probably to the dampness of the site."

"With reference to the preservation work, having excavated all around the building to the foundations, which we found were one half on the solid earth and the other on the sand, a wide base has been put in to carry the covering building and to strengthen the foundations of the Oratory. This having been done, a building of concrete blocks has been erected with a concrete roof, completely enclosing the Oratory. The building is lighted from the roof and provided with a strong oaken door" (Collins 1911, 391-397).

At the time of Mr Collin's talk, it is clear that the works had obviously not been completed.

"The walls of the Oratory are to be permanently shored up with small buttresses and concrete-encased steel ... the question of the drainage of the site is one that calls for attention, as there is now a depth of over five feet of water in the building: when this is dealt with you may rest assured that the remains of what is undoubtedly a building of historic and national interest is well protected and preserved" (Collins 1911, 397).

Not everyone was happy with the new construction. Dr. Dexter writing in 1922, complained

with impassioned horror, "if the buried church could speak, she would complain bitterly of the writers who have misunderstood her, of the trippers who have robbed her, of the Church that sold her, and of the enthusiasts who have entombed her in that hideous cement structure, which suggests a reservoir, a motor garage, an aerodrome, a picture palace, anything - except a church" (Tomlin 1982, 17).

2.6 The re-burial

The site continued to be a popular shrine throughout the twentieth century. The chapel was accessible and members of the local community made sure that the altar was supplied with fresh flowers on a regular basis.

The problems associated with regular flooding prompted the local parish council to take the decision to bury the site once again with sand. In this course of action, they were supported by the Department of the Environment (DoE).

A note held by the St Piran Trust records the views of the DoE following a site visit on 30th November 1978. It states, somewhat dramatically, that:

"A full inspection of the chapel showed that this is now largely a very bad 20th century rebuild, held up by a clumsy concrete corset, excavated to below footing level and devoid of any features or details. Even if it were possible to expose the site it would need an expensive unpicking and consolidation exercise to display what little remains of the original building ... the importance of the site now lies in its historical and spiritual associations rather than in the rather dubious physical remains, and the best way of respecting these is [to] cover the sadly squalid little building and erect over it a suitably simple memorial to commemorate the saint and the site of his oratory which would serve as a point of pilgrimage to Cornishmen."

The statement added:

"Nor will this action inhibit future generations from digging it all up again."

A slightly more circumspect letter was sent to Mr P Wooley of Guildford, Surrey, from M Bousher of the Ancient Monuments Secretariat on 19th November 1980, which stated:

"Little of the original Oratory now remains (it was largely – and rather poorly – rebuilt in the early years of this century) and it was generally agreed that the historical and religious associations of this site are now of more importance than the rather dubious physical remains."

The actual reburial of the site was carried out in August and September 1980. A letter to the Clerk of Perranzabuloe Parish Council records a timeline for the covering of the site and describes the nature of the works which included the demolition of the outer shell (though the level of extant blockwork is not recorded) and the dumping of the concrete blocks into a hollow from which sand had been removed in order to cover the Oratory.

The site is now marked with a granite slab memorial, the inscription on which reads "This stone is dedicated to the glory of God and in memory of Saint Piran, Irish missionary and patron saint of tinners, who came to Cornwall in the 6th century." A play and service commemorating St Piran now focuses on the sand mound covering the Oratory remains (Fig 23).

3 The cemetery

The exposure of bones in the cemetery associated with St. Piran's Oratory has been documented many times. Rows of skeletons were reported in 1820, 1835 and 1905, and in 1910 the skeleton of a woman with a child in her arms was unearthed near the oratory doorway (see Cole 1997, 54-56; Fig 15).

The most extensive description of the remains is Michell (Peter 1905, 138), who wrote:

"There were many bodies interred, both in the chancel and the nave of the church, is an unquestionable fact. Several skeletons have been found deposited about 2 feet below the floors. Three were discovered with their feet lying underneath the altar – one of them of gigantic dimensions, measuring about 7 feet 6 inches, and then three placed beside each other without their heads; their heads (which appeared to be almost cemented together) lay between the knees of the skeleton deposited nearest the south wall, in all probability those were the remains of martyrs who had suffered for the faith Saint Piran preached.

"On the southern and western sides of the venerable ruin is the ancient burial ground, strewed over with tens of thousands of human bones and teeth as white as snow, and, strange as it may seem, the showers of sand which fall all around, hardly ever remain on those melancholy relics of mortality. The skeletons hitherto discovered are all laid east and west, with the legs frequently crossed like those of the Knight's Templar. Nothing in the church in the shape of inscription or coin was found by which any ray of light could be cast on their antiquity.

"The mode of internment in the burial ground was probably such as was generally adopted in the early ages. The bodies appear to have been laid in the sand unenclosed in wood, but probably covered with linen or flannel, in graves a few feet beneath the surface; flat stones are usually found underneath the skeletons, and similar stones placed around and over them [their chests] with other thicker [stones placed] at the head and feet."

County Archaeologist Nick Johnson remembers that human remains lay just below, or on, the surface of the ground in the 1970s and early 1980s. During the burial of the Oratory in 1980, twelve cist graves, some with slate tops, were exposed about 10-13m from the building. No archaeologist was present and no recording took place (Preston-Jones *pers comm*). A further cist grave was surveyed by the Cornwall Committee for Rescue Archaeology (the precursor to the Cornwall Archaeological Unit) in 1982.

4 Extent and condition of the remains: summary

At the time of its reburial, little recording work was carried out and so it is not possible to be certain about the current state of the oratory. As a result, we are dependent on the photos and the accounts made before it was buried, and inference from these.

From these we know that the site has been excavated on at least four separate occasions, and that while some events may have consisted of little more than sand clearance others especially that associated with the construction of the concrete cover, were highly destructive. Excavation both inside the oratory walls following rediscovery and outside in preparation for the concrete block walls will have disturbed archaeological contexts without record. Vandalism and the theft of artefacts and carved stone have been reported. Twentieth century photographs illustrate early consolidation approaches but without seeing these it is difficult to assess the impact that these have had on the surviving masonry of the original building – although the reference, for example, to the fact that the walls were supported with reinforced

concrete gives cause for concern, given the wet conditions caused by seasonal flooding of the site. The DOE's conclusion that the building was 'largely a very bad 20th century rebuild' may have been over-pessimistic, but it is apparent from photos that much of the doorway was rebuilt at some point, possibly when the concrete structure was erected; and other areas of rebuilding are likely.

It is also unclear how the structure may have been affected by seasonal flooding.

Beyond this, buried horizons are likely to remain intact. It is known that there is extensive burial activity outside the oratory, and the various accounts and photos of burials indicate that survival of remains is likely to be good. There is also the possibility that the burial area has an enclosing wall or bank and references to a small building to the south of the oratory confirm a complex site. A heavy silver ring and coin of Roman date found close to St Pirans's oratory (HBSMR 19720.3) indicates its antiquity of the site which unlike other early Christian burial grounds at parish churches in Cornwall will not have been affected by modern burial practice. In addition, a sherd of early medieval imported pottery – Phocaean Red Slip Ware - has been found in the vicinity (Thomas 1981, 6).

5 The 2009 survey

A levelled survey was carried out at St Piran's Oratory in October 2009, to provide information about the ground levels and topography in and around the Oratory.

Survey was carried out using a Leica Total Station EDM with survey data drawn using AutoCAD. The area of the buried oratory, surrounding dunes, pond, tracks and watercourses were surveyed in order to produce a detailed plan of the current topography including changes in contour (Fig 25). An attempt has been made to tie the survey in to Ordnance Survey mapping using available landscape features and to relate surveyed heights to Hooper's 1959 survey, although it has not been possible to link surveys directly as Hooper used a lintel over the doorway in the concrete structure as a benchmark.

Topographical measurements were taken across the oratory mound, adjacent pond and surrounding slopes to give an accurate picture of changes in level locally. A traverse was surveyed towards and within the gully to the north-east of the oratory and as far as the main watercourse. These levels have been related to those taken on the concrete blockwork exposed in evaluation trench 1 and have helped to conjecture floor level and the depth of surviving oratory masonry (Figs 26 and 27).

6 2010 Evaluation Trenching

In January 2010 three evaluation trenches were cut at the St Piran's Oratory site (Fig 24 and 25). These were excavated and recorded by Historic Environment staff working with a team of volunteers made up of members of the St Piran Trust. Two days were set aside over the weekend of 23rd and 24th January 2010 for the excavation, recording and backfilling of trenches, but in the event all work was completed on the Saturday. Trench 1 was excavated within the Scheduled area of the Oratory, cut into the covering dune to discover information about the Oratory's location and condition. Trenches 2 and 3 were located with the aim of obtaining information about areas of suspected waste to the south and east of the Oratory (thought to be spoil from nineteenth and twentieth century excavations).

An additional trench intended to investigate the watercourse leading north from the Oratory was not excavated as the area was waterlogged at the time of excavation.

Preparation tasks included a pre-works meeting, the production of a health and safety plan, organisation of site arrangements, equipment and materials. There was liaison with the landowners and Natural England, in order to finalise permissions for the work to take place within the SSSI and SAC.

6.1 Methodology

6.1.1 Archaeological recording

- The location and dimensions of the trenches were recorded along with the nature and depth of the overburden
- A detailed measured survey was made of all surviving walling in Trench 1. Levels of
 exposed walling were recorded by Total Station EDM tied in to local survey stations.
 Although a local datum was used in the absence of a benchmark showing true OD,
 accurate three-dimensional co-ordinates were obtained giving relative differences in
 height.
- Site drawings (plans, sections, locations of finds) were made by pencil (4H) on weatherproof drafting film; all plans were linked to the site survey and all drawings included standard information: site details, personnel, date, scale, north-point
- Photography: monochrome and digital photography were used as the main record medium. A photographic scale was used as appropriate.
- A location plan has been made linking the evaluation trenches with features that have been mapped by the preceding survey and have been related to a scaled Ordnance Survey base map (linked to the National Grid).

6.2 Reinstatement

6.2.1 Temporary stockpiling of sand on site

All spoil from the evaluation trenches was temporarily stockpiled on protective sheeting close to the site. Turf was stored separately to underlying sand.

6.2.2 Reprofiling of the immediate landscape following excavation

Trenches were backfilled upon completion. Turf and grass were replaced over the top of this, all on the same day as the excavation took place. Now (over 6 months later) there is no evidence for the trenching.

7 Results

7.1 Trench 1

A single trench 1.8m wide was excavated on the south side of the mound covering the remains of the oratory and aligned just west of centre (Figs 24, 25 and 29). It was the original aim to locate the door in the concrete shell structure, as the granite lintel above this was used as a temporary benchmark by R Hooper during his 1959 survey. From this it was hoped that the 1959 and 2009 surveys could be linked together. The trench measured 4m in length and 1.8m wide.

Below turf (1) 0.05m thick was yellow sand (2) to a depth of 1.5m below the top of the trench. At this point a level course of three concrete blocks (3) was encountered spanning the width of the trench and each measuring 0.66m long, 0.28m high and 0.28m deep (Figs 28 and 30). Blocks had been moulded leaving two rectangular perforations through their centres. Coursed

blockwork continued below these blocks. The uppermost course had been disturbed and had moved forward of the vertical wall line by 0.1m. Blockwork protruded from the western side of the wall forming part of a buttress (visible on the photographs of the concrete shell, Fig 20). An exploratory trench was excavated through the section behind (to the north) of the concrete wall to a depth of 0.9m but no *in situ* walling of the oratory was encountered. A photographic scale fell through a void in the sand fill between the oratory wall and the concrete block wall to land with an audible splash, proof that the Oratory and its cover were not completely backfilled with sand in 1980, and also that standing water is present above the oratory floor.

7.2 Trench 2

A one-metre square trench was excavated in an area to the south of the oratory where the vegetation had a different appearance from that of surrounding areas (Figs 24 and 25). It was thought possible that this was because material relating to either the burial or the 'unburial' of the Oratory was dumped here.

The trench was excavated to a depth of approximately 0.7m through sand deposits (4), (5), (6), (7) and (8) (Fig 31). Below sandy turf (4) 0.15m thick was a lens of fine clean sand (5) 0.06 deep. This sat within layer (6) which was up to 0.5m in depth and contained disturbed human bone at a depth of 0.45m. Within this was (9), the stone sides and capping of a cist grave (Figs 31 and 32). This measured at least 0.3m high and 0.6m wide although its extents were not revealed. No cut for the grave was visible. Part of the capping stone of the cist had been disturbed but otherwise appeared intact. Deposit (8) in the south-western corner of the trench at a depth of 0.55m contained disarticulated human bone and fragments of stone which could indicate the location of a disturbed cist or partially lined grave.

7.3 Trench 3

Trench 3 was located to determine the nature of a low mound just southeast of the Oratory, believed to be rubble from the partial demolition of the concrete covering structure when the Oratory was buried (Figs 24 and 25).

The trench measured 1m x 1m and was excavated through shallow turf to a depth of 1m. This revealed various lenses of sand although it was not possible to establish whether these were naturally accumulated or artificially deposited. No archaeological features were recorded.

8 Conclusion

8.1 Updated survey and evaluation trenching

The concrete block revealed by Trench 1 was estimated to be one block below the uppermost top vertical course (ie one course below the start of the vaulted roof). This was based on the fact that the uppermost revealed course had shifted, thought to be a result of disturbance as a result of roof removal. Unfortunately the evaluation trench failed to locate the doorway or lintel of the concrete shell structure. Fig 26 gives a summary of estimated levels (levels based on site, not true Ordnance Datum). Fig 27 shows estimated levels based on both Hooper's 1959 survey and the HE survey of 2009 with a schematic section through the Oratory, covering mound and immediate landscape.

Existing internal photos show this block to be 14 courses above floor level (Fig 20). Since blocks are 0.28m high this gives an estimated wall height of ϵ 3.92m. If, in fact, it is the block below this that was identified (ie 13 courses above floor level), this height would reduce to ϵ 3.6m and so on.

The level taken by EDM on this block is 22.9m. Floor height is therefore an estimated 18.98m (using the local datum).

The level on ground at the base of the oratory mound (the level path below the trial trench) was ϵ 22m, making a difference of 0.9m below excavated block height and modern ground level.

Ground level is approximately level on a course towards the stream, deepening into a gully at a distance of ϵ 100m from the oratory mound. This spur (which is dry in summer) could be an earlier attempt to drain the oratory. There is a gradual decline to the stream bed at a distance of ϵ 170m from the oratory to a height of 19.7m.

To summarise:

- The stream bed is an estimated 2.3m below modern ground level.
- The stream bed is an estimated 0.7m above the level of the oratory floor.
- Height of water in the oratory could be as high as 1.5m above floor level using the level of water on old photographs as a guide.
- The base (lowest part) of the pond was surveyed at a level of 20.3m its highest level was recorded as 21.4m
- The lowest part of the pond is therefore approximately 1.3m above oratory floor level.
- The highest level of the pond is approximately 2.4m above oratory floor level.

NB

Hooper's 1959 survey proposed a scheme that involved utilising the line of the dry spur that leads from the dunes close to the Oratory to the ephemeral stream to the north-east. This would however involve a fairly deep cut in places and re-profiling of the stream for a distance of possibly 400 to 700 metres northwards from the Oratory.

It is important that the elevation of the Oratory floor be accurately determined relative to Ordnance Datum for any potential drainage designs to be developed in detail. In order to achieve this partial excavation of the Oratory (exposure of the surviving walls and floor level) would be required.

8.2 Drainage issues

For some time discussions regarding the excavation and conservation of St Piran's Oratory have focussed on the problems of draining the site. Seasonal flooding was probably one of the main reasons for construction of the concrete shell in 1910 but ironically, and despite removal of its roof in 1980, this has exacerbated the problem, trapping water within the oratory ruins.

In 1959 a survey was carried out by the mine engineer Ron Hooper on behalf of Perranzabuloe Parish Council to assess the feasibility of laying pipes to drain the Oratory. Hooper believed that although it would be possible to drain water into a watercourse to the north-east of the oratory this would be problematic as it would require extensive excavation of the watercourse and drainage of the pond adjacent to the oratory. The updated survey carried out by Historic Environment has helped enhance information regarding levels and to re-assess the feasibility of drainage. Hooper's plan, which showed the concrete covering structure before it was buried in relation to some elements of the surrounding topography, was used in an attempt to compare levels and topography today to those of 1959.

Although it has been difficult to establish levels of the oratory floor, potential flood levels within the oratory, and changes in level outside the oratory, drainage feasibility work by Hooper in 1959 and by HE in 2009 reach similar conclusions. Hooper's work established that there was little fall in gradient between the oratory floor and the suggested drainage outflow in

the stream to the north-east. HE survey work suggests that the floor of the oratory may even lie below stream level. In both cases it is clear that even the lowest levels of the adjacent pond in recent winters is above that of the oratory floor. The conclusions are therefore similar: it is likely that water from the pond percolates into the oratory structure and if drainage were possible that it would require extensive digging. Such digging is likely to have considerable impacts on the historic and natural environment of the surrounding areas — which are protected by various statutory designations.

8.3 Statutory permissions for the works

The oratory is a Scheduled Monument (SM) and the approval of English Heritage is required before any works are undertaken.

The area is designated as both a Site of Special Scientific Interest (SSSI) and also a Special Area of Conservation (SAC) and so the approval of Natural England and the Environment Agency is also required before any work is conducted that may affect it.

An excavation could only take place with the production of a proposal/project design to the satisfaction of statutory bodies including English Heritage and Natural England; this would include gaining Scheduled Monument Consent and assent for work within the SAC/SSSI.

9 Recommendations

The work described in this report has shown beyond doubt that drainage of the Oratory and its excavation from the dune cannot be undertaken without considerable disturbance to surrounding areas. Determination of the precise extent will require a more detailed appraisal. The evaluation has also flagged up the very poor condition of the site and as a result the Scheduled Monument, formerly considered to be at low risk, has been re-evaluated as being at high risk of damage. It cannot be said with confidence that the dune is protecting the monument but is merely hiding its problems. A recommendation therefore arising from this evaluation is, that whether or not a project is undertaken to drain the Oratory, there is nonetheless a pressing need to remove the sand, remove all 20th century additions to the building and stabilise the structure. After that it can be buried, part-buried or left fully open as determined by the further feasibility studies, Consents, availability of grants, etc. In addition, the significance of the surrounding graveyard as a resource has been indicated and any such consolidation should be accompanied by recording which makes good the loss resulting from the early unrecorded plundering of the site.

10References

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11Project archive

The HES project number is 20082170

The project's documentary, photographic and drawn archive is housed at the offices of the Historic Environment Service, Cornwall County Council, Kennall Building, Old County Hall, Station Road, Truro, TR1 3AY. The contents of this archive are as listed below:

- 1. A project file containing site records and notes, project correspondence and administration.
- 2. Black and white photographs archived under the following index numbers:
- 3. Digital drawings stored in the directory R:\Historic Environment (CAD)\CAD Archive\Sites S\St Piran's Oratory excavation 20082170
- 4. Digital photographs stored in the directory R:\Historic Environment
 (Images)\SITES.Q-T\St Piran's Oratory 2008\St Piran's Oratory excavation 20082170
- 5. This report text is held in digital form as <u>G:\Historic Environment (Documents)\HE</u> Projects\Sites \Sites S\St Piran's Oratory excavation 20082170

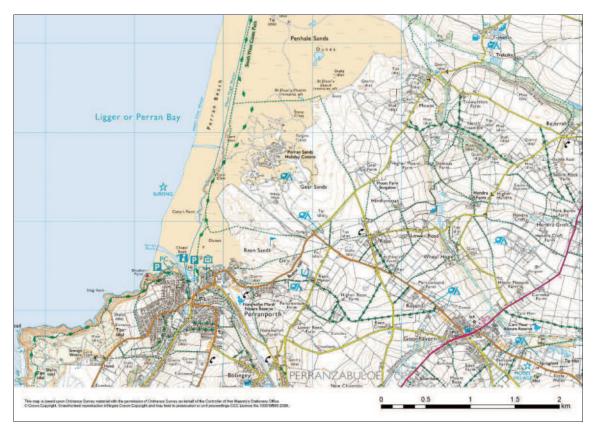


Fig 1 Location of St Piran's Oratory.

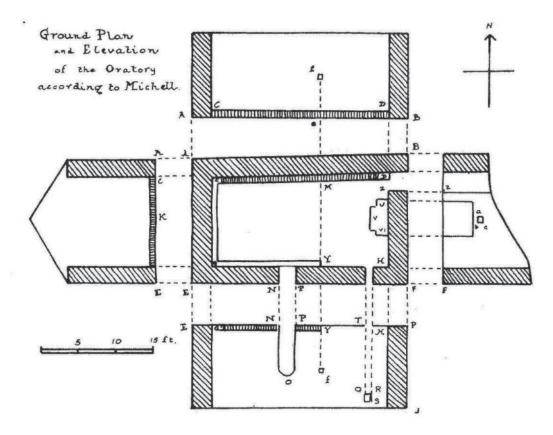
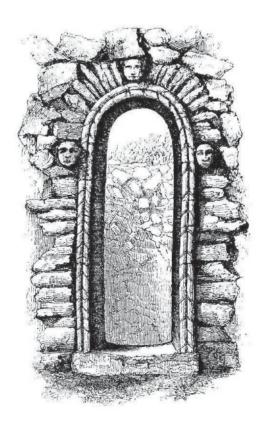


Fig 2 Ground plan and elevations of St Piran's Oratory 'according to Michell' (1835).



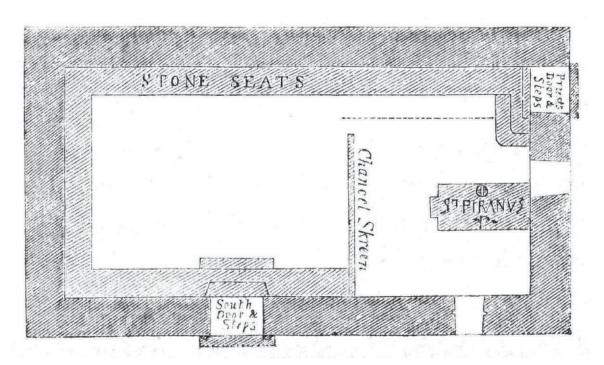


Fig 3 Plan of St Piran's Oratory and drawing of south door (from Archaeological Journal 1845).

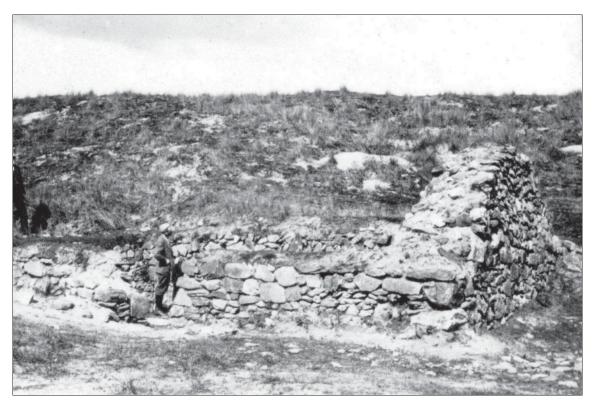


Fig 4 St Piran's Oratory photographed at some point prior to 1892 before the fence was erected around the building.



Fig 5 Excavated interior of St Piran's Oratory photographed from east (datable to 1892-1910) after the fence had been erected. NB difference between ground level and floor of Oratory.

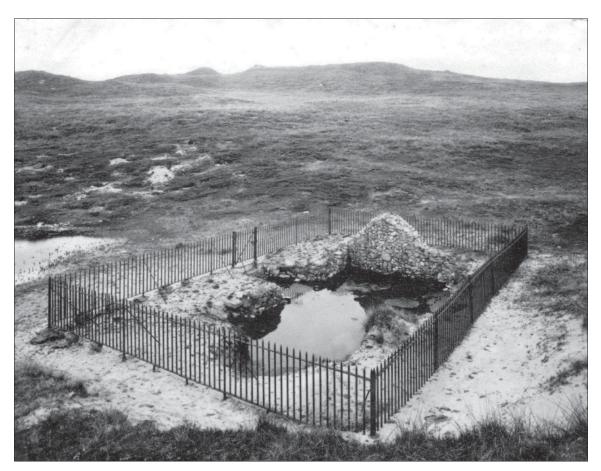


Fig 6 St Piran's Oratory photographed from east (datable to 1892-1910) showing level of flooding.



Fig 7 Photograph showing dilapidated state of doorway in south wall

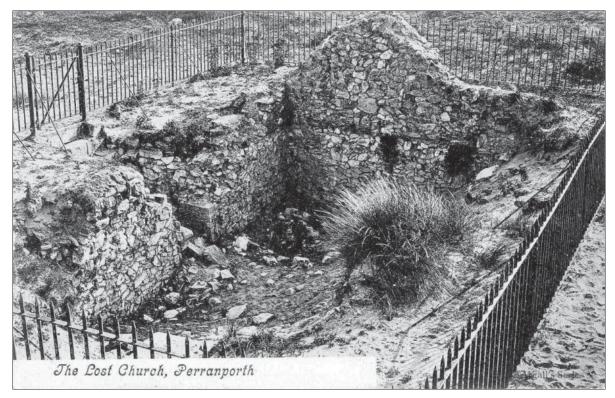


Fig 8 Photograph showing dilapidated state of Oratory (datable to 1892-1910).



Fig 9 St Piran's Oratory photographed from east (datable to 1892-1910).



Fig 10 The excavation for the protective shell for St Piran's Oratory in 1910 (photographed from the south).



Fig 11 The excavation for the protective shell for St Piran's Oratory in 1910 photographed from the north.



Fig 12 The excavation for the protective shell for St Piran's Oratory in 1910. Photographed from the south west.



Fig 13 The excavation for the protective shell for St Piran's Oratory in 1910 photographed from the north west.



Fig 14 The excavation for the protective shell for St Piran's Oratory in 1910 photographed from the west.



Fig 15 The excavation for the protective shell for St Piran's Oratory in 1910 with one of the skeletons revealed (photographed from the south west).

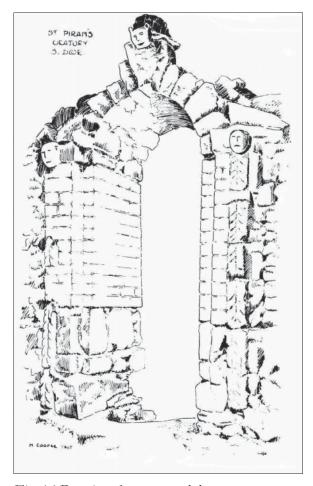


Fig 16 Drawing of reconstructed doorway.



Fig 17 Remains of doorway in south wall of St Piran's Oratory in 1910.

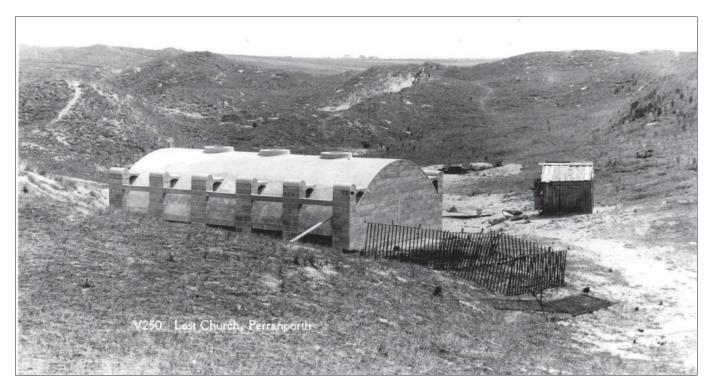


Fig 18 The 'preserving structure' soon after construction in 1910.

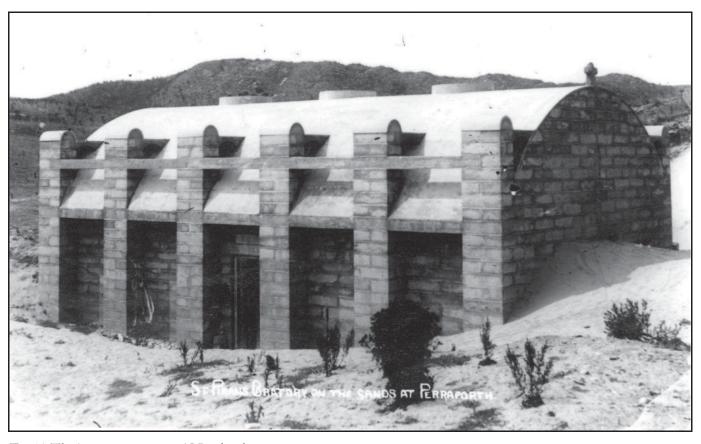


Fig 19 The 'preserving structure.' Not dated.

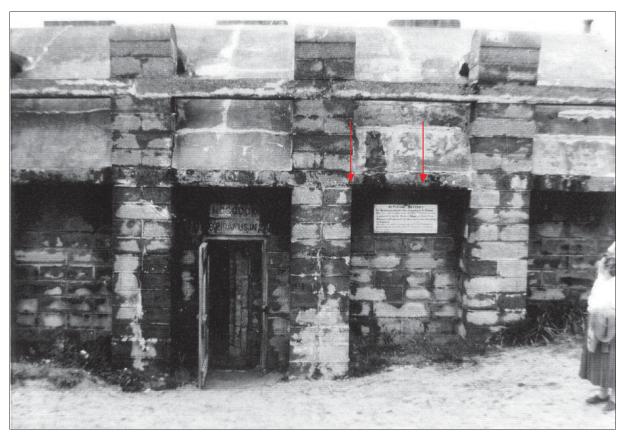


Fig 20 The access door to the 'preserving structure.' Not dated. Red arrows show location of blockwork revealed in Trench 1.



Fig 21The interior of St Piran's Oratory. Not dated. Shows concrete floor, brick buttresses, rebuilt doorway and wall supports.



Fig 22 Inside face of west wall and exterior of north wall of St Piran's Oratory. Not dated. Illustrates the survival of the west gable wall and the impact of buttresses. Duckboards suggest that the floor was waterlogged at the time.



Fig 23 The play on the dunes to mark St Piran's Day in 2006. The Oratory lies beneath the marram grass in the right-hand side of the photograph.



Fig 24 The locations of trenches 1, 2, 3 during the evaluation

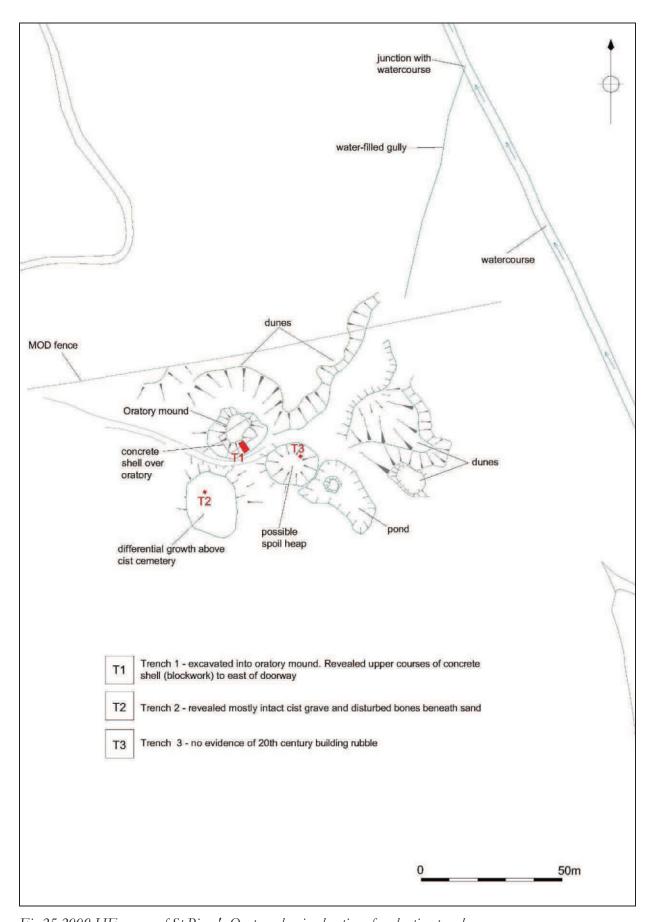


Fig 25 2009 HE survey of St Piran's Oratory showing location of evaluation trenches

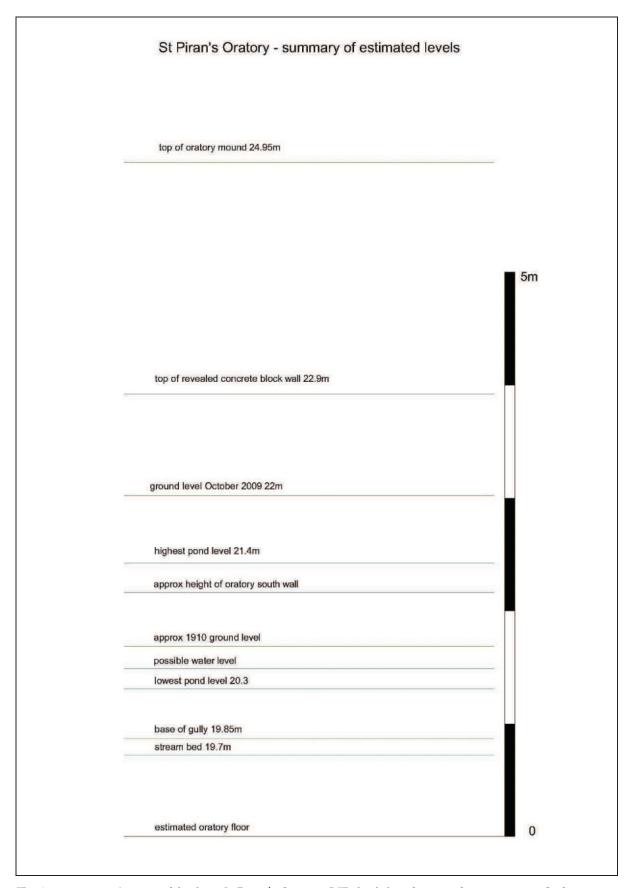


Fig 26 summary of estimated levels at St Piran's Oratory (NB levels based on site datum, not true Ordnance Datum)

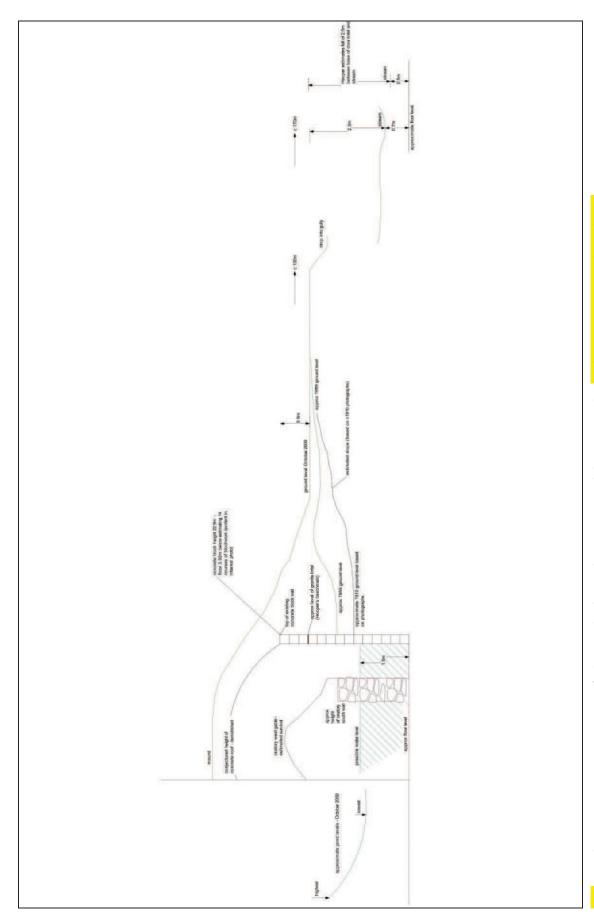


Fig 27 Schematic cross-section of St Piran's Oratory landscape showing estimated differences in level<mark>(COULD BE A3 FOLDOUT)</mark>

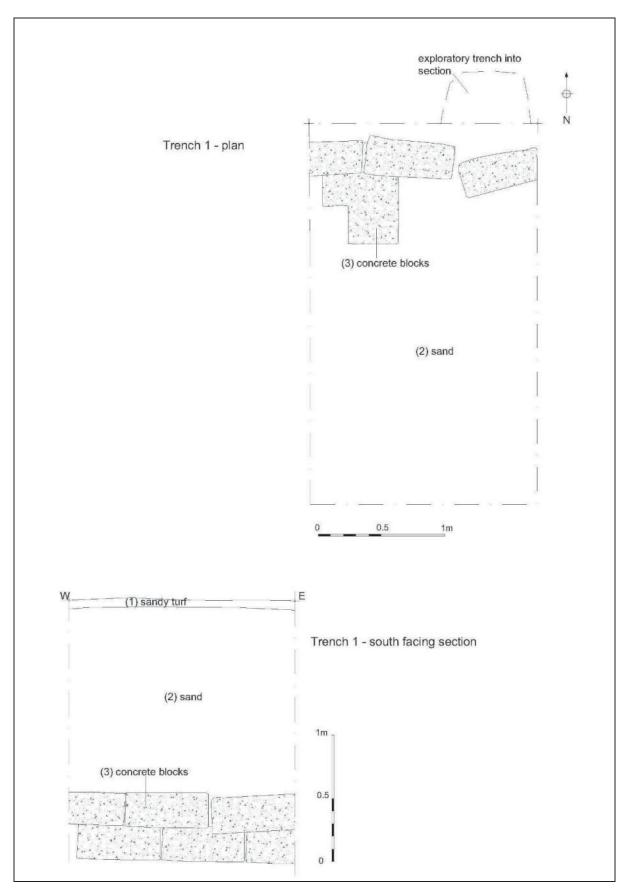


Fig 28 Trench 1 plan and section showing revealed concrete blockwork of oratory 'shell'



Fig 29 St Piran Trust volunteers excavating Trench 1



Fig 30 Photograph of Trench 1 showing revealed concrete blockwork of oratory 'shell'

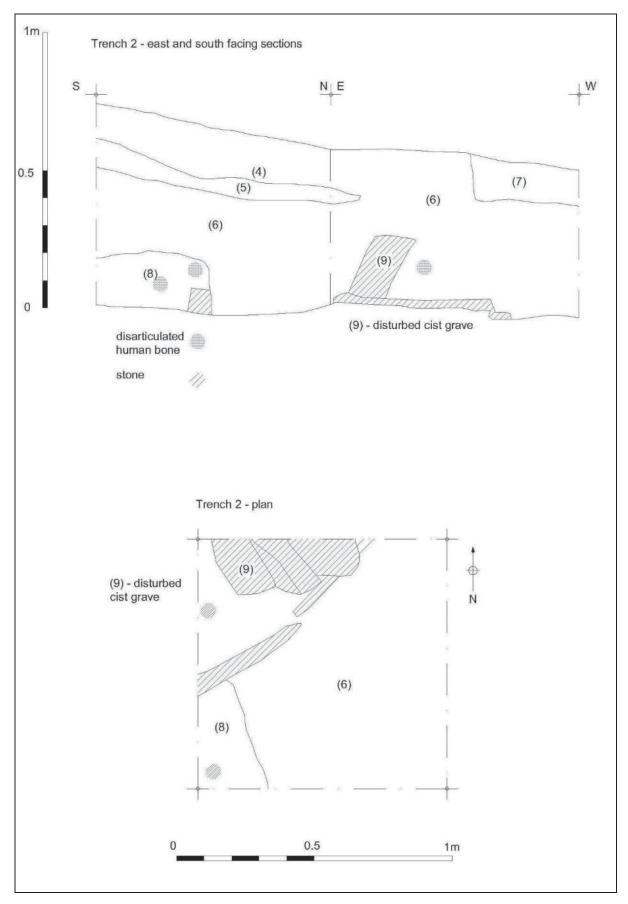


Fig 31 Trench 2 plan and section showing remains of cist grave



Fig 32 Photograph of Trench 1showing remains of cist grave