An Roinn Tithíochta,
Rialtais Áitiúil agus Oidhreachta
Department of Housing,
Local Government and Heritage

Conservation Architect's Report
on
St. Mary's Cathedral,
Elphin, Co. Roscommon.

Prepared by

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on behalf of

Roscommon County Council

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1. INTRODUCTION / OVERVIEW

This report has been prepared on behalf of Roscommon County Council to record the condition of the ruins of St. Mary's Cathedral, Elphin, Co. Roscommon. The cathedral was constructed in 1823, on the site of a mid-eighteenth century church, which itself was constructed on the foundations of an earlier cathedral church, which dates back to the late-twelfth or early-thirteenth century. The ruined cathedral and its grounds is a site of National Significance, having been in use as a place of worship for almost 800 years. The cathedral site has historic interest as the burial place of the family of the Irish novelist, playwright, and poet, Oliver Goldsmith (1728-1774), and of the family of the songwriter, Percy French (1854 – 1920).

The cathedral ruin is a structure of architectural, artistic, archaeological, historical, and social significance, which makes an important contribution to the ecclesiastical site of Elphin and to the wider character of the town of Elphin.

2. HISTORICAL BACKGROUND

The foundation of the ecclesiastical site of Elphin is associated with Saint Patrick, who is said to have visited the region and founded a church and monastery on lands donated by the local chieftain, Ono, in c. 435AD. According to legend, Saint Patrick brought forth a gushing spring on the site and the name Elphin comes from the Irish 'Ail Finn' (translated as 'the spring of the fair stone'). Elphin grew to be a centre of considerable ecclesiastical importance. The town was the site of a significant monastery, St Patrick's abbey, and replaced Roscommon as the diocesan seat by c.1170. The first cathedral of St Mary had been built by the early 13th century and is mentioned in the Annals of Lough Ce in 1245 and in the ecclesiastical taxation of Elphin diocese in 1306. Following King Henry VIII's break with the Church of Rome, Roland de Burgo, was appointed as the first Protestant bishop in the 1840's[1].

Fig. 1 First Edition Ordnance Survey Map (1837-42) – St. Mary's Cathedral is highlighted in red (not to scale)

The cathedral sustained damage in 1641 and fell into disrepair. A new cathedral building was subsequently constructed on the earlier foundations in 1757-8. This was replaced with the present-day structure, which was constructed in 1823 and can be seen in the first edition Ordnance Survey map of 1837-42 *(Fig. 1).* This nineteenth century cathedral church was extended with the addition of an apse in 1872, which can be seen on the 25" Ordnance Survey map of 1888-1913 *(Fig. 2).* St. Mary's continued continued in use as a Church of Ireland place of worship until 25th October 1961. The roof was removed and the walls were lowered in 1964. Works to conserve the cathedral ruin were carried out in 1982.

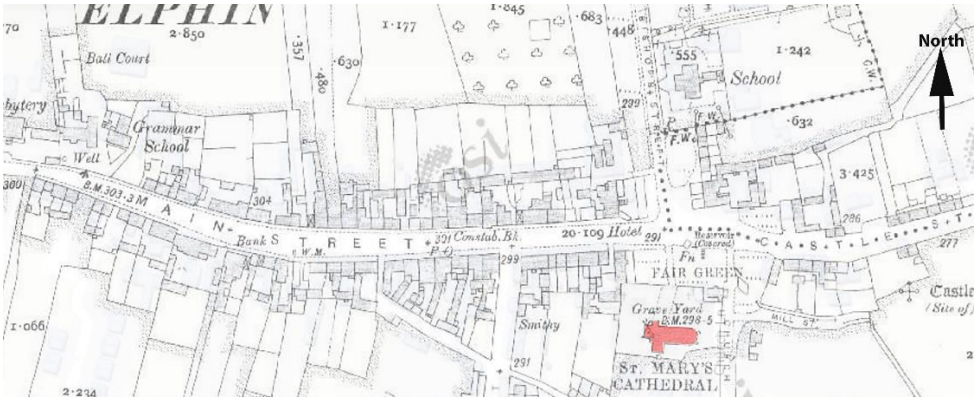

Fig. 2 Extract from 25" Ordnance Survey Map (1888-1913), with cathedral shaded red (not to scale)

[1] Details of the evolution of the site as an important ecclesiastic centre are reproduced from the National Monuments scope note (ref. RO016-127001-) on the NIAH website.

3. DESCRIPTION OF ST. MARY'S CATHEDRAL, ELPHIN

St. Mary's Cathedral is located to the south of a rectangular graveyard, to the immediate south-east of the main street of Elphin. The surviving structure comprises a rectangular nave (approximately 21 metres x 7.5 metres, a semi-circular apse (at its east end, added in 1872), a chapter room (approximately 6 metres x 4.8 metres, to the south of the nave), and the base of a rectangular tower (to the west). The church included a small entrance porch at the north-west corner of the nave, which is shown on the historic Ordnance Survey maps but does not survive. The upstanding walls are generally 2-3 metres high. This is approximately at the sill level of the nave window openings, with the cut stone window sills surviving at the top of the wall. The upstanding walls in the apse and tower are higher (c.3-4 metres high). The five round-headed windows within the apse survive. The walls of the nave, tower and chapter room are of limestone rubble construction, with cut stone to the openings. The external wall of the apse comprises snecked limestone with cut limestone to the window openings.

Fig. 3 Artist's impression showing configuration of St. Mary's Cathedral (viewed from north-east) prior to its partial demolition. The small entrance porch (to the north-west) has been entirely removed. (This image was reproduced from information board within cathedral grounds)

The interior of the cathedral ruin contains a number of features of interest, including memorial stones and plaques dating from the eighteenth, nineteenth, and twentieth centuries. A number of these memorial stones have been fragmented and are lying in pieces on the floor of the nave and apse. The floor throughout the ruin primarily comprises compacted limestone hardcore (Clause 804 or similar), and is partially overgrown with grass and weeds. A heavily eroded step, of Dundry stone, marks the change in level between the nave and the apse. There are polychromatic floor tiles within the apse and tower, and sandstone slabs on the floor of the tower. The truncated tower includes cut stone finials, which are mounted on each of its four corners and appear to have been relocated from the top of the tower following its demolition. The large memorial to the Goldsmith family, mounted on the south wall of the chapter room, is of particular interest. The information board, at the (north) entrance to the ruin, notes that there are a number of burials under the floor of the cathedral. The RMP description notes that two of at least four 17th century grave-slabs, including that of Bishop Edward King, are located within the cathedral. The (south) exterior of the cathedral includes sunken steps, which appear to lead down to a crypt beneath the building.

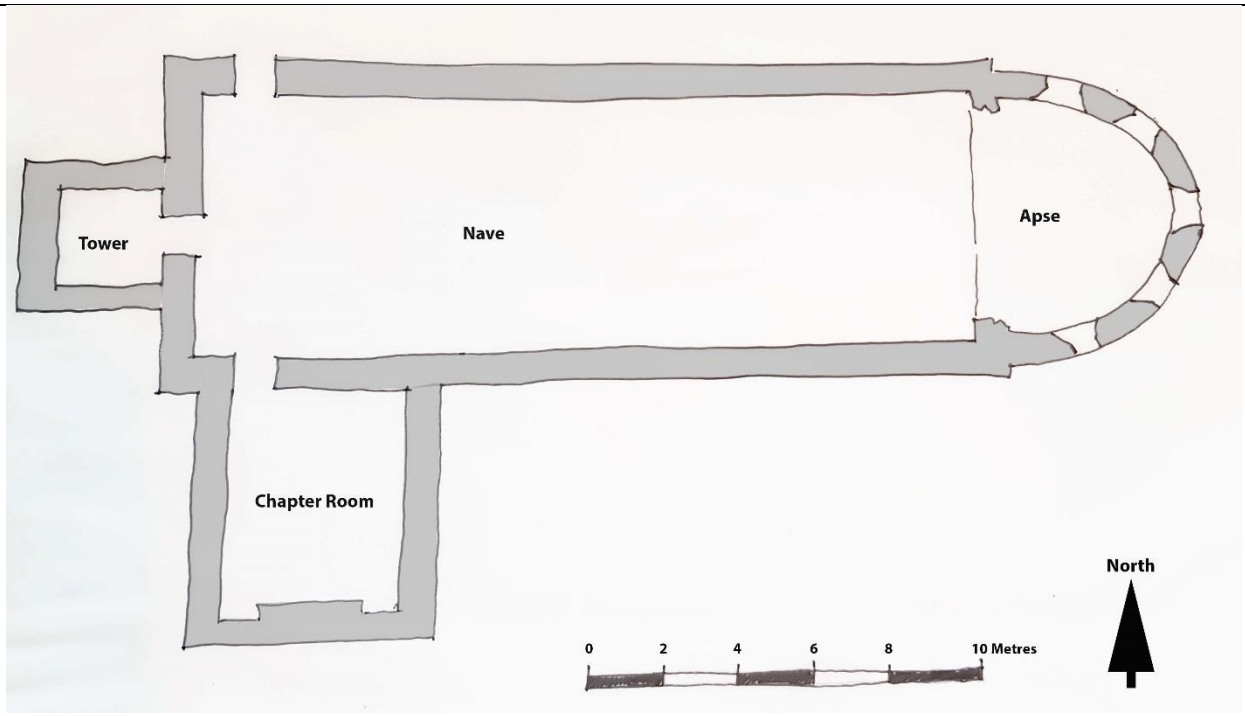

Fig. 4 Sketch plan of St. Mary's Cathedral

4. CONDITION

The surviving structure has been without a roof and exposed to the elements for over fifty years. The truncated walls comprise limestone rubble with cut stone surrounds to the extant window and door openings. There is established ivy growth on and around the ruined structure, some of which is embedded into the wall. The top of the wall is squared off and does not have a protective capping or haunch. As a consequence, there is considerable vegetation growth along the top of the wall, much of which comprises mature plants (sycamore, buddleia, ivy, etc.) that has become rooted or embedded into the wall structure. There are open gaps in the stone rubble along the top of the wall. This has allowed water to drain through the stone rubble and has caused much of the aggregate to leach out of the structure, leaving substantial voids which have weakened the core of the wall. If left unchecked, the root systems of the embedded vegetation will extend into the voids within the core. This will cause a further weakening and deterioration of the wall. Urgent action is required to kill off and carefully remove the vegetation, to consolidate the wall, and to provide a rounded haunch to encourage water runoff from the top of the wall.

Fig. 5 Mature vegetation embedded into the top of the wall within the apse

The surviving memorial stones and plaques on the interior of the ruined cathedral are an important surviving component that contribute to the significance of the site. Some of the earlier memorial stones date from the seventeenth and eighteenth century and were relocated to the nineteenth century cathedral following its construction in 1823. These engraved stones provide a tangible link to the earlier church buildings that stood on the site. Almost all of these stones have become badly weathered after more than fifty years exposure to the elements. I noted broken fragments of a number of memorial plaques lying on the ground within the cathedral ruin. All such loose fragments need to be carefully salvaged and inventorised. Where possible, proposals should be developed for the reinstatement and presentation of any broken plaques that are suitable for reassembly.

Fig. 6 Broken and displaced memorial stones within the cathedral ruin

The uneven ground surface within the cathedral ruin has allowed grass and larger plants to take root and grow within the footprint of the building. It is difficult to determine if there are surviving stone flags or memorial floor stones within the main body of the cathedral and (side) chapter room. The presentation of and access to the partially demolished cathedral would be greatly improved through the introduction of a protective covering. This would help to safeguard surviving internal features such as the polychromatic floor tiles, the Dundry stone step between the nave and the apse, and any surviving memorial floor stones or grave markers.

Fig. 7 View of interior of cathedral ruin (looking west to tower) showing uneven floor surface

The mortar bedding to the brick lining within the apse, which survives to c.500mm above floor level, is breaking down. This has caused sections of the brick to become loose and unstable.

Fig. 8 Brick lining within apse

There was evidence of recent community-led efforts to cut back much of the vegetation growing in and over the cathedral ruin. This type of action may not kill the plant and could cause the affected plants to go into shock. This can cause the embedded roots to expand, which can further weaken the wall.

Fig. 9 Cut ivy on exterior of cathedral ruin.

5. RECOMMENDATIONS

St. Mary's Cathedral in Elphin is a structure of considerable architectural, historical and social significance, located on a site of rich archaeological and ecclesiastical interest dating back to early Christian times. The extant cathedral ruin is at risk due to the effects of water ingress through the top of the wall, the leaching of aggregate and mortar from the core of the wall, and the impact of embedded root systems growing within the stone rubble structure. The following actions are recommended in order of priority.

a) <u>Treatment of embedded woody vegetation</u>
The well-intentioned but potential harmful practice of cutting back ivy and other embedded woody vegetation is potentially harmful to the fabric of the ruin and should discontinue. The biocide treatment of this vegetation should be carefully targeted on killing the plant from the root upwards. This method involves the application of a biocide treatment under the bark close to the root of the plant. This approach differs from the more-commonly used application of a biocide treatment to the leaves, which will kill the foliage but cause the living plant to retreat into the root system. This can

result in expansion of the roots, which can in turn destabilise the ruined structure. The slow and gradual process of killing back the plant will take several months and avoids any expansion or shrinkage of the root system. The approach involves the peeling back of a section of the bark about 50mm high to expose the substrate. A biocide (roundup or similar) is applied in paste form to the open section of the trunk and is then sealed with clingfilm and duct tape. The optimal time to carry out this treatment is in the spring, with allowance for 2-3 repeated applications on each trunk/branch at monthly intervals heading into the summer.

Under the above approach, the biocide travels with chlorophyll from the site of the treatment downwards into the root system, which will slowly die without swelling or expansion of the embedded roots or branches. This method of treatment and wrapping of the base of each plant will only be possible where the full circumference of the branches are projecting from the wall and accessible. In locations where thick ivy branches are attached to the stone rubble and cannot be pulled outwards without the risk of damage to the wall, the branches may be cut and biocide plugs inserted into drillholes at the base of the plant.

Once the initial biocide treatment has been active for a number of weeks, the treatment can be augmented by the surface application of a selected biocide spray that is suitable for the control of a wide range of deep-rooted perennial and woody weeds on non-crop land. This biocide spray should be mixed with a temporary dye that will temporarily mark the treated foliage for 3-4 days. The use of this dye will minimise the risk of missed areas or overapplication.

Once the biocide treatment is successful and fully complete, all dead vegetation growth should be left in situ pending work commencing on the consolidation and re-pointing of the wall (see b) below).

b) <u>Consolidation of stone rubble walls – mortar pointing and liquid grout</u>
The new re-pointing mortars to the rubble masonry should consist of a fine to medium-grained lime-based mortar mix, formulated for stone rubble fabric in a moderately exposed location, in a moderate to severe environment. Sands will be local, and primarily consist of local limestone. The sand used will comply with current standards including BS 1200, BS 882, BS 1200:1976, BS 4551-1:1998, BS EN 998-2:2002, and the European normative references EN 1015-1. All works will be carried out complying with BS 7913:1998 Guide to the Principles of the Conservation of Historic Buildings. The proposed lime mortar will comprise a mix of 2.5 parts aggregate to 1 part NHL3.5 lime. The work is to be carried out by operatives skilled in the use of lime mortars. The relevant contractor should provide details of the proposed operatives who will carry out the lime mortar repairs together with evidence of their previous experience on similar projects to the satisfaction of the conservation architect. A trial sample will be carried out at the outset to facilitate agreement on the work methods and finish with the conservation architect. *(Note: Portland cement-based mortars will NOT be used for any repair or re-pointing works, even where those repairs will be hidden from view or concealed within the fabric of the wall). The contractor will provide the conservation architect (on request) with samples of the lime mortar for testing. This will comprise petrographic analysis, be carried out by a specialist stone and historic mortars consultant. The purpose is to ascertain that the specified mix has been followed - the correct naturally hydraulic lime has been used; the aggregate is as specified; the proportions of the mix are correct; and no cement or other non-specified additives have been used).*

The works to consolidate the stone rubble walls should include for grouting and deep tamping of existing open and dry joints, and voids revealed during removal of the flowering plants and failed stones. The grouting material will be lime-based with a suspension aid (such as bentonite). It is important that the final strength of the grout should not exceed that of the limestone masonry, that be similar in permeability, low in shrinkage and have a good flow rate for effective penetration. Prior to appointment, the contractor shall provide a written methodology and specification for the grout to include the proposed lime (hydraulic or non-hydraulic) and details of the suspension aid for agreement with the Conservation Architect.

c) <u>Limecrete haunch to the top of the wall</u>
The wall tops of the cathedral ruin will be subjected to water penetration and weathering stresses far in excess of those experienced by the wall face, and a different mortar formulation for haunching will

be required. All vegetation and any existing wall top haunching should be removed prior to application of the new haunching. It should be noted that one of the most common problems with past cement-rich haunching is deterioration of the original work immediately below it; and the failure of new haunchings is often due not to incorrect formulation or poor workmanship, but the poor condition of the wall-core substrate. On removal of the vegetation and any past haunching, it is crucial to consolidate the wall-core at the wall top prior to applying a new haunching21. The new haunching should be a natural hydraulic mortar (NHL 3.5). The limestone used to build the wall is a durable limestone and NHL 5 would bond with this stone. However, NHL 5 is stronger, less elastic and less permeable than a NHL 3.5, and while durable, should be expected to be less able to cope with any future wall movement or failure(s) within the original weathered material in the wall core. For this reason NHL 3.5 is preferred. The recommended mix of for the haunching is NHL 3.5: Sand aggregate in the **ratio 1:2½.** The sand aggregate should be sharp, coarse limestone sand (10mm down, gauged with a fraction of fine limestone aggregate to improve workability).

d) Treatment of sapling trees at base of wall
There are a number of sapling trees growing against the external face of the south perimeter wall of the ruin. These have potential to cause damage to the footing and substructure of the walls if they are allowed to grow to maturity. Each individual branch of each sapling is to be treated using the approach outlined under a) above. This involves the peeling back of a section of the bark about 50mm high to expose the substrate. A biocide (roundup or similar) is applied in paste form to the open section of the trunk and is then sealed with clingfilm and duct tape. The optimal time to carry out this treatment is in the spring, with allowance for 2-3 repeated applications on each trunk/branch at monthly intervals heading into the summer.

e) Salvage of broken memorial stones from within cathedral ruin
The grass and weed ground cover within the cathedral ruin is to be treated with a herbicide. Once the vegetation cover has died back, the individual cut stone fragments are to be photographed, identified by number, inventorised, and safely stored. The stone fragment pieces that go together to form an identifiable plaque or memorial stone are to be pieced together. Any decision in relation to the storage or reassembly and presentation of these stones shall be taken in consultation with the National Monument Service.

f) Protection of extant floor finishes and memorial slabs on floor of cathedral ruin
Following the treatment of vegetation growth and the retrieval of loose cut stones from the floor of the cathedral ruin, two layers of terrim geotextile membrane shall be laid over the entire floor of the nave, apse and chapter room. The first layer of membrane should be rolled out east-to-west, with the second layer laid north-to-south (across the narrow width of the ruin). The entire floor of the nave, apse and chapter room should be finished with a 100mm layer of grey limestone pea gravel evenly raked and gently compacted. The Dundry stone step to the apse should be retained in situ, with a timber edge piece introduced within the nave directly in front of the step, so that the gravel finish is arranged in two levels, with the raised level of the apse clearly visible.

g) Consolidation of perimeter brick lining in apse
The loose bricks on the perimeter of the apse wall should be re-bedded in lime mortar, to the specification noted under b) above.

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[2] Bibliography includes sources noted in the National Monuments record of site on www.buildingsofireland.ie

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APPENDIX A

RECORD PHOTOGRAPHS OF ST. MARY'S CATHEDRAL, ELPHIN

12 NOVEMBER 2020

Fig. A1 North façade of St. Mary's Cathedral, viewed from Fair Green

Fig. A2 Interior of nave, looking east towards apse

Fig. A3 Interior of nave, looking west towards tower

Fig. A4 Internal face of north external wall to nave

Fig A5 Internal face of north external wall to nave

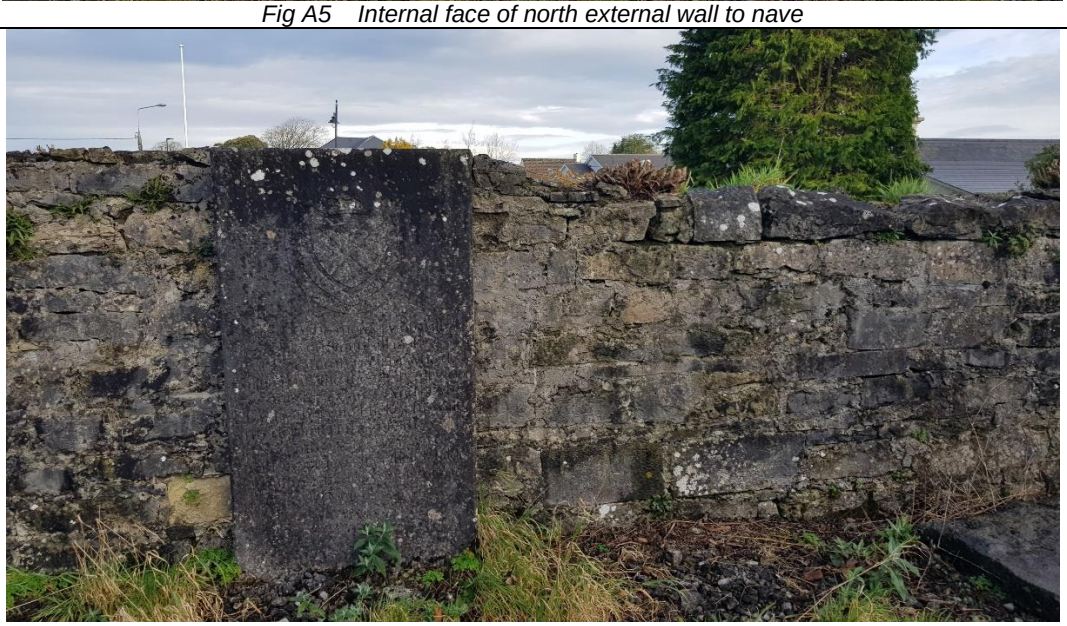

Fig. A6 Internal face of north external wall to nave

Fig. A7 Mature buddleia growth at top of north external wall; branches recently cut back

Fig. A8 Internal face of north external wall to nave

Fig. A9 Apse at east end of the nave

Fig. A10 Cut stone sill and reveal of nave window on inner face of north external wall; the height of the wall increases at the north end of the ruin

Fig. A11 Dundry stone step between nave and apse is heavily eroded; headstone marks burial in apse

Fig. A12 Fallen headstone at north-west corner of apse

Fig. A13 Internal façade of apse

Fig. A14 Internal façade of apse

Fig. A15 Internal façade of apse

Fig. A16 South wall of nave, viewed from apse

Fig. A17 Grave markers on south wall of apse

Fig. A18 Inner face of south wall of apse

Fig. A19 West wall of nave (inner face) at junction with tower

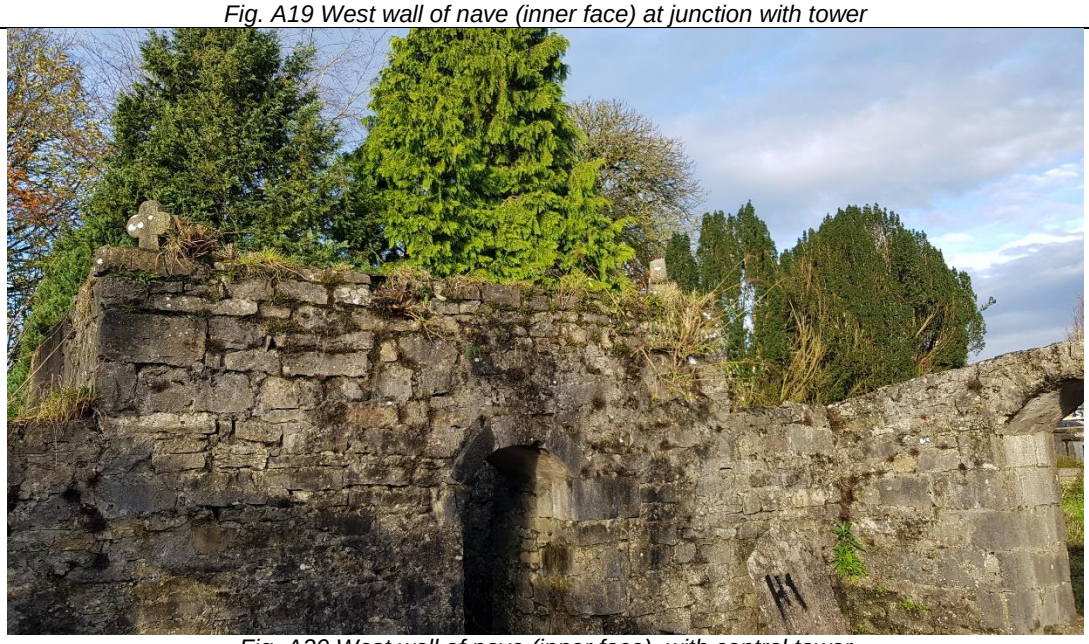

Fig. A20 West wall of nave (inner face), with central tower

Fig. A21 Opening from nave into tower

Fig. A22 East wall of tower with opening to nave

A23 Floor of tower, with terra cotta tiles and sandstone flags

Fig. A24 Interior of rectangular tower, south wall

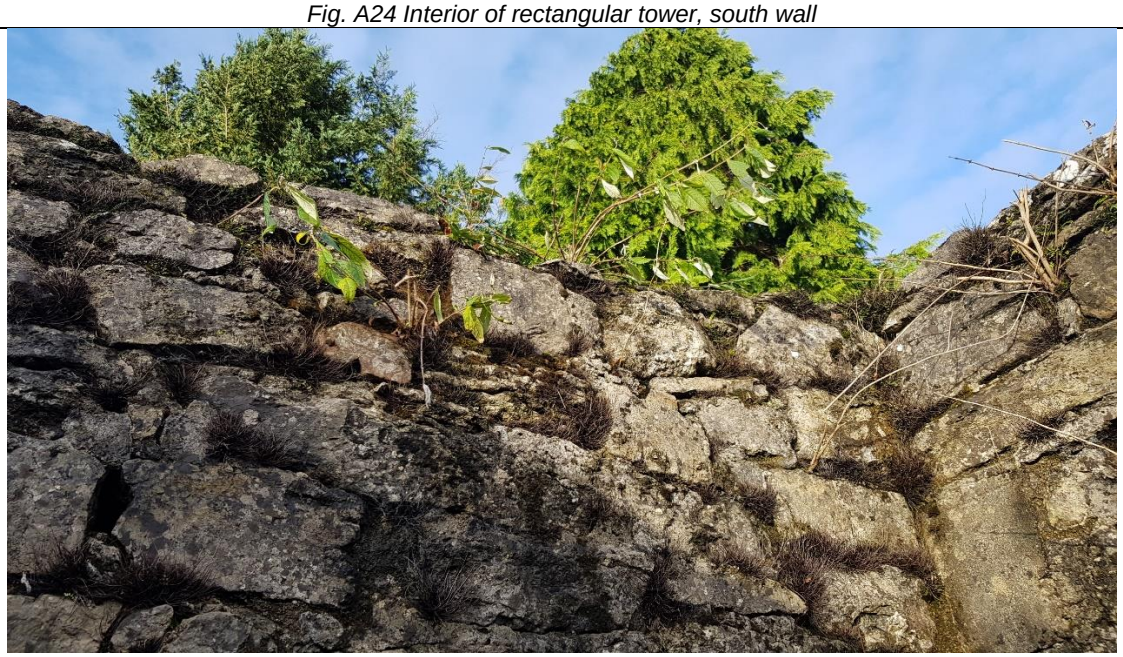

Fig. A25 Interior of tower, north-west corner

Fig. A26 South external wall of cathedral ruin, with chapter ruin in foreground

Fig. A27 Interior of chapter room ruin, looking south towards Goldsmith Family memorial

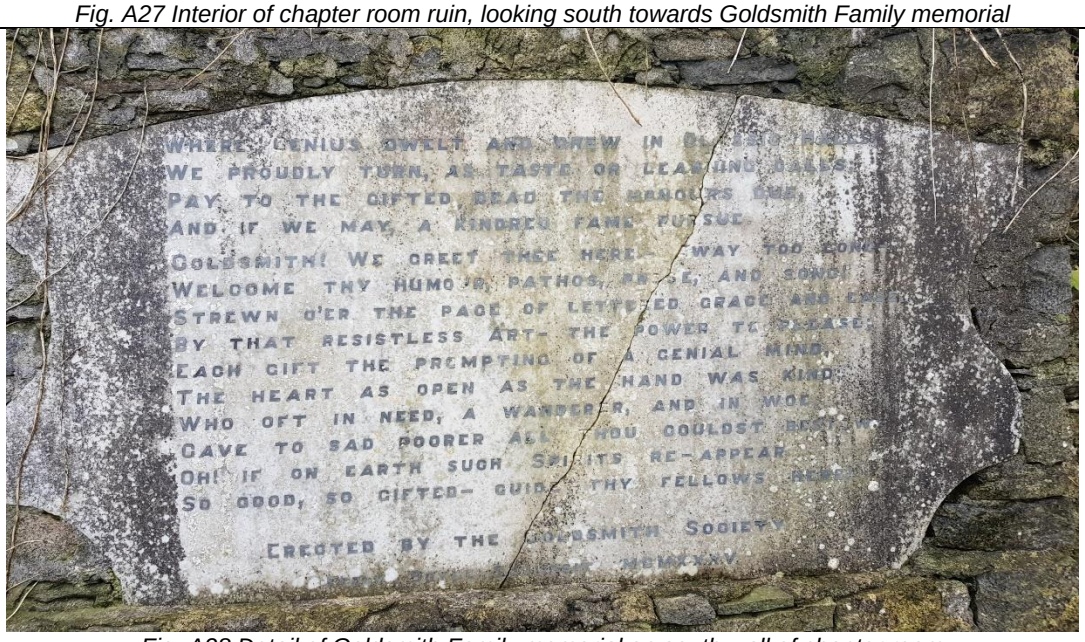

Fig. A28 Detail of Goldsmith Family memorial on south wall of chapter room

Fig. A29 Inner face of west wall of chapter room

Fig. A30 North-west corner of chapter room, with opening into nave

Fig. A31 Inner face of east wall of chapter room

Fig. A32 North façade of nave, looking west towards tower

Fig. A33 North façade of nave, looking east towards apse

Fig. A34 Detail of north façade, with surviving window reveal (at north-east corner of nave)

Fig. A35 External façade of apse

Fig. A36 External façade of apse

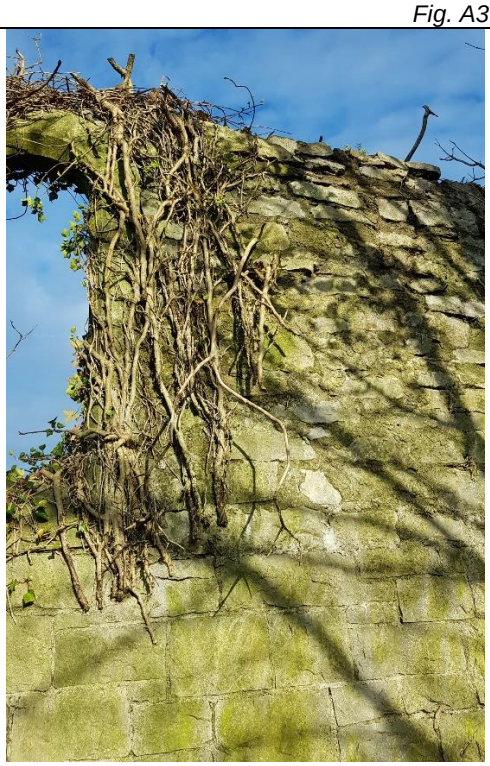

Fig. A37 Detail of external façade of apse (south side)

Fig, A38 External steps to crypt beneath nave

Fig. A39 Detail of south façade of nave, looking east towards apse

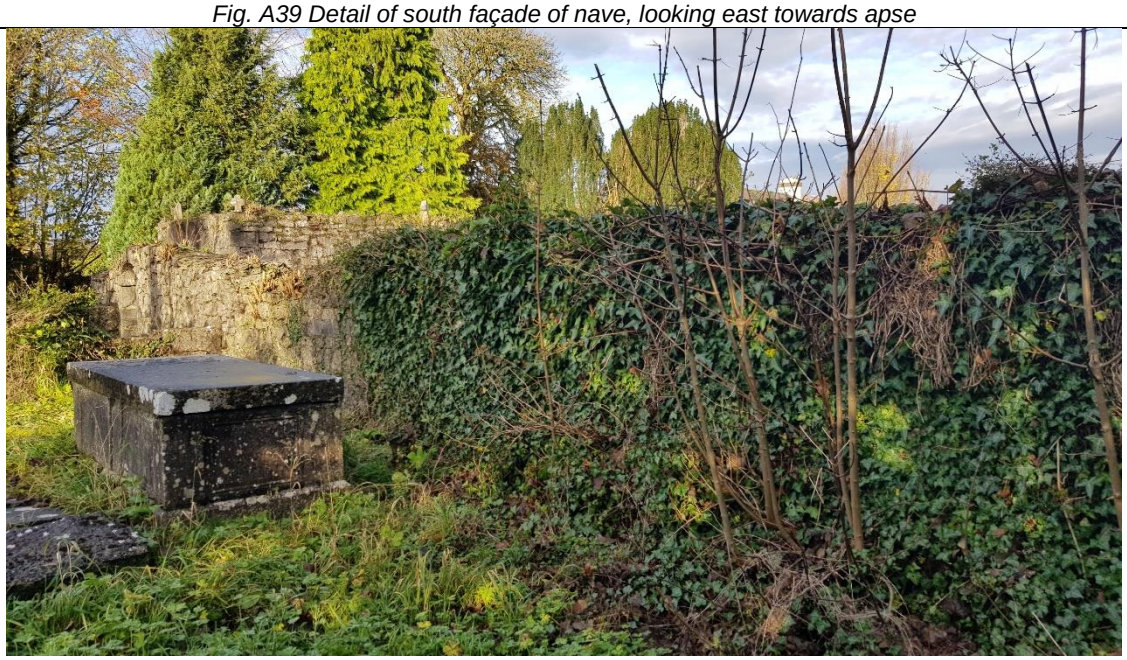

Fig. A40 South façade of nave, looking west towards chapter room; with mature saplings growing out of base of facade

Fig. A41 Mature buddleia plant rooted in top of south external wall of nave; branches have been cut back

Fig. A42 South façade of nave, looking east towards apse

Fig. A43 East façade of chapter room, heavily overgrown with vegetation

Fig. A44 Mature woody vegetation (branches recently cut back) on south gable of chapter room

Fig. A45 South-west corner of chapter room, looking north towards nave and tower

Fig. A46 West façade of chapter room

Fig. A47 Top of south external wall of nave, looking east towards apse (chapter room on left)

Fig. 48 South-west corner of tower, with lined and ruled external render, and relocated finials at corners

Fig. A49 Base of south façade of tower, looking east towards nave and chapter room

Fig. 50 West façade of truncated tower, with relocated stone finials at each corner

Fig. 51 West façade of nave, with tower on right