

**Archaeological excavation  
of a rock ledge  
above the Upper Lighthouse station,  
Skellig Michael, Co. Kerry.**

***Ministerial Consent No. C0001210. Licence Nos. E005529, R000617***



**Archaeological Projects Ltd.**  
archaeological consultants & contractors - since 1989  
*Alan R. Hayden - November 2023.*

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## Introduction

The island of Skellig Michael (townland *Sceilg Mhichíl*) lies 11.6km off Bolus Head, the westernmost tip of the Iveragh Peninsula, Co. Kerry (SMR: KE 104A-001; National Grid Reference 024812 060654). The island, which is approximately 21.9 hectares in area, is owned by the Minister for Housing, Local Government and Heritage on behalf of the Irish people, with the exception of the lower lighthouse station, the helipad and adjacent store which are owned by the Commissioners of Irish Lights (CIL). Skellig Michael is a National Monument in state ownership, the preservation of which is a matter of national importance by reason of its historical, architectural, artistic or archaeological interest.

The entire island was inscribed on the UNESCO World Heritage List in 1996 in recognition of the outstanding universal significance of its cultural landscape and the importance of its protection to the highest international standards.

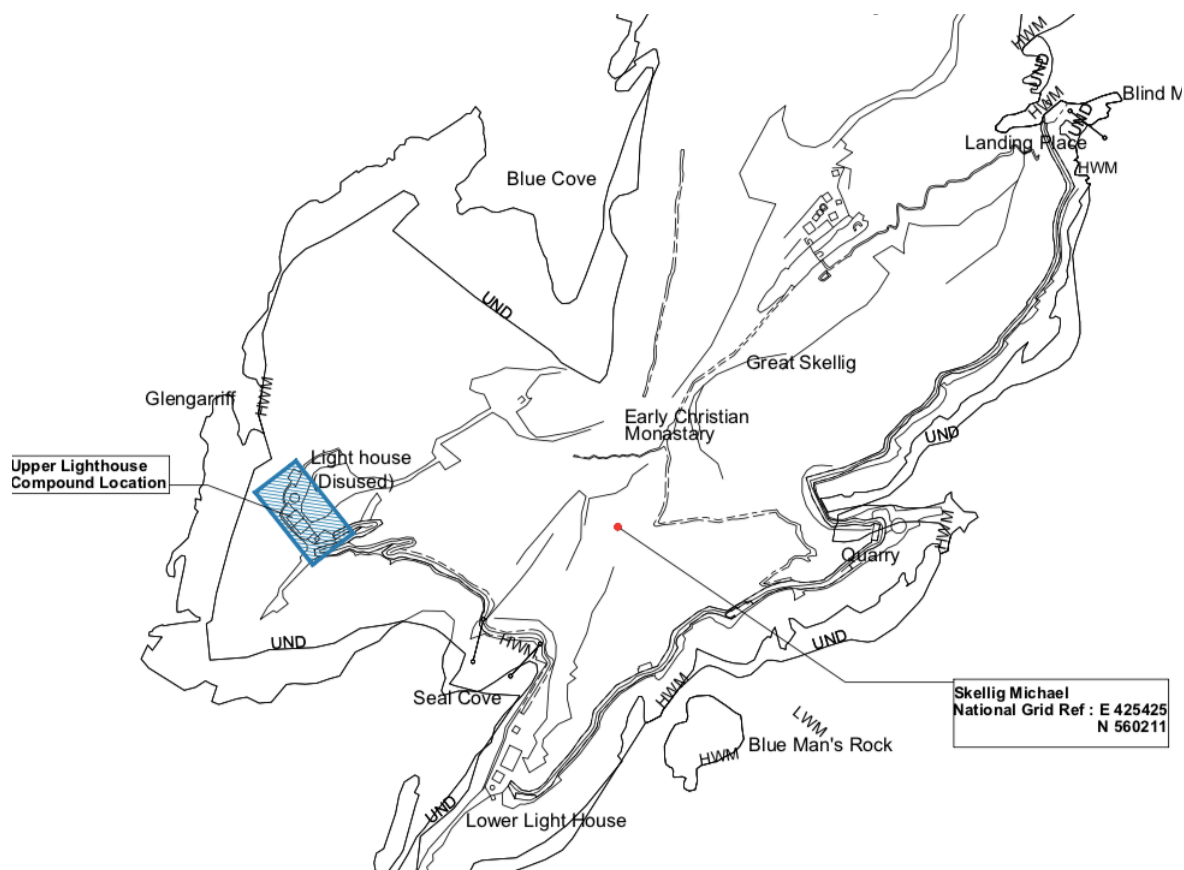


Fig. 1. The location of the Upper Lighthouse Station on Skellig Michael.

On present evidence the monastery on Skellig Michael was founded in the seventh century and remained in the hands of the Augustinian monks until 1578, when, as a result of the Desmond Rebellion, Queen Elizabeth I dissolved certain monasteries that were under the protection of the earl of Desmond. The Skellig islands thus passed into secular hands and

eventually to the Butler family. Although the monastery ceased to exist, the island continued to be used as a place of pilgrimage.

In the early 1820s the Corporation for Preserving and Improving the Port of Dublin (the predecessor of the Commissioners of Irish Lights) purchased Skellig Michael from John Butler of Waterville under a compulsory purchase order for the purpose of erecting two lighthouses on the Atlantic side. These were made accessible by an improved landing on the east side and a road that was blasted out on the precipitous southern and western sides of the island. During the period of construction, the lighthouse-builders occupied many of the beehive cells within the monastery, and the structural modifications carried out at this time have had a significant impact on areas of the monastic settlement. Both lighthouses and their associated domestic quarters were completed by 1826. The upper lighthouse went out of use in 1870 but the lower lighthouse was continuously manned until it was automated in May 1987.

### **The History of the Lighthouse Occupation of the Island**

The writer and Megan Willingham have undertaken extensive research on the lighthouses on Skellig Michael. This included interviews with former Skellig keepers, painters, workmen, boatmen and lifeboatmen, lighthouse enthusiasts and researchers, survey and analysis of the 470 items (so far) of lighthouse-era graffiti on the rock, research in the NLI, PRO, NMM, IAA and the archives of the Commissioners of Irish Lights. Both published and online material- including census data, births, deaths and marriages, very extensive newspaper archives and lighthouse archives- were also thoroughly researched. The work also led to the discovery of a quite a number of original and unique Skellig lighthouse documents which survived in Kerry and which were previously unknown. Apart from the records we have found, the records previously kept in the lighthouse on Skellig were unfortunately all burnt in the late 1960s. Apart from 3 volumes we found, those from the shore dwellings in Knightstown have disappeared and most if not all of the duplicates of these records which were sent to Dublin quarterly by the principle keepers from the Lighthouse and the Shore Dwellings appear to have been burnt in the Baily Lighthouse in 1997. This means the surviving documents are of real significance and they include the very last logbook from the Skellig Lighthouse containing the sign off by the final keeper on watch the day they left and the lighthouse was automated.

Our research has shed a great deal of light on the history and development of the lighthouses and their associated structures. It also has much to tell about incidents and accidents and the lives and deaths of the keepers, their families and relatives who lived with them on the rock until 1901 and in the shore dwellings in Valentia from 1901-1963, and about the visitors to the island and the workmen, painters, seamen, inspectors, boatmen etc. who worked on the rock until the lighthouse was automated in 1987. The results of this research are vital to the interpretation and understanding of the surviving lighthouse structures, including those which have been excavated. However, as yet this research has received no public funding and so remains outside the public domain. As a result, the historical account given below is taken from the CIL website (<https://www.irishlights.ie/tourism/our-lighthouses/skelligs-rock.aspx>) as, although brief, it contains the most detailed account currently available. Unfortunately, this material is unreferenced, often inconsistent and not always accurate and is missing a lot of surviving information.

### ***A Brief History of the Skellig Lighthouse (abridged from CIL website)***

Early in 1818 Maurice Fitzgerald, Knight of Kerry, wrote to the Board of the Corporation for Preserving and Improving the Port of Dublin reminding them that over twenty years previously the Grand Jury of the County of Kerry had looked for a lighthouse to be built on Bray Head, Valentia Island, which had been agreed but work was suspended until the opinion of Trinity House was sought. Fitzgerald also informed the Board of the loss of two merchant ships in Dingle and Ballinskelligs Bays both for the want of a light between Loop Head and Cape Clear Island. The Corporation informed Fitzgerald that the subject would be looked into.

Eighteen months later, the Inspector of Works and Inspector of Lighthouses, George Halpin (senior), made a report to the Board, in which he recommended Great Skellig rock instead of Bray Head as the best position for two lighthouses. His reason for two lights was to avoid confusion with the fixed light at Loop Head to the north and the flashing light on Cape Clear Island to the south. The Board agreed and Trinity House was informed. They queried the size of Great Skellig but sanctioned the project in November 1820. The Board then approached Mr. J. Butler of Waterville, Co. Kerry seeking the terms on which he would lease Great Skellig Rock forever. He replied the following month stating that he would require a rent of £30 per annum for the 986 years left on his own lease. He hoped that it was not too extravagant as theretofore both he and his fathers had been paid a rent of 16 to 18 stone of puffin feathers, which would rear 100 sheep in summer and 50 in winter. He also mentioned he was prepared to leave the valuation to any fair person. By March the Board agreed to pay £30 per annum but would prefer the purchase of the rock. The Law Agent meanwhile had been checking up on Butler and was not satisfied with his powers to sell or lease the island and in May recommended an inquisition, which was held in Tralee in July where a value of £780 was placed on the rock. This amount was paid into the Butler estate in November 1821.

Construction work on the rock appears to have started in August 1821. The buildings, rock cutting and roadways were designed by George Halpin who was inspector of Lighthouses from 1810 until his death in 1854. In his long career he was responsible for the design and construction of over 50 lighthouses. The works were carried out under his direction by workmen of the Board, probably also using local contractors. Unfortunately, few details survive of the construction of the lighthouse and approach road

During the five and a half years of construction, Inspector Halpin made three brief reports and in each he emphasised the difficulties with which he had to contend. By April 1823, the roads were being cut and prepared. By March 1824 work had not yet started on building the stations but by late January 1826 the Lower Lighthouse was built and ready to receive its lantern but work had not commenced on the Upper Station. Halpin expressed hope that the conditions in the spring to autumn would be favourable so that the lights could be exhibited before winter set in. By August the lights were almost complete and the Ballast Board ordered the Inspector to issue a Notice to Mariners stating the lights would be exhibited on Monday 4th December 1826. The cost of the whole operation was £45,721:5s 10d and finishing work went on for the best part of another year.

Two incidences are recorded in the Board's minutes from the period. The first occurred in December 1821 when Mr. Hill's sloop *John Francis* was burnt off Portmagee whilst conveying materials to the rock. Hill looked for compensation but the Board declined to pay. The other was more serious and happened on the 16th November 1825 when one of the

labourers Peter Cane<sup>1</sup> was killed during a rock blasting operation. His wife submitted a petition the following February pointing out her distress, so the Board awarded her a pension of £6 per annum and £3 for each of her children by her husband under the age of sixteen.

The lights were fixed, first order catoptric, each using Argand oil lamps and parabolic reflectors. The upper light was 372 feet (121.3m) above high water and could be seen at a distance of 25 miles (40.2km) in clear weather, the lower light was 175 feet (53.3m) above high water and could be seen for 18 miles (29km). Each tower was approximately 48 feet (14.6m) overall height and they were 745 feet (227m) apart. The tower and dwellings were painted white.

During the winter of 1845-46 rape seed oil was tried by the Service and found to be better than sperm oil. It was generally introduced and by 1849 the two Skellig lights benefited from the change.

Wooden divisions were added to one or two bedrooms in 1862 to give more privacy for the younger members of the families. The website does not specify to which Station this refers.

In April 1865, the Principal Keeper (PK) of the upper station complained that he had been cruelly beaten up by the PK of the lower station. They were summoned by the Board and the 'lower' PK, who had a drink problem, was dismissed.

When Inishtearaght, the most westerly island of the Blaskets, 22 miles (35.4km) north of Skellig rocks, was established on 1st May 1870, the upper light of Skellig was discontinued.

Towards the end of 1889, the parish priest of Caherciveen claimed, in the interest of the Roman Catholic Church, that the Keepers who since 1880 had been appointed caretakers by the Board of Works of the national monuments on Great Skellig, should be of faith and desired that the present Protestant keepers should be replaced. The Board ordered that the reverend gentleman be informed that they cannot accede to his request but assured him every care is being taken of the monuments.

A minute was read to the Board on 3rd April 1869 from W. Callaghan, PK of the lower station requesting removal to another station stating he had buried two of his children on the rock and another was lying ill. It was noted by the Inspector but the request was not immediately carried out. St Michael's Church holds the graves of the two children, Patrick, aged 2 who died in December 1868 and William, aged 4 who died in March 1869.

A block of eight shore dwellings for the Keepers and families of Skellig and Inishtearaght were built at Knightstown, Valentia Island, at the turn of the century by Mr W.H. Jones of Dunmanway for £7,570. The Keepers took up residence in 1901 and both Skellig and Inishtearaght became relieving from Valentia Harbour. Times change, Keepers preferred, quite naturally, to live in their own homes and the Knightstown dwellings were sold in 1964.

A proposal by the Engineer, Mr C.W. Scott in 1904 to build a new and more powerful light on the projecting spur of rock below and to the west of the disused Upper Station (where the fog signal stands today) got as far as a detailed survey being made during the summer of 1905. It was discussed with new lighthouse works (1906-07) at conference level in London but the end result, after Captains Brederic (Board of Trade), Clare, and Blake (Trinity House) had visited Great Skellig in July 1906, was a decision to improve the light in the existing tower and establish an explosive fog signal on the western spur.

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<sup>1</sup> In fact his name was Peter Keane (pronounced "Cane" in Kerry) and we have spoken with his direct descendants who still live in Caherciveen.

in April 1907 Trinity House and the Board of Trade sanctioned a triple flashing third order light and an explosive fog signal 3 quick reports every 10 minutes. Chance Brothers of Birmingham supplied the optic and pedestal and David Brown of Leeds the rotation machine. The new 120,000 candelas light, using a vapourised paraffin incandescent burner was established on 22nd December 1909 with a character of 3 quick flashes every 10 seconds.

The pitched roof of the lower house was replaced with a flat concrete roof in c.1910.

An automatic fog signal was established on 13th June 1914, but difficulties were experienced so it was temporarily discontinued in July, checked both on the rock and at sea and was re-established by 9th December. On the Inspecting Committee's recommendation in 1919, the automatic fog signal machinery was removed and the signal operated manually. The character was altered to one report every six minutes from 1st June 1934 and from 1940 until 1948 the signal was discontinued.

Two severe rock slides, between the lower station and the fog signal, occurred in November 1953 and were sufficient to cause a Notice to Mariners to be issued stating the signal would be out of action until further notice. Consideration was given and the sanction obtained for a fog signal firing house on the balcony of the tower but the Inspecting Committee on Tour in 1959, realising that there had been no requests from mariners for the re-establishment of the fog signal, recommended that it should be discontinued. By August 1960 a Notice to Mariners stated that the fog signal was permanently discontinued.

For their help in rescuing two boatloads of survivors from the SS Marina early in November 1916, the three keepers were awarded £1 each from the Board of Trade and one guinea each from the owners of the Marina. During the 1939-45 war, an aircraft crashed, exploded and fell in flames into the sea off the north side of the rock on 27th February 1944. A search by Keepers and a British aircraft found neither survivors nor wreckage.

The 1962 Inspecting Committee on Tour recommended the modernisation of Skellig lower lighthouse. This also entailed replacing the hand operated derrick crane at Cross Cove by a diesel driven derrick; a complete overhaul of the dwellings for both tradesmen and Keepers including electric light, central heating, bathroom and WC and an office for the Principal Keeper, increased storage capacity for diesel fuel oil and fresh water; demolishing the 1826 tower and the 1924 connecting corridor to the dwelling and building a new tower and adjoining engine room. The 1909 Chance Brothers optic and pedestal was retained and converted to electric with a 3KW 100V lamp replacing the vapourised paraffin mantles and driven by a ¼ h.p. (185W) electric motor. A temporary light was mounted and exhibited from the spur of rock close to the old tower from 24th May 1966 until the 1,800,000 candelas light came into operation on the 25th May 1967. The 40-foot (12.2m) tower and dwellings are painted white. The whole operation took just over two years and the cost almost £49,000. The Engineer-in-Chief, Mr A.D.H. Martin, was responsible for the design of the tower and engine room and also for the modernisation of the dwellings.

Fortnightly reliefs by helicopter took over from the Service Steamer out of Castletownbere in November 1969 and a reinforced concrete landing pad was built on the rock near the diesel derrick at Cross Cove.

One of the recommendations of the 1978 Inspecting Committee on Tour was that the Development Committee gave consideration to the unmanned and automating of Fastnet and Skelligs after 1982. This they did in March 1981 and both the Engineer-in-Chief, Mr N.D. Clotworthy, and the Inspector and Marine Superintendent, Captain H.N. Greenlee, in their reports agreed that automation was possible but were conscious of security and vandalism. Work went ahead from 1985 with new generating sets, 1 kW metal arc lamps for the optic,

remote control and monitoring link via Knockgour to Castletownbere Helicopter Base and Irish Lights Office and of course, security fencing and gates strategically placed to prevent trespassing. Keepers were withdrawn and the station became automated on 22nd April 1987.

Two Keepers lost their lives on Great Skellig. The first was Michael Wishart who was one of the Keepers removed from Tuskar in 1821 for his indirect involvement in a smuggling episode; he fell to his death at Skelligs whilst, according to Commissioner Robert Callwell but not in the Board's minutes, cutting grass for his cow. The second was more recent when Seamus Rohu (whose carved his name on the parapet wall at the Lower Lighthouse) was reported missing on 22nd August 1956; his comrades and others searched the rock and the Valentia lifeboat and the Service Steamer Valonia searched the sea in vain.

Prior to the advent of the radio telephone the Keepers relied on semaphore signalling, with a pair of long handled bats, to Bull Rock 16 miles (25.5km) away. The signaller positioned himself in front of a large whitewashed patch of vertical rock or wall and a keeper on Bull Rock read the message through a telescope and he in turn would semaphore to shore via Dursey Island.

### **Archaeological Excavations of Lighthouse-Era Material on Skellig**

The 1986-2003 archaeological excavations in the monastery and to a lesser extent those on the South Peak from 2004 to 2010 and surveying and recording elsewhere on the island uncovered and identified lighthouse-era structures and deposits (see the various reports in Bourke, Hayden and Lynch 2011). In the monastery and on the steps leading to it earlier interventions were undertaken by CIL masons and by the keepers themselves (successive PKs were appointed caretaker by the OPW from the 1880s) working on behalf of the OPW. While we know of some of the walls rebuilt full details of this early work are lacking.

In 2010 the large lighthouse terrace ledge containing a building beside the Wailing Woman ledge was excavated by Martin Reid of the NMS but no report has yet been compiled on this work.

Archaeological monitoring of minor repairs after rockfalls to the Lower Lighthouse Roadway, to allow additional lengths of protective canopy to be erected, to allow three, new, all-metal crash decks to be erected and to facilitate other minor interventions were undertaken by the writer in 2016 (Hayden 2016; 2106a) and 2022 (Hayden 2022a; 2022b; 2022c).

### **Archaeological Excavations of the Upper Lighthouse Roadway and Upper Lighthouse Station**

Larger scale excavation and conservation work was undertaken from 2017 to 2020 on the Upper Lighthouse Roadway (Hayden 2017; 2018; 2019; 2020) and in subsequent years works were undertaken in the Upper lighthouse station itself (Hayden 2021; 2022; 2023) (fig. 2).

The Upper Station was constructed on two linked terraces, North and South, blasted from the rock on their inner sides and supported and defined by masonry walls on the outer. The South Terrace, which holds the remains of the main buildings of the Upper Station was almost completely excavated in 2021 (Hayden 2021), apart from three small areas which were excavated in 2022 (Hayden 2022). Its outer wall was surveyed and conserved in 2023 (Hayden 2023). To date no works have been undertaken on the long narrow North Terrace. The 1830s OS first edition map (fig. 3) shows a building at its north end, but it is not visible today. There are several graffiti names on this terrace and in the lighthouse tower itself.





Fig. 2. The Excavated part of the Upper Lighthouse station.

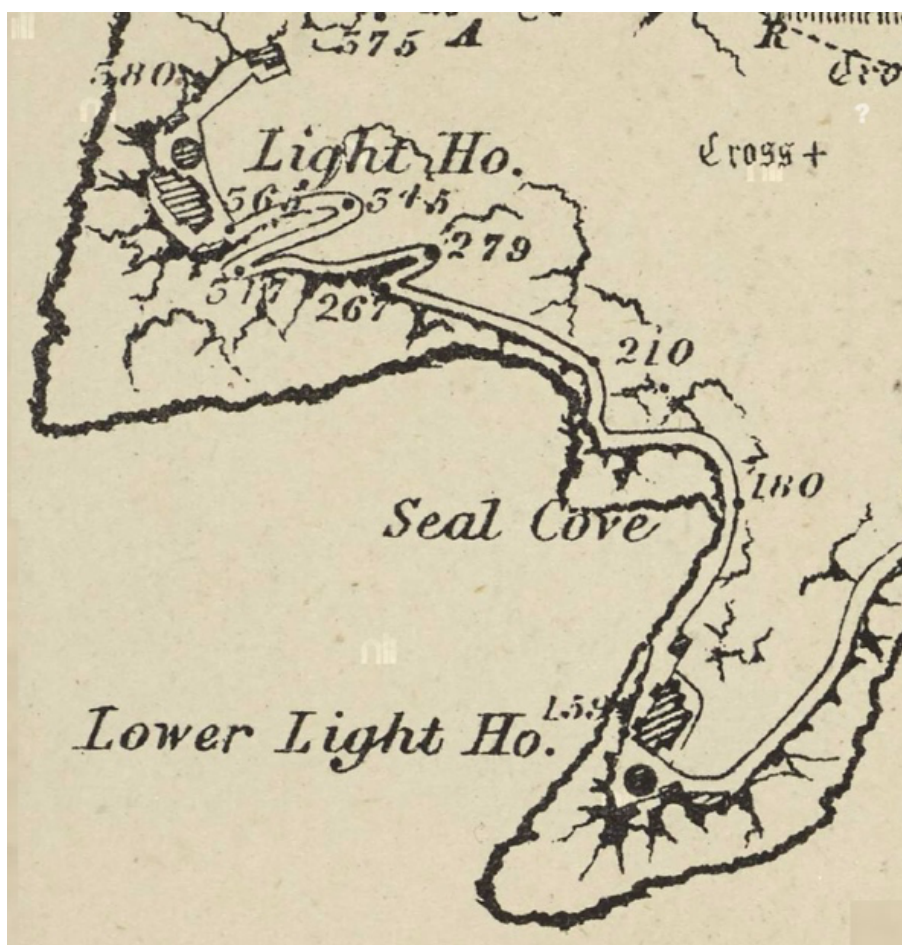


Fig. 3. OS first edition map of the Lower Lighthouse station, Upper Lighthouse roadway and Upper Lighthouse Station.





*Fig. 4. Aerial photograph showing the location of the excavated ledge.*

### **The 2023 excavation**

Historical research by the writer has revealed that there were a significant number of people on the rock at times during the lighthouse occupation in the nineteenth century; including up to twelve women at one stage. In the Upper Station extra accommodation was created by the building of a small room equipped with a fireplace beside the coal shed close to the lighthouse tower. A long drop toilet, which has largely collapsed away appears to have been built against the opposite end of the coal store for the inhabitant of this room. (fig. 5)

Beyond this toilet there is a flat topped rock spur that measures approx. 5m by 3m across which protrudes outside the line of the northern terrace of the station (figs. 4 & 5). There was evident cultural material on this ledge in the form of coal and brick fragments which has been brought to the surface by burrowing puffins and rabbits, suggesting this area was used for rubbish disposal, possibly by the inhabitant of the added room during the period the Upper Lighthouse station was occupied. The two main dwellings were each quipped with a rubbish chute in the terrace wall outside the back door of the house so rubbish could be disposed of over the cliff.

The writer had previously highlighted that the ledge was exposed and the burrowing animals and birds were actively removing material from the area and exposing it to erosion.

The National Monuments Service commissioned the writer to undertake the excavation of this ledge in 2023 to recover any cultural objects that might survive.

The excavation work was undertaken over the week from the 28<sup>th</sup> of August to the 1<sup>st</sup> of September 2023.

The OPW rope access supervisor, Brendan O'Connor provided safety ropes for the work ,as the site lay atop high cliffs and lacked edge protection. The work was not in any way challenging nor difficult to undertake.

The OPW Ecological Clerk of Works, Brian Power surveyed the site before work was undertaken and monitored the excavation work to ensure no birds were disturbed.



A thickness of 100-300mm of loose silty soil containing coal fragments, tiny pieces of red brick and ash survived beneath a thin and patchy sea campion cover on the rock of the ledge (fig. 6). There was no stratification in the material which was heavily burrowed through by birds and rabbits. There were several open burrows present which were examined by the Ecological Clerk of Works who found that none were active.

The hand excavated soil was stockpiled inside the wall on the northern terrace where it was sieved before being replaced on the ledge.



*Fig. 5. The site before excavation .The person in the viz vest is standing in the small room which was the additional accommodation. The coal store is to its right and the remains of a toilet lies to its right with the excavated rock spur to its right again.*





*Fig. 6. Close up of the site during excavation showing the shallow depth of the soil cover.*

### **The Finds**

In addition to fragments of coal and tiny fragments of red brick (which were not retained) a small assemblage of nineteenth-century glass and ceramics was recovered from the excavated soil.



*Fig. 7. The finds uncovered. (1) Fragment of window glass, (2) fragment of lantern glass, (3) sherds of glass bottle / phial, (4) sherd of teacup rim, (5) sherd of bowl rim and (6) sherd of stoneware storage vessel.*

***List of finds uncovered***

- (1) fragment of window glass, 2mm thickness.
- (2) fragment of lantern glass, 8mm thickness.
- (3) body sherds of glass bottle / phial.
- (4) rim sherd of teacup.
- (5) rim sherd of bowl.
- (6) body sherd of stoneware storage vessel.

The sherd of window glass and the sherd of heavier lantern glass were of the same thickness as fragments previously uncovered on the site. The shed of lantern glass may have been disposed of when the site was still active but equally could have derived from the time the lantern collapsed (at some between 1932 and the early 1960s) which spread lantern glass over a wide area of the site.

The glass vessel and ceramics were a mixture of table and kitchen wares.

**Conclusions**

The previous excavations on the site uncovered but a small range of domestic objects as in the Upper Station rubbish was disposed of over the cliff via two rubbish chutes at the back of the two main dwellings. The lighthouse authorities were also most strict about maintaining the cleanliness and orderliness of the stations.

No doubt more objects were originally disposed of in the area recently excavated but were previously lost to erosion over the many years since the area was abandoned.

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