

**Restoration
of
Martello Tower and Site
at
Tara Hill, Killiney
Co. Dublin, Ireland**





Culture



**EUROPEAN UNION PRIZE FOR CULTURAL HERITAGE/
EUROPA NOSTRA AWARDS 2014**

ENTRY FORM CATEGORY 1- CONSERVATION

The form should constitute part of a detailed entry dossier and be submitted by **9 September 2013 (date of sending)** to: Elena Bianchi, Heritage Awards Coordinator, Lange Voorhout 35, NL - 2514 EC Den Haag, The Netherlands

Please FILL OUT in **English**, PRINT, SIGN and SEND

Title of the project (original language and translation. Max. 60 characters)

Title in original language: [English] **Restoration of Martello Tower and Site, Tara Hill, Killiney**

Title in English: [French] **Restauration du tour Martello & du site, Tara Hill, Killiney**

Name and complete address of the building / site / work of art

**Martello Tower No.7 (Dublin South)
Killiney Hill Road
Killiney
Co. Dublin
Ireland**

GPS co-ordinates of the building / site / work of art
(Decimal Latitude and Decimal Longitude separated by a comma. The degree symbol can be omitted.
For example: 37.975258, 23.736633)

53.256417468298125.-6.118193864822388

Former and new use of the building, if applicable

1804-1910 Martello Tower in possession of Military (leased out from 1897)
1910-1987 Rates Office, Storage and Dump in possession of the local authority
Killiney & Ballybrack UDC **1910-1930**
Dún Laoghaire Borough Corporation **1930-1987**
1987-1996 Privately owned (1st private owner)
1996 - Privately owned (2nd & current private owner)

1996 – 2000 initial historical research
2001 – 2011 works in restoration to former state of Martello Tower,
Battery, Coachhouse & Gunner's cottage

Type (check one only as applicable)

- Building conservation
- Archaeology / sub-marine archaeology
- Building Conservation areas and urban design
- Landscape, historic parks and gardens
- Works of art and collections
- Other (please specify) **Reinstatement and preservation of listed historic fortification.**

Brief description of the conservation work (max. 150 words)

Martello Tower No. 7, Killiney, Co. Dublin, Ireland, was built by the British in 1804/5 as part of an integrated system of defences in Dublin Bay, and more particularly Killiney Bay, against an expected seaborne invasion by the French.

It retained its military significance into the second half of the nineteenth century, after which it was decommissioned and sold to the local authority. It remained in local authority ownership until 1987. The site was used as a store and dump, and its condition was deteriorating all the time. It was bought by a (2nd) private owner in 1996 who has since restored the tower and most of its ancillary buildings to their original condition. He has also installed a working cannon on the crown of the tower.

Start and completion date of the project (completion date between August 2010 and August 2013)

The project commenced in 1996 when the current owner purchased the site and started intensively researching its background and how it might be restored. Actual physical works commenced in 2001. The cannon was inaugurated at an invitation only event on 12 July 2008 and the current phase of the restoration was completed for opening to the public during National Heritage Week, August 2010.

There are some further works needed to complete the full restoration of the whole site which may be undertaken in the near future depending on availability of finance. Planning permission is currently extended to 2015..

Entrant

Name (title - first name - last name) **Mr. Niall O'Donoghue**

Function **Owner**

Organisation **Private Individual**

Address (Street name and number- postal code- town-country)

**Martello Tower No. 7
Killiney Hill Road
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Co. Dublin
Ireland**

Email **niall.tower@iol.ie**

Telephone **+35312350777**

Mobile phone **+353872885522**

Website **<http://photopol.com/martello/no7.html>**

Owner

Name (title - first name - last name) **Mr. Niall O'Donoghue**

Function **Owner**

Organisation **Private Individual**

Address (Street name and number- postal code- town-country)

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Project leader

Name (title - first name - last name) **Mr. Niall O'Donoghue**

Function **Owner**

Organisation **Private Individual**

Address (Street name and number- postal code- town-country)

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Other participants (Name - title/first name/last name-, organisation and role in the project)

The project was conceived, owned, managed, overseen and funded exclusively by one private individual, Mr. Niall O'Donoghue, so, strictly speaking there were not other partners, in the sense of other individuals or organisations with a stake (financial or otherwise) in the project.

There were, of course, a significant number of advisors, researchers, and suppliers/contractors involved in the execution of the project, including National Government, the Local Authority and the Police (in relation to various permissions and supervision of the firing of the cannon). It is estimated that, overall, there were some 250 people involved in the project, one way or another. So any mentions below will have to be very selective.

The following are some of those who had major inputs into the development of the project.

Paul Kerrigan, architect and Martello Tower expert, scoping and advising on the project.

Doug and Sylvia Rogers, retired international bank auditor and his wife, extensive research in UK and other archives.

Martin Bibbings, UK cannon specialist, organised the provision of the cannon and carriage. (now retired)

Trafalgar Gun Company, project management in cannon module. Procurement of draughting, foundry and proofing facilities on a turnkey basis

Mainmast Conservation, specialists in armaments and fittings for listed fortifications, made the cannon's traversing carriage.

Nick Hall, Royal Armouries, permitted copying of King George 3rd Blomfield cannon & allowed the proofing of the cannon there as well

Brian Miller, gunner, training in gunnery, authorising Niall's gunnery certificate.

Roger Hancox, Birmingham Proof Master, proofing the cannon

Pól Ó Duibhir, local historian, photographer and webmaster, provided some initial research, runs the Tower's website, and photographs progress in the restoration.

There were also inputs in the following categories:

Archaeologists, Architects, ,Researchers, Ordnance Specialists, Rubbish/material removal experts, Stonemasons, Sculptor, Carpenters, Electricians, Officials in the Government, Department of Justice, the Dún Laoghaire-Rathdown County Council, and the Garda, Síochána (civil police) .

Concise summary

The summary should cover: aims of the project and its results, partners involved, implementation, budgetary constraints, phases of development, funding arrangements, approximate total cost, and the qualities which make it outstanding in a European context.

1 page only

Aims: the aim was to restore the Martello Tower, Battery and related buildings to as near their original state as proved feasible in the context of the availability (or unavailability in this case) of plans and finance, and subject to environmental, traffic, health and safety considerations. A further aim was to awaken a national interest in the Martello Towers as an integrated defensive system which had been lacking so far and to draw the attention of various sectors (educational, historical, environmental, military) to the existence of a significant national heritage resource, which has not been developed, and which, if further neglected would pre-empt the possibility of future meaningful development.

Results: to date, these have been beyond expectations. The restoration has been admired as a magnificent piece of work. The local authority has now embarked on plans for restoration of other emplacements in the network: These developments all arise out of the pathbreaking work undertaken in the restoration of Tower No.7. Various groups have visited the tower, ranging from the Scouts to the International Fortress Study Group which is a major player in the study and publishing of these type of emplacements worldwide. In the course of their visits, the County Manager, County Heritage Officer, a number of ambassadors, planners and historians, have all commented favourably on the restoration, some of them being astounded at it. The Dublin coastal Local Authorities have published a book, referred to elsewhere, drawing heavily on the research done for this project.

Partners: the project has been undertaken by a single private individual. Involvement of various parties is flagged or described in the previous and later sections.

Budgetary constraints: the currently completed project was achieved within the funding totals available so constraints did not come into play. Additional elements may be undertaken depending on the future availability of funding.

Phases: The principal phase has now been completed. Additional major possibilities include: reconstruction of the detached magazine building and the re-arming of the three gun Battery itself. A number of lesser elements may also be undertaken, depending on finances. These would include: installation of rainwater tank; renovation of interior fireplaces; reinstalling chimney on crown of tower (see photo no.2) ; erection of signalling mast and signals; musket racks and powder barrels; and interpretative centre. Detailed subphases are referred to in *Section D of the Detailed Description* below.

Funding & Cost: The project has been completely privately funded by the owner and the total cost has been approximately €2 million, an apportionment of costs over the different phases is set out in *Section D* below.

Outstanding in European Context: the Martello Tower originated in Corsica and due to its superb defensive qualities was developed by the British from the French concept and subsequently used by them to defend their interests in various European locations. With the fear of a French (Napoléon) invasion of the UK in 1804, the authorities planned to construct a network of towers around Ireland and the south east coast of England. They started in Ireland, and in Dublin in particular, and these mighty towers were constructed in breathtakingly quick time in 1804/5. The location of those in Killiney Bay followed recommendations made in an earlier survey of the Bay's defences, by the French Major La Chaussée, who had fled France after the 1789 Revolution, and was subsequently centrally involved in Royalist plans to invade Brittany from the Royalist base in Jersey (CI). That operation was overseen by Philip Auvergne, the English spymaster who ran a network of agents in France and acted as paymaster to exiled French Royalists. This particular tower is unique in a number of respects which are referred to in the next section.

Detailed description

A - Description of the heritage, including historical background with dates; value and significance; heritage protection status.

Maximum 1000 words

The site consists of a Martello Tower, Battery, Glacis, Guardroom, Coachhouse, Gunner's Cottage (incorporating a Sifting Room), and Magazine. There is also some open yard space, which, during the period when the tower was occupied by the military, also contained a piggery, a privy and a coalshed.

This particular Martello Tower site is unique in a number of respects:

1. unlike other coastal towers, it is an enfilading tower being set back almost half a kilometre from the shore and on an elevation of 76 metres. There were three reasons for this: (i) it has a commanding position over the deepest part of Killiney Bay, which is where Napoléon's fleet was expected to land, (ii) it has a commanding view of the whole southern coastline of Killiney Bay, including the other towers and batteries in the network as far as Bray Head, and (iii) it also commands the (inland) road from the landing position in the Bay to the Capital (Dublin City).
2. Because it is built on a steep slope, there were massive earthworks involved in providing a level firing plain for the Battery, the outer limits of which are protected by a steep glacis. This aspect in particular had serious implications for the restoration effort.
3. It has a guardroom in a lean-to position on the seaward side of the tower, with a dry moat separating it from the battery. This had a specially constructed low pitch slated reinforced roof which echoed the main tower's ability to cope with cannon balls bouncing off the side of the tower. The reconstruction of this guardhouse posed particular difficulties as initially the method of suspension of the roof was not known and there were no plans extant. Evidence from the internal flanking walls and some material discoveries eventually elucidated the method used and this was copied in the reconstruction.

In the context of a possible French seaborne attack of Killiney Bay, the British Commander in Chief, in 1797, commissioned Major La Chaussée (mentioned above) to survey the vulnerability of Bay, identify strengths and weaknesses and make recommendations on short-term defensive works to be undertaken. La Chaussée produced an excellent report with recommendations. We do not know to what extent these were implemented at that time, but an 1802 painting of Killiney Bay by Thomas Sautelle Roberts clearly shows no trees along the length of Killiney Bay as recommended by La Chaussée. His recommendations on locating defensive emplacements were certainly taken on board in the location of the Martello Towers and Batteries in the Bay when these came to be built in 1804 and some additional emplacements were built to intensify the overlapping range of fire and strengthen the defences generally.

The Towers, despite their massive characteristics, were built within a year and a half, with local materials and labour, and under the direction of Major Colonel Benjamin Fisher, Royal Engineers. There was supposedly reliable intelligence in 1804 that Napoléon was about to take to sea. It is thought that other matters on the Continent and the Battle of Trafalgar 1805 led to (indefinite) postponement of the invasion, but, given Napoléon's intelligence gathering capacity, it is not clear if the construction of the Towers played a part in his holding off.

The normal complement of the site would be one officer and 11 NCOs, but in the event of a battle some 15 men per gun would be needed, increasing the complement to a minimum of 60 men.

The military significance of the Towers did not survive beyond the 1880s, though they remained in military ownership into the first decade of the 20th century. Not all the towers and batteries in Killiney Bay survived this long, however, some were demolished (No1 – Esplanade; No 4 – coastal erosion), one fell into the sea (No.3), and one was abandoned shortly after construction (No.5 - battery). Those that remained were sold off by the military to the local authority (No.7) or for residences (Nos. 2, 6 and 8). This diversity of use is reflected in the rest of the emplacements around Dublin Bay, and without the actions currently being taken by the local authorities, inspired by the restoration of No.7, the chances of ever having a representative sample of the network open to the public would have been jeopardised.

Preservation status: in 2000 this was a listed building and in 2001 a protected structure. It is recorded, under the National Monuments Act 1994, in the national Sites and Monuments Record (SMR) as number DU026/011.

Detailed description

B - State of conservation and use of the heritage before the project commenced.

Maximum 1000 words

It would be no exaggeration to say that the site was not in any state of conservation at all when the work commenced in 2001. Niall's obligation to the Council was simply to "preserve the present state" of the site, which meant no further deterioration from its already appalling condition when he bought it.

The tower had gone to rack and ruin. Most of what was metal in the original tower and subsidiary buildings had been disposed of by the military when it was decommissioned. All that remained was the granite structure of the tower itself, dilapidated walls of the guardroom, and virtually none of the subsidiary buildings, which had been demolished by the local authority along the way.

The battery area and glacis were invisible, as both the plain and the space between it and the site boundary wall had been filled with rubbish, and the level of the top of the glacis lowered by almost two metres. In this regard, it should be recalled that some 230 x 20 ton lorryloads of debris etc. were removed during the first stage of renovation/reconstruction. The site was also infested with vermin and neighbours, particularly those on the lower level of the slope, were complaining about the intrusion of rubbish and vermin and the possible use of the "neglected" site by vandals. The site was also completely overgrown. It was considerations such as these which led to the local authority selling the site (ie passing on the problem to the private sector). Absolutely nothing was done with the site between its sale by the local authority to the first purchaser in 1987 and Niall O'Donoghue's purchase of the site from the latter nine years later.

Both the battery and site perimeter walls were in a state of disrepair with whole sections missing.

The original tower door at 2nd floor level had been sealed in 1954 when the tower was used to store 1000 lbs of gelnite and detonators which were being used by the local authority in a major local infrastructure project.

At the time of purchase by the local authority in 1910 a new entrance door had been cut in the wall of the tower at 1st floor level to give "ground level" access from the tower yard. This also involved the local authority removing two and a half steps at the base of the internal granite spiral staircase leading from the 1st to the 2nd floor.

As well as the roof of the guardhouse being gone, so were some of the original musket loops and the "internal" staircase in the guardhouse which led to the second (internal) entrance door to the tower at 1st floor level.

The original military use of the site became obsolete over time for a variety of reasons:

1. The threat of invasion had subsided by 1815 as the French under Admiral Villeneuve had been beaten at sea in the Battle of Trafalgar 1805 and then on land in 1815 when Napoleon was beaten at the Battle of Waterloo and then exiled.
2. Even were there to be a subsequent invasion, advances in cannon technology (shells rather than balls) rendered the tower less effective as a deterrent to invasion and more vulnerable.
3. Faster, steam propelled ironclad ships with more modern ordnance rendered the fixed Towers more susceptible as targets.
4. Nevertheless, in the 1850s the towers were upgraded with improved armaments in response to some later perceived threat.

Eventual piecemeal disposal of the surviving sites by the army made any restoration of them to their original function less likely. Hence the importance of this pathbreaking restoration and the further actions it provoked on the part of the local authority.

Detailed description

C –

- a. scope of the project: aims and objectives;
- b. historical and technical research;
- c. stages of implementation;
- d. design and conservation work carried out;
- e. context in which the project was undertaken;
- f. design and technical problems involved and their chosen solutions both before and during the work;
- g. use of appropriate building and conservation techniques;
- h. use of traditional crafts and skills;
- i use of appropriate materials;
- j. results achieved;
- k. provisions for future use and maintenance;
- l. response to urban or landscape context;
- m. state clearly if any related work still needs to be completed.

Maximum 2000 words

a. scope of the project: aims and objectives;

The original idea was to restore as much of the site as possible to its original use/state, and Niall O'Donoghue being owner, motivator, project manager and funder meant greater flexibility in how the project was defined as it progressed. The ability to define the project flexibly from the outset meant that it could be implemented one module at a time, and, paradoxically, this has led to a more elaborate and complete project than might have been expected at the outset.

Essentially what was involved was: site acquisition, planning and planning approval, site clearance, restoration and construction of tower and buildings, and a completely separate module involving the cannon. This working cannon was specially cast and proofed in England and there followed long negotiations with the authorities to enable its importation and firing on special occasions.

It is worth noting that such firings are accompanied by re-enactments by a troop specialising in this sort of activity.

b. historical and technical research;

This was not easy, not least because the original plans for the towers and batteries had vanished. There are indications in UK PRO Kew that such did exist among the records but it has been impossible, despite very extensive searches in a number of locations both in UK and Ireland, to find them.

At the outset of the planning, there was very little historical information available. The principal source was work by Paul Kerrigan, and Niall O'Donoghue commissioned him, as the foremost expert in the field, in the planning stages of the project. Outside of Kerrigan, the main source of general historical background information on the Towers at the outset was in Sheila Sutcliffe's book which was unreliable when it came to those in Killiney Bay.

Niall, therefore, availed of the services of Doug and Sylvia Rogers, in London, to comb such sources as were available in UK PRO Kew, and in other archival sources, and they turned up a wealth of hitherto unknown material on the Towers.

c. stages of implementation;

The flexibility with which this project was approached and the broad stages involved in its implementation have been referred to above and later in *Section D*.

Preceding the first stage of implementation was the **conception** of restoring the tower. When first mooted, this was greeted with derision and scepticism by those to whom it was mentioned.

The next stage was to **plan** the restoration. Had plans been available this would have been more straightforward, but as things turned out plans were often changed on the fly as, for example, discoveries during the forensic excavation of the site gave clues as to the construction of certain elements of the buildings.

At the outset, clearance had to be got from the various authorities involved. The local authority needed to approve it from a local/environmental/safety point of view. It had also to be approved by the Heritage side of the authority. And a whole separate series of permissions were needed from the National Justice Ministry, the local authority, and the Police, regarding the importation, keeping and firing of the cannon and the arrangements for custody and use of the explosives involved in individual events.

The site then had to be **cleared**. It had previously been used as a dump by the local authority and the tower was used as a store. Buildings added since the time of military use (local authority rates office and Legion of Mary Hall, which hosted local social events) had either been demolished or burned to the ground by the time of private purchase. These would not be restored as they were not relevant to the original military use of the site. However some buildings dating from the time of military occupation of the site (coachhouse, gunner's cottage and magazine) had also been demolished. As these were intended to be included in the reconstructed site, decisions had to be taken on how they would be reconstructed. Guidance was obtained from materials found on the site and from undemolished versions on other sites.

The interior and exterior of the tower had to be **restored**, the guardroom reconstructed, and the gunner's cottage and coachhouse constructed from scratch. As yet the magazine has not been reconstructed and while it is hoped to do this in the future, this is not certain and will depend on availability of funding and other factors.

The **cannon** had to be cast, proofed, imported and set up on site. Special permission was obtained from the curator at Fort Nelson, Portsmouth, to copy an original of that period from the Museum. The casting was arranged by The Trafalgar Gun Company (Martin Bibbings). The traversing carriage was provided by Mainmast Conservation. Multiple official permissions had to be obtained in the course of this phase.

There was a **test firing** on the site, open to invited guests only, in 2008, and there were a number of subsequent firings linked in to various local/national events. The original group of gunners comprised Trafalgar Gun Company UK with Martin Bibbings and Brian Millar as Master Gunners, all from UK,, together with Laurence Thermes from the Irish Connaught Rangers and his team which now does the firing at events for both cannon and musket fire in full uniform, as Martin Bibbings has retired and is no longer involved.

The project was first **open to the public at large** during National Heritage Week in August 2010 and this more or less marked the completion of the current phase of the project.. As mentioned, there are some other elements which may be undertaken in the future.

d. design and conservation work carried out;

The project was not simply about conservation, but also involved a very significant element of reconstruction. The only onsite building still standing at the outset was the shell of the tower itself. Only its massive structure preserved it from demolition over the years. Internal timber doors and floors had been destroyed by fire, the attached guardroom was in a ruinous state, and all the metal fittings and armaments (such as the original cannon) had been removed by the time the site was decommissioned from military use in the late 19th century..

Design, therefore, relied on deductions from old documents, some extant old photos, on fragments of materials found in the clearance of this site, and what was known of other towers and sites. Original plans were not available and the degree of destruction made designing the reconstruction very difficult.

e. context in which the project was undertaken;

The context here is very personal. Having acquired the site, Niall O'Donoghue became aware both of the value of what he had and of how little was known generally about this system of defences.

He performed an act of public service in executing the project and drawing attention to a hitherto neglected, and very important, aspect of the military history and heritage of Dublin Bay. Up to then the towers were considered individually and put to different current uses. Restoring them to their rightful places as part of an integrated defensive network appealed to him and the means at his disposal to do so were (i) the restoration of the No.7 site, (ii) making sure the restoration was as accurate as possible by commissioning wide research, (iii) making the research freely available to others, (iv) inspiring others to follow in his footsteps.

In Killiney Bay alone, the fate of the 9 defensive emplacements differed widely. Nos. 2, 6 and 8 (battery) survive and are in residential use. No.1 was demolished when the Bray Esplanade was built and No. 4 when it was threatened by coastal erosion. No. 3 fell into the sea. No. 5 (battery) and No. 9 (tower and separate battery) were abandoned. No. 7 is the only emplacement in Killiney Bay to have been restored to its original condition when in military use.

f. design and technical problems involved and their chosen solutions both before and during the work;

Principal problems arose from a lack of original plans, particularly regarding the guardhouse roof. This latter was solved by observing the remaining walls and drawing on material found in the forensic excavation of the site. Other difficulties are set out in *Section D*.

g. use of appropriate building and conservation techniques;

The earlier list of "participants" testifies to the extent to which the building and conservation techniques used were appropriate.

For example, the stone work was completed by qualified stone masons using Irish granite on site for wall building with recommended lime mortar. The tooling of replacement external granite stonework to match the original granite curved and battered walling was completed successfully by the noted Irish sculptor Padraic MacGowran and the battery walls and the arch to the Gunner's cottage was completed by Conservation and Restoration Ltd.,

h. use of traditional crafts and skills;

The earlier list of "participants" and other descriptive material here testifies to the extent of the use of traditional crafts and skills.

i use of appropriate materials;

These were used where they could be procured. Some examples:

- gravel from Kilmore Quay in Wexford as being the nearest thing available to the original.
- *nails*: molder brads were obtained from Scotland
- hemp rope was used to replicate the original.
- blocks and tackles matching the original design were procured
- flooring and joist supports came from old pitch pine beams from a brewery and were cut down to match the originals.
- *an original magazine door*: this is currently a display item as the magazine has not yet been restored. This is the actual door illustrated in Victor Enoch's booklet (see bibliography)

j. results achieved;

As near as possible restoration of a unique Martello Tower and Battery site including adjacent buildings (with the exception of the magazine and the arming of the battery).

k. provisions for future use and maintenance;

The site will be open to the public to visit and inspect. Maintenance costs will be funded by voluntary contributions and fees from Societies for special events

There will be periodic firings of the cannon linked with specific events.

- One such which has already taken place was on the occasion of the visit of a stage of the (French) Figaro yacht race to Dún Laoghaire in 2011. The yachts were accompanied by a French Navy frigate and this is the only time on record that a Martello Tower has fired on a French Navy ship, in this case friendly fire.
- There was a dramatic night firing to welcome in the New Year 2013.

It is proposed to make the site available as a backdrop/location for relevant heritage and cultural events (talks, conferences, schools and other specialist study visits e.g. recent FSG). The aim here is to raise the profile of this and related locations.

l. response to urban or landscape context;

The project is in its original magnificent setting, commanding a stunning view of Killiney Bay. The site does not intrude on the landscape or the surrounding high class residential area. There are three (formerly four) Ambassadors' residences in the area, along with those of U2 members Bono and The Edge, and well known singer Enya, all within range of the tower's cannon.

The location is ideal for tourists, or other visitors, coming to the Dún Laoghaire, Dalkey, Killiney area, or even to the capital itself. The tower is only a 10 minute walk from the DART (rapid transit rail system which hugs the coast right around Dublin Bay) and you can pass a 6th century monastic site on your way. Parking is available at the site for buses and cars.

m. state clearly if any related work still needs to be completed.

Because of the flexible nature of the definition of the project, you could say that there is nothing left which actually needs to be done. However Niall O'Donoghue is hoping to restore the magazine beside the gunner's cottage at some future date and other possible developments have been mentioned in the phases section earlier.

Detailed description

D – Costs (in Euro), financial and management arrangements, and any difficulties overcome in the process of completing the project. Contributions and involvement of each partner should be clearly indicated.

Maximum 500 words

As explained earlier, this project was unusual insofar as Niall O'Donoghue was solely in charge of the project from conception to completion, including financing. So there were no partners as such.

The total cost to date is **€2 million**. An attempt is made below to apportion this over the various phases of the project, but it is difficult to do this with certainty as (i) many of the phases were running in parallel, and (ii) some of those engaged were contributing to more than one phase. The apportionment is therefore approximate, but a best estimate.

PHASE 1 Ground Clearance and removal of rubbish. (€480k)

Difficulties: Enormous amount of accumulated rubbish. Inspection by Archaeologists prior to removal considerably slowed the process. Work continued with the structure while this process was in course.

PHASE 2 Re establishing Boundary and Battery Walls. (€144k)

Difficulties: Identification and resiting numerous loose ashlar granite blocks scattered around the site or simply missing. Walls reconstructed with information from old photograph archives and replacement, dressed granite blocks purchased from stonemasons.

PHASE 3 Repointing the granite blocks on the Tower. (€63k)

Difficulties. Removing old incorrect cement and replacing authentic mortar as used in the early 19th Century. Discussions held with representatives from Ancient Monuments Organisations and samples of original mortar analysed.

PHASE 4 Reconstruction of the Guard Room and Roof. (€130k)

Difficulties. No plans to follow for what was a heavy apparently unsupported roof. Examination of architectural evidence on structure of Tower, and fragments found during clearance, enabled load bearing roof to be reconstructed.

PHASE 5 Rebuilding and reurfing the Glacis. (€75k)

PHASE 6. replacing the interior floors of the Tower, doors, musket loops. (€198k)

Difficulties. Obtaining substantial, seasoned timbers and finding a Company that could produce authentic nails.

PHASE 7. Reconstruction of the Gunner's Cottage, Coach House, Arch etc. (€421k)

Difficulties. Although the foot mark still existed, there were no existing plans and inspection of similar buildings at other Towers and Photographic records had to be used.

PHASE 8 Procurement of authentic George 111 Blomefield 18 pounder Cannon and Traversing Gun Carriage. (€54k)

Difficulties. No second hand ordnance pieces of this period available to purchase despite worldwide searches. Molding from an original held in Fort Nelson Museum, Portsmouth, taken and cannon cast, proofed and sent from U.K. Traversing Carriage designed from historical drawings and inspection of a carriage in Dymchurch, England for measurements. Manufactured in Cornwall and imported. Stringent Import Licensing Requirements had to be met. Block and Tackle and natural hemp ropes had to be sourced to accompany the cannon.

MISCELLANEOUS. (€525k)

Purchase of additional land, on seaward side, to capture debris from cannon fire. (€80k)

Initial expenditure on proposed interpretative centre (€155k)

Paintings, maps, plans, books (€150k)

Professional services etc.(€135k)

TOTAL PROJECT EXPENDITURE TO DATE €2 million

The entire project has been financed exclusively by Niall O'Donoghue without access to grants, subscriptions or borrowing.

Detailed description

E - Contribution of the project to the conservation and enhancement of the cultural heritage: impact on conservation policy and practice; historical, cultural, environmental, educational and/or social value; European added-value.

Maximum 500 words

Had this project not been undertaken, it is unlikely that subsequent and ongoing work on other sites by the local authorities would have been undertaken.

The net effect would have been a loss of a significant part of our military cultural heritage. Much of the remains of these emplacements have been taken out of play due to many factors, including coastal erosion, advent of the railway and roads, piecemeal disposal by the military authorities and the conversion of many of those remaining into residences.

As it is, there will now be a core number which will enable the understanding of the full original network. This is important from a cultural, heritage and educational point of view.

Dublin Bay, and Killiney Bay in particular presents a unique opportunity for analysing the various features and fates of these emplacements. And the proximity of the Dublin Bay emplacements to the Capital City makes it easier for visitors to sample a range of them in a short time.

This is probably the best location in Europe now for such an experience, no small thanks to this pathbreaking restoration.

The tower is both referred to, and illustrated, in the archaeological and conservation section of the current County Development Plan.

The restoration has also had a huge influence on subsequent events:

- Two local authorities commissioned a report on the martello towers of Dublin Bay. Much of this report consists of material unearthed in UK PRO Kew and elsewhere in the course of Niall's research for No.7
- These authorities held an exhibition on the Dublin Bay towers in August 2010, and published a high quality large format book *The Martello Towers of Dublin*
- They are embarking on developing a Martello Trail, taking in all the accessible emplacements in Dublin Bay.
- Dún Laoghaire and Rathdown local authority undertook restoration work on the Seapoint tower including the installation of a working cannon.
- That authority is now embarking on conservation/restoration work on the martello tower and battery (No. 9) on Dalkey Island, and the Williamstown tower (No. 15).
- filming and broadcasting by a German Television Company, Mare TV.

Huge interest is being generated among the general public and specialist and non-specialist groups:

- Visitors have ranged from individuals, including Ambassadors, to groups from Scouts to the Fortifications Study Group (a worldwide organisation which visits, studies and publishes on fortifications)
- There is a website devoted exclusively to the project (see bibliography)
- The project has been the subject of an illustrated talk in the Dublin City Library and Archive as part of the celebration of Maritime Week 2012 and also to the Rathmichael Historical Society, in November 2012, on the occasion of that society celebrating its 50th anniversary.
- The Dún Laoghaire and Rathdown County Manager has inscribed Niall's copy of the book on Dublin's Martello Towers with "a true inspiration to DLRCoCo" (Dún Laoghaire-Rathdown County Council) and the Council's Heritage Officer with "Well done to you and your efforts before us!"

Photos with captions

Please insert a maximum of 25 good quality photos with the relevant captions showing clearly the overall situation and important details of the project. Photos must include BEFORE and AFTER views, preferably from the same viewpoint. Wherever possible, please include photos of the works in progress.

THE SETTING



1. Killiney Bay looking south from Killiney Hill to Bray Head. This shows the coastal area in Killiney Bay covered by emplacements Nos. 1 to 9.

BEFORE RESTORATION/RECONSTRUCTION



2. This is the oldest available photo of the tower showing previous uses and dates from 1979. To be noted: (i) lean-to shed on left - this was the Rates Office and was also used by the Local Authority for storage, (ii) wooden building on right was Legion of Mary Hall, (iii) second floor door under machicolation bricked up, and (iv) new door cut at "ground" level.



3. This is the tower and the linked guardroom just before restoration commenced. Note the absence of the guardroom roof and the overgrown nature of the site generally. Note also the inverted V shape on the far wall of the guardhouse. This, along with a curved piece of wood discovered during the excavation provided the clues to the original method of suspending the guardhouse roof.



4. The roof was clearly in need of serious repair as were elements of the crown, seen top left of picture.



5. The coachhouse was gutted, though some walls remained.

DURING RESTORATION/RECONSTRUCTION



6. The tower had to be repointed and some elements replaced. The perimeter wall at the public roadway had to be repaired and the entrance moved. The scaffolding, shown here, was in place for 9 weeks.



7. The glacis in the course of the removal of 230 x 20 ton lorryloads of rubbish. All the material had to be examined and sorted and removed by hand under archaeological supervision. The mechanical digger was here functioning as a simple container into which the material was placed by hand and shovel. The slats on the ground at right mark the path of the perimeter wall and you can just see one of the military marker stones (No. 3)



8. The battery wall needed reconstruction with material found on site and in some cases with newly cut stone. Some of these repairs were assisted by old photographs taken of Killiney Hill from the site, but in which edges of the original wall appeared incidentally (1880-1910 Lawrence Collection in the National Library of Ireland).

AFTER RESTORATION/RECONSTRUCTION



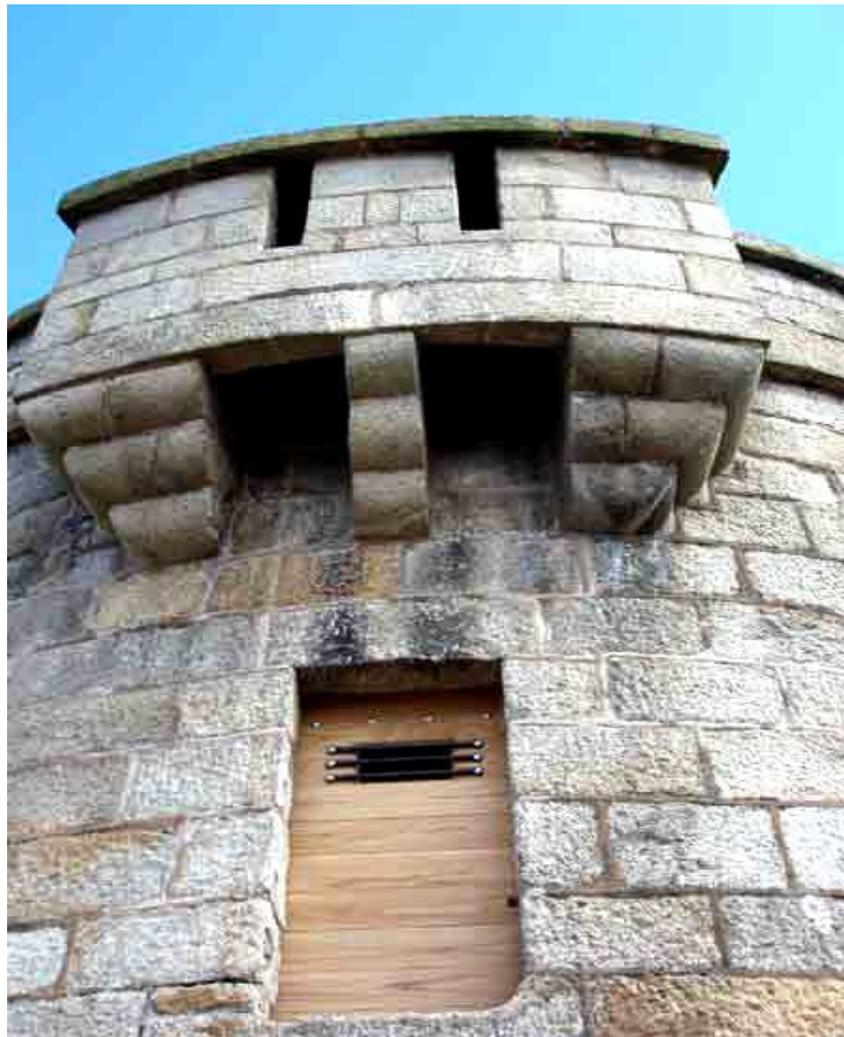
9. The final product, taken from the battery firing area. The restored guardroom is to the front of the tower. Note the curve of the roof.



10. The dry moat on the seaward/battery side of the guardroom. Note the restored musket loops.



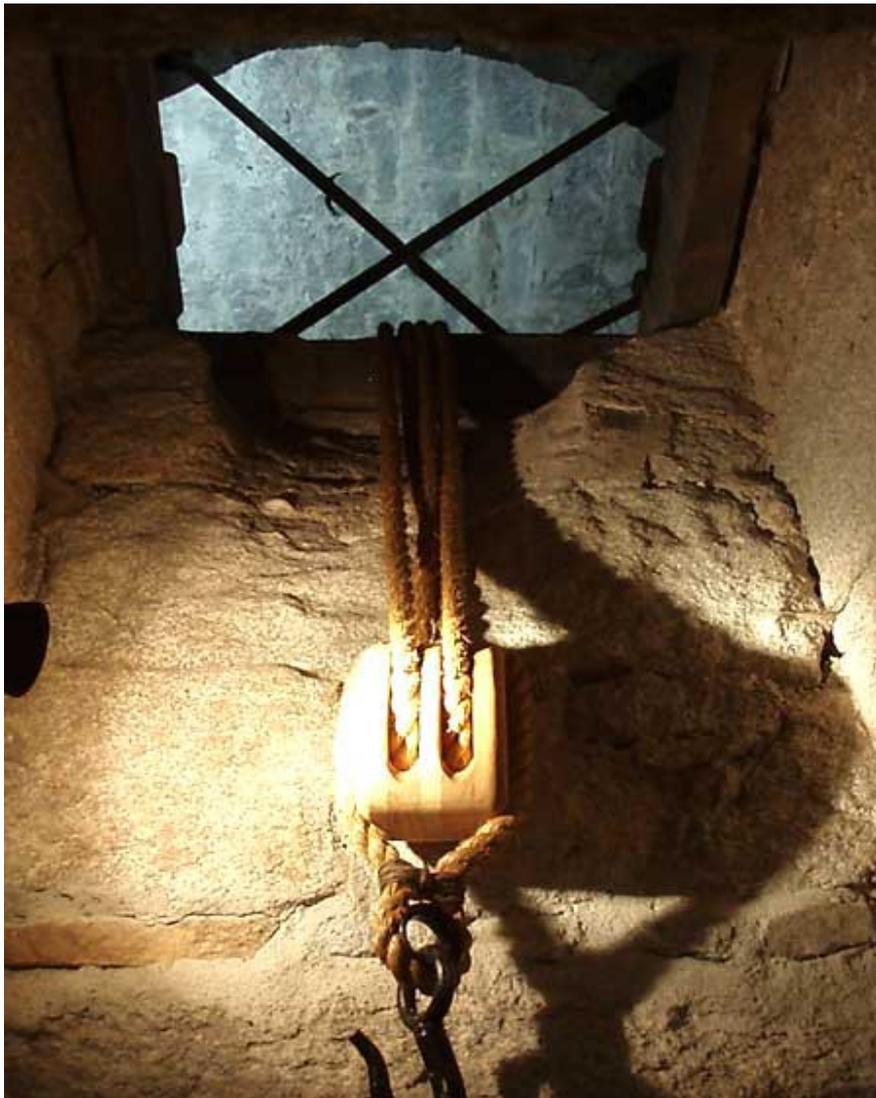
11. The restored glacis. You can see one of the military marker stones (No. 3) at the left extremity of the visible wall. The land area at the, now revealed, glacis extended right across to the perimeter wall at a height of 5+ metres. This rubbish infill constituted the bulk of the approximately 4,600 tons of rubble removed from the site.



12. Machicolation and restored doorway at 2nd floor level.



13. A loop's eye view of a re-enactment from within the guardroom.



14. Specially constructed block and tackle for raising the cannon to the crown of the tower. Note the hemp rope.



15. A first floor room, for changing, or planning strategy.



16. Cannon and carriage on the restored crown and facing east awaiting the arrival of the French.



17. This photo of a scale model of the restoration gives a very good overall view of the project. It would correspond to an aerial view, if such existed. It is accurate in scale except for the cannon, and the three shown in the battery are not in place in real life and are part of a possible development of the site in the future. It was made by Terry Murray, and presented to Niall O'Donoghue as a present on father's day.



18. Another photo of the model shows clearly the ancillary restorations. To the left of the tower is the coach house and next the gunner's cottage. The, as yet unrestored and roofless, magazine is to the front left of the cottage.

Print:

The main source of information on the tower, before the restoration, comes from unpublished original documents from UK National Archives relating to the construction and later reporting on Tower No.7 (and, incidentally, all the other emplacements in Dublin Bay). These documents were unearthed by Niall O'Donoghue (Doug Rogers) and formed a significant part of the information reproduced in the published research report referred to in the web section below and the subsequent local authorities book on the *Martello Towers of Dublin*..

There are a number of books which deal with the Towers. These tend to cover the whole system and do not deal with the matter in sufficient detail, or timeliness, to have been of use in the restoration project as such. However, they do provide a general background to the system of defences of which the Tower is an integral part.

Martello Towers, Sheila Sutcliffe, David and Charles publishers, 1972

This was the first book to treat Martello Towers worldwide. It is said to be accurate on the British towers, However, it was very much off the mark on some of the Irish towers, and particularly those in Killiney Bay.

Martello Towers, Victor Enoch, self published, 1975.

This was a neat little pamphlet but unfortunately its author, who professed an interest in and an affection for Martello Towers, was responsible for the desecration of Tower No.6 (on Killiney beach) which he bought and to which he added two ugly storeys.

Castles and Fortifications in Ireland 1485-1945, Paul M. Kerrigan, The Collins Press – Cork, 1995

*Paul M. Kerrigan was the foremost expert in his day on the Martello Towers of Ireland. He had published material on these in 1974 in *An Cosantóir*, the Irish Army journal, (see below) and released the illustrated version of this book in 1995. He was actively involved in documenting the Towers over the years and assisted Niall O'Donoghue in drawing up his plans for the restoration of No.7.*

Fortress Ireland, John Hartnett McEnery, Wordwell Ltd., 2006

John Hartnett McEnery also explored the defence of Ireland from earlier times to the present day. His analysis emphasises policy and strategic consideration over the purely physical characteristics of the defences, which tend to be the preoccupation of the other books..

Martello Towers Worldwide, Bill Clements, Pen and Sword Books Ltd., 2011

*This is a tremendous piece of work by Bill Clements who has visited almost all the sites mentioned in person and has his own photos in the book to prove it. The current book is an updated and expanded version of his earlier publication *Towers of Strength* in 1999.*

The Martello Towers of Dublin, Jason Bolton + Tim Carey + Rob Goodbody + Gerry Clabbey, Dún Laoghaire-Rathdown and Fingal County Councils, 2012

This is the first book to deal graphically and in great detail with the Martello Towers of Dublin Bay. It is both a story and a reference book. It takes on board and expands on the wealth of material featured in the 2011 Exhibition. The copious illustrations give a great insight into the history and current state of the fortifications erected in Dublin Bay to resist the expected invasion by Napoleon in the period 1804-15.

Between the Mountains and the Sea, Peter Pearson, The O'Brien Press, 2007

This book gives an account of the various areas within the new County of Dún Laoghaire-Rathdown. The emphasis is on those buildings which still survive and their history. It does not refer to the restoration of Tower No. 7, which had not impinged on the public consciousness at that time, but it does cover the surrounding houses and is a great insight into Killiney Bay.

Web:

Website specifically dedicated to Tower No. 7

<http://photopol.com/martello/no7.html>

Website as background to talk on the restoration, containing links to the presentation itself and to a host of background sources.

<http://photopol.com/dca4/index.html>

Page showing each of the Napoleonic fortifications in Killiney Bay..

http://www.photopol.com/martello/killiney_bay.html

Article on the military history of Killiney Bay 1793-1815

<http://photopol.com/articles/french.doc>

Major La Chaussée's manuscript (report) 1797

http://photopol.com/la_chaussee_rec/la_chaussee_ms.pdf

and translation of the above

http://photopol.com/la_chaussee_rec/la_chaussee_trans.pdf

with two of the Major's maps

Map 1 – characteristics of Killiney Bay

http://photopol.com/dca4/la_chaussee_map.jpg

Map 2 – coastal emplacements and overlapping fire

http://photopol.com/dca4/lc_map2.jpg

Interactive Google map, showing all emplacements (La Chaussée & Martello & Battery), location and range of fire.

http://photopol.com/articles/martello_map_dca4.html

Paul Kerrigan's series of 4 articles in An Cosantóir (1974) covering his initial work on what was later to become Castles and Fortifications of Ireland.

http://photopol.com/dca4/kerrigan_cosantoir.pdf

Research report on existing documentation relating to Martello Towers world wide and more particularly in Ireland.

<http://www.fingalcoco.ie/Planning/ConservationHeritage/HeritageProjects/Martello%20Towers%202008.pdf>

Archaeology Ireland in its 100th edition this Summer, has included an article on Martello and Signal Towers.

http://photopol.com/dca4/archirl_towers.pdf

Niall O'Donoghue' illustrated brochure describing No. 7 Tower.

<http://photopol.com/dca4/welcome.pdf>

Short (silent) video of the cannon from casting to firing.

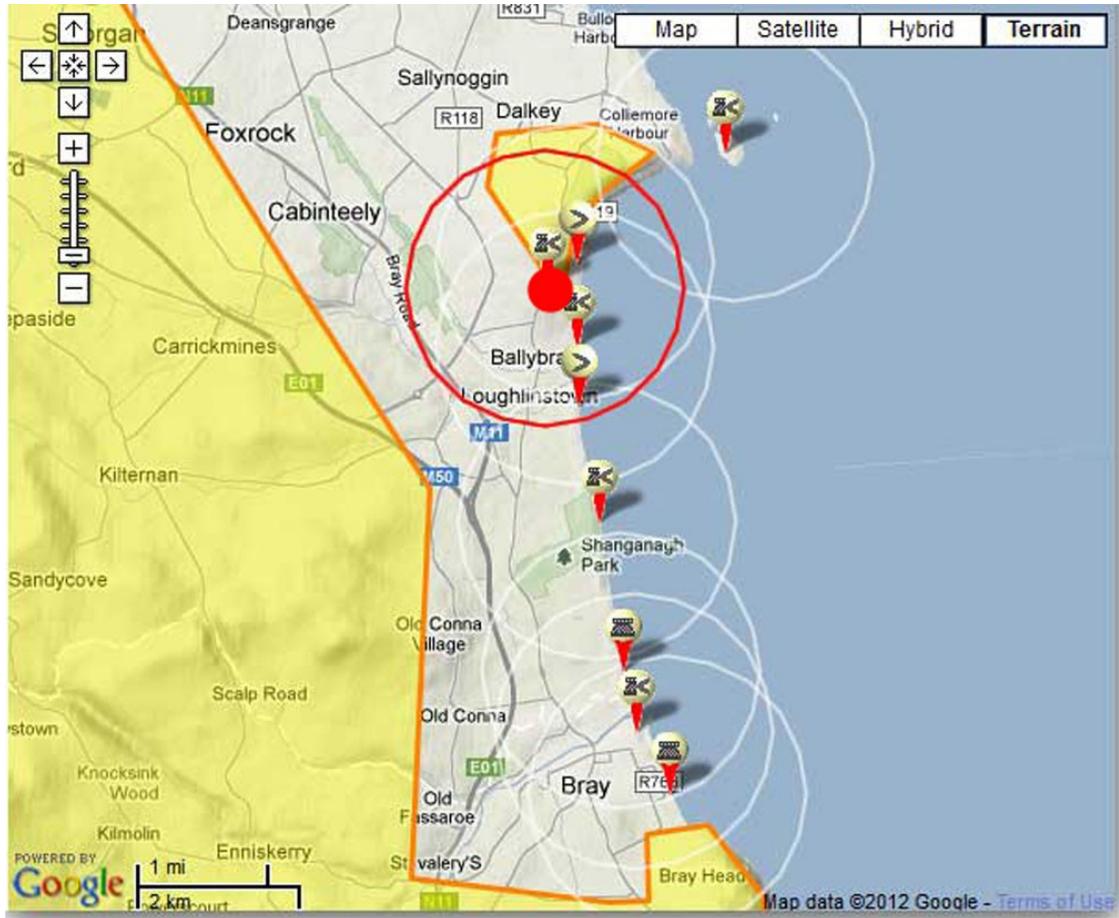
http://photopol.com/dca4/the_cannon_silent.wmv

Report of Fortress Study Group (FSG) 2013 Study Tour of Southern Ireland (including No.7)

<http://www.fsgfort.com/uploads/pdfs/Public/Study%20Tour%202013%20P.pdf>

Drawings A4 format (no fold-outs larger than A3 format)

- A - A location-plan, preferably to the scale of 1:10 000, on which the building or site is clearly marked
- B - A site-plan
- C - Plans, section and elevation drawings, showing pre- and post-restoration conditions. All alterations/new additions should be clearly marked.

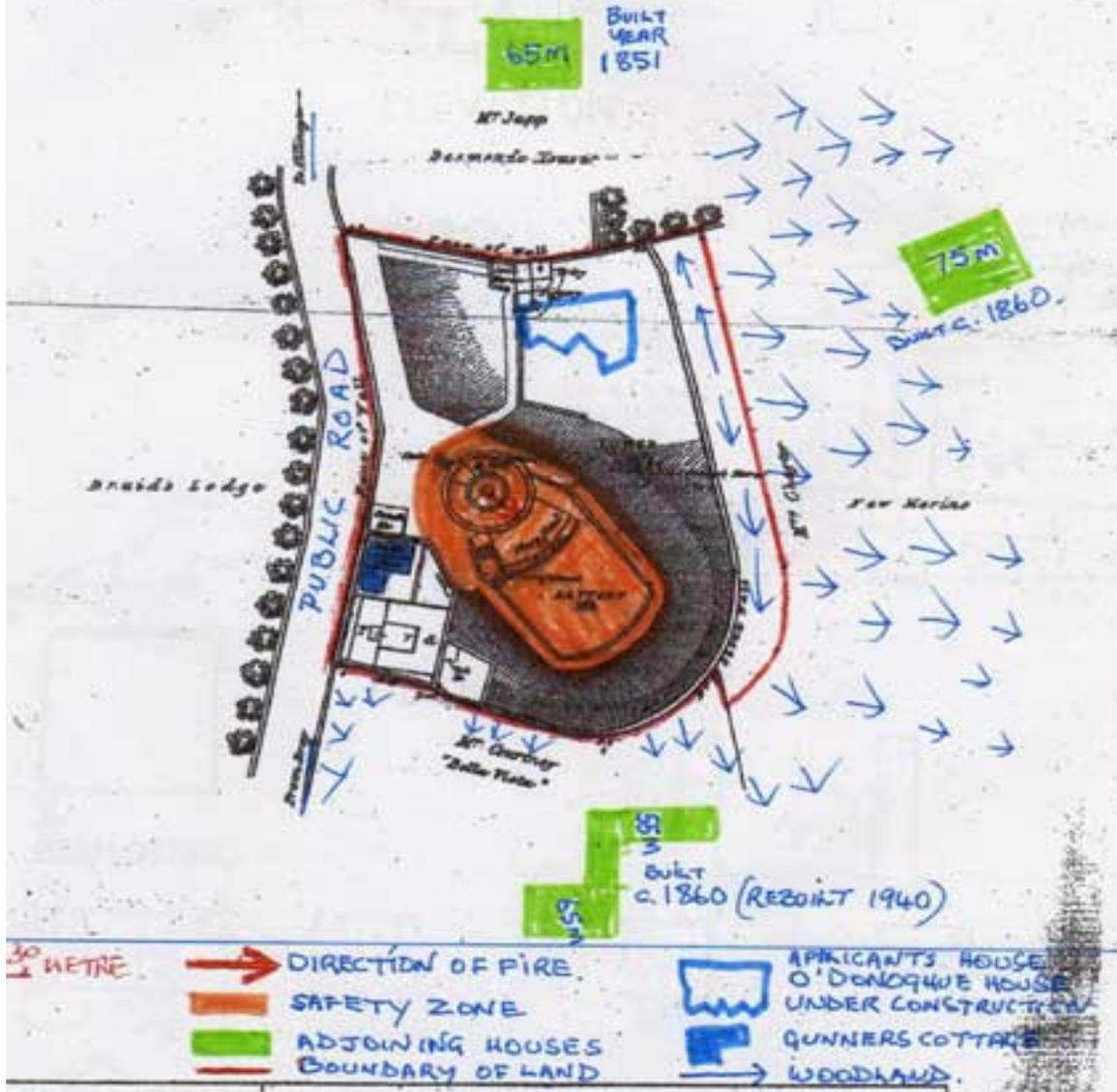


This illustration shows both the location of the tower and its strategic significance. It is located on the north of Killiney Bay (red dot) and its range of fire (I) commands a mile or more seaward, integrating with the range of fire of the other emplacements in the Bay, and (ii) also commands a mile or more inland, including what was then part of the main road to Dublin City. The yellow shaded area indicates the 200 foot (61 metre) contour.

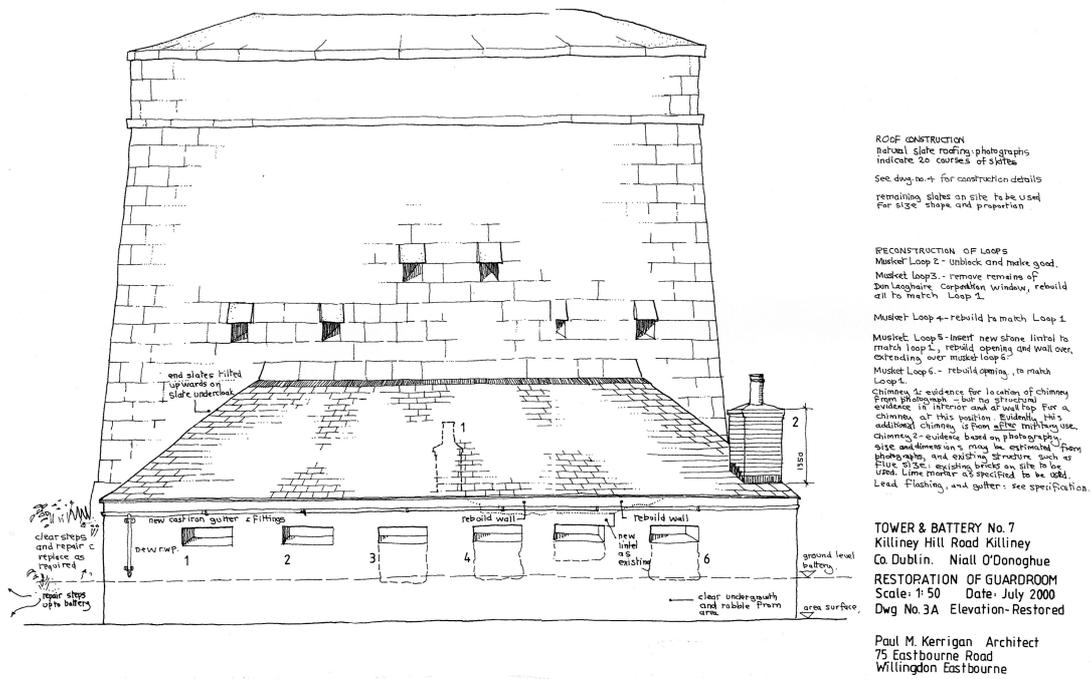
TAKA HILL, KILLINEY. COUNTY OF DUBLIN.

1862
 Drawn in 1862 under the direction of G. Ashmole, Esq., R.E.
 and printed on the Topographical Dept. War Office, under the direction of Major-General R.E.
 COL. SIR E. BELMONT, F.R.S., &c.

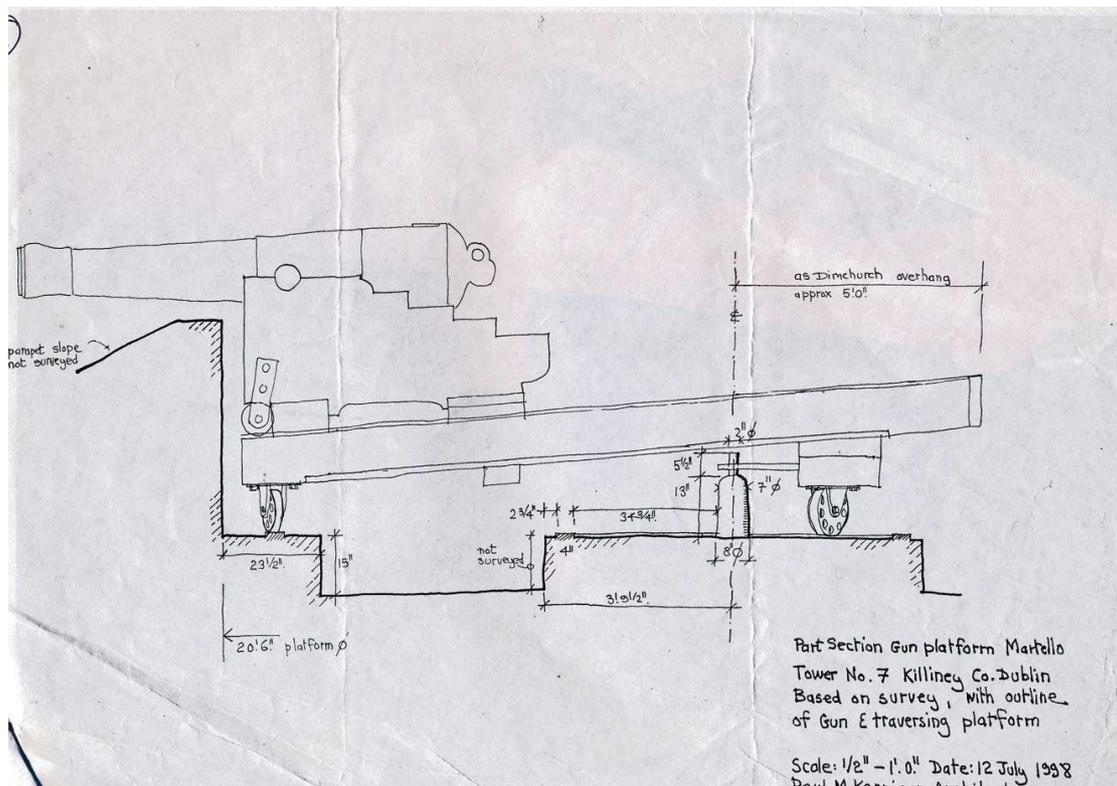
1862 1862
 (Revised to June 1863)
 1883



Original 1862 site plan, annotated for submission to local authority and police showing that the cannon could be safely fired without interfering with neighbours or the environment.



This is an example of one of Paul Kerrigan's drawings showing work that needed to be done in restoring the guardhouse.



A further example from Paul Kerrigan's plans, the cannon on the crown.

Two (2) CD ROMs

– **CD ROM 1** must contain two folders: one with the PDF format of the complete and final entry dossier (cover-page, entry form and drawings) and one folder with **low resolution** photos (Photo files: between 100kB and 400kB each) in jpeg format only.

– **CD ROM 2** must contain two folders, one with the PDF format of the complete and final entry dossier (cover-page, entry form and drawings) and one folder with photo files in high resolution (300dpi) in **jpeg** or **tiff** format only.

Checklist (please check each item; this should help you to prepare a complete dossier in compliance with the Conditions of Entry)

1 printed and bound copy of the entry dossier which must include:

- Cover-page with the name and a photograph of the building / site / work of art
- The completed and signed entry form
- Drawings, A4 format (no fold-outs larger than A3 format)

CD ROM 1, including PDF of the complete entry dossier and **low** resolution (between 100kB and 400kB) photographs in jpeg format

CD ROM 2, including PDF of the complete entry dossier and **high** resolution photographs in jpeg or tiff format

Dossiers which fail to fulfil the requirements will not be presented to the jury.

Declaration of entrant

I wish to submit the above-named entry to the 2014 European Union Prize for Cultural Heritage / Europa Nostra Awards. I have enclosed the required documentation (see 'Dossier requirements for Category 1') and agree to the conditions set up by the Awards scheme. I confirm that I have obtained permission from the owners of the copyright for Europa Nostra, to freely use the photographs and material submitted (and others subsequently requested) for all purposes of publication and promotion of the Awards.

Name, signature and stamp of entrant

Niall O'Donoghue



Date

5/9/2013

First submission/ Resubmission

I confirm that this is the first time that this project has been submitted for the European Union Prize for Cultural Heritage / Europa Nostra Awards

This is a resubmission for the European Union Prize for Cultural Heritage / Europa Nostra Awards. The registration number and title of the previous submission was: _____

Name and signature of entrant

Niall O'Donoghue

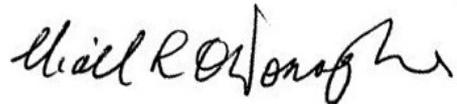


Declaration of owner

I, Niall O'Donoghue owner of Martello Tower No 7 consent to the submission of the property for the 2014 European Union Prize for Cultural Heritage / Europa Nostra Awards.

Signature of the owner

Date 5/9/2013

A handwritten signature in black ink, appearing to read "Niall O'Donoghue". The signature is written in a cursive style with a prominent loop at the end.

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The Licensor:

Who has the rights to the building/ object
Name, Address, Function

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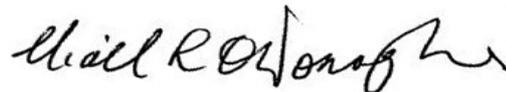
[Author(s)]: original author- such as architect, painter Niall.O'Donoghue

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In [place] Dublin
on [date] 5/9/2013



Niall O'Donoghue _____
[Signature + name]
[Position] **Owner**

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The Licensor:

photographer
Name, Address
Pól Ó Duibhir, 47 Bettyglen, Raheny, Dublin 5, Ireland

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In [place] Dublin
on [date] 5/9/2013



Pól Ó Duibhir
[Signature + name]
[Position] **Photographer**