

15 References:

- Bailey & McIlreavy 2016, Archaeological Impact Assessment, Holmpatrick Cove, Skerries.
Unpublished report
- Baker, C. 2010, *Antiquities of old Fingal*. Dublin.
- Baker, C. 2017, Auger & fencing Report, C786/E4805, *unpublished report for Fingal County Council*
- Bland, R. 2015 'Roman contacts with Ireland in the light of the coins from Drumanagh' in Bland, R. & Calomino, D. (eds.) *Studies in Ancient Coinage in Honour of Andrew Burnett (167-180)*. London.
- Boyle, P. 2001, *Ireland's mysterious fortress: Drumanagh, the lost Celtic city of Menapia*. Self-published.
- Brady, C. 2016, Surface Collection Survey, Drumanagh Co. Dublin. *Unpublished report for the National Monuments Service*
- Cahill-Wilson, J. 2014, 'Romans and Roman material in Ireland: A Wider Social Context' in *Late Iron Age and 'Roman' Ireland*. Discovery Programme Report 8. Dublin (11-58).
- Cahill-Wilson, J., Cooney, G., Dowling, G. & Elliot, I. 2014, 'Investigations on Lambay, Co. Dublin' in *Late Iron Age and 'Roman' Ireland*. Discovery Programme Report 8. Dublin (91-112).
- Cahill, M. & Sikora, M. 2011, *Breaking Ground, finding graves-reports on the excavations of burials by the National Museum of Ireland*. Dublin.
- Catling, C. 2016, 'Worlds Apart? The Romans in Ireland' in *Current Archaeology*, Issue 317, (July/August 2016)
- Cooney, G. 2009, The prehistory of Lambay, a long view. In Baker, C. (ed.) *Axes, Warriors and Windmills: Recent archaeological discoveries in North Fingal*. 9-23. Dublin
- Doherty C. 2005 'Kingship in Early Ireland' in Bhreathnach, E. (ed.) *The Kingship and Landscape of Ireland*. Dublin (3-31).
- Dowling, G. 2014, 'Geophysical Investigations at Drumanagh and Loughshinny, North County Dublin' in *Late Iron Age and 'Roman' Ireland*. Discovery Programme Report 8. Dublin (59-90).
- Deery, S. & Goucher, G. 2009, The Historic Landscape Characterisation in Fingal-Balbriggan and Environs. *Unpublished Report for Fingal County Council*.
- Mallory, J.P. 2015, *The Origins of the Irish*. London.
- McLaughlin, R. 2012 'What did the Romans (n)ever do for us?' in *History Ireland*, Issue 2 March/April 2012 (59)
- Newman C. 2005 'Re-composing the Archaeological Landscape of Tara' in Bhreathnach, E. (ed.) *The Kingship and Landscape of Ireland*. Dublin (361-409).

Maas, J. 1996, 'Letter to the Romans John Maas replies', *Archaeology Ireland* Vol. **10**, No.2 (Summer 1996), p.38

MacDonald, P. 2016, 'Excavations at Knock Dhu Promontory Fort, Ballyhackett, Co. Antrim 2008' in *Emania* **23** (33-52)

Ní Mhurchadha, M. 2015, Chasing the smuggler-the Customs Service in Rush 1674-1765, *unpublished paper for the Old Dublin Society*

Ní Mhurchadha, M. 1999, *The Customs and Excise Service in Fingal 1684-1765: Sober, Active and Bred to the Sea*. Maynooth Studies in Local History

Raftery, B. 1994, *Pagan Celtic Ireland*. London.

Raftery, B. 1996 'Drumanagh and Roman Ireland', *Archaeology Ireland*, Vol. **10**, No. 1 (Spring, 1996), pp. 17-19

Roughan & O'Donovan 2017, Ecological Study of Drumanagh Headland, September 2017, *unpublished report* for Fingal County Council

Rutty, J. 1772, *An Essay towards a Natural History of the County of Dublin, Accomodated to the noble design of the Dublin Society*. Vol.II. Dublin

Ryan, M. 1979-80, 'A cist burial near Lusk, Co. Dublin'. *Dublin Historical Record* **33**, (68-72)

Stacpoole, G. C. 1963, 'The Larnians of Dublin' in *Dublin Historical Record*. Vol. **18**, No.2 (34-44)


Warner, R. 1995, 'Tuathal Techtmar: A Myth or Ancient Literary Evidence for a Roman Invasion?' in *Emania* **13** (23-32)


Wallace A. 2001, www.excavations.ie


Walsh 2013, <http://www.museum.ie/The-Collections/Documentation-Discoveries/October/Bronze-Age-Ribbed-Bowl>

APPENDIX 1

CULTURAL HERITAGE SITES, DRUMANAGH, CO. DUBLIN

<p>Cultural Heritage Feature</p>	<p>Promontory fort-coastal</p>
<p>Statutory Protection</p>	<p>RMP DU008-006001-/ RPS No.252/ Preservation order No.13/1977</p>
<p>Location</p>	<p>Extensive coastal promontory, north of Rush and south of Loughshinny:727236/756210</p>
<p>Description</p>	<p>The neck of the headland c.46 acres is defended by a straight series of earthworks L.350m except where they curve inwards near the S cliff. The elevated, relatively flat promontory at Drumanagh is delimited on its landward (western) side by three closely-spaced earthen banks, each fronted by a ditch, with traces of a fourth, counterscarp, bank beyond the outer ditch. The inner bank is the best preserved rampart (w30m, h2m) The remaining banks have been greatly denuded (w17m, h.5m). Fosses are silted up. (W.4-6m, D.1m). A small stream emanates from a pond outside the ramparts to flow along the inner ditch and over the cliff edge at the south-west corner of the promontory. A number of gaps occur along the length of the ramparts, one or more of which may represent an original entrance. A system of 18th/19th century relict field boundaries defined by low earthen banks and ditches, extend across the northern and southern sides of the promontory. The LIARI project has examined the available LiDAR data in conjunction with previous geophysical survey, carried out on behalf of the NMI, and undertaken geophysical survey (Cahill Wilson et al 2014). Within the promontory a D-shaped enclosure and several structures suggestive of buildings and/or small enclosures, the presence of burnt material and pits (Dowling 2014, 13). The results reflect ploughing on the fort in the 1970s that revealed hut sites suggesting extensive settlement. Gallo-Roman pottery, second century AD Roman coins, Romano-British fibulae (brooches), copper ingots and an iron horsebit have been found at the site. Ploughing took place external to the outer rampart in the summer of 2014 impinging on the counterscarp fourth bank in the northern half of the site and the newly discovered oval enclosure (DU008-094----). Pathways carved by walkers, horse-riding and scrambler bikes have impacted on the entire site.</p>
<p>Image</p>	

Cultural Heritage Feature	Well
Statutory Protection	RMP DU008-006002-
Location	In an overgrown crevasse immediately west of the ramparts along the north of the promontory 727001/756361
Description	This is a natural spring which lies within the defences of the promontory fort at Drumanagh. Marked on the 1837 OS map its site is completely overgrown.
Image	

Cultural Heritage Feature	Martello Tower
Statutory Protection	RMP DU008-006003-/ RPS No.253
Location	Located to the east of the promontory: 727379/756242
Description	<p>Located in a field of pasture at the E end of a promontory fort (DU008-006001-)). This is a squat cylindrical tower built of masonry, which has been rendered. Traces of a sunken roadway lead from the S end of the defences of the promontory fort to the entrance of the Martello tower. The entrance is on the west side and is positioned above ground level. It is defended by machicolation carried on corbels. The interior is lit by small square opes. A latrine stands east of the tower (Kerrigan 1996, 175). In 1821 Drumanagh tower was in use by the Preventive Water Guard to combat smuggling. It was transferred to the War Department in 1855 when it had 12 rank and file troops occupying the tower in 1857. It was disarmed by 1874. In 1908, the War Department sold the tower to General Palmer of Kenure Park, Rush for £50 (Bolton et al. 2012, 152). Very ugly graffiti at person height on circumference of the exterior with occasional example at parapet height. NIAH (Regional rating) 11318004 Martello tower, c.1805, on a circular plan with tapered profile, having machicolation supported by brackets over former entrance door. Roof: Corbelled stone with stone coping to parapet. Walls: Lime render over limestone rubble. Openings: Square headed former entrance door opening with limestone rubble reveals and soffit; door no longer remains.</p>
Image	

Cultural Heritage Feature	Enclosure
Statutory Protection	SMR DU008-006004-
Location	Middle of the promontory: 727167/ 756249
Description	Geophysical survey (Licence no. 12R127) undertaken by the Discovery Programme as part of the 'Late Iron Age and "Roman" Ireland' project identified a D-shaped enclosure (43m NW-SE x 26m NE-SW) which is defined by a ditch (1m - 3m in width) located south of an 18th century field system. A number of possible pit-like features were interpreted along its circuit (Dowling 2014, 12). Not discernible at ground level.

Cultural Heritage Feature	Structure
Statutory Protection	SMR DU008-006005-
Location	Middle of the promontory: 727170/ 756241
Description	Geophysical survey (Licence no. 12R127) undertaken by the Discovery Programme as part of the 'Late Iron Age and "Roman" Ireland' project identified a structure located in the S half of the enclosure (DU008-006004-). The structure measures c. 12m in diameter and a number of possible pit-type features were recorded in its vicinity (Dowling 2014, 12). Not discernible at ground level.

Cultural Heritage Feature	Enclosure
Statutory Protection	SMR DU008-006006-
Location	Middle of the promontory: 727253/ 756222
Description	Geophysical survey (Licence no. 12R127) undertaken by the Discovery Programme as part of the 'Late Iron Age and "Roman" Ireland' project identified a rectangular enclosure (30m N-S)(Dowling 2014, 12). Not discernible at ground level.

Cultural Heritage Feature	Enclosure
Statutory Protection	SMR DU008-006007-
Location	Middle of the promontory: 727248/ 756242
Description	Geophysical survey (Licence no. 12R127) undertaken by the Discovery Programme as part of the 'Late Iron Age and "Roman" Ireland' project identified a circular enclosure (c.17m diam.) surrounded by an array of large, pit-type features, many of which form regularly-spaced, arcuate or linear patterns (Dowling 2014, 13). Not discernible at ground level.

Cultural Heritage Feature	Ring-ditch
Statutory Protection	SMR DU008-006008-
Location	Middle of the promontory: 727343/756279
Description	Geophysical survey (Licence no. 12R127) undertaken by the Discovery Programme as part of the 'Late Iron Age and "Roman" Ireland' project identified a circular ditch (c. 15m diam.) truncated by a field ditch (Dowling 2014, 13). Not discernible at ground level.


Cultural Heritage Feature	Ring-ditch
Statutory Protection	SMR DU008-006009-
Location	Middle of the promontory: 727319/756251
Description	Geophysical survey (Licence no. 12R127) undertaken by the Discovery Programme as part of the 'Late Iron Age and "Roman" Ireland' project identified the fragmentary remains of a possible circular ditch with a well-defined pit-type feature at its centre (Dowling 2014, 13). Not discernible at ground level.

Cultural Heritage Feature	Enclosure
Statutory Protection	SMR DU008-094----
Location	West of the ramparts: 726946/756043
Description	Geophysical survey (Licence no. 12R127) undertaken by the Discovery Programme as part of the 'Late Iron Age and "Roman" Ireland' project identified an oval enclosure (42mEW x 30mNS) with what has been interpreted as having a narrow ditch or palisade trench. The survey results in the eastern half of the enclosure suggest the likely presence of burnt material. Two well defined breaks, each measuring c. 5m in width, occur on the NE and SE sides of the enclosure and may reflect original entrances; that on the NE appears to be flanked by pit-type features, possibly post-pits (Dowling 2014, 16). Not discernible at ground level.

Cultural Heritage Feature	Road to Martello Tower
Statutory Protection	Within the promontory under Preservation Order No.13/1977
Location	Extends from southern boundary to Martello Tower
Description	The original approach to the tower survives as a sunken trackway extending from the south-east corner of the fort. approximately 6m in width, it is defined by low banks and ditches but overgrown and obscured along its southern limit by pathway made by walkers and scramblers




<p>Cultural Heritage Feature</p>	<p>Martello Privy</p>
<p>Statutory Protection</p>	<p>Within the promontory under Preservation Order No.13/1977</p>
<p>Location</p>	<p>Located to the east of the Martello Tower</p>
<p>Description</p>	<p>The structure is a single storey masonry structure that had a pitched roof. The walls are squared rubble limestone built to courses with narrow joints. The surviving fragment measures 2.75m in maximum height and 1.5m in width north-south. The southern wall measures 0.72m east-west at the base. The width of both wall fragments is a consistent 0.42m and the two course rubble foundation visible to the west is 0.3m in height. The remains of the privy have been subject to graffiti, fires and vandalism, resulting in cracking and significant collapse.</p>
<p>Image</p>	

Cultural Heritage Feature	Well
Statutory Protection	None
Location	c.10m east of the western townland boundary
Description	The circular well measures approximately 0.9m in diameter and is truncated to the south where large concrete blocks have been dumped. The well is lined with large (0.2m x 0.4m diam.) roughly shaped stones. At least two courses of stone are visible before the water which is 0.45m below edge. The well site is overgrown with brambles and long grass
Image	


Cultural Heritage Feature	Western Gate
Statutory Protection	None
Location	Towards north of western townland boundary
Description	Marked by two a piers of very overgrown limestone blocks c.2.8m apart this gateway faces west onto a field boundary and would have formed the accesway into the site from Loughshinny. The square piers measure 0.95m in average diameter and are at least 2m in height. The overgrown remnants of an iron gate are barely visible between the piers and there is a possible stile to the south of the south pier. This stile measures 0.56m in width and 0.46m in height although could be a makeshift entrance from the adjoining fields. This gate has been inserted into a previously existing wall. The form is and fabric is the same as the gate on the southern boundary associated directly with the Martello Tower indicating a 19th century date.



<p>Cultural Heritage Feature</p>	<p>Western Boundary Wall</p>
<p>Statutory Protection</p>	<p>None</p>
<p>Location</p>	<p>Western townland boundary between Drumanagh and Ballustree</p>
<p>Description</p>	<p>This wall faced by a ditch externally forms the western boundary of Drumanagh. It runs mainly north-south curving gently at the north-western corner of the site before creating a sharp corner at the cliff face. The wall is rubble built and stands between 0.6m and 1.2m in height with at least six courses of roughly shaped stone (0.25m-0.45m diam.) visible. The wall averages 0.5m in width and is loosely mortared with a whitish mortar with large pebble aggregate. The wall is mostly overgrown with brambles. A wall in this position appears on the 1760 map.</p>
<p>Image</p>	


Cultural Heritage Feature	Southern Gate
Statutory Protection	None
Location	Southern Gate
Description	<p>Marked by two indented piers of limestone blocks c. 2.93m apart, this gateway forms the accessway from the laneway adjacent to the southern boundary of the site onto the road to the Martello Tower. It is abutted by several metres of wall to either side which appear to have been inserted into an earlier boundary wall. The piers measure 0.93m NS and 0.93m along their southern facade but are indented to accommodate gate fittings and measure 0.8m in maximum width internally. Both piers stand to a height of 1.9m and are capped with a horizontal layer of granite blocks 0.15m in thickness. Some of the granite, especially on the western pier has fallen and is on the ground externally. Immediately (0.7m) to the west of the western pier is a stile consisting of two graduated steps (lower 0.6m from ground level/upper 0.4m from top of wall), 0.27m apart incorporated in to the wall (0.48m in width). Three large posts and a metal fence have been inserted in modern times between the gate piers to prevent entry.</p>
Image	


Cultural Heritage Feature	Southern boundary wall
Statutory Protection	None
Location	Southern townland boundary between Drumanagh and Rush

Description	<p>This wall is perhaps more of a faced earthen bank that forms the southern boundary of the site and the townland boundary between Drumanagh and Rush. It extends from c.2m west of the wall associated with the gate along the southern boundary where it has been truncated by the insertion of a cattle shed and entranceway at the south-east corner of the site. This boundary averages 0.9m in height and the wall is rubble built and unmortared with stones 0.2m-0.3m in diameter. A wall in this position appears on the 1760 map.</p>
Image	

Cultural Heritage Feature	Boundary Stone 1
Statutory Protection	None
Location	South of eastern gate pier, South gate
Description	<p>Cut granite with a pyramidal top. Located 0.4m east of the eastern gate pier and 0.2m south of adjacent wall. Visible height is 0.75m with each face measuring 0.3m in width. Arrows visible on all faces. One of a pair of stones c.5m apart marking entrance way to Martello Tower illustrated on the 1862 War Office map. Boundary stones also depicted on the OS 25 inch map (1906-09).</p>



<p>Cultural Heritage Feature</p>	<p>Boundary Stone 2</p>
<p>Statutory Protection</p>	<p>None</p>
<p>Location</p>	<p>South of western gate pier, South gate</p>
<p>Description</p>	<p>Cut granite with a pyramidal top. Located 0.9m west of the western gate pier and 0.38m south of adjacent wall. Visible height is 0.75m with each face measuring 0.3m in width. Arrows visible on all faces. One of a pair of stones c.5m apart marking entrance way to Martello Tower illustrated on the 1862 War Office map. Boundary stones also depicted on the OS 25 inch map (1906-09).</p>
<p>Image</p>	


Cultural Heritage Feature	Boundary Stone 3
Statutory Protection	None
Location	Demolished cowshed, south-west of site
Description	Cut granite with a pyramidal top. Reused as a step in a cow shed. Total height is 1.96m with each face measuring 0.3m in width. Arrows on the two visible faces. One of a pair of stones marking extent of lands for Martello Tower illustrated on the 1862 War Office map. Boundary stones also depicted on the OS 25 inch map (1906-09).
Image	

Cultural Heritage Feature	Structure 1
Statutory Protection	None
Location	External to the site along cliff face
Description	Approximately 4.6m of the northern wall of this structure remains standing to a height of 2.2m. There are visible areas of collapse down the cliff face and top the south of the upstanding wall which is partially overgrown. It is 0.7m in width and consists of rubble stones (0.2-0.4m diam.) roughly mortared with a whitish mortar with large pebble aggregate. This structure appears first on the 1760 map.



Cultural Heritage Feature	Structure 2
Statutory Protection	None
Location	External to the site along field boundary
Description	A single wall aligned north-south adjacent to the east-west field boundary west of the western gate and a mound of rough cut limestone is all that remains of this structure. There is a concrete slab and red brick in the vicinity indicating several periods of use. A structure first appears here on the 1760 map.



Cultural Heritage Feature	The Dane's Cave
Statutory Protection	None
Location	Southern cliff face towards eastern end of the promontory
Description	Sea cave that sits above the low tide mark of Roaring Water Bay. It is apparently entered by climbing down the cliffs. Local memories of it being red inside and containing a rock with a hole, known as the Cradle Rock (Paddy Boyle, pers. comm.).
Image	

APPENDIX 2

National Museum Topographical Files:

Drumanagh Townland

NMI Register No.	Object	Description
1969:707	Pot Sherd	Approx. square featureless potsherd representing portion of the wall of a thick-walled vessel. The sherd is slightly abraded and light brown in colour externally; the greater part of the sherd in fracture is the same colour but becoming grey to black near inner surface. Fabric is thick, relatively hard with some quartz grits. Dimensions: 4.7 c 4.5cm; T. 1.9cm. Found on edge of cliff in material of north end of destroyed main inner bank of promontory fort. the flint was found a few feet away from the potsherd.
1969:708	Flint flake	Unevenly shaped flint flake of yellowish flint. Some slight secondary working along portion of one edge. L. 3cm; w. 2cm; t. 1.2cm. Found in surface soil of bank of promontory fort
1977: 1205	Copper alloy pin	Heavily patinated stick pin. The shank is short; round sectioned and swells towards the middle. The head is expanded to form two flat broad faces of inverted stepped pyramid from each of which bears a panel of vertical grooves. Similar ornament occurs on the flat rectangular top of head. 1.8.9cm w. of head 6cm t of head 3.5cm max t of shank 3.5mm Found in plough soil inside promontory fort
1977:1206	Pot Sherd	Glazed rim sherd irregular in outline. Made of dull reddish brown fine hard wheel thrown ware with grey core. The rim is rounded and upright. The inner surface bears a translucent glaze In sufficient survives to estimate original rim diameter. T. rim 6mm
1977:1207	Glass object	Amorphous fragments of green glass l. 2.35cm w. 1.25cm t. 9.8mm. Found in plough soil inside promontory fort
1977:1208	Animal remains	Split and burnt fragments of unidentified limb bone. Found in plough soil inside promontory
1977:1209	Clay	Two amorphous fragments of baked clay. From ploughsoil inside promontory fort
1977:1221	Stone object	Irregular fragment of flat-bottomed stone vessel. The edge is convex and portion of the internal concavity survives. The side is decorated by two horizontal grooves. Max. t. of edge 7.2cm; min. t. 3.1cm; estimated original rim c.20cm. Found in ploughed soil of habitation areas inside promontory fort.
1977:1222	Pottery	Large potsherd-amphora B ware? Irregular bodysherd of thick walled wheel thrown micaceous ware. Numerous grits of pounded quartz are evident in the fabric. It is pinkish internally and dull buff externally, the core is grey streaked. The inner surface bears characteristic marked horizontal ridges t.2.5cm. From ploughed soil of habitation area inside promontory fort. Ian Doyle-sherd is curved so as to suggest body diameter of c.40cm sherd thickness 23cm-ID from photo by Paul Tyers-Possible Dressel 20 amphorae (Spanish 1st -early 3rd century Ad in Britain) http://www.potsherd.uklinux.net/atlas/ware/DR20
1977:1223	Clay bead	Spherical bead of baked clay with acentric perforation. Patinated white all over. Diam. 1cm. From ploughsoil in habitation area of promontory fort

1977:1224	Flint flake	Irregular flint chip with convex broad face and unifacial secondary working along one side. Heavily patinated all over. L. 3.5cm; max. w. 2.3cm max t. 1.6cm
1977:1225	Flint flake	Fragment of heavily patinated keeled flint blade. Secondary working occurs on one long side. Max present l. 2.5cm w. 2.1cm t. 4mm.
1977:1226	Flint Blade	Small keeled flint flake light to medium patination all over l.3.8cm w. 1.6cm t. 5.6mm
1977:1227	Flint flake	Small keeled flint flake with heavy patination all over. L. 2.8cm; w. 1.56cm; t. 8mm
1977:1228	Chert core	Approximately lozenge shaped chip of chert with crude retouch along two sides l.2.75cm max 1.45cm t. 8mm
1977:1229	Chert flake	Irregular polyhedral chert core l. 4.4cm w. 1.7cm t. 2cm
1979:011	Flint worked	Irregular shaped flint of pale green. Part of the cortex remains at the bulbar end. One side has been worked to a shallow concave cutting edge 6.2cm x 4.5cm x 2.6cm. Found in ploughed soil at south end of the two outer banks
1980:031	Samian Ware	Well preserved sherd. Fabric is orange pink with occasional tiny flecks of cream coloured clay. Slip is orange red with a silky finish. Interior shows fine horizontal grooves formed by the potter's fingers. A tiny portion of a small external groove also survives. The sherd appears to derive from the plain shoulder of a decorated beaker Dechelette 67. made in south or central Gaul l. 1.8cm t. 2mm. Found in occupation debris which had been deeply ploughed. Report IA/24/80 Form: Dechelette 67, late 1st century. The sherd is thin a triangle little more than 1cm each side but in an excellent state of preservation. It is thin 2.5mm fine and orange pink. No mica is visible under the microscope-the fabric is undoubtedly good quality South Gaulish ware...this form was manufactured in both South and Central Gaul in the latter half of the first century and the first two decades of the second. It is closely related to the non-Samian beakers of the period (Hofheim 125a).
1987:025	Iron horse bit	Bridle trapping Type D. Overall l. 15.9cm. Ring 8.95cm diam; Ring B 7.96cm Fragment of cremated bone adhering to both faces of the rings-between ring and link. Metal detected
1987:026	Iron horse bit	Conservation report 26 AB 1A/115/85-under magnification traces of wood were found adhering to the upper surface above the 'eye'; 26 C -8.28cm x 2.96cm
1987:027	Iron horse bit	Short curved side link of a small iron horse bit. One end which is broken appears to have splayed to a wide loop. The other end has a narrow loop showing signs of wear. L.6.65cm max w. of splayed end 1.7cm; ext diam of loop 2cm; int. diam. originally c. 6.5cm but due to wear it is elliptical and has a max dimension of 8.5cm.
1988:102	Copper cake fragment	Wedge shaped fragment of large round copper or copper alloy cake which was probably at least 20cm in diam and 3.7cm in height with flat top and base sloped sides. Fragment cut at roughly 45 degree angle. Outer edge is curved. The base and top are flat except for tapering sides. The surfaces are very pitted. Probably metal-detected.

2004:174	Seal Box	Complete copper alloy lozenge shaped seal box. The upper face of the lid has a raised grid pattern. Traces of red and blue enamel are present in some of the cells. The box has a hinge mechanism at one end and small projecting knobs at each of the other three corners but these are damaged and incomplete. the underside has four small circular perforations. Found in upcast from biking activities, interior of site. Correspondence between Paddy Boyle and British museum--I would characterise the seal box as 1st-3rd century Ad date. Seal boxes are not uncommon Roman finds and are fascinating because of their role in sealing important documents often of an official or military nature. Dr Ralph Jackson. Conservation report- 42mm x 25mm x 7mm
2014C6:1	Flint Core	
2014C6:2	Flint Flake	
2014C6:3	Flint Flake	
2014C6:4	Flint Flake	
2014C6:5	Flint Flake	
2014C6:6	Flint Flake	
2014C6:7	Chert Flake	
2014C6:8	Flint Object	
2014C6:9	Flint Flake	
2014C6:10	Flint Flake	
2014C6:11	Pottery	
2014C6:12	Flint Object	
2014C6:13	Flint flake	
2014C6:14	Flint Object	
2014C6:15	Pottery	
2014C6:16	Flint flake	
2014C6:17	Flint Object	
2014C6:18	Flint flake	
2014C6:19	Flint flake	

2014C6:20	Flint flake	
2014C6:21	Flint flake	
2014C6:22	Flint flake	
2014C6:23	Flint Object	
2014C6:24	Slate	
2014C6:25	Pottery	
2014C6:26	Flint Scraper	
2014C6:27	Pottery	
2014C6:28	Quartz Object	
2014C6:29	Flint flake	
2014C6:30	Flint flake	
2014C6:31	Flint Object	
2014C6:32	Flint Object	
2014C6:33	Flint Object	
2014C6:34	Flint Object	
2014C6:35	Flint flake	
2014C6:36	Flint Core	
2014C6:37	Pottery	
2014C6:38	Stone object	
2014C6:39	Flint flake	
2014C6:40	Flint Flake	
2014C6:41	Flint flake	
2014C6:42	Flint flake	
2014C6:43	Flint Flake	

2014C6:44	Flint flake	
2014C6:45	Flint Object	
2014C6:46	Pottery	
2014C6:47	Flint Scraper	
2014C6:48	Flint Scraper	
2014C6:49	Flint Scraper	

Rush Townland: Field south of southern boundary of Drumanagh site

NMI Register No.	Object	Description
2004:191	Iron ingot	A rectangular shaped iron ingot l.11.20; w. 2.30; t. 1.1. Field walking adjacent to Drumanagh Fort
2004:192	Iron ingot	A fragment of iron ingot approximately rectangular in shape l.6.10; w. 1.50; t. 1.1
2004:193	Stone	large egg shaped stone with smooth surface; oval in section, granite l.7.53 w. 5.22 x 5.37
2004:194	Samian	Small five sided sherd of east Gaulish Samian ware; possible fragment of a base as there is a slight curve on one edge l. 3.22 w. 2.57 t.0.72
2004:195	Pottery	Small sherd of wheel thrown fine bodied red ware l. 2.44 w. 2.49 t. 0.76
2004:196	Animal bone	two small fragments of animal bone unidentified
2004: 208	Flint pebble	Unretouched split pebble 2.45m diam
2004:209	Flint flake	Abruptly retouched flint flake l.3.87 w. 1.8 t 1cm
2004:201	Flint flake	Fragment with slight retouch l.3.4 w. 2.2 t 0.9
2004:211	Flint pebble	Plit pebble slight retouch l.2.58 w.2.23 t.0.8

5. MANAGEMENT RECOMMENDATIONS

In the first instance, a set of conservation aims should be produced for the site. A strict management regime for one species may be detrimental for another, e.g. management of the grassland for Brent Geese would make the area less suitable for Skylark. The site has been recognised as supporting variety of passerines, including the ground nesting Skylark and Red-listed Meadow Pipit as well as calcicole plant species, common lizard and invertebrates such as St. Mark's Flies, Solitary Bees and Oil Beetles. The conservation aims should include the following:

- Increase the plant species richness on Drumanagh Head;
- Increase the carrying capacity of the site for birds;
- Protect the nesting habitat of Skylark and Meadow Pipit; and,
- Reduce disturbance on the site.

The following subsections provide an overview of the management recommendations for the site which should be implemented to achieve the conservation aims. The management recommendations are illustrated in Appendix D of this report. .

5.1 Implementing a Mowing Regime

In order to prevent the natural succession of the grasslands at Drumanagh Headland to scrub, and to promote a more species-rich grassland, a mowing regime should be put in place, aiming for a summer sward height of 20-50cm. Mowing should take place twice per year, once in early March and again in late September. It is anticipated that herbaceous species such as Lady's Bed-straw, Yarrow and clovers will colonise the grassland once a mowing regime is employed. Operating a different mowing regime in different sections of the headland and not mowing some areas in a given year would also promote greater habitat and species diversity. The mowing regime should seek to provide grazing for wintering geese and waders, and nesting habitat for ground-nesting birds in spring and summer.

5.2 Enhancing Habitat for Passerines

Ground-nesting birds nest in open fields for safety. For Skylarks, conservation measures within 10m of a field boundary will not be of any benefit. This gives the opportunity to manage a 10m strip along the western edge of the headland along the hedgerow as a source of food for other birds. Management of the hedgerow on the western side of the headland should seek to retain its structural integrity, following best practice guidelines in Maudsley et al. (2002).

The establishment of wild bird cover is recommended to create seed-rich habitats and valuable winter food supplies for granivorous birds. It is proposed to create a 12m wide margin along the hedgerow on the western side of the headland. The value of this margin will depend on the management to achieve maximum benefit both for winter passerines, but also nesting opportunities for other birds and habitats for a range of invertebrates.

It is proposed to plant the field margin with species such as Triticale, Kale, Lucerne, Perennial Chicory and Fodder Radish. A half-length strip of the wild bird cover margin should be re-established on a 2-year cycle. Drilling is the preferred sowing method to establish the crop, and size of drill (e.g. 3m or 4m) will determine proportion of strip to be re-established every 2-year cycle.

5.3 Reducing Disturbance

Wildlife on Drumanagh Headland is subject to significant disturbance from recreational activities including walkers, dogs and motorbikes. It was noted that gates to prevent motorbikes and horses entering the site had been removed. Kestrel, which were in the recent past recorded nesting on the cliffs, have apparently abandoned the site, which may be as a result of disturbance from motorbikes. Entrances should be fitted with suitable gates to

prevent motorbikes entering the site. Signage should also be erected at the entrances to encourage people using the area to keep dogs on a short leash to avoid disturbance to ground nesting birds.

5.4 Management of Scrub

Scrub forms important nesting and foraging habitat for birds and sheltering habitat for mammals, including Irish Hare and Irish Stoat. Some areas of Bramble are growing on the promontory fort embankment and this will reduce the relatively species-rich grasslands on the embankment and could potentially damage this archeologically significant feature. However, the scrub on the northern side of the headland should be retained as cover for wildlife.

5.5 Removal of Non-native Plants

One small patch of Spanish Bluebell was identified during the surveys. This stand should be dug out in spring when the leaves are visible. The material, including bulbs, leaves and flowers, should be removed from the area and disposed of appropriately. Checks should be carried out yearly to remove any new growth.