Fingal Geophysical Survey Project

Archaeology is everywhere. The need for both development and preservation has resulted in many archaeological sites being incorporated into the open spaces of housing estates or within public parks. While the context of the monuments has changed, their significance has not. However by their nature, sub-surface remains aren't visible and the lack of awareness about their presence leaves them vulnerable to damage.

Geophysical survey techniques are non-invasive means of uncovering what lies beneath. Geophysical survey started as a by-product of World War II and the first known application of geophysics to archaeology in Ireland was on the Hill of Tara in 1952. The addition of GPS technology means large areas can be surveyed with precision. Magnetometer survey records discrete variations in soil magnetism caused by human activity and is particularly good at detecting ditches, pits and areas of burning associated with cooking, pottery manufacturing and metalworking. Earth resistance survey transmits a small electrical current into the soil enabling the soil's resistive properties to be calculated and is useful for detecting walls, rubble and cobbled surfaces. Two phases of survey encompassing both techniques were undertaken to define the character of buried remains at six sites in Fingal. It is hoped that by highlighting the presence of these sites, communities can be introduced to the heritage, which is literally, on their doorsteps.



Geophysical Survey was carried out under licence by Target Archaeological Surveys and Earthsound Archaeological Survey



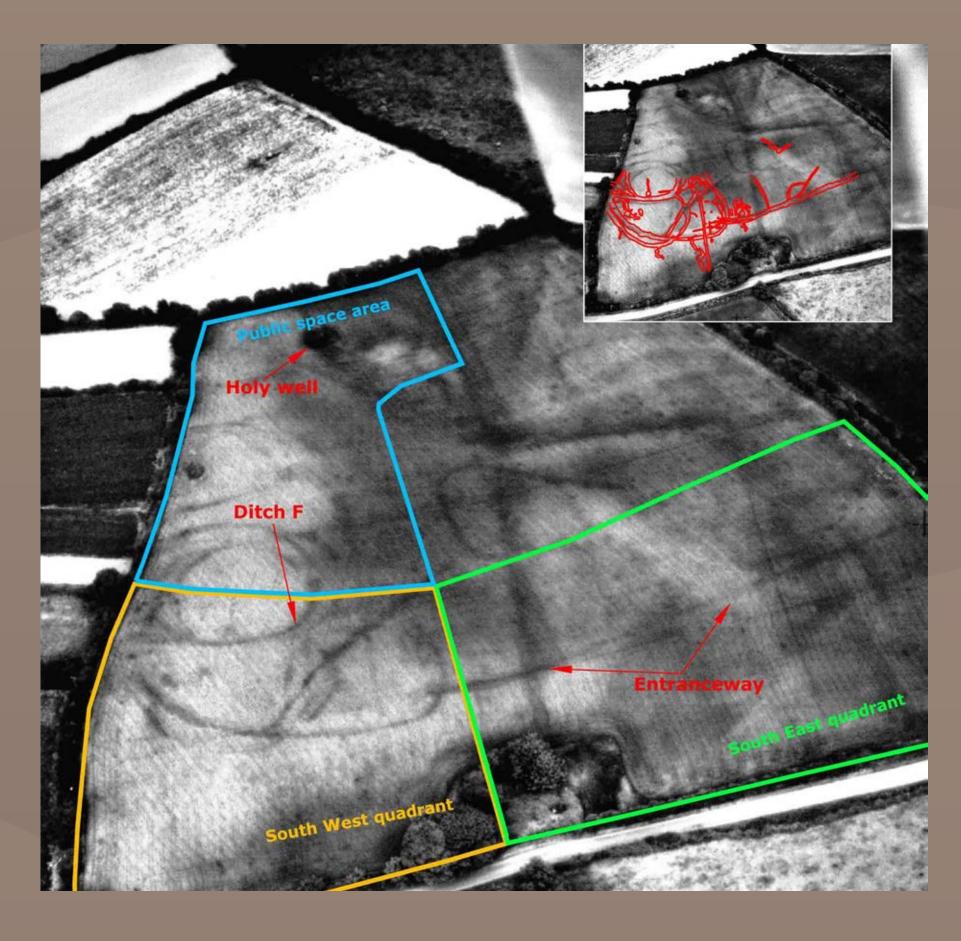
Magnetometer Survey, St Catherine's Park



Earth Resistance Survey, Lanestown



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Aerial photographs of Rosepark, courtesy of Judith Carroll. The area excavated is indicated in red on the inset. The site of the holy well (Recorded Monument DU005-057007) is also marked.



The results of the geophysical survey display a network of curvilinear ditches, linear remains and pits. As the ground slopes downwards to the site of the holy well, the survey reflects the disturbance and dumping of modern material in this area.



Participants reviewing the geophysical survey results

Rosepark, Balrothery

Identified on aerial photographs as a series of enclosures, the site is interpreted as a hilltop enclosure (Recorded Monument DU005-057008). Rosepark was partially excavated between June 2000 and July 2001. It was revealed as a high status site, defended by ditches and occupied over hundreds of years from the late Iron Age onward.



Fingal Geophysical Survey Project



Ringfort (Recorded Monument DU013-015---), Corduff Park



Geophysical survey shows the ringfort and surrounding area to have been disturbed.



Surveying in St Catherine's Park

Corduff Park, Dublin 15

Ringforts were the defended farmsteads of the early medieval period (5th-11th century AD) consisting of a circular enclosure defined by a ditch and bank. There were three ringforts within Corduff townland; one of which is now under a housing estate; one in the open space of Warrenstown estate and another within Corduff Park.

Corduff was incorporated into the landholdings of the Anglo-Norman de la Felde family between the thirteenth and sixteenth centuries. It later passed to the Warren family who held it for almost 300 years. Corduff House was built nearby. Archaeological investigations ahead of the construction of the sports hall and childcare centre identified the foundations of a later house and a lime kiln.

Known locally as the fairy ring, the ringfort (Recorded Monument DU013-015---) is described as a platform ringfort and has a maximum height of 3m. Both the ringfort and the surrounding area were subject to geophysical survey. Unfortunately the majority of the area was covered in modern ferrous responses, probably the result of landscaping.



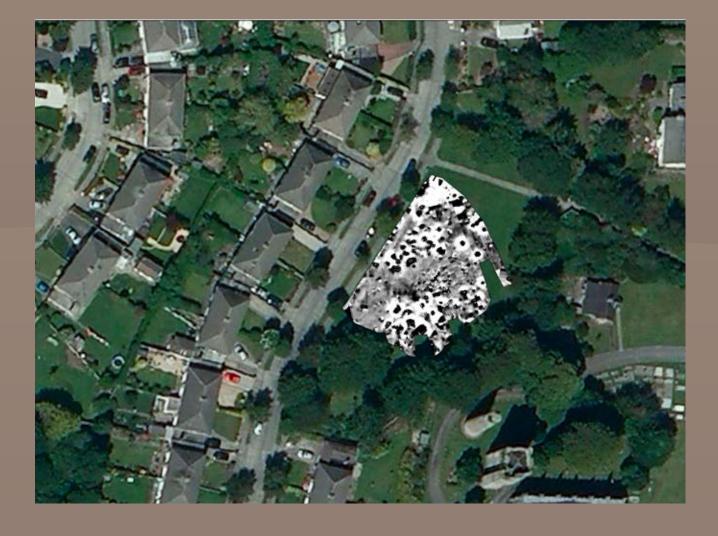
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Glebe, Swords & Chapel Farm, Lusk

In AD 431 Pope Celestine sent Palladius as the first bishop to the Irish 'believing in Christ'. By the sixth and seventh centuries there was a hierarchy of churches and ecclesiastical sites across Fingal. The principal churches were at Swords and Lusk. Laid out according to a specific schema, the church stood in the centre of at least two enclosures, the innermost of which was considered the most sacred. These enclosures are reflected in the street patterns of the towns. Ecclesiastical sites became centres of wealth with settlements, fairs and trades often located within the outer enclosures.

Lusk ecclesiastical centre was founded by St MacCullin who died in AD 496 and was closely connected to the ruling political dynasties of the time. Archaeological investigations identified an outer enclosure (DU008-01006) enclosing the core of the town of Lusk. Aidan O'Connell excavated part of a 2.5m ditch dating to AD 420-600 along Church Road while another segment of ditch was identified in what is now the open space of Chapel Farm estate. Geophysical survey results suggest dumping of modern material and levelling of the terrain, meaning the enclosure ditch or associated remains were not visible.

Swords which is associated with St Colmcille is said to date back to AD 560. Geophysical survey took place within the Glebe lands just outside the inner enclosure of the ecclesiastical site (DU011-034002). There was a lot of modern disturbance. However one zone of potential interest was located in the centre of the survey, although it is unclear if it of archaeological, modern or natural origin.



Modern disturbance obscured the area, but there is a zone of potential interest in the centre of the survey



Magnetometer survey at Glebe, Swords



Dumping and levelling of the site means the enclosure ditch isn't visible on the geophysical survey



Local residents getting involved with the survey at Lusk

Fingal Geophysical Survey Project

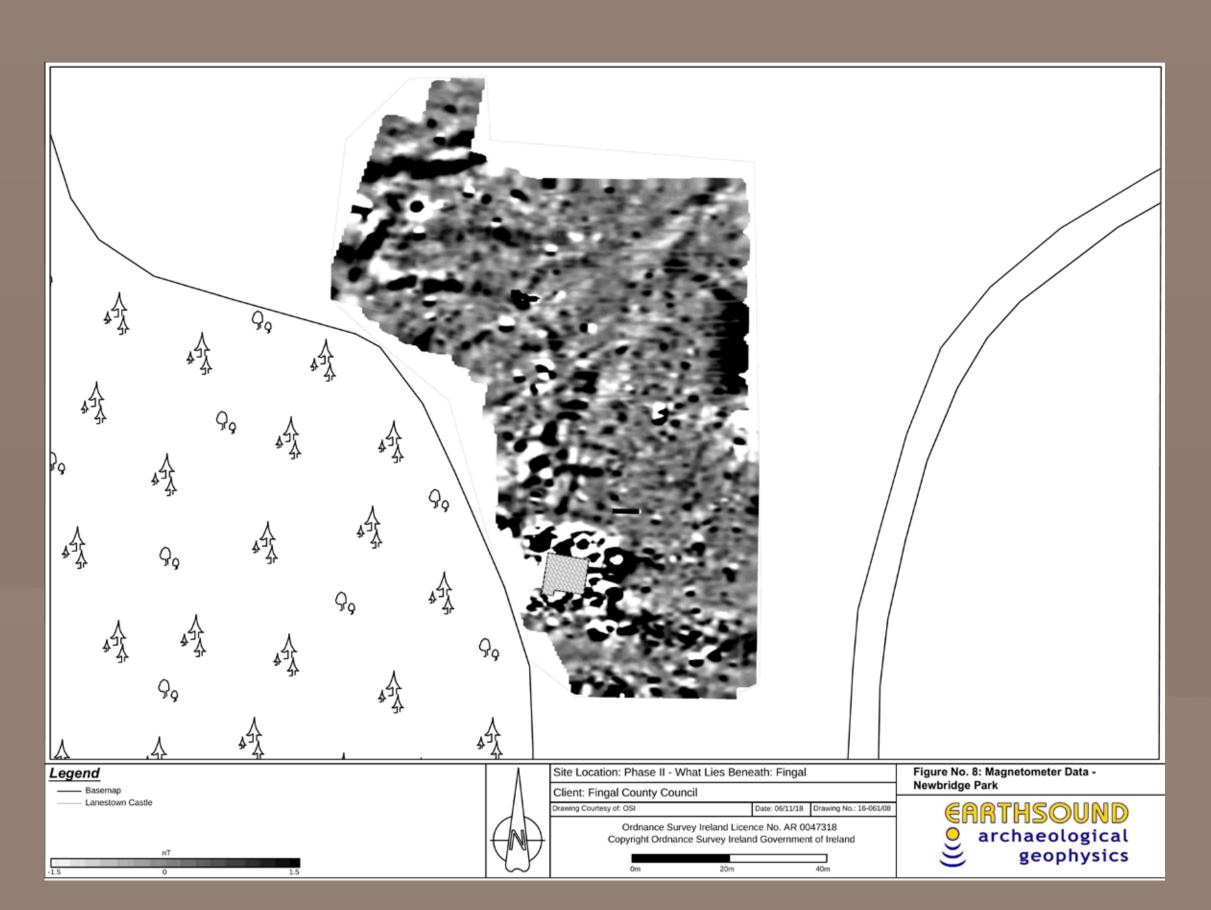


Surveying at Lanestown Castle (Recorded Monument DU012-004)

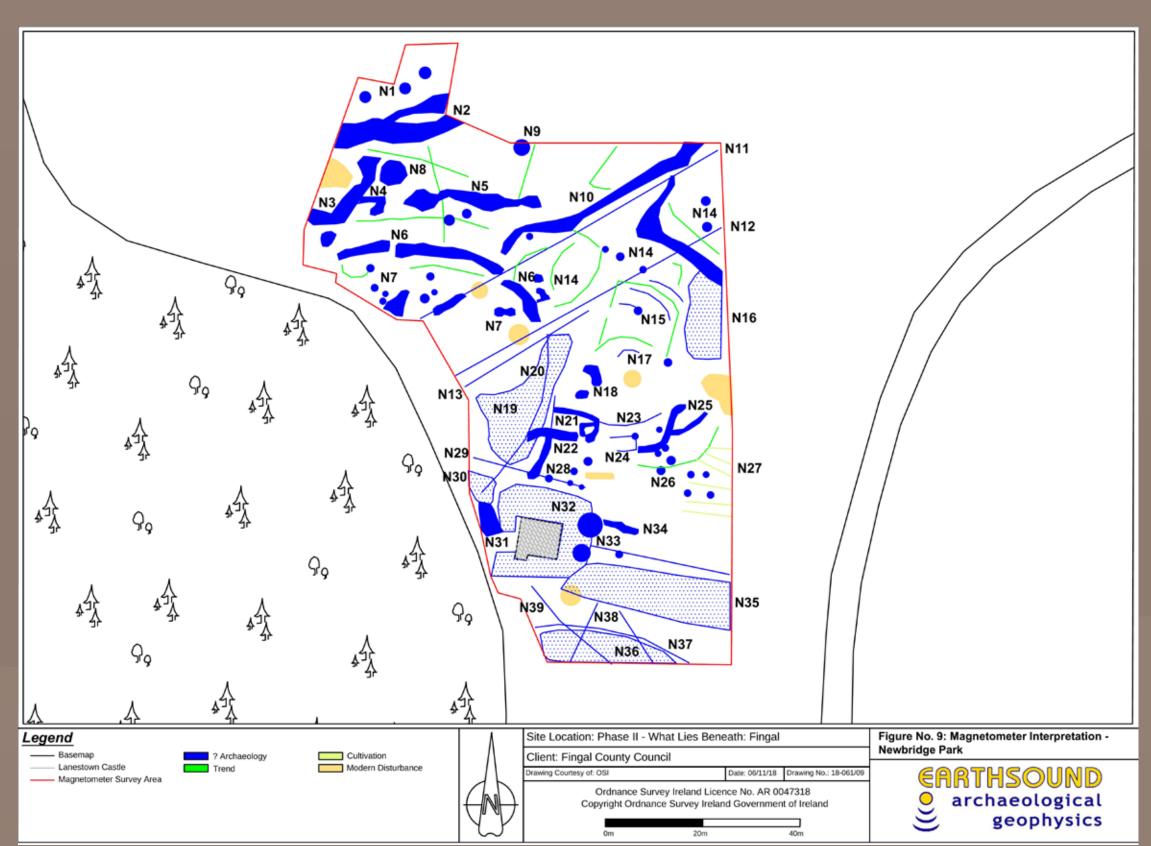
Lanestown, Newbridge Demesne

Lanestown or Lanistown Castle, now within the grounds of Newbridge Demesne is one of the few surviving tower houses in Fingal. It was probably built by the de Bathe family who were granted the manor of Lanestown in 1376 and held it for several generations. A large one-storey building extended to the east and was used by the Cobbe family as a dining hall in the eighteenth century. Prior to demolition in the 1820s there were buildings to the north and east of the castle. Lanistown castle was used as cattle shelter in the twentieth century. Predating Lainstown Castle this area was associated with the sixth century St Colman. In the 1830s John O'Donovan of the Ordnance Survey of Ireland, recorded that the ruins of St Colman's church were to the north-west of Lanistown Castle.

Geophysical survey identified archaeological activity, the earliest of which appears to be represented by an enclosure c.50m in diameter with associated areas of burning, ditches and numerous pits. To the north and east of Lanistown castle are five discernible structures and areas of demolition. Parallel linear walls or stone banks traverse the earlier activity heading towards the woodland. This is likely to have been an original entrance to Newbridge House.



Geophysical Survey results indicating several phases of activity at the site, some of which relate to the site of St Colman's church.



Interpretation of the geophysical survey results, north of Lanestown Castle



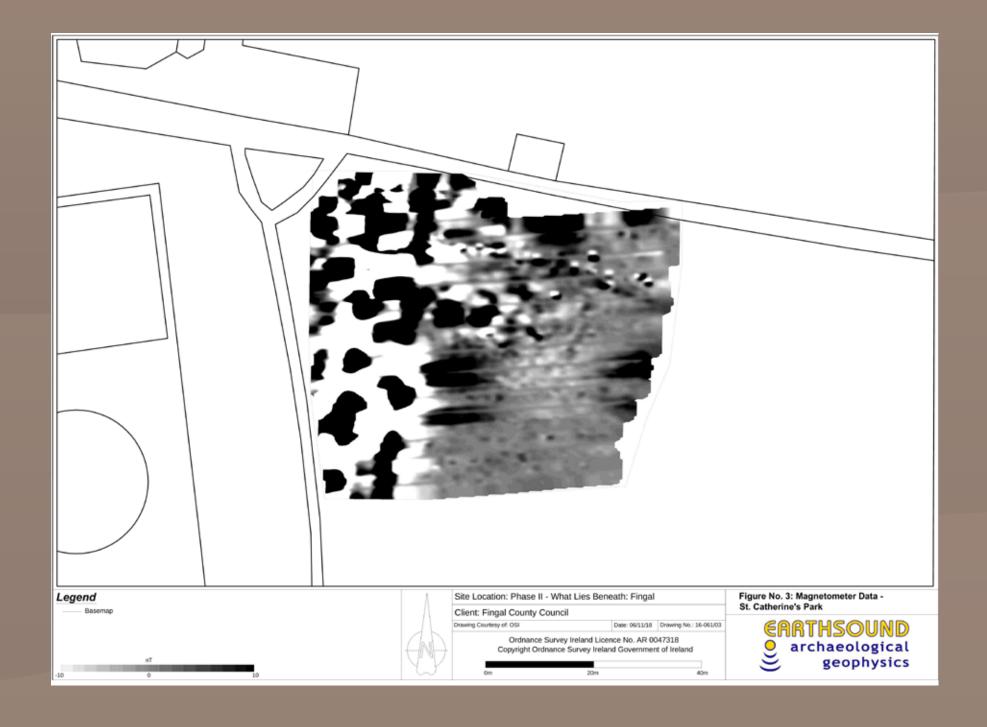


Fingal Geophysical Survey Project

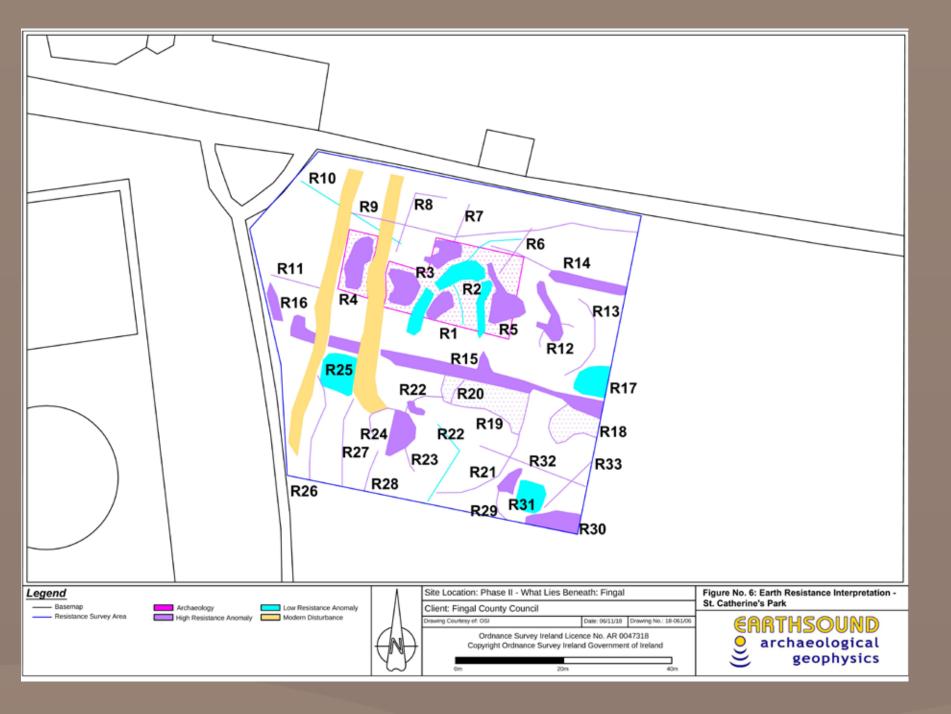
St Catherine's Park

St Catherine's was founded in 1219 as a priory of the Canons of St Victor, near a ford across the Liffey called Athlouan. The priory house fell into debt and was assigned to St Thomas's Abbey, Dublin in 1323. The historical record suggest that the priory was still standing in 1539 as it was held by a Canon Patrick Fynne rent free, on condition that he 'served the church, ministered to the people and maintained the buildings'. Following the Dissolution of the monasteries, it was granted to Thomas Allen, Chamberlain of the Exchequer and subsequently passed through a variety of owners. In 1754 a visitor described it as 'downright ugly, enclosed in high walls and terraces supported by walls one above another as formal as bad taste could make it'. The house burnt down in the early nineteenth century.

Archaeological monitoring in 1997 of an extension to the sewage treatment plant recorded walls, a disused drain and a cobbled surface of indeterminate date. In 2004 a stone-built tunnel with stone lintels and earthen floor was identified during pipeline work. The geophysical survey revealed an internally divided roughly L-shaped building with associated burnt remains, possibly the site of the house. Boundary walls and banks and features to the south that could indicate formal garden features, were also identified.



Geophysical survey results and interpretation. To the west is modern disturbance including pipe-laying. To the east possible remnants of a house and gardens.





Interpretation of architect
Francis Johnston's plans
(1799-1802) for St
Catherine's house, kitchen,
courtyard and servant's
tunnel (labelled souterrain)
by Ludo Beaumount.
St Catherine's chapel
(Recorded Monument
DU017-003) was originally
a dairy that
was remodelled.



St Catherine's Park c.1792 by Jonathan Fisher. St Catherine's was purchased by David la Touché who completely rebuilt and refurnished the house and gardens.



Surveying at St Catherine's Park.