

Richmond Penitentiary cholera cemetery excavation Grangegorman, Dublin

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Project background

Archaeological monitoring of construction groundworks was carried out on a light rail project that extended the Luas Green Line northwest through the centre of Dublin. These works were undertaken by Rubicon Heritage Services Ltd for SISK Steconfer Joint Venture Ltd (SSJV) on behalf of Transport Infrastructure Ireland (TII).

Test trenching identified two NE–SW orientated parallel ‘charnel’ trenches containing disarticulated human remains.

Historical background

During the 18th and 19th centuries the Grangegorman area became the focus for the development of a series of institutions to cater for the sick and indigent. The Richmond Penitentiary was converted to a hospital during the 1832 cholera epidemic and the garden of the penitentiary was used as an overflow cemetery when the epidemic reached Dublin, in March 1832.

In 1870, the Midland Great Western Railway acquired land from the adjacent Richmond Female Penitentiary site to facilitate the expansion of the rail yard at Broadstone. Accounts of the expansion note the discovery of burials and their reburial within these lands.

The excavation

The investigation methodology at the site was complicated by the presence of Japanese knotweed. A concentration of roots was found adjacent to the wall forming the north-western boundary of the site, where two rows of previously undisturbed graves were identified in addition to the charnel trenches.

Charnel trenches

The longest and deepest of the two charnel trenches extended for 45m in a NE–SW direction. The second trench lay to the north-west of the first and contained less concentrated amounts of bone. To maintain an approximate count of individuals whose remains had been re-interred in the trenches, each complete or almost complete cranium and mandible was numbered and its location within the trench was recorded. A total of 1697 crania were recorded on site.

The burial ground

Thirty burials were identified, set out in two discrete parallel rows. These were orientated NW–SE (heads NW) perpendicular to the penitentiary’s boundary wall. All but one of the deceased were buried in coffins and there were no instances of intercutting graves.

Osteoarchaeological analysis

The assemblage provides an important snapshot of the pre-famine population of Dublin city. Osteological analysis of the 30 articulated skeletons found that 12 were male, 14 female, two of ambiguous sex determination, one adolescent and one infant. The articulated burials were radiocarbon dated to cal AD 1680–1940 (2σ, SUERC-72381).

Of the 1697 human crania, adult remains (97.5%) comprised the majority, compared to just 2.5% subadults. Males represented 43.4% of the disarticulated crania, females 44.7% and unsexed adults 11.8%. A male cranium was radiocarbon dated to cal AD 1641–1928 (2σ, SUERC-72382).

Poor dental health was a feature in this population, with a higher rate of females affected by caries and ante-mortem tooth loss, while more males displayed calculus and periodontal disease. Males were affected more by non-specific infectious diseases and both sexes were equally susceptible to dietary deficiencies or illness. Males were more likely to be smokers and involved in heavy physical work from a younger age than females were.



An example of the concentration of disarticulated remains within the charnel trench. Credit: Rubicon Heritage Services



Excavating the charnel trench. Credit: Rubicon Heritage Services

Infections included syphilis and tuberculosis, and metabolic conditions such as scurvy and rickets were identified. Conditions normally associated with an ageing population were also present and slightly more males than females were victims of interpersonal violence. There was evidence of post-mortem dissections on cranial and vertebral fragments from the disarticulated assemblage.

Isotopic analysis

The strontium and oxygen isotope data indicate that most of the 23 individuals analysed are likely to have been local to Dublin. The carbon and nitrogen data suggest that there was a difference between the dietary inputs of the males and females, with some males consuming low levels of marine resources as adults. The females appear to split into two groups, one of which may have had maize in their diet; possibly due to women and children seeking aid in workhouses. The range of results may also reflect the mixture of social classes affected by cholera.

Dissection and the Anatomy Act, 1832

The peak of the cholera epidemic coincided with the introduction of the Anatomy Act 1832. There was a fear among the poor that if they died in hospital their bodies would be handed over for dissection by medical students; evidence from the site suggests people were correct in their suspicions.

Discussion

The cholera epidemic is a part of Irish history that has been overshadowed by the devastating effects of the later Great Famine of the 1840s; the results of the excavation and the skeletal and isotopic analysis have now helped shed some light on this period of Dublin's history.

Institutions dealing with the sick, indigent and criminal were located nearby, though it is

presumed that most of the individuals buried at the site were victims of the cholera epidemic.

The site also challenges the conventional wisdom that a short-lived, short-purpose cemetery would primarily have had interments in collective pits; instead, individual graves were potentially more common, and this was a closely planned and rigorously managed cemetery for the duration of its usage.



Vertebra fragment showing evidence of dissection.
Credit: Rubicon Heritage Services

Cranium #1401 – evidence of dissection or autopsy.
Credit: Rubicon Heritage Services

Dawn Gooney

Dawn has been a professional field archaeologist since graduating from UCC in 1999. After working on archaeological projects in Ireland and abroad, Dawn developed a keen interest in funerary archaeology and archaeoethnatology. She returned to university and completed an MSc in Osteoarchaeology at the University of Edinburgh in 2006. This led to her involvement in projects in the Orkney Islands and to a PhD in Archaeology, which she completed in 2015. Dawn joined Rubicon Heritage in 2015 as field osteoarchaeologist and site supervisor at the Grangegorman Cholera Cemetery, part of the LUAS Cross City works. Since joining the company, Dawn has been involved in a range of both archaeological and osteoarchaeological projects in both Ireland and the UK.



In-situ burials. Credit: Rubicon Heritage Services



Grave cuts, post-excitation. Credit: Rubicon Heritage Services