

Underground,



overground

Geophysicist James Bonsall conducting an earth resistance survey at Kilmurry, Co. Kilkenny. (Photo: Earthsound Archaeological Geophysics)

A recently launched online database has made the results of NRA-funded geophysical surveys accessible to all.

By James Bonsall, Thomas Sparrow, Chris Gaffney and Ian Armit, University of Bradford, and Rónán Swan, NRA Head of Archaeology

A new online database of geophysical surveys on Irish national roads was formally launched at the Institute of Archaeologists of Ireland spring conference—entitled ‘The Legacy of Development-led Archaeology’—on 6 April 2013. The NRA Archaeological Geophysical Survey Database contains an archive of each archaeological geophysical survey report carried out for the NRA in advance of new road schemes between 2001

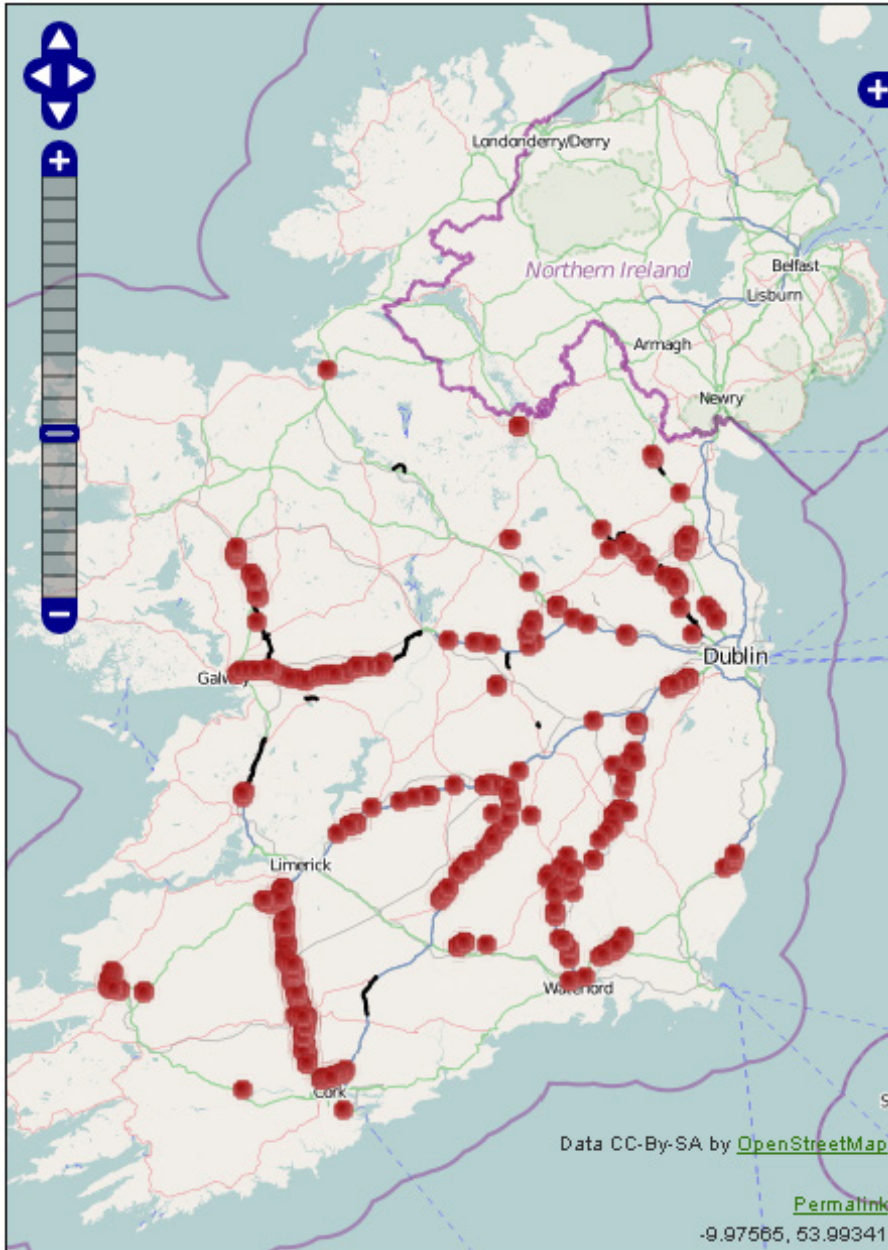
and 2010. The new database complements the existing NRA Archaeological Database (www.nra.ie/archaeology/nra-archaeological-database/), which currently holds data on more than 800 excavations and will shortly be supported by downloadable PDF reports.

James Bonsall, Dr Chris Gaffney and Professor Ian Armit at the University of

Bradford were commissioned to review archaeological geophysical surveys on NRA road schemes from 2001 to 2010 as part of an NRA Fellowship Programme (see *Seanda*, Issue 6 [2011], pp. 38–9). One of the key deliverables of the research Fellowship was an online database from which the geophysical reports could be viewed. The NRA Archaeological Geophysical Survey Database has been designed by James Bonsall and Thomas Sparrow to meet this need and can be currently accessed at www.field2archive.org/nra/.

The background to the database is that geophysical surveys have been used by the NRA between 2001 and 2010 to prospect for previously unknown archaeological sites

National Roads Authority Archaeological Geophysical Survey Database



Method of Investigation

Magnetic Gradiometry

Geology

- Sedimentary
- All geologies
- Igneous
- Metamorphic & Igneous
- Sedimentary**
- Sedimentary & Igneous
- Sedimentary & Metamorphic
- Sedimentary, Metamorphic & Igneous

road schemes). When clicked, each result will return some basic meta-data (data that describes other data) for the survey report, including land use, geology, contractor, survey techniques used, area coverage, spatial resolution, a report summary and a link to the full report.

The database will make a valuable contribution to promoting a greater awareness of the past among local communities through which national road schemes pass.

The NRA has assembled a vast quantity of archaeological information from its road-building activity and a key objective of its work is to ensure that the knowledge generated not only feeds back into the decision-making and project-planning process, but also is disseminated. It aims to be transparently accountable to the general public, who have funded much of the work. Information on all of the reports has been made available by the NRA; some of this information is limited to basic details, but numerous reports are available as a PDF document that may be downloaded freely by the public for personal use or for educational purposes. The database will make a valuable contribution to promoting a greater awareness of the past among local communities through which national road schemes pass. The cumulative effect of the professional geophysical survey work ensures that the NRA not only fulfils its statutory obligations (as set down in legislation and national policy), but also demonstrates a commitment to meaningful compliance. These efforts also serve to place the NRA at the cutting edge of the development and application of new archaeological geophysical investigation technologies and techniques, with direct benefits for the efficiency of its work on road schemes.

Within three months of going live, the database had 237 visits, of which 59% were 'returning visitors', which shows that it is being used as a resource. Some 54% of visitors were from Ireland, 27% from the UK, 12% from mainland Europe and 7% were from the USA, Russia, Japan and Australia. The database is a testament to the quality of work and the dedication of the geophysical surveyors; without their initial hard work on the road schemes—and the collection of some truly outstanding geophysical data—this project would not have been possible. The NRA and the University of Bradford would like to thank all of the geophysical consultants that worked on Irish road schemes between 2001 and 2010, culminating in this important archive.

A screen view of the online NRA Archaeological Geophysical Survey Database (www.field2archive.org/nra/).

and/or to investigate known or potential archaeological sites on 70 new roads across Ireland, covering more than 1,700 hectares of survey. The geophysical surveys were carried out by a number of consultancies from Ireland, the UK and Germany, resulting in more than 170 individual reports.

The database can be queried to identify survey reports that used a specific geophysical technique and/or upon a specific geology; the results are presented in an OpenLayers viewer (with data supplied from OpenStreetMap) as a clickable point source (for isolated surveys) or a polygon (for entire