

## 4. Archaeology and the National Roads Authority

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*Bronze Age ditched enclosure (centre left) at Tullyallen 1, County Louth, on the M1 Drogheda Bypass (Valerie J Keeley Ltd)*

### Functions of the National Roads Authority

The National Roads Authority (NRA) was established in 1994, as an independent statutory body under the *Roads Act 1993*. The NRA's primary function is to secure the provision of a safe and efficient network of national roads. Its current programme of new road schemes forms part of the government's overall strategy for the improvement of national infrastructure. More specific functions are prescribed by the 1993 Act, including the following:

- preparing or arranging for the preparation of national road designs
- securing the carrying out of construction, improvement and maintenance works on national roads
- allocating and paying grants for national roads.



*A view of a Bronze Age ditched enclosure at Tullyallen 1, County Louth, on the M1 Drogheda Bypass (Valerie J Keeley Ltd)*

Historically, the NRA has discharged its functions through the relevant local authorities (though it is also empowered to carry out such functions directly). Under Section 20 of the *Roads Act 1993* the NRA has general power to direct a road authority (i.e. a local authority) to ‘do any other thing which arises out of or is consequential on or is necessary or expedient for the purposes of or would facilitate the construction or maintenance of a national road.’

## **Funding**

Funding of the NRA is primarily in the form of grants from the Minister for Environment and Local Government. The level of funding is determined by the government in each financial year, having regard to the scale of the ongoing roads programme, the *National Development Plan 2000–2006* (NDP 2000) and the budgetary situation at the national exchequer. Apart from the exchequer, other sources of capital funding are the Cohesion Fund of the European Union and the European Regional Development Fund (ERDF), and private sector investment, via public-private partnerships, generally known as PPP schemes.

Total planned investment in national roads was projected at €5.6 billion over the life-span of the current National Development Plan. The allocation for 2002 is in excess of

€900 million. This allocation is for improvement works and to further the planning of projects on some major inter-urban routes, between Dublin and other towns and cities, as well as other national routes, and in particular to finance construction on over 20 projects throughout the country.

### **Forthcoming projects**

New roads are to be constructed to motorway/high quality dual carriageway standard on the main inter-urban routes between Dublin and Cork, Galway, Limerick and Waterford, and from Dublin to north of Dundalk. Numerous other national routes and urban bypasses where similar upgrading is proposed include sectors of the N2, N3, N4, N5, N17, N18, N20, N21, N22, N24 and the Galway City Outer Bypass. Planning for these schemes is at an advanced stage and will make further progress during 2003.

Further financial allocations have been made for projects at planning and design stage. (The allocation in 2003 is €1.2 billion.) This will enable the completion of environmental impact statements and the making of statutory orders during 2003 on schemes including: N6 Kinnegad–Athlone, N6 Galway–Ballinasloe (PPP), N6 Loughrea Bypass, N7 Nenagh–Limerick (PPP), N7 Limerick Southern Ring Road Phase 2 (PPP), N7/N8 Portlaoise–Mountrath (PPP) and N9 Kilcullen–South Carlow.

### **Archaeological implications**

The road building programme outlined above will have a large impact on the archaeological landscape. The management of archaeological contributions to the planning of roads projects (i.e. at route selection and preliminary design stages), and the subsequent archaeological investigation of threatened sites and monuments have become an integral part of the road-building programme. Recognising this, a *Code of Practice* was agreed between the NRA and the Minister for Arts, Heritage, Gaeltacht and the Islands (NRA & DAHGI 2000). The primary objective of the Code from the NRA's viewpoint is to establish a coherent and consistent approach to the management of archaeological aspects of the national road schemes.

### **The traditional approach to testing and mitigation**

Archaeological problems can arise in a variety of ways in developing a road scheme. In the past, at the planning stage, briefs for desk-based studies and field surveys by contracting archaeologists have seldom been comprehensive. In consequence, archaeological contributions to Constraints Studies, Route Selection Reports and Environmental Impact Statements have often been minimalist in their approach and content. This has sometimes meant that road design teams had inadequate information about the archaeological potential of the road corridors. In this situation, it is impossible to make effective and fully informed decisions about the avoidance of archaeological sites and monuments threatened by a scheme, or the mitigation of such threats by testing and excavation.

The traditional method of dealing with the impact of road schemes on the archaeological landscape had been to deal first with the known sites and monuments. The remaining, as yet unknown sites, were left to be discovered by monitoring topsoil stripping for the scheme and were then excavated in the course of the main construction phase. There are problems with this approach. The discovery of new archaeological sites at such a late stage can have severe impacts on the construction phase of a road scheme, generating major additional costs and particularly penalty claims by the main contractor. Also, in this scenario, the time allocated for the resolution of archaeological sites is severely constrained.

This approach — where so much remains unpredictable — has also seen an escalation of costs for archaeological work on road schemes with increases of 100% or more in actual or final costs above the prices originally quoted for monitoring and excavation contracts at the tendering stage. For the NRA and the local authorities, these costs have been difficult to quantify and have sometimes been a source of dispute.

Overall, it has been difficult for the NRA and local authorities to determine whether the archaeological services they procured in the past represented best value for money. This is exacerbated by the fact that little or no publication has resulted from the archaeological excavations on national road schemes carried out to date. Arising from this, the NRA and local authorities have enjoyed scant public profile in relation to their primary role in financing and managing the archaeological work on road schemes, both on site and at post-excavation stage.

### **A new strategy for testing and mitigation**

It is a primary objective of the NRA to reassess and improve the schedules, costs, methods and products of the archaeological work it commissions for national road schemes. The strategy being developed to achieve this objective is as follows.

- For desk-based contributions to a Constraints Study, Route Selection Report or Environmental Impact Statement (EIS), it has proved necessary to expand the briefs previously issued to archaeological consultants. The aim is to standardise the form and content of these contributions for all schemes and to ensure that they contain as much information as possible by EIS stage. This requires desk-based research on all available and relevant source material, coupled with archaeological aerial surveys and thorough, systematic field-walking surveys. It is only by increasing our knowledge of the potential archaeological impacts at EIS stage that it will be feasible to properly assess the archaeological implications in terms of avoidance, mitigation methods and costs.
- Post-EIS, it is now practice to develop a strategic testing brief designed to suit the needs of the individual scheme. The testing strategy should include the strategic use of geophysics and trial trenching as required and may involve testing known sites, identifying and testing areas of archaeological potential (dependant on landscape features), and testing previously unknown sites, as identified by field-walking and from aerial photographs. In some instances, where the method is

warranted, it may also be appropriate to pursue a 'blanket' testing strategy, with intensive trenching at regular intervals. One typical example would involve a central continuous test trench with off-shoots but, again, the exact layout of trenches should be determined strategically for each scheme, in response to topography, soils and other indicators of archaeological potential.

- With an adequate testing strategy, monitoring and identification of previously unknown sites during topsoil stripping should become less common and, consequently, contractors' penalty claims arising from archaeological interventions at construction stage should be reduced to a minimum. Also, strategic testing should significantly reduce the need for subsequent archaeological monitoring in areas where no archaeological features were found.
- Following testing, resolution should be carried out on the basis of closely estimated costs but also with clearly defined archaeological aims. This should lead to better value for money.
- Prior to post-excavation work being carried out by the archaeological consultant, a post-excavation design should be prepared. The purpose of this exercise will be to enable a coherent approach to telling the archaeological story of the landscape traversed by the road scheme. It will involve reviewing and refining the site records, assessing the potential of the excavation results, including samples and artefacts, and agreeing a programme of analyses leading to full reporting. The design brief should be written by the Consultant Archaeologist in consultation with the Project Archaeologist and should lead ultimately to publication.
- Finally, the National Roads Authority intends to publish the findings from roads projects on a scheme-by-scheme basis. By this means it will be possible to adopt a broad landscape approach in examining the archaeological findings and disseminating the results, rather than the piecemeal or site-by-site approach which has prevailed to date in reporting on Irish excavations associated with national roads projects.

To be successfully implemented, this strategy needs increased expenditure at the assessment phase of projects, including desk-based research, geophysics and testing. In addition to adequate funding, early access to lands is essential. This can have major implications for the efficient management of archaeological work on road schemes. The premium window of opportunity for archaeological testing and full excavation of threatened sites and monuments on a road scheme often occurs after compulsory purchase of the lands for the scheme and before the main phase of construction gets underway. This window is being narrowed by the accelerated pace of design, land acquisition and construction which is favoured for the National Development Plan. The EU procurement procedures to which the NRA and local authorities are bound can further reduce the time available for testing and mitigation. Nonetheless, if it is successfully implemented, the benefits of this strategy will include adequate time for archaeological excavation, reduced costs at the monitoring stage, fewer penalty claims, quantifiable archaeological costs and better value for money.

## **Value for money**

Value for money in the context of an archaeological project is not easy to define but some general criteria should be agreed by the archaeological profession and, I suggest, could include the following:

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| <i>Significance</i>  | The data, samples and artefacts recovered by the work — especially in the course of archaeological mitigation — should be of agreed significance.    |
| <i>Methods</i>       | Personnel and equipment should be adequate for the work and, ideally, should be the best available.  |
| <i>Efficiency</i>    | The work should be managed and conducted to an agreed programme.   |
| <i>Economy</i>       | Archaeological costs should not exceed a reasonable proportion of overall scheme costs — or the cost of comparable work in other circumstances.      |
| <i>Dissemination</i> | The work should generate a product – of benefit to scholars and the public — via publications, exhibitions, lectures or other media, as appropriate. |

## **Conclusion**

The work of the Project Archaeologists, following the *Code of Practice*, is still in its infancy. The projects on which Project Archaeologists were first engaged are still mostly at design stage with only a few at the investigative and resolution stages. Furthermore, extraneous problems in 2001 delayed the progress of numerous schemes. (The foremost problem was lack of access to lands arising from, first, the threat of Foot & Mouth disease and, then, a protracted dispute between the Department of the Environment and Local Government and the Irish Farmers Association, concerning levels of compensation for the impacts of road construction on its members.)

In due course, however, the initiatives generated by the *Code of Practice* and the appointment of the Project Archaeologists will begin to have a number of positive effects. The approach outlined above aims not only to pursue better value for money for the NRA and local authorities, but also to promote best practice in the archaeological profession, to encourage the development of archaeological methods, and to achieve a better understanding of Ireland's cultural heritage. These aims will best be achieved by the NRA and local authorities, their Project Archaeologists and the archaeological profession as a whole working in a spirit of co-operation for the benefit of archaeology on future road schemes.