

A Research Framework for the Archaeology of Wales Northwest Wales – Post Medieval 22/12/2003

Introduction

Every part of the United Kingdom shared fully in the fundamental economic, social and technical changes of the last two hundred and fifty years, which wrought such profound changes in the landscape. Yet North-west Wales has particular claims to the attention of archaeologists of the Industrial and Modern period. Its economic pace quickened markedly from the late eighteenth century onwards, and led to extensive development in the Victorian period, which proved incapable of being sustained through the harsher realities of the following century. For this reason, the modern archaeology of North-west Wales shows the lineaments of the classic industrial period very clearly indeed, not only in the evidence for mines and quarries but also in settlement. Brave but largely ineffectual attempts to salvage the economy of the area in the twentieth century – hydro electricity and its associated industries in the early years, the ‘advance factories’ of Attlee and Macmillan era *dirigisme* – have also added to the resource without presenting the archaeologist with overwhelming problems of scale. The present document suggests priorities for research for this region of Wales in the archaeology of the period 1750 to the present.

Primary industries

Slate

The slate industry of Gwynedd has been very thoroughly studied; to such an extent that it is unlikely that any other British industry comparable in terms of workforce and economic impact that has received the same level of attention. Detailed documentary research begins with Dylan Pritchard in the 1930s, and archaeological survey with the pioneering *Rhosydd* published in 1974. The group established to carry out this survey of Rhosydd Quarry in 1970s is still in existence, albeit with only a few of its original members and much newer blood, and continues its work from Plas Tan y Bwlch, meeting there for a week’s fieldwork every year under the supervision of Dr Michael Lewis, assisted at various times by Merfyn Williams, Gwynfor Pierce Jones and David Gwyn. The work of Fforwm Plas Tan y Bwlch has led much detailed recording on several sites. *Hafodlas* has been published and several other reports circulate in manuscript. It is to be hoped that the survey of Rhiwbach quarry will shortly be published.

The Gwynedd Archaeological Trust carried out much work on the slate industry between 1994 and 2000, with grant-aid from Cadw. This had the merit of establishing an overall picture of the archaeology of the industry as counter-poise to the single-site studies carried out by the groups associated with Plas Tan y Bwlch. These were able to move beyond rapid landscape assessment to looking in some detail at particular aspects of the industry, written up in the tradition of historic engineering rather than necessarily digging archaeology. There is clearly much work that remains to be done, and this should include further documentary research. The archive of the Gwynedd slate industry is vast, and many sources have only recently been catalogued or remain in boxes to this day.

Copper, lead, gold, iron-ore, manganese

The work of David Bick on copper mining in Caernarfonshire and Merioneth, and the work of John Bennett and Robert Vernon on the lead and other mines of the Gwydir forest has done much to increase our knowledge of the archaeology of some of the most important sites in the region. By the same token, the Amlwch Industrial Heritage Trust has carried out extensive documentary research on, and archaeological investigation into, the Parys copper mine, partly grant-aiding a study carried out by the Gwynedd Archaeological Trust. GAT's own rapid landscape assessment of metalliferous mining in Gwynedd, has, as in the case of the slate industry, established an overall picture, and made recommendations for detailed study. Organisations under the umbrella of NAMHO (National Association of Mining History Organisations) have also studied individual sites and NAMHO recently sponsored a conference at Aberystwyth on the all-important matter of water-power in Welsh mining, which it is understood will be published shortly. For these reasons, the archaeological study of metalliferous mining in Gwynedd is in a reasonably healthy state.

Coal

An archaeological assessment of the Anglesey coal industry was carried out by the Gwynedd Archaeological Trust with grant-aid from Cadw, between 2000 and 2001. This established that although there were very few building remains associated with the industry, there were extensive remains of shaft-heads and tips. Furthermore, in that the coalfield had not been extensively developed after the mid-nineteenth century, it offered a textbook illustration of the development of coal-mining techniques. The chronological span of the archaeology of the coalfield extends from the early seventeenth century, if not earlier, at the northeastern end of the coalfield near Ceint, where the seams are shallower, to the early Victorian period to the southwest. The report recommended that a ground contour study be carried out of the Ceint end of coalfield. This would provide a unique opportunity to investigate the archaeology of early coal-mining, which will complement the work carried out by Fred Hartley on the fifteenth to seventeenth century remains of the Leicestershire coal-field.

Agriculture

Archaeologists who interest themselves in the rural economy do not, perhaps, think of themselves primarily as Post-Medievalists, still less as industrial archaeologists. There is no industrialised farming on, for instance, the Leighton Hall scale within Gwynedd, but the construction of court farmyards on the greater estates in particular reflects patterns of investment and patronage which are also evident in the region's industrial landscapes. By the same token, the rural and the industrial economy were often one and the same in Gwynedd, both on the estates such as at Mynydd Llandygái and above Deiniolen and on the squatter settlements of Moel Tryfan and Nebo. Again, the landscape characterization projects carried out by GAT have been invaluable in identifying the variety of these landscapes.

Threats

Threats to the archaeology of primary industrial sites and landscapes come from several sources. The recent interest in reworking slate waste tips means that some quarry landscapes may yet be altered irretrievably. In some cases, environmental pressures may require copper mine tips to be removed or altered. The task of examining the archaeological resource for agriculture is made the

more urgent by current uncertainty as to the future of the farming industry, and the likelihood that many more agricultural buildings will be adapted as part of agricultural diversification programmes.

Ancillary industries

Sites

Study of iron working in the early Industrial period has been advanced by Peter Crewe, with the result that the archaeology of sites such as Dolgun is well understood. On the other hand, study of the archaeological legacy of the nineteenth century of ironworks and foundries within Gwynedd has barely begun. The extensive marine yard at Holyhead forms part of the study to be undertaken by the Gwynedd Archaeological Trust of the port infrastructure there.

Threats

In that the resource is barely quantified, it is difficult to assess threat level. The DeWinton works in Caernarfon is being allowed to fall into ruin, and only the bare minimum of recording has been carried out, on one structure within it. The future of the Holyhead marine yard is in doubt.

Twentieth century industry

Sites

In part because the nineteenth century legacy is so rich, comparatively little attention has been paid to what twentieth century industry remains in North-west Wales. The Hotpoint factory at Llandudno Junction was recorded by GAT before demolition, but its fate highlights the ease with which significant industrial building can disappear. Any future study should also include structures such as overhead power-lines – several dating back to the 1920s remain in use.

Threats

Again, little attempt has been made to quantify the resource. The future of the Dolgarrog aluminium rolling plant is in doubt.

Transport

Water-borne transport

Canals barely feature in the industrial landscapes of Gwynedd, though navigable rivers such as the Dwyryd, the Mawddach and the Conwy penetrated miles into the interior of the county. Michael Lewis's *Sails on the Dwyryd* has done ample justice to the archaeology of wharves and boats on this particular river, and suggests that similar studies, part historical and part archaeological, of the other long rivers in the region might prove equally informative. The slate harbours at Abercegin (Port Penrhyn) and y Felinheli (Port Dinorwic) have long been known to port historians as outstanding examples of the small industrial port of the nineteenth century, but other than Myrvin Elis-Williams's historical research on the port of Bangor, they have attracted little attention from scholars based in Wales. The early history of Portmadoc and of Ynys Cyngar has been set out in *Sails on the Dwyryd*, but this has not attempted a detailed archaeological

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investigation of either of these sites, and the other, even smaller, slate ports have not been investigated in any serious way – Caernarfon, y Foryd, Arthog and Aberdyfi. Bryan Hope's work on Amlwch will shortly see the light of day and will no doubt confirm many of the archaeological details of this all-important site. Other mineral exporting ports and jetties have received very little attention, and apart from the work of Mike Stammers on the archaeology of ship-wrighting creeks, Mr Hope's work remains the only investigation into the archaeology of shipbuilding within Gwynedd. As Andrew Davidson points out in 'The Potential of the Archaeological Resource' in *The Coastal Archaeology of Wales*, there have been very few archaeological studies of harbours and other riparian features.

The project recently awarded to Gwynedd Archaeological Trust to undertake a survey of the port and harbour of Holyhead represents an opportunity to study the archaeology of a major packet port in some depth, and to place its development within what is known of the growth and evolution of such sites worldwide. Yet it must be admitted at once that such a study will be hampered by the fact that very little is known of such sites – or rather, that what information is available is only to be found by dint of trawling through the *Proceedings of the Institution of Civil Engineers* and other nineteenth century professional journals. The Cadw-funded Welsh coastal archaeology projects emphasised just how little work had been done on the archaeology of the ports of the Industrial and Modern period, either in Wales or anywhere else, yet it is clear that such developments formed part of an international technical culture, and that the evolution of individual sites will only properly be understood when at least the broad outlines of international development are established.

Railway archaeology

In many respects, the number of books, journals and other studies devoted to railways in Wales suggests that academic study of the material evidence for the railway past is in a healthy state. In some respects this is true. Yet much of it continues to be written in terms of classic railway history, either of an 'externalist' variety which emphasises boardroom squabbles or an 'internalist' variety with a tendency to succumb to the fascination of technical minutiae. The traditional emphasis in railway studies on locomotives and rolling stock has tended to lead to the neglect of other features, such as civil engineering. It has also led to neglect of the all-important relationship between railway and settlement, as broader landscape features. The result is that very little work has been carried out from an archaeological perspective. A number of individual archaeologists have carried out private research into, and survey of, early/hybrid railways in North-west Wales, but as yet no archaeological organisation has carried out any detailed survey, with the exception of the Gwynedd Archaeological Trust's work on the Cegin bridge near Bangor, identified as the oldest surviving multi-arched railway bridge (2002). Individual sites have been recorded as part of assessments.

The extensive work carried out in the 1980s, particularly by the Royal Commission, on early/hybrid railways in Wales has tended very much to reflect the extensive networks and distinctive technology of South Wales, with its adoption of the plateway system and early use of locomotive power. It is clear that North-west Wales was more heavily influenced by other parts of the United Kingdom than it was by South Wales, and the archaeology of such systems, like the archaeology of later forms of railway, has to be considered in a British context, rather than regionally or even nationally. In this respect the tri-annual Early Railways Conference forms an important meeting ground for all interested in this period. The first of these was held in Durham in 1998, the second at Manchester in 2001. The third will be held at York in 2004. A detailed archaeological study of the railways built in North-west Wales between 1801 and

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the mid nineteenth century which applied insights gained elsewhere would highlight a crucial phase not only in the evolution of the early/hybrid railway, important though that is, but also in the all-important matter, barely considered, of how the North Wales narrow gauge, with its distinctive technology, took the unimproved horse railroad into the age of steam traction. The Portmadoc trials of 1870 effectively provide a narrow gauge version of the Rainhill trials of 1829, conclusively demonstrating the practicability of a steam traction system in a way that could be imitated worldwide. The recent declaration by UNESCO of the Darjeeling-Himalayan Railway as a world heritage site underlines the international significance of these railways that were the immediate lineal descendants of those in North-west Wales.

However, study of railway archaeology within North-west Wales should not confine itself to the narrow gauge lines. A number of features associated with standard gauge railways have been acknowledged from inception as of international significance – primarily the two Stephenson tubular bridges, which established wrought iron as the dominant structural material. There is little need to make a case for the Conwy tubular bridge, but many other humbler structures should be considered. The Cambrian coastline from Dyfi Junction to Pwllheli is one of the very few railways in the world making use of wooden bridges, such as were once familiar in every country, though above all in the United States of America. Features such as these cry out for detailed recording. Other structures, however apparently unremarkable, should at least be evaluated – signals and signal boxes, station buildings, over-bridges. Even if many of them prove to be of no more than regional significance, the effort should still be made.

Roads

Roads have been almost entirely neglected by archaeologists. Within North-west Wales the one exception is the study carried out by the Lancaster Unit on the Telford *lon bôst*, the old A5, publication of which is eagerly awaited. Otherwise, the rich archaeological inheritance of the turnpike system, its predecessors and successors, is almost entirely ignored. As well as details such as mileposts and structures such as tollhouses, the whole question of the archaeology of civil engineering of roads themselves and of bridges, should be investigated. This would involve detailed research in the quarter sessions papers and in bridging bonds, but it would confirm building dates for many surviving features and possibly the identification of different engineers.

Intermodal transport

Ports and harbours strictly speaking form intermodal transport features, but it is also worth mentioning the locations at which goods were transhipped between different types of transport feature – primarily between railways of different gauge. Examples survive at a number of locations, primarily at Pant yr Afon, Blaenau Ffestiniog, where the Gwynedd Archaeological Trust commented on plans to alter and destroy some of the features in danger from the proposed A470 road widening, and at Minfford yard in Penrhyndeudraeth. As with other features of the Gwynedd narrow gauge, their significance extends beyond the merely local or regional, in that the use of railways of different gauges within North west Wales is more akin to, and is sometimes the clear progenitor of, the many locations in the British empire where two different rail gauges met.

Threats

Transport features are under threat from continued use of the sites with different technologies. The heritage railways are constantly needing to adapt to intensive

use for half of the year, the arms of the national rail network to minimal use and to the uncertainties of a privatised industry. Roads and bridges are constantly upgraded and altered. The treats to transport archaeology are not always obvious but because of the dynamic nature of the sites, they are unremitting.

Settlement

Dwellings

In 1991 the Association for Industrial Archaeology produced a policy document making the case for all the buildings of the Modern/Industrial period to be worthy of inclusion in the study of Industrial Archaeology. Certainly the case for regarding the dwellings of industrial workers as part of the industrial landscape has now been largely accepted, and the work, particularly of Jeremy Lowe, of the Welsh School of Architecture at Cardiff did much to focus work on the significance of individual buildings within this tradition. Judith Alfrey's work on rural building has established parameters within which the vernacular and 'picturesque' traditions may be assessed.

Later forms of industrial housing stock, and houses built for a wealthier clientele than for industrial workers, should now receive the same sort of attention. The relisting surveys and the landscape characterisation projects have confirmed the wide variety of urban architecture within Gwynedd. Caernarfon, for instance, preserves a surprising range of Regency houses; Porthmadog builders appear, on present evidence, to have gone on building in a Regency idiom derived from Madocks' Tan'rallt until about the 1890s, and extended their sway as far as Penrhyndeudraeth, where their styles clashed with those of Blaenau Ffestiniog builders, who themselves may have imported the idiom of their native Cardiganshire. There is little doubt that just as recent Welsh scholarship has established a school of 'artisan painters' and 'artisan engineers', schools of 'artisan architects' wait to be discovered. The wealth of information in eisteddfod essays and local newspapers makes it possible to recover these traditions if the work is undertaken.

Public buildings

Chapels, both rural and urban, also are at long last receiving the attention they deserve, even if the sound advice on adaptation provided by Cadw is not always heeded by planners and local authorities. Other public buildings have been little studied, yet it is clear from the landscape characterisation work carried out by the Gwynedd Archaeological Trust with grant-aid from Cadw that splendid examples survive, sometimes in unlikely places – a Regency reading room in Tan y Grisïau, a Carnegie library in Deiniolen, to say nothing of the off-site quarry hospitals erected by patrician landowners in the mid nineteenth century. That the old C&A hospital at Bangor should have been demolished without any recording in the 1980s was hardly surprising. It is a pity that no opportunity was afforded any archaeological organisation to record St David's Hospital in Bangor before the contractors set to work in 2002. Such buildings cry out for an integrated approach which places the material evidence within the context of medical history, as has been carried out, for instance, in the University of Wales, Bangor's study of the Denbigh asylum.

Towns and villages

It is important also that studies of the nucleated settlement should not consider buildings in isolation but in their relation to each other and to the proprietorial

patterns, which, arguably, gave rise to them. The author of the present document attempted something of this in an article in *Landscape History*, which argued that the distinctive form of Gwynedd's slate quarry settlements derives from the refusal of the great landlords to allow villages on their lands, and that nucleations came into being on small freeholds.

Threats

Threats to the archaeology of settlement in North-west Wales are many and various. The local political climate is not conducive to heritage, and there is often a difficulty in seeing that the dwellings of what are perceived to be 'ordinary people' have any merit or interest. The pebbledash culture is still alive and well, and enjoying official benediction with 'enveloping schemes'.

Priorities

In Gwynedd it is perhaps more difficult even than in many other areas difficult to make clear-cut distinctions between different types of archaeology from the Industrial and Modern period, with the industrial economy of mine and quarry being part and parcel of the rural economy of small-holding and field. For this reason it is difficult to establish particular priorities for particular subject areas. In many ways the gradual advance on all fronts that has characterised the last ten years' work on this period and within this area has yielded valuable results. However, the primary industries have been considered in detail, and the focus should now move to the transport infrastructures. In the light of the foregoing, the following are suggested:

High priority - comprehensive survey

- Urban settlement survey
- Rural settlement survey

High priority – scoping survey

- Transport archaeology, whether on an area-by-area basis or on a transport type

Medium priority – scoping survey

- Agricultural buildings and field systems
- Twentieth century industry

Medium priority – contour survey

- Coal workings at Ceint

Approaches

Given the wealth of documentary evidence for the social history of the period 1750 onwards, it is vital that archaeological study include academic library-based research. This should include a literature search through primary sources, but it should also examine the work of, for instance, technical, economic, social and labour historians. It should, by the same token, inform the work of scholars in other disciplines, whether by means of joint conferences or by publishing in a wider range of journals. Stephen Hughes has recently made a plea for a still more inclusive approach to social archaeology, arguing that: There is much need for

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this integrated social/industrial approach but it has not been immediately apparent how for example a nineteenth-century Anglican church might be studied using methodology employed by and relevant to 'industrial archaeologists' rather than those methods well established by art and architectural historical practitioners. Mr Hughes's conclusions are necessarily at this stage speculative and provisional. Yet he is by no means the only archaeologist of the Industrial and Modern period to argue that the traditional parameters of the discipline are not in themselves sufficient to do justice to the material evidence for the past. Possibly Post-Medieval archaeologists have been more ready than industrial archaeologists to look beyond subject boundaries, and there are also signs that a longstanding distinction between the two as the archaeology of consumption and as the archaeology of production no longer command assent. North-west Wales, with its strong and distinctive cultural and intellectual traditions and its long record of historical research, offers a challenge to an archaeological profession willing to engage with the totality of its past.

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