

INDUSTRIAL WALES (1750 - 1899)

Contributors to the 2016 update of the Research Framework have agreed that the overarching priorities identified in 2011 remain relevant. In summary, already-identified priorities include assessment of:

- The significance and scale of technical change within the major industries of coal, iron, copper, tin, lead and slate, and the impact of that change within the landscape; their context and significance in terms of similar sites elsewhere in the world; their relationship with the markets they served
- The extent to which some industrial sites might have origins predating 1750
- The significance of military and defensive sites
- The erosion or survival of local and regional characteristics in domestic building from the later eighteenth century onwards; the varieties of planned and unplanned settlement; evidence for migration and social diversity in housing stock
- The extent to which the proliferation of social infrastructure and communal institutions such as chapels, churches, institutes is a distinctive feature of the period and in what ways these structures might be distinctive to Wales
- The significance, form and archaeological survival of transport corridors – turnpikes, government-sponsored roads, canals, railways – their engineering, the industries they served and the settlements they sustained
- The significance, form and archaeological survival of major dock systems; their context and significance in terms of similar sites elsewhere in the world

Introduction

“ Industrial archaeology, at least in Great Britain, focuses primarily on studying, recording, and preserving the remains of the Industrial Revolution, which was a unique

and large-scale phenomenon ” (Trinder 1982, 350).

The definition of industrial archaeology can be debated at length, however for the purposes on this framework the term industrial refers to the period 1750 – 1899.

The Wales we inhabit today is a reflection of this industrial period, it encompasses the extraction, production and processing of all types of raw materials – mineral and organic, the working, manufacturing and marketing of those products and the supporting infrastructure – settlement, utilities, transport and communications.

In this time-frame, an agricultural and pastoral society evolved to become a leading industrial export economy, supplying not only iron and copper products, coal, tinplate, lead, granite and slate to world-markets and to an imperial polity, but also labour and know-how, as Welsh migrants took their skills with them to the USA, to Russia and beyond. Migration into Wales from elsewhere of people working in industry is also evident in this period in the changing architectures of religious buildings. Wales ceased to be a receptor-culture and became an initiator-culture in the Industrial period. At the same time, strong cultural continuities are also apparent, in the growing strength of the Welsh language and in the vitality of small rural communities. For these reasons, the industrial period offers strong narratives of innovation and renewal, of transformation and social conflict, which inform the contemporary sense of Welsh identity.

Relevant recent research

Active research is being undertaken in a number of areas. These include industrial-era site types such as canals, early (pre-1850) railways, the slate industry, copper-mining and processing, and in Wales’ international trading links in industrial materials and products. There is also a considerable amount of research being undertaken into the buildings of Wales, including chapels, urban townscapes, vernacular dwellings, and to some extent into industrial and institutional buildings, through individual study, the Pevsner series and urban characterisation process.

Sites investigated since 2007 are too numerous to list in full, however a few key sites and projects which relate to this period noted in Archaeology In Wales and elsewhere for the period 2007 – 2016 follow;

- Glamorganshire canal warehouses of the Cyfarthfa ironworks
- Former Dewhurst Factory Ystalfera
- Felindre Weir in Montgomeryshire and Caergwrle Weir in Wrexham
- Ffos Y Fran and Ynysfach Ironworks in Merthyr Tydfil

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- Taibach and Ffrwydwyll Tinplate works and Margam Copperworks in Neath Port Talbot
- Dylife Lead Works in Montgomeryshire
- Buckley Potteries in Flintshire
- CALCH in Black Mountain
- Parys Mountain survey in Anglesey
- Copper Slag Project, Swansea

Gwyn et al noted in 2011 that the Research Framework has informed much of the work that has been carried out on industrial sites, transport links and to some extent on industrial settlements. The international context of Wales' industrial past in this period (1750-1899) was also emphasised and the importance of ensuring the value of potentially internationally significant sites is understood prior to their loss or redevelopment was highlighted, specifically in relation to the role that Wales' industrial past plays in its modern economy. This aspect of the value having a research framework for industrial heritage is particularly relevant to Wales as it was noted the successful process of nominating the Llangollen canal and its aqueducts for World Heritage status was informed by the Research Framework, as was the addition to the DCMS for the UK tentative list of World Heritage Sites of the slate industry of north-west Wales.

However it is important to note that vernacular traditions are equally relevant in terms of our understanding of this period.

Amendments to the research questions; a proposed new thematic framework.

At the time of the first review in 2011 Gwyn et al observed that much of the research being undertaken largely focused on the industrial and innovative aspects of the period 1750-1899. In particular new technologies of production and transport, and new types of religious and social organisation had been subject to the most investigation. Gwyn et al noted in the 2011 review that the sheer scale of the remains of this period makes any sort of conclusive study of Welsh industrialisation a daunting task; despite advances in archaeological practice this remains the case.

The research undertaken at the key sites identified above have further addressed the questions posed in 2007 and at the time of the review in 2011, and knowledge of the 'industrial' element of the period has been increased. However it has been noted that a gap still exists in our understanding of the 'scientific' elements of past industries, particularly metallurgical industries where limited scientific investigation has been undertaken as there has tended to be a reliance on contemporary

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documentary accounts to tell us 'what we need to know'. An opportunity exists to pursue an avenue of research in the identification of waste products from the metallurgical industries, more specifically collaboration with metallurgists would be worthwhile to establish if it is possible to identify the unique qualities and origin of these wastes and whether anything could be understood about the processing of these materials.

Further the investigation of below ground archaeology of the Industrial period remains limited. Across Wales opportunities to investigate subterranean remains have been lost as issues of safe access have proved insurmountable. Any future work in this area needs to consider how information can be gleaned safely and effectively, possibly using innovative methods that have recently become available.

Gwyn et al suggested in 2011 that whilst industrialisation stimulated new regional styles it also sustained cultural distinctiveness, and that both agriculture and industry should be considered within broader patterns of social change in this period. It was suggested in 2011 that an emphasis on the transformative nature of industrialisation in Wales (1750 -1899) must continue to be a focus for the research framework as it evolved, along with social and economic change; aspects of the local character and distinctiveness of Wales that survived amongst this change. These topics remain relevant, and should form an integral part of the research framework.

Notably the investigation of supporting industries, infrastructure and communities, whilst a part of the previous research framework for this period, have not enjoyed the same attention as the core processing industries themselves. This is perhaps understandable, as the greatest threat of large scale change has tended to be posed by the reclamation of the landscapes of Wales' industrial past, and as a result there has been a greater threat of loss in terms of these remains. Thus the majority of threat led research in this period has been limited in this aspect, with those features of supporting infrastructure (particularly agriculture and food production) and communities being left largely uninvestigated in this sphere, simply because of the nature of change. There are opportunities to consider the relationship between industry and agriculture in this period, specifically in terms of the industrialisation of agriculture and the development of model farms such as Leighton Farm in Montgomeryshire and Wolvesnewton in Monmouthshire. The agricultural sector remained important in Wales in the period between 1750 and 1899 and saw many fundamental changes in this period, including enclosure, the development of courtyard farms and even of mechanised farming in some places. Improved transport links altered much of the character of Welsh agriculture in this period. Study of the many new farm-yards and agricultural buildings of this period should be a high priority.

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Tourism and recreation have remained peripheral to the study of this period. Certainly there is a risk that without including these as topics within the research framework the opportunity to understand this aspect of the period will be lost. Tourism and recreation in this period has left its mark in transport links, distinctive structures and settlements, swimming pools, football and rugby stadia *etc* and are particularly important as the archaeology of what is now Wales' most significant industry.

Study of the local has to a point been missed in much of the recent work looking at this period. There are opportunities to study the daily lives of those living in this period more closely; particular consideration should be given to domestic housing (rural and industrial), food production and consumption (in terms of economics and accessibility). The extent to which allotments, kitchen gardens (associated with rural and industrial settlements), and tied "company truck" subsistence were a feature in everyday life in this period would merit further research. Further there is a need to consider how the increasing separation of the industrial working class from the industrial owning class, where the industrial working class can be found living in close proximity to their place of work and the industrial owning class can be observed moving to more bucolic surrounds, is reflected in the archaeological remains of this period.

In order to attempt to redress this balance and provide an opportunity to broaden the focus of research in this period we propose to look at this period thematically.

An initial list of key themes is suggested below.

THEME	TOPICS WITHIN THEME
Transport	Canals Bridges Docks/ports/harbours * covered by maritime in part Road and rail, Railways/tramroads turnpike roads/roads
Extraction	Coal Lead Slate Stone quarrying
Processing	Metal Textiles Stone Food production (milling, breweries)

Infrastructure

Warehousing & storage
Industrialisation of agriculture,
model farms
show grounds
Industrial housing
Places of worship
Social infrastructure, work houses,
Institutes, theatres, pubs, hotels,
Hospitals
Cemeteries, Burial grounds &
crematoriums.

Power

Water
Steam
Mineral
Electricity
Gasworks

Economy

Employment
Food production and consumption,
company truck/allotments/kitchen
gardens
Tourism

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