

# Judy Birmingham, Industrial Archaeology and the National Trust in the 1980s

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*Industrial Archaeology owes its origins to the efforts of individuals, acting both individually and in concert. The amateur and the professional both had important roles in the genesis of the field, the former in finding sites and pursuing information on a voluntary basis and the professional by applying codified approaches and methodologies to give meaning and context to the information. The development of industrial archaeology in NSW has these factors, with the National Trust of Australia (NSW) providing a venue and support to the volunteer and the Faculty of Arts at the University of Sydney providing initial professional context. Other participants included the Institution of Engineers and the Australian Railways Historical Society, as well as local and historical societies, professional and trade union associations, military historians and museums. There were, of course, many other players in the development of the discipline and other observers may have a differing perception of the relative roles of these contributors.*

*Any excursion through the archives of the National Trust of Australia (NSW) or the Journal of the Australian Society for Historical Archaeology will inevitably stumble across the name Judy Birmingham in many different contexts. This paper provides a personal reflection on the genesis of industrial archaeology in NSW and upon the unique contribution of Judy Birmingham to the state of the discipline today.*

## BACKGROUND

Industrial Archaeology evolved in Europe in the mid-twentieth century as a specialist, somewhat idiosyncratic branch of Archaeology, dealing with the extensive sites and relics of the early Industrial Revolution that were significant in the landscape of those countries (Hudson 1963, 1967, 1979). The physical imperatives of development which would destroy these sites created the need to identify important historical sites and a requirement for the skills of archaeologists to identify and explain surviving industrial landscapes. Within this context, the academic discipline of Historical Archaeology developed methodologies for studying places of more recent origin involving historical records. Where traditionally the archaeologist had studied classical history interspersed with research, documentation and analytical methods, the latter skills were gradually identified, separated and refined so that they could become effective research tools for any type of archaeological site, including those from the Industrial Revolution.

Britain especially, with its network of abandoned navigation canals, replaced by railways and steamship transport, and its early mining and metals processing sites, faced the twentieth century with a relict industrial landscape. The Newcomen Society for the History and Engineering and Technology was established in 1920 as the first association of people interested in industrial history; Michael Rix, a British historian from the University of Birmingham, is credited with giving the study of the relics of industry the formal title 'Industrial Archaeology' in 1955 (Wikipedia 2006).

By the mid-twentieth century historical archaeology was a recognised discipline amongst international academic fraternity but its recognition in Australia remained low, despite its clear relevance to the post-industrial-revolution landscape created by the newly arrived immigrant Europeans. By the end of the 1960s, however, in the post World War II climate of development combined with waves of European migration, there was a growing recognition that Australia's European history occupied a unique historical position in the history of the Industrial Revolution, as much of its 200 year history falls within this period.

The Australian Society for Historical Archaeology was formed at Sydney University as an academic and professional association for archaeologists interested in subjects other than pre-history and produced its inaugural newsletter in 1970. Almost by default, historical archaeology in Australia is closely related to the study of industrial places and processes.

## THE NATIONAL TRUST OF AUSTRALIA (NSW) INDUSTRIAL ARCHAEOLOGY COMMITTEE

When the National Trust of Australia (NSW) was created in the late 1940s, its initial focus was on landscapes, historic houses and public buildings. The end of World War II brought an era when elderly mansions and public buildings were demolished and replaced by apartment buildings and office towers. Their former grounds and gardens were turned into residential subdivisions. Significant natural and cultural landscapes were threatened by new development. The modus operandi of the National Trust reflected, though was notably different to, England's National Trust, from which it took its inspiration; eminent and enthusiastic architects and historians sat on the Trust's first technical advisory committee for built heritage, the Historic Buildings Committee.

From making public statements and lobbying governments about 'unfortunate' demolitions, the Trust soon moved to creating a register of heritage buildings, so that the value of these places could be recognised. In doing so, the Trust developed a strong collegiate system, through its expert voluntary committees, for assessing heritage value in a relatively objective manner. These assessments remained closely related to the academic disciplines of architecture, which had a professional and academic context against which value judgements could be made, and history whose values were more nebulous but which could point to cultural, physical and economic evidence against which to measure heritage values. Nevertheless, the Trust also recognised and classified several sandstone bridges and places such as Fort Denison in its early registers which indicated a willingness to venture beyond their original parameters.

In the late 1960s, Rupert Purkis, an architect on the Historic Buildings Committee, pointed out that the Trust could achieve more in relation to sites and relics other than buildings and cited the British Society for Industrial Archaeology and its work in identifying historic places such as bridges, canals and mining sites (*National Trust Bulletin*, September 1968). With the encouragement of the Trust, a new Industrial Archaeology Committee was established in 1969, initially as a sub-committee of the Historic Buildings Committee but soon developing an identity of its own, as non-architects such as engineers and archaeologists agreed to join. These new members included an archaeologist from the teaching staff of the University of Sydney, Judy Birmingham (*National Trust Bulletin*, April 1969).

The objectives of the National Trust remained something of a social curiosity in those early days and industrial heritage was largely limited to iconic structures, like Sydney's early warehouses and woolstores. The Industrial Archaeology Committee, however, began to acquire some highly qualified members. Rupert Purkis, its inaugural chair, was soon able to let these new committee members take up the reins although he remained an active member of the Committee until his death in the 1990s. By the mid-1970s, the committee included an architect, several academic historians, a number of amateur historians, an academic archaeologist and a number of professional engineers. By 1974, the sole professional archaeologist, Judy Birmingham, was the Chair of the committee and industrial heritage items such as flour mills, pottery kilns, lighthouses and bridges were being regularly assessed and listed in the National Trust Register (*National Trust Annual Reports*, 1968–1975).

While the Trust was developing its skills, the academic world was also broadening its horizons. In 1974, Judy Birmingham began to teach Historical Archaeology as a specialist discipline at the University of Sydney in addition to the traditional prehistoric and classical disciplines. A second-year course, the first intake of historical archaeologists was small. Most graduated with no certain career. Many of that graduate class are now well recognised names in the 'heritage industry'.

## PARALLEL DEVELOPMENTS IN HERITAGE ADMINISTRATION

It was a decade of changes in many ways and the 1970s brought a new era for heritage in Australia. Following the 1974 Hope Inquiry into the National Estate, the Commonwealth Government brought in the Australian *Heritage Commission Act* in 1975. By 1978, the Register of the National Estate had been created. A National Estate Grants Program was established to fund heritage works and studies and, from 1978, was also providing operating funds to the individual National Trust organisations around Australia. Between 1955 and 1965, National Trusts had been incorporated in all the States; the territories both acquired their own Trust organisations in 1976 (Mulvaney 2004). In NSW, the State Government followed the Commonwealth Government's example with the NSW *Heritage Act, 1977*. By 1978, the Heritage Branch of the NSW Department of Environment and Planning had been established.

In conjunction with these public sector actions, an Australian Chapter of the International Council on Monuments and Sites (ICOMOS) was established in 1977 and held its first meeting in April, 1978 at Beechworth, Victoria. Many recognised academics, professionals and government administrators with involvement or potential interest in heritage attended (Bourke 2004).

One of the first resolutions of the ICOMOS organisation in Australia was to develop a version of the *Venice Charter* that would be suitable for use in the antipodes. A committee was formed in February 1979 to prepare a working draft of what would become *The Burra Charter*. This committee included Peter James, then Deputy Director of the NSW National Trust and archaeologist Judy Birmingham. Others included Jim Kerr, Miles Lewis, Peter Bridges and David Saunders as well as numerous individuals who assisted with input, reviews and comments. The draft Charter was finalised by June and adopted by the ICOMOS membership at its annual general meeting in the township of Burra, South Australia in September 1979 (Bourke 2004).

## NSW TRUST TAKES ACTION

In February 1979 the NSW National Trust sponsored a conference in Goulburn on industrial and historical archaeology, representing an early attempt to bring this subject matter to the forefront of professional and public consciousness. There were two primary organisational drivers of this conference, the Industrial Archaeology Committee of the National Trust (Chair: Judy Birmingham) and the Australian Society for Historical Archaeology (Secretary: Judy Birmingham). The diversity of presenters at this conference is indicative of the broad range of academic disciplines which are relevant to and have an interest in industrial archaeology. In addition to the archaeologists, both traditional and historical, papers were also presented by a landscape geographer Jane Lennon, an historical geographer Dennis Jeans, various engineers Colin Crisp, Ray Whitmore, Dennis Cumming, a geologist George Gibbons and a lawyer Justice Robert Hope (National Trust of Australia [NSW], 1981).

In 1978 in the lead up to this conference, an important step was made when the Industrial Archaeology Committee began to compile a basic list of the sites in NSW which may be of some interest in the study of Australian industrial history. This initial list was of names only and amounted to over 800 places in NSW, of which less than 20 were identified on existing heritage lists and registers.

In February 1979, financed by a research grant from the National Estate Grant program, the National Trust began to consolidate the work that had been done up to that time and engaged an in-house research assistant for industrial archaeology. The task was to begin to document the industrial archaeological record of NSW; each of the names from the Industrial Archaeology Sites List was converted into a precise location or area on a map and information about the place recorded in what would later become known as a database, desktop computers being still some years away. By 1985, when further compilation was halted, this list included the names of over 1700 places in NSW alone.

## PUBLISH OR PERISH

A number of seminal publications relating to industrial archaeology were produced in Britain during the 1960s. Kenneth Hudson's *Industrial Archaeology: An Introduction* was published in 1963 and his equally important *Handbook for Industrial Archaeologists* in 1967. J.M.P. Pannell's *Techniques of Industrial Archaeology* was published in 1966. These publications established an intellectual and analytical framework for industrial archaeology as a specific theme using historical archaeological methodologies. From these guides a series of publications were produced by the same authors and others in the late 1960s under the general title of

*The Industrial Archaeology of the British Isles* which identified the general industrial landscape of Britain at that time (Butt and Donnachie 1979).

A very early publication devoted to the industrial archaeology of Australia, other than corporate histories, was produced in 1979. *Australian Pioneer Technology: Sites and Relics* by Judy Birmingham, Ian Jack and Dennis Jeans. It identified a series of industrial themes such as coal-mining and iron smelting and discussed their overall impact and relevance to Australian history. This was followed in 1983 by *Industrial Archaeology in Australia: Rural Industry* by the same authors.

Other important publications included *Industrial and Historical Archaeology: Seminar 1979*, the conference papers of the 1979 Goulburn conference, published by the National Trust in 1981, and a National Trust *Industrial Archaeology Policy Paper* (Mackay 1988). The Institution of Engineers, also interested in engineering history and heritage, held its first conference on this topic in May 1982. The publication of these papers (Engineering Heritage Australia 1982) was an important step in taking heritage into the consciousness of practising professional engineers.

## ARCHAEOLOGY – STILL IN USE

Owing to the unusual characteristic of being newly-populated by Europeans at the same time as the Industrial Revolution and having a historical propensity for centralised governmental control, many of NSW's early public engineering works were large, expensive and built to last. As a consequence, significant industrial archaeological places and equipment in NSW remained in use well into the late twentieth century. During the 1970s, three sandstone road bridges designed by David Lennox in the 1830s, arguably representing the first engineered bridges in the state, were in use under main roads. The massive Upper Nepean Water Supply Scheme still supplied Sydney's drinking water virtually as built, with only additions and expansions of the original. The city sewerage works were similarly an ever expanding network where the original components remained in use. Most of the original railway station buildings from the first passenger railway line in the state served their original purpose. The first comprehensive set of public port facilities, as erected in the late nineteenth and early twentieth century, to bring efficiency through engineering design, continued to serve the shipping industry. Private industry had a different set of issues but had come out of the end of World War II having deferred new investment. The immediate post-war period witnessed the instigation of extensive re-equipment programs but often continuing to use technologies and systems that dated from the Interwar period.

However, it was also clear that historic industrial places, structures and technologies were being superseded and that many would soon be redundant or were becoming physically decrepit. The advent of the motor car and aeroplane had fundamentally altered the movement of passengers and goods around the world and many places associated with traditional transport technologies were being abandoned. Computerisation following the invention of the transistor had brought a new era in electronics and mechanical design, whilst the techniques of reinforced concrete were producing new types of building structures. After the first phase of post-war re-establishment had subsided, 'modernisation' became a catchword for the era.

In this environment, over the last two decades of the twentieth century, the challenge facing the Industrial Archaeology Committee of the National Trust was to convince property owners and government authorities to recognise the

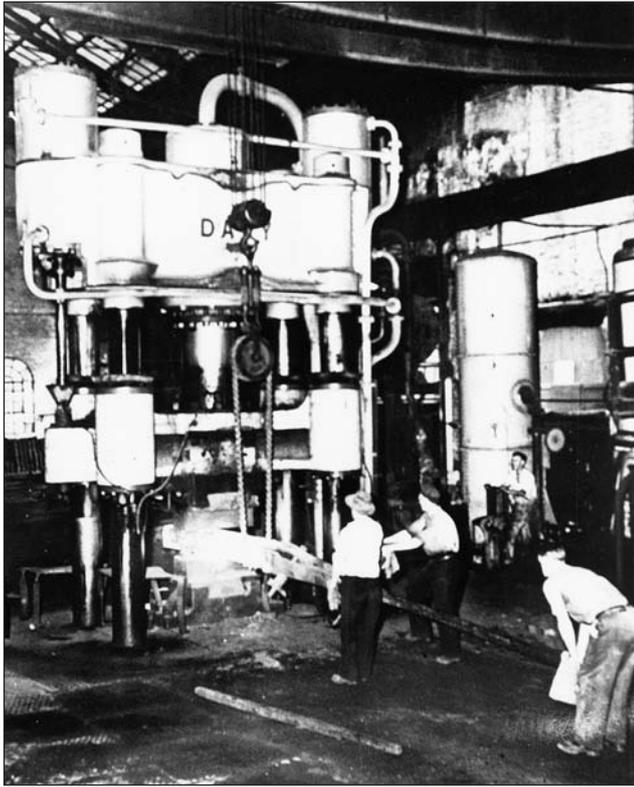
industrial archaeological value of the places, sites and structures under their control and to encourage suitable conservation strategies within the context of on-going operations. However, the simple approach of identification and gentle persuasion was not likely to have the impact needed. Unlike domestic housing, industrial sites and structures have functional imperatives, performance requirements and safety standards—the sheer variety of elements being considered (from gold-mining landscapes to bridges, power stations and sewers) required a variety of strategies. By identifying all the places and sites it considered to be potentially significant, the National Trust's Industrial Archaeology Committee had placed itself at the centre of a growing development storm. In this regard, NSW was representative of a similar situation occurring in a number of Australian states.

## INDUSTRIAL ARCHAEOLOGY DURING THE 1980s

The Industrial Archaeology Committee under the leadership of Judy Birmingham, and later Don Godden, had the advantage of a full-time National Trust staff member between the late 1970s and the mid-1980s, and a wide range of initiatives were commenced, most of which were ground-breaking approaches in Australia at the time.



Fig. 1: The Centennial Park Reservoir. Sydney Water's maintenance required the draining of the reservoir for some months. Sydney Water's Heritage Committee promoted public heritage tours through the century-old reservoir and attendances over six weekends exceeded 30,000 people. Tony Brassil



*Fig. 2: The Davy Press at Eveleigh Railway Workshops. The Railway Heritage Committee worked for the conservation of the Locomotive Workshops throughout the 1980s, whilst they were still in operation. The Davy Press remains in place within the adapted and redeveloped Workshops. Source: State Rail Archives*

### **Liaison with statutory authorities**

One of the most innovative and effective aspects of the Industrial Archaeology Committee's activities was the establishment of liaison committees, which comprised representatives of the National Trust and different statutory authorities. During the 1980s, the National Trust established joint working parties with the Department of Main Roads, the

State Rail Authority, the Maritime Services Board, the Water Board and the Electricity Commission. The liaison committees met to ensure that heritage considerations were taken into account in the early stages of planning. The Committees became aware at an early stage of impending demolitions or closures and had the opportunity either to promote the conservation of the item concerned or to encourage alternative approaches.

### **Industrial buildings**

The Industrial Archaeology Committee's identification and listing of industrial buildings and complexes in the National Trust Register preceded by a decade the preparation of Local Environment Plan heritage schedules that are the now accepted form of recognition for such places. Although the Trust's listing had no legal power, the combination of its expert identification with the threat of the use of the protective provisions of the relatively new *Heritage Act* provided a potent, if sometimes blunt, weapon against both private and government development. Passions were occasionally aroused in fiery on-site meetings as the fundamental value of industrial heritage was argued. While, with hindsight, it is obvious that some of these arguments were futile, there were successes. Places whose conservation is now taken for granted but for which the Industrial Archaeology Committee was forced to argue and defend include the warehouses and woolstores of Pymont and Millers Point, Ryde Pumping Station, the Locomotive Workshops at Eveleigh, Cockatoo Island, Richmond Main Colliery, eventually donated to Cessnock Council, though there were further lessons in subsequent experiences of that site, and the Lithgow Blast Furnace remains. Those early conflicts were instructive and the current process of statutory heritage management in New South Wales was the codified evolution of some of those early actions.

### **Wharves**

One success story in adaptive re-use is the Woolloomooloo, Pymont and Walsh Bay wharves. These finger-wharves and associated structures are a unique remnant of a larger number



*Fig. 3: The Walsh Bay Finger Wharves, along with the Woolloomooloo and Pymont examples, were the subject of long campaigns in the 1980s and 1990s, seeking recognition and conservation. Eventually, they were adapted for residential and commercial uses, although the conversions did involve substantial intervention and the loss of some significant elements. Godden Mackay Logan*

of such wharves built for the export-import trade early in the twentieth century and featured several important engineering innovations. The development of these wharves may have involved too much physical interference with the existing building fabric but conversion would never have been contemplated without the Trust's insistence and cogent arguments during the 1980s; at times in the face of a torrid litany of 'informed' criticism. The Trust position was based soundly upon the work of a specialist subcommittee of the Industrial Archaeology Committee, whose work was then consolidated by the work of consultants and Trust staff into a published report. Such reports are now well recognised as essential contextual studies and the basis of informed heritage assessment.

## Bridges

Among the National Trust's greatest successes in pioneering cultural resource management resulted from negotiations with the Bridges Section of the Department of Main Roads (now the Roads and Traffic Authority of NSW). One important achievement was the commissioning of an in-house manual on the maintenance of timber-truss bridges, an initiative, which not only promoted the preservation of these important items but provided long-term solutions to traffic-management problems.

An interesting innovation was achieved in negotiations regarding the historic bridge over the Hunter River at Aberdeen in the Hunter Valley. The existing bridge was inadequate for the volume of traffic but was perfectly capable of carrying expected traffic loads. Initially the construction of a replacement bridge was intended. Instead, it was decided that the construction of a duplicate bridge would best serve the community's interests and, together, the old and new bridges are sufficient for traffic needs well into the twenty-first century. More importantly, the precedent was established that heritage was a valid management consideration, leading to different outcomes than those which may have occurred from a purely engineering and cost-based approach.

A similarly successful outcome was achieved with a railway bridge, the Como to Oatley Bridge across the Georges River, south of Sydney. The National Trust co-ordinated discussions between no less than nine different statutory authorities, including: local councils from both sides of the bridge; the State Rail Authority; the Water Board; the State



*Fig. 4: The Aberdeen Bridge duplication was a successful collaboration between engineering and heritage conservation. The older wrought-iron lattice-girder bridge, shown to the left, was duplicated by a new steel Warren-truss bridge shown on the right. It was an elegant solution but one which had no precedent as a heritage conservation action within the DMR (now RTA) at the time. Richard Mackay*



*Fig. 5: The Como-Oatley Cycleway Bridge, formerly a redundant railway bridge, now converted as a cycleway. Richard Mackay*

Bicycle Advisory Committee; and both state and federal Departments of Employment. The Como to Oatley Bridge cycleway was officially opened on 15 December 1985 (one day short of the bridge's centenary) and it remains a tribute to what can be achieved when public sector energies and funds can be directed and encouraged to work in the cause of conservation.

## Naming names

The notable and pioneering work undertaken by the Industrial Archaeology Committee of the NSW National Trust in the 1970s and early 1980s owes an enormous debt to the Chair of the committee during this period, Judy Birmingham. A great change in perceptions and expectation was wrought upon the government and business communities through the liaison committees, which could not have succeeded without her involvement, on-going commitment and her ability to make the individual feel proud of doing good work for its own sake. Heritage conservation has become mainstream today; industrial heritage is widely recognised and the process of conservation through adaptive reuse accepted as normal. This was not the case in the 1970s. When Judy handed over the reins of the Committee to her successor Don Godden in 1984, industrial heritage had been birthed and weaned. While the cultural and statutory environment for industrial heritage has changed greatly in the intervening two decades, the mature discipline we see today remains recognisable as Judy's young infant.

Classically, Judy Birmingham saw her role then as the front-person for an important group of people all working for similar outcomes. There were many notable individuals who also contributed to these events and activities. The contributions, during the 1970s and 1980s, of Rupert Purkis, Wal Whittaker, Don Godden, Sybil Ungar, Barbara le Maistre, Ian Brady, Phillip Simpson, Sue Clarke and the many committee-members that have served subsequently cannot be ignored and are not diminished by due recognition afforded personally to the Committee's then Chair and driver.

Judy Birmingham came to heritage conservation at a critical moment and was both a creative thinker and passionate advocate for industrial archaeology. The cultural and

industrial landscape of NSW owes much to her energy and commitment; her ability to engage with decision-makers, to inspire fellow enthusiasts and to see our industrial heritage as dynamic—more than just a collection of interesting old relics.

## ACKNOWLEDGEMENTS

The narrative recorded in this personal recollection seeks to document a seminal period in the development of industrial archaeology in Australia. We thank the National Trust of Australia (NSW) for providing access to archival material, and Mary Casey and two referees for their perspicacious comments and wise counsel.

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