

CHAPTER 1

INTRODUCTION

It would be difficult to claim that the shore-based whaling industry which operated in Western Australia in the 19th century was a commercial success. If later conventional histories are to be believed, the whaling companies established with a flourish on the west and south coasts in the late 1830s lasted only several years into the early 1840s. In that time the industry provided limited financial returns, after which it apparently faded into obscurity with just the occasional hint of inconsequential activity on the economic and geographic margins of the colony. Similarly, for those years when hopes were high the written record of the industry is robust. Once the prospects of whaling being the economic saviour of the colony had receded the documentary evidence diminishes to the blandest and briefest of government and newspaper recordings. Despite this, many coastal communities continued to engage in whaling as an important part of their local seasonal economies, with the industry surviving over 40 years until the late 1870s and possibly beyond.

As with other colonies, later successes with pastoralism, timber and mining washed away both interest in and understanding of the early significance of whaling. In Western Australia particularly, any memory of 19th century shore whaling is overshadowed by its 20th century descendant. With the Cheyne Beach Whaling Company operating near Albany until 1978, popular images of whaling are of motorized chase vessels, explosive harpoons and massive mechanised processing plants processing a catch of hundreds of animals per year. Any notion of the earlier industry is ambiguously associated with sealers, runaway convicts and assorted other ruffians operating at the physical, social and legal edges of European settlement.

This volume explores the historical and archaeological evidence of the 19th century shore whalers of Western Australia. Although it constructs a narrative of the history of the fishery and its operations, the central concern is to understand the processes by which the industry and its participants progressively transformed to meet and survive the changing economic, social, technological and environmental conditions. It considers the social aspects of the participants in whaling and those living on the margins of European settlement, as well as cross-cultural contacts within the context of whaling. In this respect it addresses a broader concern with the nature of adaptation by the non-Aboriginal colonists of Western Australia.

During the 1980s and early 1990s when this research was originally undertaken a broad reconsideration was being made of the role of whaling and other early maritime industries in the economic and social development of colonial Australia. This combined with a renewed interest in cross-cultural 'contact'. The coastal zone plays a critical role in such studies as the area where incoming groups first experience and respond to new

terrestrial environments and where initial encounters between cultural groups are most likely to take place. Colonization, or invasion from the perspective of indigenous inhabitants, generally proceeded fastest along the coastal margins with their more familiar resources and easier transport by boat or ship. In contrast, infiltration into the interior progressed at a much slower rate and demanded a much greater degree of engagement, if not understanding, of the new environments encountered.

In many instances the official attempts to formally explore, claim lands or establish colonies along these coastal fringes were preceded by years or even decades of visitation, activity and sometimes settlement by persons and groups engaged in harvesting the products of the sea. Whalers, sealers, trepanners, pearlers, fishers and other maritime industries often operated on the geographical frontiers of the European expansion into the Australia-Pacific region, as well as on the fringes of the social and economic systems which drove it.

The potential for archaeology to make significant contributions was obvious, and in this period most States of Australia and New Zealand commenced historical and archaeological studies of whaling. What emerged was a story which contrasted to the traditional image of whalers as marginal men operating in a lawless manner. While this portrayal may on occasion have been close to the truth, the majority of these maritime industrial groups were clearly far more complex entities than previously recognised. They were often communities of men, women and children, frequently multi-racial in nature, and often with complex relationships with local indigenous populations. Grounded in a melange of maritime and other cultural traditions, they seem to have been accepting of cultural difference and practices. The locations of many of these groups on the frontier, away from ready sources of supply, also made them innovators. They were forced to engage with the environment and to adapt or invent technologies and processes which would bring them successful yields and allow them to sell their goods into the World Systems from which they were isolated physically. However, their experiences obviously varied from region to region, suggesting intensive research and comparison is vital for understanding the diversity of life on these maritime industrial frontiers.

This volume is in large part an edited version of the author's PhD dissertation, submitted to the University of Western Australia in 1995 (Gibbs 1996). Much of the core substantive material remains the same, although the discussions have been revised in the light of comparative data which has subsequently emerged from elsewhere in Australasia. In the interests of brevity many of the more detailed discussions of theory, method and artefact identification have been summarised or omitted, especially where those aspects are now commonplace or outdated. Where further detail is available in the original

thesis or subsequent publications, the reader will be directed to these.

RESEARCH OBJECTIVES

The research on which volume is based had four major aims by which to explore the whaling industry of Western Australia as an example of settlement and adaptation on a maritime industrial frontier (Gibbs 1998:36).

The first objective was to examine the origin, development and decline of the shore whaling industry in Western Australia, with particular attention towards the internal economic and social factors which both encouraged its establishment and limited its growth. This included investigation of the impact and consequences of uncontrolled American whaling activity in the region. Because of the early period and the remote location of many of the stations, it was also considered important to determine the nature of interactions between Aboriginal people and whalers, including the eventual incorporation of Aboriginal men into the whaling industry.

The second objective was to determine the nature and extent of shore whaling as carried out in Western Australia. The first part of this was to explore the scale of the industry as it changed over time, including the number and size of whaling parties, the composition of the owners and workforce, and the conditions which bound the latter to service. The second part was to investigate infrastructure and techniques, and determine possible responses to local social, economic, environmental or other conditions. This included an analysis of catch strategies, effectiveness and changes in the output and value of oil and bone production and exports.

The third objective was to examine the historical and archaeological evidence for the selection and use of particular locations for whaling, with particular attention to common environmental elements. This included analysing the nature and layout of industrial and domestic components to determine commonalities and variations, as well as evidence of change over time.

The fourth objective was to explore the living and working conditions of the whalers and others who occupied these frontier maritime industrial communities. The first part was to determine how the whalers lived, the circumstances in which they were housed and their diet and material culture. The possibility was held open for comparing assemblages from different groups within the site; the manager, headsmen, boat crews, Aboriginal workers and/or other inhabitants. The second part was to examine the economies of the stations as examples of frontier settlements, considering aspects of supply and how they compared to contemporary urban settlements. Finally, investigation of the social, economic and other relationships with local indigenous communities was also considered a vital part of understanding the nature and impact of whaling activities upon the frontier.

MARITIME INDUSTRIAL FRONTIERS

The concept of the frontier has a long pedigree in historical and archaeological literature, with an equally long critique on its failings or problems (c.f. Russell 2001:1; McCarthy 2008). Despite this, it remains useful as a framework for archaeologists and has been defined as follows:

First, the frontier is the area in which the outer edge of an expanding society adapts to the conditions of attenuated contact with the homeland and the physical conditions of a new environment. Second, because of the nature of expansion, the frontier is both spatially and temporally impermanent. It is the zone of transition within which the "wilderness" is occupied and "civilised". Third, because the process of colonisation is repetitive in nature, it is also evolutionary in the sense that the sequential change that once occurred in the centre of a newly settled frontier region tends to be repeated along its periphery as settlement within the region expands (Lewis 1977:153).

The frontier is therefore simultaneously a geographical area and a set of processes of colonisation and adaptation (Billington 1967:7). Kirch (1980:125) describes the processes of adaptation when colonizing a new or radically different habitat as 'revolutionary', with selective pressures at their highest and likely to induce the greatest range of variability in a cultural system. These stress situations lead to rapid increases in experimentation and innovation, which might include testing and implementation of 'previously maladaptive or detrimental behaviours' (Kirch 1980:116). These sometimes rapid changes in behaviour are also potentially detectable within the archaeological record through variations in the structure of sites and the activities within, including abandonment.

Although writing about pre-historic contexts, Kirch's (1980) essay on the theoretical and methodological issues in the archaeological study of adaptation provides valuable insights into the processes which might underlie cultural change in historical contexts as well. In this instance the simultaneous access to diverse documentary, oral and archaeological datasets turns the apparent limitations of a 'short' historical period into an opportunity to examine these processes at close range and from multiple perspectives, with access to emic insights into decisions and motivations (Green *et al.* 1985a).

The frontier framework also places the study of individual sites and areas within a wider regional, national and international context. For instance, the European settlement of Australia is often linked to the spread of the capitalist World System. This involved the expansion of western European socio-economic structures into new territories and the incorporation of resources and (as far as possible) the original inhabitants into that network (Wallerstein 1974; Jeans 1988; Peregrine 1990).

Individual sites are therefore viewed as part of the wider socio-cultural system changing to cope with the environment and achieve the aims of its expansion. Both local and regional adaptive strategies should therefore be reflected differentially within the archaeological record. So too should information on the nature of economic core-periphery relationships between the site, local towns or supply points and ultimately the homeland centers of production (Cressey *et al.* 1982; Hall 1990). This meshes with wider discussions of historical archaeology as the study of the emergence of capitalism (Leone and Potter 1988b, Paynter 1988, Little 1994; Johnson 1996; Orser 1996) and the material nature of colonialism (Lawrence and Shepherd 2006:71). It also links with considerations of archaeological approaches to cross-cultural engagements with indigenous peoples, arising as the capitalist system expanded into these new areas (Murray 2004).

A common device in frontier studies has been the characterization of different types of frontier, such as *insular* (agrarian, pastoral), *cosmopolitan* (industrial, camp) and so on under the premise that similarities in the intentions and functions of each settlement type will result in similarities in process (activity) and pattern (observable outcomes) (Green and Perlman 1985b). Following Steffen (1980), Hardesty (1985:213) identifies that unlike other frontiers *industrial frontiers* are specialized in nature, short term in occupancy and have a lack of interest in wider development. Their industrial purpose, usually geared towards extraction of specific resources, means they are closely linked to national and international markets and economies, making them susceptible to external forces.

Regardless of varied natural environments, particular industries also tend to attempt the same adaptive solutions, changing through 'correlated episodes' caused by newer technologies or innovations in technique sweeping through and replacing older forms (Hardesty 1985:215). Site abandonment is usually linked to resource depletion or the financial return on the resource falling below marginal value. However, there may be variations in the nature of operations and site structure, technology uptake, or other adaptive behaviours resulting from diverse factors such as local social and economic circumstances, or ethnic groups applying different cultural traditions, etc.

Frontier types also have a chronological aspect, with different frontiers succeeding one another. In this respect some American historians have specifically identified a *whaling frontier* in the Pacific, pre-dating most missionary and other commercial activities. The American whalers 'operated as the front edge of American expansionism, pushing out the boundaries of US influence' (Weeks 2006:73). Or as another writer put it, their activities expanded the sphere of US social and economic influence and served to 'Americanize' much of the Pacific during the 19th century, in advance of other developments (Gibson & Whitehead 1993: x).

The investigation of adaptation processes, usually in the guise of studies of colonization and technological

innovation, has been one of the earliest and most enduring themes for Australasian historical archaeological research. The first PhD in Australian historical archaeology, undertaken by Jim Allen in the 1960s, investigated the failed military settlement at Port Essington and explored the archaeology of life on the frontier, including cross-cultural contact (Allen 2008). From the late 1960s onwards, Birmingham, Jack and Jeans (1979; 1983) recorded the remains of 19th century Australian industrial sites, looking for evidence of transference, adaptation and innovation. The *Swiss Family Robinson* model which emerged from this was an attempt to represent the processes by which industries were established and subsequent shifts occurred (Birmingham and Jeans 1983). This model suggested that initially there is an *exploratory phase* where colonists enter the new environment with their existing socio-economic structures, technologies, skills and material culture. In this period there is reliance upon imported stores of food and equipment while the colonists make a preliminary assessment of the environment and resources and select a possible *production system* (Birmingham and Jeans 1983:6). Next comes a *learning phase*, where the production system is implemented. If unsuccessful, the technologies or processes are either rejected or revised and tried again. If successful, the colonists pass into a *developmental phase*, where 'further operational reinforcements' and refinements are made, influenced by arrivals of new technology, local innovations, changes in the commercial environment, or changes in and/or increased knowledge of the biophysical environment (Birmingham and Jeans 1983:6).

Critics of the *Swiss Family Robinson* framework highlighted its simplistic nature, including the failure to account for the impact of external factors such as decisions by remote administrators and shareholders (Bairstow 1984). Similarly, it was noted that the critical role of Aboriginal people as information and labour sources was overlooked (Egloff 1994). However, other researchers were already engaging with these factors, such as Pearson's (1981) archaeological study of settlement in the Macquarie River region of New South Wales exploring the concept of frontier, environmental perceptions by settlers, continuities with Aboriginal occupations, acclimatization of pastoral practice and the impact of both local and remote decision makers.

Not surprisingly, both the *Swiss Family Robinson* model and Pearson's work aligned with contemporary historical geographical studies of colonization, presenting many of the same elements of environmental perception, information collection, decision-making, experimentation and learning processes. Cameron's (1974a; 1974b; 1977; 1981) research on the European colonization of Western Australia, which is of particular relevance to this volume, also explored the notion that colonization and adaptation processes began before immigrants left England. Intending colonists actively collected information from government and private sources, developed expectations of the natural, social and economic environments they were entering and selected what they felt or had been

advised were appropriate supplies and materials (Cameron 1981). These efforts were further influenced or constrained by factors such as the veracity of the information and advice they received and the conditions or restraints imposed by government, sponsors, employers or others who they felt provided authoritative opinions.

More recent studies of the archaeology of colonization have reiterated this relationship between environmental knowledge and perception, cumulative experience or learning and progressive adaptation, although with greater emphasis on the wider landscape perspective consistent with current interests. Rockman (2003:4) defines the three basic forms of information a human group requires about an environment as:

- *locational* (locations and physical characteristics of necessary resources),
- *limitational* (boundaries and costs of resources, such as seasonality availability or variation), and
- *social* (attribution of names, meanings and patterns to natural features and the transformation of environment into a human landscape).

As proposed by earlier writers, these types of knowledge are seen as being in a dynamic feedback loop. Rockman (2003:9) notes how such information contributes to the 'push' factors (conditions encouraging movement to a new environment) versus 'pull' factors (conditions making colonization attractive) in decisions to migrate and colonize, stay or abandon.

Since the 1980s the renewed interest in cross-cultural contact and the nature of colonialism has seen increasing exploration of early encounters and negotiations from both indigenous and non-indigenous perspectives (e.g. Harrison & Williamson 2002; Murray 2004). Many of these studies have considered indigenous participation in relation to frontier settlement and industry (e.g. Harrison 2002; McNiven 2001), addressing earlier concerns over the lack of recognition of indigenous agency.

Writing of the early European presence in Torres Strait and in the context of cross-cultural contact and negotiations, McNiven (2001:178) distinguishes *coastal frontiers* as areas 'where outsiders arrive from the sea and/or inland for permanent settlement along the coast'. In contrast, *maritime frontiers* are where non-indigenous visitors such as whalers, sealers or pearlmen set up short-term camps, usually for the singular purpose of exploiting marine resources although this category might also include explorers, shipwreck survivors and others. Maritime industrial sites were generally impermanent although occupation might be repeated on a seasonal basis or continuous over a period of years. McNiven (2001) also raises the significance of beaches as a locale for contact and exchange between cultures (c.f. Denig 1980). These distinctions are of direct relevance to the current study, leading to the use of the term *maritime industrial frontier* to describe the context of the 19th century shore whalers.

WHALING IN THE 19TH CENTURY

By the early 19th century the processes of whaling were part of a well-established international tradition, operating at one of three levels (Little 1969; Chamberlain 1988).

1. *Pelagic or Open sea whaling*: the most expensive but most lucrative form of the industry, employing whaleships of between 150 to 400 tons primarily to follow the global deep-sea migrations of the sperm whale (*Physeter macrocephalus*). Several smaller whaleboats would be launched from each ship to chase and kill whales, with the carcass returned to the larger vessel for processing. These whaleships were self-contained whaling stations, fully equipped to spend three or even four years at sea, resorting to land only to take on supplies of wood, water and fresh food. Pelagic whaling produced most of the whale oil traded in the 19th century.

2. *Bay whaling*: involving whaleships stationed in bays frequented by coastal migrating species such as right whales (*Eubalaena glacialis*) and humpback whales (*Megaptera novaeangliae*). These vessels might work in conjunction with a shore party, but were usually independent, moving out to their prey and often progressively tracing the whale migrations along the coasts. Pelagic whaleships would sometimes alternate their open sea operations by spending several months 'wintering' near shore and carrying out bay whaling.

3. *Shore-based whaling*: the least capital-intensive method, where a station or fishery was established in a bay or inlet, with whaleboats rowing out from shore to intercept coastal migrating whale species. Consequently, the scope of operations was restricted to areas within easy rowing or sailing distance of the fishery and limited to the 4–5 months of the year in which the whales passed by. A slightly more sophisticated version which extended the range of the shore station was to use a small vessel of cutter or schooner size as a launching platform for the boats and to assist in 'cutting-in' the whale (Little 1969:116). However, most of the infrastructure, in particular the living areas and the main industrial component, remained on land and as such is archaeologically detectable.

The processes of Australasian shore-based whaling have been seen as a re-invention (Dakin 1933) or 're-introduction of an ancient whaling technique' (Pearson 1983:40), exhibiting continuity from Basque operations of the 13th century or earlier. The establishment of shore stations in Australasia may well have come from persons familiar with existing shore-based traditions in Britain, America or elsewhere, although it is possible that it occurred through the medium of pelagic whaling, adapting the techniques used aboard ship. The relationship between shore-based and ship-based whaling is obvious from the shared pool of equipment, techniques and terminology, while as this study will show there was obviously a flow of workers between the different forms of whaling. The general industrial processes involved in shore whaling in Australasia have been described in detail by a variety of

writers (Dakin 1938; Colwell 1969; Morton 1982; Nash 2003; Pearson 1983), although the following summary is provided as background to the historical discussion and to introduce relevant terminology.

Migrating humpback and right whale populations pass along the Australian coasts between June and November. Prior to their appearance a suitable site along the migration route would be selected at which to establish the *station* or *fishery*. Industrial and domestic facilities were constructed or refurbished, whaleboats and whaling equipment (referred to as *whalecraft*) purchased or serviced and oil casks coopered so that the station could commence operation immediately upon sighting whales. The crews might also engage in boat races to bring them up to the necessary peak of fitness. A look-out was maintained on a nearby headland or vantage point, watching for signs of the migrating whales and signaling sightings by voice, horn, flags or other means. Once alerted the whaleboats were launched, or alternatively might already be cruising adjacent waters in readiness, hoping to gain some advantage in time.

Whaleboats were 28–30 feet (8.5–9 m) long, double ended with a six foot (1.8 m) beam, shallow draft, weighing only 1000 pounds (454 kg) to increase speed and manoeuvrability and steered by a long sweep oar (Mawer 1999:240). Each boat was stocked with an assortment of equipment including several hundred fathoms of tarred 2 inch (5 cm) hemp line coiled into tubs, harpoons, lances, water kegs, food, buckets, oars, sails and other paraphernalia. The six man crew would row or sail out to the whales as quietly as possible so that the animals would not be startled into flight. The *harpooner* (also known as the *boat-steerer*) would initially work one of the front oars, while the *headsman* who was in charge of the vessel worked the steering oar. The oarsmen were referred to as *pulling hands*.

Once the boat was close to the whale, the harpooner would stand, take up the *iron* (harpoon) and throw or preferably stab (*place*) it into the whale, fixing a line between whale and boat. Because it was crucial to remain secured to the whale, many variations to the barbed harpoon head were designed. By the 1850s gun-harpoons had also come into use as a means of launching irons, despite the difficulties of use on the small boats.

If struck, the whale would normally attempt to flee by swimming away or sounding (diving), often pulling the whaleboat in its wake in what was referred to as the Nantucket sleigh ride. At this point the harpooner and headsman swapped places, with the latter taking up the steering oar to become the boat steerer, and the former moving into the bow to ready the lance. Despite the risk and seeming lack of logic to this awkward manoeuvre, it is well recorded in many accounts, including in *Moby Dick* (Melville 1851: Chapter 62).

Buckets or wooden boards called *drogues* were attached to the line to increase the drag and tire the whale sooner, although on occasion the boats were pulled for hours and many miles out to sea. Once exhausted the whale would surface and the crew would row or pull on

the line to draw the whaleboat close. The headsman would then use the long killing *lance* to stab and probe within the whale's body, hoping to puncture the heart, vital organs or arteries. There are a number of references to whales 'spouting blood' prior to their final demise, which could take several hours or more. At any point during this procedure the line might break or run to its full extent, the iron *pull* from the blubber, or the whale turn and smash the boat and occupants. If so, the second or third (*pick-up*) boats of the same party would move in with their own harpoons and again attempt to secure the prize. There were also rules that governed when other whaling parties might take their own opportunity to chase the whale (Mawer 1999:97).

After the whale was dead, the flukes were cut away to reduce drag and lines attached from the whale to one or more boats for the long haul home. For pelagic or bay whalers the ship could move into position, but for shore whalers the return to the fishery could take all day and extend far into the night, with the crew attempting to guide themselves back by means of landmarks or beacons. In extreme conditions the whale was cut free and an attempt made to retrieve it the next day. On other occasions the whale might sink, although after a few days the gases from decomposition would raise it again, as long as sharks, killer whales or other predators had not consumed it.

The whale carcass was eventually brought into the waters near the fishery and secured by ropes and chains adjacent to a granite shelf, jetty or a floating deck known as a *stage*. The whale was then *cut-in* or *flensed* by the crew, standing on the body or an adjacent platform and using razor sharp blades on poles known as *flensing knives* or *spades* to slice the blubber away from the body. Ten by one foot (3 x 1 m) strips of blubber known as *blanket pieces* were peeled from the whale by a strong rope passing over a set of upright shearlegs and connected to a large winch or capstan fixed on shore and turned by half a dozen men. The blanket pieces would be further reduced into approximately 15 inch by four inch (37 x 10 cm) *horse pieces* and then minced on a table (horse) into *sliver pieces*, *bible leaves* or *books*. A mechanical cutter could also be used at this stage. Prickett (2002:11) suggests that in New Zealand the person in charge of the flensing was known as the *tonguer* and was paid in part for his duties with the tongue oil. It is unclear if this usage also applied to Australian stations.

The process of extracting the oil from the blubber was known as *trying-out*:

The sliver pieces were thrown into a large iron cauldron called a 'trypot', set up in a brickwork furnace, and there the blubber was heated and stirred until all the oil had been removed, at which time the solid blubber residue [*scrap*] was scooped off and used to feed the furnace fire, while the oil was bailed out, usually into large copper coolers. Once cool the oil could then be casked up for storage or shipment to market (Pearson 1983:41).

The furnace into which the trypots were built was called a *tryworks*, normally situated not far above the high tide mark to reduce the distance which the blubber had to be carried or hauled. Tryworks were often roofed over to protect the oil from rain. The filled oil barrels would be stored away from the tryworks and in such a way as to prevent shrinkage resulting in loss of oil.

Several other parts of the whale were also utilized, especially the baleen referred to as *whalebone* (or simply *bone*) from the mouths of the humpback and right whales, and the *ambergris* from sperm whales (Cousteau and Paccalet 1986). The use of whale products will be discussed in more detail below. Once stripped of all usable elements the remains of the whale carcass would be discarded, presumably by towing the remains back out into the ocean, or at least away from the station, and allowing them to sink.

A final important aspect common to all forms of 19th century whaling was the method of payment for workers, usually referred to as a *lay*. This was a fixed percentage share of the total catch value, determined at the commencement of the season or cruise and based upon the individual's experience and position in the whaling party. Payment therefore depended directly upon the success of the whaling party.

DOCUMENTARY AND ARCHAEOLOGICAL RESEARCH

Prior to this study a brief outline of the history of shore whaling in Western Australia had already been written by Heppingstone (1966), with further site specific information available in the 1987 National Trust survey of whaling sites (MacIlroy 1987). While this material was a valuable starting point, a comprehensive re-investigation of the original sources was necessary. It soon became obvious that contemporary references to whaling were thinly spread through a wide range of published and unpublished government and unofficial sources. It was also clear that the range of information likely to be provided by these documentary sources was extremely limited and that archaeological research would play a vital role in providing data about the operation of whaling in Western Australia. Because of this situation, the nature of the major documentary and other non-archaeological sources utilized within this project is described below and some of the organizational behaviours inherent in their origins and uses are considered (Potter 1992:92; Wilkie 2006).

Whaling station records

Other than several brief and relatively uninformative letters, only one major document originating from a whaling station was located during this study. This journal, written by William Frederick Seymour (a.k.a. Frederick William Palmer) the manager and headsman of

the Castle Rock Whaling Company, covers the years 1846–50 and 1852–53 (BL 2838A). The types of information recorded suggest that the journal was a record for, or the basis for a report to, the absentee owners of the station. In most instances it documents the major activities and production during each 24 hour period, or disruptions to the same. It records in brief entries any whale sightings, chases, strikes, kills and the times taken for processing. Maintenance activities such as boat repairs and cooping are noted, as are some domestic arrangements including the killing of bullocks for food. On several occasions problems with the men are reported. There are also margin notes which appear in some cases to be station accounts, although these consist of brief jottings, rather than comprehensive budgets. A copy of the 1850 crew agreement for Castle Rock station also survives (BL MN470).

A second document is the ledger of Albany Merchant Thomas Brooker Sherratt, relating to the establishment and costs of his 1836 Doubtful Island Bay station (Sherratt 1836). Although less coherent than the Seymour diary, the ledger provides insights into the financial arrangements behind establishing and supplying the first Western Australian whaling station.

The almost complete absence of documents from other whaling stations may be the result of a variety of factors, including the destruction of what may have been a limited body of material to begin with, or widespread illiteracy of workers and even managers. It may also be the result of the limited scale of the industry not requiring or generating an appreciable number of records or encouraging their survival.

Government Records

Government functions in the Western Australian colonies were centralized under the Colonial Secretary's Office (CSO) in Perth. Until the 1850s the different administrative duties such as Government Surveyor, Harbour Master, etc, were often performed by individuals or very small groups. Because of minimal staff and the distance between settlements, minor or routine affairs in each region were handled by the Resident Magistrate (Government Resident), who was normally a wealthy settler appointed by the Governor. For matters beyond the Resident's capacity or authority a letter would be sent, usually with any original correspondence from the settlers, to Perth for opinion or direction. Responses were then returned, with copies held by the CSO.

Correspondence relating to whaling can be grouped into two main subjects; requests for the lease of land on which to operate a whaling station, and complaints about foreign intrusions upon local whaling parties. In the former instance these documents range from descriptions of the area required, to negotiations about the fees (see Chapter Four). It is probable that a larger body of mundane matters associated with whaling were simply dealt with by the Resident Magistrate at a local level without records being preserved. The most serious

matters might require correspondence with the Colonial Office, Admiralty or other authorities in Britain, leading to further records in other series.

There are several problems associated with using the CSO records. As whaling was not treated as a distinct industry or subheading in the records, the relevant documents are spread under a large number of regional, subject and individual settler correspondence categories, with some eccentricities in original and current organization of records. Consequently, there is the possibility that further documents will emerge, especially those concerning specific stations.

Two other bodies of government records provided useful information. The first is the Blue Books (BB), the annual statistical report of the colony submitted to the Colonial Office in England. The 'Fisheries' section recorded in varying detail the returns of the whaling stations, normally consisting of the total oil and bone taken in each region, and the estimated value. Sometimes the number of whales caught and the number of whaleboats in each area was also recorded, although in other instances some or all of the regions would be grouped together into a single total. Blue Book reports occasionally omit returns from more distant stations, or show figures which appear inconsistent with other contemporary reports. In the latter case it may be that oil was sold directly from the stations including illegally to foreign whalers, before the final declaration was made.

The Blue Books also include export records for the colony, which also vary in detail between years. Sometimes a full report is made exports of oil and bone from the ports of Fremantle and Albany including the destinations of these items. However, sometimes returns are incomplete, are combined between ports and across years, or are completely omitted.

The second body of official reports is the *Government Gazette* (GG) which recorded government notices and after 1847 included listings of whaleboat crews registered with particular parties under the *Ordinance to provide a summary remedy for Breach of Contracts connected with the fisheries of the Colony (Statutes of Western Australia, 10 Victoria, No.16, 1847)*. This statute provided means for the owners or managers to severely prosecute any crewman deserting during the season, and while not all parties consistently registered under it, the lists in the *Government Gazette* provide one of the few insights into the employment histories on men in the industry.

Newspaper reports

Contemporary newspapers provide the main sources of historical information; in particular the government-run *Perth Gazette* (PG) and the privately owned *Inquirer* (Inq). Reports on whaling activity were frequent until the late 1840s, possibly as a result of a shortage of other reportable news. In this period the editors of the pro-government *Perth Gazette* and the blatantly anti-establishment *Inquirer* took opposing stands on many

matters. This often appeared as the former publication 'boosting' the doings and prospects of the settlement, and the latter published several days later impugning the original reports or exposing (with varying levels of objectivity) misconduct on the part of the government and major settlers. This provides interesting contrasts and perspectives on the progress of the industry and its role in the local economy.

As the settlements spread along the west coast and the contribution of whaling to the local export market diminished, the level of reporting dropped. Items on whaling became shorter and limited to a 'filler' role, except in the case of exceptional events such as conflicts with foreign whalers or reports on a good season's catch. As all the journals produced during the study period originated from the Swan River colony, reports from the distant settlements, particularly Albany and the other south coast areas, were often scant and in many cases second hand.

All issues of the *Perth Gazette* released (weekly) from 1833 to 1865 were reviewed, with the following 15 years until 1880 being sampled. Similarly, all editions of the *Inquirer* were read from 1842 to 1874 and then selectively to 1880. Other shorter-lived papers both pre-dating and contemporary with these journals were also read.

Personal records and contemporary commentaries

Very few individuals – owners, managers, or participants in whaling on either coast – appear to have left records of any kind in either local or State archives. However, several contemporary diarists (e.g. Moore 1884; Wollaston 1991) refer to whaling activity, as do several visitors to the colony, including whalers (e.g. Whitecar 1860; Gatchell 1844; Haley 1948). There are also various promotional pamphlets, settler guides and commentaries on the Western Australian settlements which various described, encouraged or criticized whaling efforts (e.g. Ogle 1839; Anon 1842; Anon 1843; Knight 1870; Andrews n.d.).

Maps, plans and images

One of the most surprising aspects of the historical research was the almost complete absence of maps, plans or images (photographic or artistic) of shore whaling stations in Western Australia. The only exception to this is the Bathers Beach station. Due to its proximity to Fremantle the site has various surveys and plans which show buildings and major features, as well as several drawn and photographic images from the period after its closure (Reece and Pascoe 1983:36; MacIlroy 1986). However, as will be shown, in many respects this station was atypical of sites elsewhere in the colony.

The simplest explanation to account for these omissions is the isolated situation of most of the whaling stations. The Survey Department of Western Australia was a very small group responsible for mapping an area

of 2,525,500 km². The continual opening of new regions ensured that except for location boundaries and some town surveys, only major landscape features were initially plotted. The whaling stations were only seasonal fishing camps on annual leases and therefore not of great concern in the recording process. In most instances only one survey, if any, passed through a region during the period the industry was active. In some instances current maps do have indicative names (e.g. Whaling Cove in Barker Bay, Whalebone Point in Doubtful Island Bay, Whalers Bay at Malus Island), although their dates of origin are unknown. There are a greater number of 'whale' place-names which have no apparent association with the 19th century industry. The absence of artwork is harder to explain, although it may be that local artists did not find whaling a suitable subject or simply that there were no artists living or working near any of the stations.

Memoirs and oral histories

During the early 20th century and particularly at the time of the Western Australian centenary in 1929 memoirs of 'pioneers' were published in various newspapers. Several recalled participating in or observing whaling activities, especially on the south coast (Chester 1924; McKail 1927; Mitchell 1927; Keyser 1929; Sale 1936). It is in this collection that the handful of anecdotal or oral accounts about the Western Australian whaling stations and their workers are recorded.

During the project a number of long-term residents of areas near whaling sites, particularly retired fishermen and mariners on the south coast, were interviewed to determine whether a body of information relating to the 19th century whaling still survived. In many instances knowledge of the early whalers has been obscured by the subsequent episodes of mechanized whaling after 1912. However, several persons were aware that certain bays or locations were used shore whalers and in some instances specific archaeological features were identified. These features often turned out to be associated with early 20th century salmon fishing camps, although thanks to the same need for a sheltered bay, in several instances these features were indeed established on or near the sites of the earlier whaling stations.

The information collected from Charles 'Snapper' Westerberg at Cheyne Beach turned out to be extraordinary as the only instance where the informant was aware of the location and significance of the whaling station and was also able to provide several small items of anecdotal oral information. Mr. Westerberg, a descendant of an early fishing family, had originally been shown the site as a child in the 1920s and even without visible surface evidence was able to show the 1987 National Trust survey the location of at least of one of the whaling station structures (MacIlroy 1987).

Previous Archaeological Surveys and Excavations

During the late 1970s and 1980s several archaeological

surveys recorded the remains of 19th century whaling activity in the Dampier Archipelago (MacIlroy 1979), Fremantle region (Pearson 1984; MacIlroy 1986) and Cape Arid–Middle Island area (Pearson 1988). In the face of new urban development encroaching upon coastal areas, the National Trust of Australia (W.A.) commissioned MacIlroy (1987) to locate and assess the significance of surviving sites, based on historical research undertaken by Trust member Ian Heppingstone. MacIlroy also subsequently undertook excavations at the Bathers Beach (Fremantle) station prior to a proposed development (MacIlroy 1986).

Subsequent to the original dissertation research further historical and archaeological research has been undertaken of whaling sites in the Albany region (Wolfe 1994; 2003). A further survey has also been made of features at Port Gregory newly exposed by storm action and erosion of shorefront dunes (Rodrigues and Anderson 2006).

CONCLUSION

One of the abiding concerns of historical archaeology continues to be the relationships between the documentary, archaeological and other data sets including oral history. This is less to reassure ourselves of the validity of archaeological research in periods where these other data sources are available than to ensure that we remain focused on investigating the ambiguities between them (Deetz 1977; Schuyler 1977; Deagan 1982; Beaudry *et al.* 1991:165). The preceding review is important as it establishes that the documentary record of shore whaling in Western Australia is quite limited in scope, a fact which has important implications for the research design and the significance of the archaeological research. This historical information can all be placed into three major categories.

1. Reports of major events and trends,
2. Records of production and exports,
3. General details of station location, ownership and management.

Consequently, there is a sharp boundary between what can be described by documentary (or non-archaeological) sources and what can only be described through archaeological investigation.

In brief, the main progress of the industry as a component of the Western Australian economy can be charted (Chapter Two). Aspects of the industrial process and the success in production can also be contrasted with what is known for other parts of Australasia (Chapter Three). However, in dealing with individual stations it is only possible to identify their locations broadly, usually to the point of knowing that a certain bay (or sometimes a certain portion of a bay) was used in particular years. With the exception of Bathers Beach (Fremantle), there are no indications of the precise locations of stations, or descriptions of their original organization or character. Aside from several anecdotal accounts and the few notes

contained in Seymour's Castle Rock diary, there is no knowledge of the life or conditions on the stations.

In essence, the point at which the historical record is unable to provide any further information is also the boundary at which the archaeological record becomes most effective as a source of insight. This dichotomy in terms of what each data source was able to provide clarified the design of the archaeological component of this study. Three stages were identified.

1. A survey of locations described in the historical record to identify any surviving physical remains of the whaling industry, and to determine the common topographic characteristics in which these sites were situated. From this location model the probable positions of other sites without visible surface expressions could be identified.

2. Recording of structural and artefact evidence at these sites to determine if there were common characteristics in the organization and nature of both industrial and habitation areas.

3. Excavation to investigate the lifeways of the occupants through detailed analysis of structural and artefact evidence.

HISTORICAL WEIGHTS & MEASURES

For the sake of continuity, all quotations retain their archaic, vernacular, or incorrect spellings, although where necessary a modern equivalent is provided. The original non-metric measures cited in the historical sources have also been retained in the text. Metric conversions have been made where appropriate or necessary, particularly in reference to the site survey or excavation and analysis components of the research.

Imperial	Imperial	Metric
Distances		
1 foot	= 12 inches	= 0.30 m
1 yard	= 3 feet	= 0.91 m
1 chain	= 22 yards	= 20.11 m
1 mile	= 80 chains	
	= 1760 yards	= 1.61 km
Area		
1 acre	= 4840 sq. yards	= 0.40 hectares
Weight		
1 pound	= 16 ounces	= 453.59 gm
1 stone	= 14 pound	= 6.35 kg
1 cwt	= 112 pound	= 50.80 kg
1 ton	= 20 cwt	
	= 2240 lb	= 1016.00 kg
Volume		
1 gallon	= 4 quarts	= 4.55 litres
1 barrel	= 36 gallons	= 163.66 litres
1 tun	= 7 barrels	
	= 252 gallons	= 1146.00 litres

Table 1.1 Non-metric measures referred to in the text.