Int J Histor Archaeol (2018) 22:117–130
DOI 10.1007/s10761-017-0419-0

Melbourne: The Archaeology of a World City

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Published online: 1 April 2017

Abstract Reviewing the results of several decades of excavation in the center of Melbourne, Australia, provides the opportunity to reflect on what archaeological evidence has to contribute to understandings of the colonial city. The city has been shaped by its role as a colonial entrepot, a gold rush port, and a nineteenth-century metropolitan center. Its rich archaeological record derives from the intersection of heritage controls and a development boom. Data from archaeological excavations drives new perspectives on Melbourne itself, revealing a city intimately connected with the gold rush boom that fuelled its growth. Archaeological data also shed light on the specific and distinctive historical circumstances that influenced the development of cities established in the nineteenth century, including transnational migration and trade along with emerging concerns over public health and sanitation.

Keywords Urban archaeology · Australia · Colonialism · British

Introduction

Nineteenth-century Melbourne was a booming metropolis, a major Pacific port, the largest city in the southern hemisphere, the wonder of the British Empire, a world city. Historians of Melbourne have traced its rapid and glittering rise from a small pastoral center following the discovery of gold in 1851, the poverty and hardship in sections of the city, particularly during the depression of the 1890s, the growth of its manufacturing industry and suburbs, and the evolution of its distinctive pattern of streets and lanes and the vibrant life to which they gave rise

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(Bate 1994; Brown-May 1998; Davison 1978; Lewis 1995). They have documented the diversity of migrants that established a multi ethnic pluralism from the early days of settlement and the resilience of the Kulin Nation who are its traditional owners (Boyce 2011; Broome 1984: 69–72; Presland 2001). This historical context is the basis for understanding the fine-grained detail that comes from archaeological evidence. Melbourne's historical and geographical position has always underpinned the flow of people and goods into the city from around the world, the artifacts deposited in yards and cesspits and the households which acquired, used, and discarded them.

The integration of archaeological evidence with historical sources has been an enduring challenge for historical archaeologists in Melbourne. One response is to explore "history from below," uncovering perspectives that documentary sources alone are unable to provide. Examples in this volume have included the development of ironworks (Myers et al.) and the little-known bottle recycling industry (Ellis and Woff). Another approach is to use material evidence in ways that force us to regard documentary evidence in novel, unexpected ways that have not previously been considered, creating the opportunity for what James Symonds (2006: 235) calls "a creative convergence of interests." Hayes' analysis (this volume) of J.T. Smith reveals the contested and contingent shape of middle-class consumption, while Ricardi (this volume) reveals an underlying homogeneity of working-class consumerism within a global context. Text-aided archaeology not only asks new questions of the material record but provides the opportunity to seek answers that are not available without written records. The integration by Hewitt and others (this volume) of archaeological evidence with long-overlooked historical maps creates new understandings of urban settlement processes in the vital years before and after the Gold Rush. Archaeological questions may produce answers drawn from documentary sources and although the results may not look archaeological in a conventional sense, the processes are fundamentally different to those produced by historical enquiry alone. This volume of *IJHA* has considered some of these new perspectives that have emerged from recent historical archaeologies of Melbourne.

For the past 20 years, since the passage of the *Heritage Act* 1995, central Melbourne has been the focus of a dramatic surge in commercial archaeology, driven by the combination of strong heritage protection and extensive redevelopment in the Central Business District (Smith, this volume). This is part of a wider, international pattern that has transformed urban historical archaeology around the world in recent decades (e.g., Cantwell and Wall 2001; Davies and Parker 2016; Green and Leech 2006; Harward et al. 2015; Mayne and Murray 2001; O'Keeffe and Yamin 2006; Praetzellis and Praetzellis 2011; Schavelzon 2000). The growth of developer-funded archaeology from urban renewal and heritage legislation has had a range of consequences. These include the increasing professionalization of the discipline, strengthening community engagement with urban material culture and historical fabric, and a growing mountain of "grey literature" (Davies and Parker 2016). It has also forced archaeologists to consider the "questions that count" and what it is we want to learn about the past. This volume is part of our response to bringing the results of extensive archaeological activity to a wider audience. What then do the results of two decades of work tell us about Melbourne, about nineteenth-century cities, and about urban archaeology?

Melbourne

Archaeological evidence emphasizes the image of the global city while also transforming our perspective in subtle and important ways. A theme that emerges repeatedly is the impact of the gold rush in the 1850s and how the subsequent mining boom that lasted for the rest of the century shaped urban life at every level. This is a vital point because it is tempting for urban histories of Melbourne to divorce the city from its hinterland, at that time an industrial powerhouse based on mining, with gold the most valuable export well into the 1870s (Serle 1963: 2). The archaeological record demonstrates the close and ongoing connection between Melbourne and the goldfields, sometimes in surprising ways. It is apparent in the quality of goods represented in archaeological assemblages, in the nature of the built environment and in the kinds of industry and manufacturing present. It is also clear from the spatial organisation of the city and the relationships between industrial, commercial, and residential components and from the civic infrastructure rapidly brought into existence.

Goldfield wealth, via investment, economic opportunities, or a small nest-egg, translated into comparatively higher incomes and higher rates of home ownership for Melbournians when compared to their peers in other major cities (Davison 1978: 183). Close analysis of archaeological assemblages suggests that, even among the poorest residents, relative prosperity translated into slightly better quality consumer goods. This is demonstrated by comparisons of footwear (Veres 2011) and jewellery (Mezey 2005) from Casselden Place in Melbourne with sites in Sydney, which in both instances revealed that the clothing and personal items acquired by Melbourne households were of a greater quantity, quality, and diversity than those in Sydney. These intra- and inter-site comparisons are made possible due to the excavation and analysis of entire neighborhoods, in this case Little Lon/Casselden Place in Melbourne and the Rocks in Sydney (Karskens 1999), which have international parallels at Five Points in New York, West Oakland in California, and Hungate in York (Praetzellis and Praetzellis 2004; Rimmer 2011; Yamin 2006).

The archaeology of buildings directs attention to the speed of urban growth in the 1850s and 1860s and the strains imposed by the gold rush on the construction industry. Melbourne's population swelled from 23,000 in 1850 to 125,000 in 1861 as migrants drawn by gold poured in from overseas and as diggers returned from the goldfields (Serle 1971: 3, 370). Numerous sites across the city demonstrate the infilling of the original large blocks and the replacement of earlier timber structures with more permanent buildings during those decades. The work of the Ochre Imprints team at 452 Elizabeth Street (Hewitt et al., this volume) has identified the important role of prefabricated iron structures in meeting the immediate needs of builders during the resource boom. Using historic maps they have documented the predominance of iron buildings in areas opened for sale during the 1850s and 1860s. These were among the thousands of prefabricated buildings imported from Britain to the colony during this period (Lewis 1985). The use of prefabricated buildings and imported materials is a common response to situations where labor is expensive and access to local raw materials difficult, and has been observed in the archaeological records of other rural mining communities such as Burra, South Australia, during the copper boom of the 1840s (Bell 1990). Australian-built prefab houses were also sent to California during the gold rush to increase the supply of housing (Lewis 2006: 8). Their prevalence in a

major urban center, however, is less familiar and contextualizes Melbourne simultaneously as an overgrown mining camp and a sophisticated city that would soon stage a Royal Exhibition for an international audience (Major et al., this volume).

The ethnic diversity of the population, on the other hand, is an important characteristic of the gold rush that is rarely reflected in the archaeological record. Rate books from the inner city reveal neighborhoods with residents from Jewish, Lebanese, Italian, Chinese, Irish, English, and Scottish backgrounds (Mayne 2006) and the inland goldfields were also home to thousands of diggers from North America and many European countries, along with Pacific Islanders and African Americans. Despite the diverse origins of householders, their cesspit deposits are remarkably homogeneous across the city. Even assemblages from Chinese households are characterized by the use of British manufactured goods and have far fewer Chinese ceramics than their contemporaries in rural areas (Muir 2008). Ricardi's research (this volume) comparing Melbourne assemblages from those in Buenos Aires confirms that the global trading networks in which Melbourne participated played a much greater role in shaping consumer choice than did individual characteristics of local histories, ethnicity, and culture. This international comparison is an important reminder of the complex and multi-dimensional relationship between ethnicity and material culture and the frequent disconnect between them. It also emphasizes that globalization and the international movement of people, goods, ideas, and capital is by no means a recent phenomenon.

The effect of the gold rush is even more relevant now as it becomes clear that much of what we know about the archaeology of inner Melbourne households relates specifically to the decades immediately following the gold rush rather than to later periods. This is the implication of recent research by Hayes and Minchinton (2016) which has arisen out of a series of Australian Research Council projects building on the Casselden Place excavations. Hayes and Minchinton have produced a detailed picture of a 20-year period in which Melbourne's health authorities waged a campaign to regulate and then to close cesspits. Based on council records they argue that by the early 1870s most cesspits had been decommissioned and filled and that by 1883 there were no more functioning cesspits in the city (Hayes and Minchinton 2016: 18). The cesspits were filled gradually when the decommissioning was voluntary or rapidly when the cesspits were forcibly closed by council order, in both cases leading to the formation of archaeological deposits. Assemblages from these cesspits provide our greatest source of information on the possessions of nineteenth-century Melbourne households and Hayes and Minchinton have now established that most of these assemblages date to the 1870s or earlier.

This chronology is important for two reasons. The first is the new light it sheds on debates about how the archaeology of poor inner-city households has been interpreted. Attempts to provide more nuanced accounts of working-class neighborhoods that distinguish between the morally loaded rhetoric of slum journalists and reformers and the lived reality of residents, particularly at Casselden Place (see Mayne et al. 2000; Mayne 2006; Murray and Mayne 2001; Murray 2005) have been critiqued for downplaying the material and systemic conditions of poverty, crime, and vice and emphasizing instead progressive narratives of individual agency and self-actualisation (e.g., McConville 2000; Sneddon 2006; Symonds 2011). It is now clear that the archaeological evidence at Casselden Place relates to an earlier period than the dire Depression-era conditions of the 1890s that gave rise to much slumland journalism and

to later scholarship on urban poverty (Davison et al. 1985; Mayne 1993). Preconceptions about the archaeological record of inner-city residents that are based on historical descriptions of conditions at the end of the century are less relevant and potentially misleading when applied to assemblages from earlier decades. Such fine-grained chronological analysis is well suited to New World urban contexts such as Melbourne but, as James Symonds (2010) notes, the much more complex stratigraphy of urban sites in the UK requires longer-term narratives that link artifacts and features with phases and activities.

The new chronology that places the assemblages in the 1860s and 1870s requires a new historiography that provides a better understanding of conditions in Melbourne at that time. This is a second reason that the chronology is important: it turns attention to the earlier decades that the assemblages represent, a period that has not had as much historical attention. In the 1860s, Victoria was settling down after the turbulent years of the 1850s gold rushes and Melbourne's proportion of the colonial population was growing (Davison 1978: 7; Serle 1971: 2). This was a period when the generation of young migrants who arrived seeking gold in the early 1850s was maturing and raising families. Historical demographers have documented the formation of large families in this decade, with women bearing on average seven children (Summers 1994: 368). The presence of young children on many archaeological sites is attested through the artifacts but also through more detailed historical research using family reconstitution methods (Mayne and Lawrence 1998; Hayes, this volume).

These circumstances of economic and demographic growth provide a new framework for considering the closer analysis of assemblages and household structure on archaeological sites. We know that young families in inner-city neighborhoods of the 1860s and 1870s were busy purchasing homes and establishing businesses. Colonial governments also encouraged home ownership in this period to counter the perceived threats of Chartism and Socialism. Historian Graeme Davison (2000: 14) has argued that by the 1880s Melbourne had the highest rate of home ownership of any comparably-sized city in the world and that landlords in the inner-city frequently lived in the same neighborhood as their tenants or had done so in the recent past.

Family and business formation is seen in the records of many sites across the city. The Moloney family at Casselden Place, for example, were typical of this pattern (Mayne et al. 2000) as were their neighbors, William Kennon and Catherine and Robert McIlwaine (Mayne 2006: 322–324). On the other side of town Anne Sigworth and her husband George, a butcher, owned their bluestone cottage at 26–28 Little La Trobe Street (O'Connor et al. 2012). Anne Sigworth's neighbor George Fyfe later bought Mrs. Sigworth's cottage from her heirs along with two others in the row. The cottages at 280–286 Little Lonsdale Street were owned by Edward Duckett who ran an ironmongery (hardware) business on the other side of the block on Lonsdale Street (O'Connor et al. 2014). Henry Cornwell of 147 Little Lonsdale Street eventually owned eight other properties in the neighborhood as well as his own store and residence (Godden Mackay Logan et al. 2004, 1: 19). The fortunate and prudent were able to move on from the inner city and establish either themselves or their children in suburban properties in the following decades, as did Henry Cornwell, who sold his Casselden Place properties in 1890 and left the neighborhood. The Moloneys lived in Little Lon until their deaths but their heirs inherited assets that enabled them to establish businesses in the suburbs. Cesspit deposits formed during the years of

growing families in new homes will not provide evidence of the later decline of neighborhoods into grinding urban poverty.

Much of the archaeology of inner Melbourne has drawn attention to domestic conditions but other projects are reminders that nineteenth-century urban environments were complex places where people lived alongside industry and where the city itself was coming into being. The proximity of industry, commerce, and domesticity in urban contexts is evident in modern development projects that create arbitrary archaeological "sites" incorporating previously separate historic allotments, many of which now include both commercial and residential contexts. It was commonplace in the growing city for people to live cheek-by-jowl with industry of all kinds, including blacksmiths' workshops and various noxious trades. Henry Cornwell's first butcher shop, for example, was in the same three-room building he shared within his wife and seven children. This proximity is also demonstrated by sites analyzed in this volume, which include a foundry (Myers et al.) and a bottle-washing yard (Ellis and Woff), all adjacent to residential properties. The often toxic environments created by the proximity of industry to homes was part and parcel of the urban poverty that intensified as the century drew to a close.

Many of these urban industries on archaeological sites created goods for the goldfields. Langham's Foundry (Myers et al., this volume), for example, made its name building machinery for the mining industry, as did Alexander Lugton and his sons of Little Lonsdale Street, manufacturers of boilers and steam engines (Leckey 2004: 36–44). The tent-makers at 500 Elizabeth Street in the 1850s and 1860s supplied people on the diggings where new rushes sustained a demand for canvas shops and homes (Clark et al. 2014). Melbourne's many workshops and small factories made clothing, footwear, softgoods, and many other products for inland mining and farming communities as well as for export to other colonies.

Other archaeological projects in and around the central city have been associated with institutions that exemplify the highs and lows of civic life. Work at Old Melbourne Gaol (Hewitt 2003), Pentridge Prison (Ford 2009) and Abbotsford Convent (Kay 2013) has documented the lives and deaths of Melbourne's destitute women and children and its worst criminals, the latter including forensic examinations of executed prisoners (Cormick 2014; Hewitt and Wright 2004). Other projects have brought to light new dimensions of systems of governance, including the Customs House (Weaver 1999), Observatory (Weaver 1996), the Old Treasury building (Travers, this volume), and the Model School (Clark 2001). In the 1880s the colony constructed an enormous edifice to house the Royal Exhibition of 1888, a unique surviving building now on the World Heritage List as an exemplar of the optimism of the times (Dunstan 1996; Major et al., this volume). Extraordinarily, one of the insights revealed by recent archaeological excavations in the gardens adjacent to the Royal Exhibition Building was that even as the city was putting on its proudest international display it was burying nightsoil and rubbish in trenches in the surrounding park (Godden Mackay Logan 2010). These sites are a reminder of the vast capital expenditure committed to public works and infrastructure as the colony spent its mining revenue on establishing the necessary symbols of civilized society.

One of the great silences in the archaeological record of nineteenth-century Melbourne, however, concerns Aboriginal people. Following the arrival of British colonists in 1835, Aboriginal people were rapidly dispossessed, formally through the signing of a "treaty" between John Batman and elders of the local Wurundjeri people and

informally through the numerous and repeated acts of appropriation inherent in building a settler city (Attwood and Doyle 2009; Boyce 2011). On a few archaeological sites there have been tantalizing signs of Aboriginal occupation in the form of stone tools recovered from lower levels but these have been interpreted as evidence of pre-British site use rather than the continued presence of Aboriginal people (e.g., Green and Doyle 2014; O'Connor et al. 2012). With the exception of graves in the Old Melbourne Cemetery, sites with archaeologically documented Aboriginal associations after 1835 are largely on the fringes of the CBD. These include a mission station set up in 1837 on the south side of the Yarra River and another established at Dight's Falls in the 1840s, followed by others further out at Coburg and Coranderrk and the continued use of traditional camps at the Dandenong Police Paddocks (AHMS 2014; Presland 1985, p. 64). Despite these attempts to marginalize Aboriginal people, however, they did not entirely retreat from urban areas and the continued use of open spaces such as Flagstaff Gardens and the banks of the Yarra River has been increasingly recognized and acknowledged in place names such as Birrarung Marr Park and Wurundjeri Way (Goulding and Menis 2006; Presland 2001).

Nineteenth-Century Cities

Three decades of work has made the archaeology of Melbourne an exemplar of nineteenth-century world cities. By the end of the century, Melbourne was a large, prosperous, and confident urban center the equal of any in the British Empire. Unlike most other cities of the age, however, Melbourne was created almost overnight, in "greenfields" conditions without the constraints of previously established patterns of street plans or building stock. Among contemporary New World cities, perhaps Chicago and San Francisco provide the best parallels of urban growth (Cronon 1991; Delgado 2009). The archaeological record, most of which dates to within a few decades, is the result of rapid urban growth and of characteristically nineteenth-century ideologies around civic planning, public health, class, and consumption. This archaeological record is now a well-documented and substantial archive available for more detailed interrogation.

The diverse range of archaeological sites in Melbourne highlights the highly structured nature of urban life by the nineteenth century. In keeping with much colonial-era urban planning, Melbourne's streets were surveyed on a rectilinear grid almost immediately in 1837 and prior to the sale of land (Colville 2004). Construction of a functioning urban society, however, went far beyond the street plan. It is evident from the range of institutions established very quickly that there was a clear mental template of what a city needed. Archaeologists have investigated early evidence from the Customs House (1841; Weaver 1999), military barracks (1860; Weaver 1993), water supply network (1857; Dingle and Doyle 2003), early gaol (1841; Hewitt 2003), and the Old Treasury (1858; Travers, this volume). Other institutions of governance established at the same time but not yet archaeologically investigated include Parliament House (1856), the General Post Office (1859), the Town Hall (1867), and the Law Courts (1874), all impressive neo-classical or Italianate structures built with gold rush money. Banks, markets, hotels, and shopping arcades served commercial needs while institutions and facilities on the urban fringe from the 1850s and 1860s included the

Benevolent Asylum (1850), Royal Melbourne Hospital (1848) and the Yarra Bend (1848) and Kew (1864) asylums for the insane. Melbourne's first suburban railway opened in 1854 and the first railway line connecting Melbourne with the interior opened in 1862 when lines reached the goldfields at Ballarat and Bendigo.

Cities required governance and services but full civic life also required access to arts, culture, and learning. Melbournians quickly set about establishing a combined museum, library, and art gallery in 1854, along with an astronomical observatory in 1853, botanical gardens in 1846, a zoological garden in 1857, various concert halls and theatres and even, by 1854, only 19 years after the arrival of the first Europeans, the University of Melbourne. Religion was well-served and imposing cathedrals in the center of the city were built by the Roman Catholics (started 1858) and the Church of England (started 1880). The built heritage of Victoria's goldfields towns demonstrates that this mental template of civic life was widely shared, as each provincial town likewise featured botanic gardens, mechanics institutes, art galleries, a town hall, post office, court house, police barracks, gaol, railway station, churches, and school of mines (Lawrence 2005). The wealth of the gold rush enabled this vision of civic life to be realized quickly, and built in fine masonry, to an extent unparalleled in most frontier societies.

The range of institutions established speaks to the Britishness of colonial society in Melbourne as well as to the Victorian age (Lawrence 2003). Gold rush revenue built the stone structures but the revenue was collected by a strong government supported by the British Colonial Office and underpinned by the British military. It was a template refined by two centuries of imperial experience and rolled out around the globe during the nineteenth century from Singapore to Toronto, Calcutta to Christchurch. For better or worse the colony's administrators were frequently career public servants and serial imperialists with experience on several continents. This pattern of governance was not, however, imposed on an unwilling populace. When there was rebellion, such as on the goldfields between 1852 and 1855, and most dramatically and fatally at Ballarat in December 1854 when miners rose in armed revolt and around 30 miners and soldiers died, it was because the system failed to work as it should. As historian Clare Wright (2013: 215) has argued, the cause of the miners' anger was their expectation as (mainly) British subjects of fair and just treatment under British law and to have order maintained. Instead their complaints were not heard, they were persecuted without cause, and the bewildered and incompetent civil servants were unable to cope with an entirely novel situation that did not conform to previous patterns of colonization elsewhere in the Empire. After the Eureka Rebellion, authorities responded quickly to expand the electoral franchise, create a more representative government, and establish a more equitable and flexible way of governing the goldfields and the population settled down to make the most of the restored order.

Melbourne's archaeological record also speaks clearly of nineteenth-century concerns with public health, sanitary reform, and slum amelioration, in what is missing from the archaeology as much as in what is present. There is little physical evidence for wells or cisterns in part because the water supply network, opened in 1857, predates much construction in Melbourne. There is more archaeological evidence for the management of human waste, at least from the early period, as the provision of municipal sewage removal lagged well behind and construction of an underground sewerage system only began in the 1890s. As we note above, most of the artifact assemblages from Melbourne households date from the period before the 1880s when private cesspits were in use. The

process of closing cesspits in the 1860s and 1870s, which resulted in the creation of many artifact deposits as fill in the pits, was driven by public health concerns and what was by then the widely recognized (though misunderstood) connection between human waste and human health. From the 1880s, very few artifact-rich deposits were formed in Melbourne because, as municipal authorities were coming to grips with sewage, they were also coming to grips with rubbish. In 1867, municipal rubbish collection commenced and it was less common and less necessary to dispose of rubbish on private property (Hayes and Minchinton 2016: 18). Collection was far from perfect, however, and residents continued to discard rubbish in yards and streets for years to come (Gresswell 1890). New kinds of archaeological deposits appear from this time as municipal tips were created and as generalised household rubbish from many neighbourhoods was dumped in trenches in public spaces, including the Carlton Gardens.

The domestic archaeology of inner Melbourne also speaks to the spatial patterning of class in the nineteenth century. Most urban artifact deposits from the 1860s and 1870s are from lower-middle-class or working-class households. Almost from the outset Melbourne's middle classes and elites chose to live in suburbs, first Fitzroy and along the Yarra River in Abbotsford in the 1840s, then in more distant locations such as Hawthorn, Brighton and South Yarra after the 1850s boom (Davison 1978). The very wealthy, like the Martins of Viewbank (Hayes 2014), established semi-rural estates on the peri-urban fringe and few of the well-to-do ever lived in the CBD itself, although merchant and mayor Thomas Smith and his family was an exception (Hayes, this volume). By the 1860s, the Smiths had relocated to the suburbs, followed by other upwardly mobile inner-city residents such as Henry Cornwell and his family, formerly owner-occupiers in Casselden Place (Godden Mackay Logan et al. 2004, 1: 19). This middle-class exodus contributed to the urban decay that came to characterize inner-city neighborhoods by the 1890s.

Another important dimension of Melbourne's nineteenth-century archaeology concerns the nature and quantity of the artifacts discarded. Artifact assemblages are often large and diverse. The 12 cesspits from Casselden Place analyzed by Hayes and Minchinton (2016: 15) each contained an average of 2753 artifact fragments, while the two cesspits at 280–284 Little Lonsdale Street had 4899 and 4092 artifacts each (Holzheimer, in press). Ellis and Woff (this volume) report 2401 fragments and 1114 fragments recovered from cesspits at A'Beckett Street and 12,000 artifacts were recovered from the cesspit at 612–622 Lonsdale Street (O'Connor et al. 2014). When given the opportunity to fill holes in their yards it seems every household had numerous unwanted goods to discard. From this we can discern that nineteenth-century Melburnians were enthusiastic consumers who acquired goods through various means, including local markets, shops and arcades, auctions and warehouses, second - hand traders and door-to-door salesmen (Kingston 1994). It is also apparent that the goods Melburnians were acquiring were part of a global marketplace. Most artifacts were made elsewhere and imported, with the exception of footwear, building materials, and the contents of glass bottles (Davies 2006). By the mid-nineteenth century, Britain in particular was an industrial powerhouse that supplied the requirements of its colonies and other countries around the world. There was limited local manufacture in Victoria, most of which was specialized and closely connected to the rural hinterland. Leather for footwear manufacture was a by-product of the wool and meat-export industries while the metals trades, such as Langham's Foundry (Myers, this volume) manufactured

machines for the mining industry. Unlike earlier eras of colonization in eastern North America and even in Sydney and Hobart, there was little development of a local ceramic tradition in Victoria.

Urban Archaeology in Melbourne: Constraints and Future Directions

Melbourne's archaeological record has been equally shaped by the forces of urbanization and heritage management. In the nineteenth century, British colonization brought non-Aboriginal people to the land bordering the Yarra River and created a major metropolitan center. Economic circumstances dictated the rapid infilling of the original street grid during the gold rush boom. The evolution of waste management practices resulted in an archaeological horizon of cesspit deposits from the 1860s and 1870s and made the economic depression of the 1890s largely invisible to archaeology as a result. The replacement of inner-city housing with light industry from the turn of the twentieth century capped many nineteenth-century footings and deposits, preserving some from further development even as the mid-century boom in high-rise construction destroyed many others.

Changing economic and political conditions at the end of the twentieth century touched off another boom in construction, most of it in the form of high-rise office and residential towers. Implementation of the *Heritage Act* 1995 by Heritage Victoria and the Archaeological Advisory Committee, however, has created considerable opportunities for archaeological investigation (Smith, this volume). The coincidence of preserved archaeological deposits and integrated heritage management practices has led to unprecedented access to the archaeological evidence of nineteenth-century, inner-city Melbourne. When considering the greater Melbourne urban area as a whole, however, it becomes apparent that heritage management has shaped the archaeological sampling strategy to a considerable extent. While much is now known about the CBD, thanks to the very active engagement of Heritage Victoria with developers, the City of Melbourne and other stakeholders, very little is known about the archaeology of other parts of the urban area, including Docklands and Southbank and nearby areas managed by other local councils. Melbourne's historic port area, for example, overlaps two local government areas and the Port of Melbourne Corporation precinct. Recent archaeological work is starting to provide more information about Williamstown (e.g., O'Connor and Pepdjonovic 2014) and occasional work is done in other areas (e.g., Chamberlain and Myers 2008; Tucker 2012), but the approach is patchy and inconsistent. Suburban, middle-class Melbourne remains virtually unknown archaeologically because of the piecemeal nature of development and heritage management in suburban local government areas. Because so many of Melbourne's elites also lived in suburban areas, Victoria similarly lacks an archaeology of the upper classes, with the notable exception of the Martin family at Viewbank (Hayes 2014). The archaeological investigation of greater Melbourne has leapfrogged the suburbs in recent years and there is now a large corpus of archaeological data on the peri-urban fringe where population growth in the past decade has spurred the construction of new suburbs. This new wave of archaeology is revealing much about rural settlement around Melbourne including large pastoral stations (Murphy and Porter 2009), small farmers (Szydzik et al. 2014), pockets of German (Thomas et al. 2013) and Scottish farmers (Vines 2015), flour milling (Smith et al. in press) and dairying (Tucker 2013), along with continued Aboriginal occupation

(Goulding and Menis 2006; Green and Doyle 2014). The potential of this new set of archaeological sites is only starting to be realized.

The experience of archaeology in Melbourne's CBD demonstrates the importance of combining strong legislation with rigorous management practices at the local level. As the latter become more firmly established in a greater number of local councils, better archaeological outcomes can be anticipated. At the same time there are other areas of potential research that can also be pursued. The first is the large archive of artifactual material that continues to increase, with artifact assemblages from more than 200 historical archaeological sites held by Heritage Victoria (Smith, this volume). The value of this archive, numbering more than 100,000 artifacts, is enhanced by a number of factors. First, it is largely managed by Heritage Victoria either directly through its repository or in partnership with Museum Victoria which holds several of the larger collections including that from Casselden Place/Little Lon (Hayes 2011). This ensures that the physical artifacts are conserved and accessible for study. It also means that there is a basic, uniform level of recorded information about most of the collections as a starting point. Much of this archive is now available online via the Victorian Archaeological Artefact Database (artefacts.heritage.vic.gov.au). The value of the archive will only increase in future as the recent artifact management guidelines are implemented and more assemblages are accompanied by statements of significance and improved cateloging (Heritage Victoria 2015).

Another important area for future research is the archaeology of Victoria's regional cities, particularly former goldfields centers such as Ballarat and Bendigo. Here too development and heritage management has been piecemeal in the past and the archaeological record is consequently small but this is changing, particularly in Bendigo. Recent population growth and economic revival in Bendigo has resulted in a building boom and accompanying archaeological research at a number of sites (Ford 2008; Sterenberg and Ford 2010). These have the potential to provide a valuable point of comparison for Melbourne's archaeology, particularly given the comparative prosperity of the goldfields.

Urban archaeology in Melbourne is producing a rich and diverse record of a nineteenth-century world city. It includes domestic, industrial, and institutional sites and reveals a city emerging rapidly from a small cluster of buildings to a major metropolis. The city was a product of the gold rush, the British Empire, and the Victorian era and all of these influences are evident in the architecture of its private and public buildings and in the material culture of its residents. Access to the archaeology has been the result of twentieth-century developments in heritage management and twenty-first century advances in how the archaeological record is approached. As the papers in this volume show, a substantial platform now exists for future archaeological research on this global city of the British Empire.

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