Beyond the magazine is the first Ammunition factory to be built in Australia. Captain Whitney, a New Zealander, was commissioned to develop the factory in 1888 when it was felt Australia was poorly equipped to defend itself and supply its armies. Although plagued with controversy in its early years, it survived to form the basis of the present vast munitions industry.

Angliss Meatw

Downstream from the Humes site, the long bluestone wall of the Powder Magazine can be seen. It opened in 1878 to store gun-powder safely away from built up areas following earlier magazines at Batman's Hill, Royal Park, and Footscray (see below). A canal and tramway connects the magazine to the river, and then to this site.

Gov Colonial

By 1912 the works was turned to another innovative process when the Hume Pipes Company was established to manufacture reinforced concrete pipes by a new technique of spinning the pipes in a steel mould as the concrete sets. The company initially re-used the bluestone buildings, but later built rough timber and corrugated iron sheds to accommodate expansion. It is interesting to observe the contrast in building techniques between the 19th and 20th century buildings.

Another technique for preserving meat was given its first trial on the site when the Australian Frozen Meat Export Company used part of the premises between 1880 & 1888 for its processing and freezing works and exported some of the world's first shipments of bulk frozen meat.

Long before roads were constructed, the Maribymong River provided access for the first Europeans to venture into the hinterland of the Port Phillip District. Charles Grimes explored the Saltwater River as he called it and the surrounding country in 1803, becoming the first of many white people to use the river as a highway for transporting themselves and their belongings inland, as the Aboriginals had done before them. Settlers followed the Maribymong and the Yarra rivers into the hinterland to establish agricultural and pastoral properties. However, for those traveling between Melbourne and the deep-water port of Williamstown or the pastoral country and goldfields to the west, it was a considerable barrier where precarious punts or seasonal fords had to be used. Where they crossed, the first bridges were built and the concentration of traffic provided the basis for growing communities.

Raleigh and the Melbourne Meat Pres

Initially, agriculture and pastoralism were the major occupations in the region, supplying the colony with livestock, wool, hay, grain, root crops, and dairy, market garden, orchard and vineyard produce. Associated industries such as meat and hide processing, woolscouring, chaff-mills, milk factories and irrigation schemes soon followed.

Joseph Raleigh came to Port Phillip in 1843 and formed a partnership with a firm of merchants and ship owners who owned a wharf in the Queen's Bridge area as well as a boiling-down works at Yarraville and Maribyrnong. Raleigh also had large squatting interests. His interest in the boiling down business so may have been an extension of his grazing interest. Once immigration and settlement had slowed down, the local market for sheep all but disappeared. Surplus stock could not be exported as it could not be preserved for the long voyages. Boiling down the sheep carcasses to produce tallow for soap and candles rejuventated the pastoral industry.

The first industries on the river required a good supply of water and easy access for transporting their raw materials and finished products. Works such as sheep washes, wool scourers, boiling down works and fell-mongeries were all dependent on the agricultural produce of the region. The river soon became a centre of "noxious industry". Factories processing animal products for preserved meat, tallow, glue or fertilizer discharged their effluent into the river, turning it into a sewer. Related industries grew up next to each other, with the waste products of one being the raw materials of the other.

Following the closure of Raleigh's works, the site may have been used by Robertson, Martin and Smith's Ironworks to build the first locomotive in Victoria. In 1867 the Melbourne Meat Preserving Company was established and it occupied Raleigh's by then dilapidated works, extending and renovating it. The company pioneered the canning of meat with a complete, and for its time, very modern works which cut up and cooked meat, made the tins and packed them on the premises. Mechanical elevators were used to transfer tins and the works initially had a capacity for 3000 sheep and 50 head of cattle per week.

In the latter half of the 19th century the industrial base expanded to include iron-founding, engineering, shipbuilding and agricultural implement makers as well as a great variety of products. Large public works were established to provide services such as power and sewerage to the local area and the rest of Melbourne.

AND

HIGHWAYS

Spotswood Pumping Station

56

ical buildings, with

While this tour has concentrated on the industrial side of the west, it is not a complete picture without seeing the rural landscape which gave rise to all this industry. Point Cook Homestead near Werribee is a must, to see the way early settlers coped with their new world and developed pastoral properties on the Werribee Plains. This was the first of the Chirnsides' properties. Another important pastoral property is W.J.T. Clarke's Deanside, near Rockbank. It is now empty and derelict but an appreciation of its former scale can be got from the impressive bluestone woolshed, now classified by the National Trust and Historic Buildings Council.

Behind the imposing French classical buildings, with their mansard roofs and elaborate decoration, are the engines and pumps which from 1897 to 1965 helped to move Melbourne's sewage and wastes out of the city to the treatment farm at Werribee. Underground, the two main sewers for Melbourne and the Western Suburbs met and were pumped up a rising main to the outfall sewer. This scheme was probably the greatest engineering achievement in 19th century Victoria. It was the culmination of the civic and private enterprises which were carried out in as an expression of the strength and character of the maturing colony.

Williamstown Docks

56

Between these two properties and all around the plains are the relics of the past. Ruined and restored farm buildings and inns, dry stone walls, orchards, market gardens and hay paddocks all reflect the agricultural basis of the region. All these are waiting to be explored to reveal the history of the region, along with the industry and the houses of the city and the country.

FURTHER INFORMATION

In the 19th century, this area was Melbourne's link with the world, and where raw materials, primary produce and manufactured goods were imported and exported. Later, the construction of Victoria Dock took some of this trade away, resulting in a decline in Williamstown. The Alfred Graving Dock was designed by William Wardell for building and dry-docking ships. It is now part of the Naval Dock yard. Like Spotswood, it demonstrates a culmination of the skill and ambition of Victorian entrepreneurs. As an example of the design and engineering capabilities of the colony, it is unsurpassed with its tiered steps of finely worked bluestone.

scot Vale, 1984. History Trials, Red

City Council., Footscray's First 100 Years Council, 1959. (in Footscray Libraries)

O. & Lack, J., Melbourne's Western ductory History. Melbourne's Living Vest, 1986. n Region: An

The Time Ball Tower was for seventy years the main means for ships' captains to set their chronometers. At one o'clock each day, a copper ball would be lowered down the pole atop the tower to indicate the time to the ships waiting at anchor in the bay. The chronometers were essential devices for calculating longitude and had to be accurately set.

21. The Time Ball Tower

Mel

56

J., Places of Interest in rical Society, typed tour notes, 1974.

, E., Glimpses of Ea ict Historical Society, Early Sunshine. ty, 1979. Sunshine

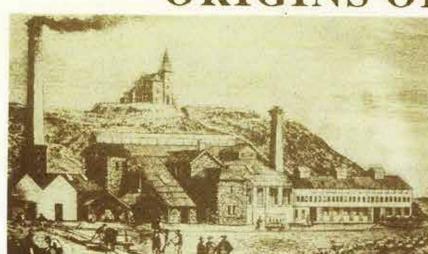
r est. This project was funded by the Victorian r Planning and Environment through the Westernmunission - Regional Action Program.

Other relics of Williamstown's maritime history are the Tide Gauge House, the Customs House, Fori Gellibrand and the rail yards which once served the docks. The railway workshops were at Williamstown from the 1850s to 1880s. Many pubs like the Steam Packet Hotel served the thirsts and comforts of the sailors. The Reid Street Pier, Mel 56 F9, is a good place to get the feel of the area.

FRONT COVER: Melbourne Maribymong, 1868. Meat Preserving

ORIGINS OF INDUSTRY

MELBOURNE'S LIVING MUSEUM OF THE WEST HERITAGE TOURS A car or bus tour starting from Humes Historic Site, Maribymong River, taking a half or full day. References are to current Melways. @ Melbourne's Living Museum of



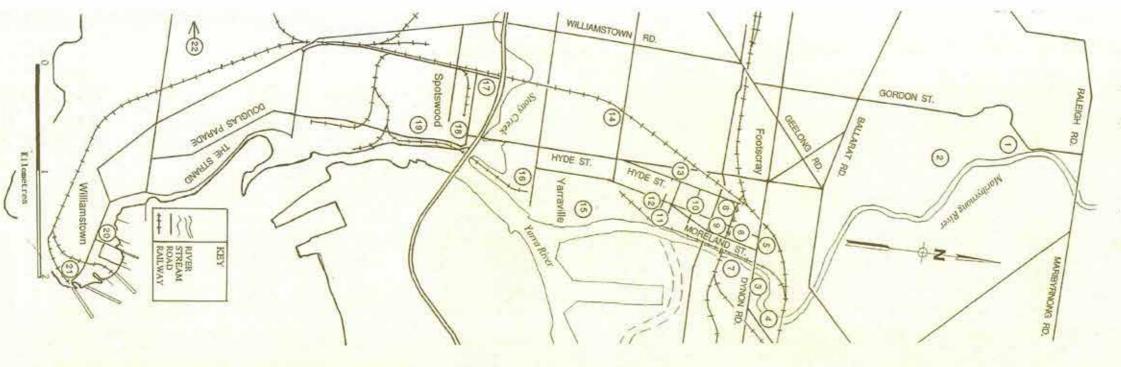
Another venture in preserving meat was set up by this company in 1870 at the site of the present concrete plant on the Melbourne side of the Maribyrnong. The works consumed 2000 sheep per week when it was in full swing in early 1871 and employed 80 to 90 men.

4. Apollo Candle Works Mel 42 G4

Upstream of the AMPC is a large white building, once the Apollo Candle Works which operated from 1872-3 to late in the 19th century. This works produced candles made from tallow, a by-product of meat processing and probably got its tallow from one of the meat preserving companies in the area.

Michaelis, Hallenstein and Company y and Angliss 42 E4 & E3

This tannery dates from the 1860s when Isaac Hallenstein and Herman Buttner bought a small tannery established in 1864 by Arthur Cleghorn. Isaac was joined by his uncle Moritz Michaelis in a venture which continued producing leather and skin products until only a few years ago. The works is just another link in the



chain of factories dependent on agricultural production and located to take advantage of the proximity of suppliers, markets and transport facilities. Angliss Meatworks, formed in 1904, was a later arrival to the area. The huge factory contained the whole range of meat related processes including butchering chains, hideworks, and by-product facilities. It was the culmination of the development of meat processing industries.

6. Henderson's Piggery

Mel 42 ES

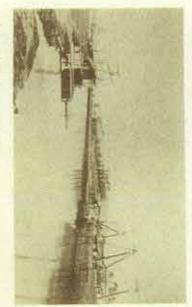
Henderson's Piggery in Moreland St. produced cured ham and bacon from 1872. The building has been recently restored for the Footscray Community Arts Centre. Much of the original building of three wings around a central courtyard has been demolished, but the office area can still be viewed and downstairs, where there was once a salt-encrusted cellar for storing cured meat, the earlier form of the place can be appreciated.

7. Footscray Wharves

Mel 42 ES

Below Henderson House the Footscray wharves now only survive in small parts. Once they stretched the full length of the river downstream of Hopkins Street. These wharves were once a hive of activity and one of the main transport facilities for the Maribymong industries. A small trawling fleet south of Footscray Road gives a glimpse of what the area may once have looked like. The cruise boat, "Blackbird" is a good way to see the industry along the River.

Footscray wharves, Henderson House in background



8. Bevan's Carriage Works

Mel 42 DS

In 1887 Phillip Bevan's Carriage Works were shifted to this site from West Melbourne. Within a year they were employing over 200 men but were closed by 1891.

14. Ebeling's

Mel 42 88

One of the longest-lasting engineering works in the Western Suburbs was Claus Ebeling and Sons of Castlemaine Street, Yarraville. They began in 1875 doing a variety of castings, general engineering work and shipping repairs, closing only in 1987.

Yarraville Industries

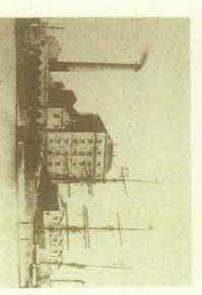
42

ES

Yarraville has long been the location of chemical works which required access to shipping facilities to transport their very bulky raw materials and products. Cuming Smith and Co. began producing a large variety of chemicals in 1877 on the site of Raleigh's boiling-down works. The 1870 keystone of the Victoria Bone Mills can be seen at the entrance to the old Cuming Smith site (now Pivot Fertilizer) and nearby is an early home of the family, 'Dee Cottage', built 1880.

In 1895 Wischer and Co. commenced producing sulphuric, nitric and hydrochloric acids on a site in Whitehall Street close to Cuming Smith. A few years later, they began producing superphosphate from raw material shipped in to the wharves from the Abrolhos and other islands around the Australian coast. Later they obtained their main supplies from Nauru Island.

The Mount Lyell Company began producing sulphuric acid nearby in 1905, where ICI now has a large chemical plant. Some of the large sheds near Whitehall Street date from this period and were used for superphosphate storage which was another of Mount Lyell's products.



Yarraville Sugar Refinery c.1890

Other Moreland Street Industries

Mel 42

Between 1864, and about 1871 the Chesterfield Pottery Works was making brown carthenware and stone bottles on this site in Moreland Street and Bunbury Street. In the 1890s the site was occupied by Hampson and Halliday's Footscray Iron Works. The large brick factory, near the corner of Moreland and Parker Streets, with its ornate chimney, was occupied by Thomas McPherson's Jute Works (1876), Barnett Glass Rubber (1908) then Bradford Cotton Mills (1930s).

10. Footscray Gas Works

Mel 42 Do

Before the Gas and Fuel Corporation became responsible for providing gas for domestic and commercial use, there were several private gas companies serving different parts of Melbourne. The Footscray Gas and Coke Company was floated in 1874 and produced gas at its works between 1877 and 1914. In the late 1890s it was claimed that the company pioneered the penny-in-theslot meter in Victoria. From 1914 the company became part of the Colonial Gas Association.

Powder Magazine

Mel 42 D7

A short section of well-built bluestone wall at the eastern end of Lyons Street is all that is left of the third Government Powder Magazine. It was constructed in 1858 and had a dock and connecting tramway so that explosives could be brought straight up from the river.

12. Junction Pottery

Mel 42 D7

George Smith's Junction Pottery was opposite the junction between the Maribymong and Yarra Rivers, From the 1850s it produced bricks and drainpipes. George also managed the Footscray Brickmaking Company on the same site from 1870 to 1878.

Hyde Street Industries

Mel 42 07

Hyde Street was a centre for many heavy industries including Rocke, Tompsitt and Co's chemical works 1887-1891; Arthur Parker and Co's Victorian Smelting and Metallurgical Works, 1880s; William Hazelton's Smelting Works, 1880s-1893; and John Nightingale's brickworks 1887-1893.

The sugar refinery was built in 1874 by and purchased by the Victorian Sugar 1875. In the 1880s following financial dicompany amalgamated with CSR. by Joshua Bros. gar Company in d difficulties, the

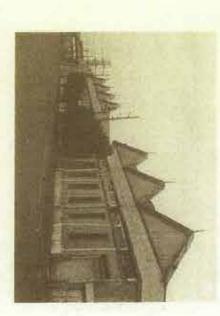
16. Vacuum Oil Company Mel 42 D10

This was one of the first oil terminals and petroleum refineries in Australia, distributing oil and fuel around Victoria. Their site, near Francis Street, was once occupied by the Victorian Meat Preserving Company and is now Mobil.

17. T. Robinson and Company Mel 42 A12

Thomas Robinson was one of the major agricultural implement makers in Victoria and a competitor of H.V. McKay's. The company's "Federal" Harvester even won a trial against McKay's famous "Sunshine" Harvester. Much of the original works, with its peculiar wooden classical facade, can still be seen in Hall Street, Spotswood. It is another link between agriculture and industry in the development of Victoria.

T. Robinson and Co. works, Spotswood.



18. Australian Bottle Company

Mel 42 ES

Almost next door is the Australian Bottle Company's works which dates back to the 1890s. The major glass bottle maker in Australia became Australian Glass Manufacturers and is now part of ACI.