

A HISTORY OF THE VICTORIAN BRICK INDUSTRY: 1826-1920.

Ian Stuart

INTRODUCTION

The earliest record of brick use or manufacture in Victoria comes from the 1926 settlement at Corinella, Westernport Bay. Some 10,000 bricks were transported to the settlement from Sydney and another 30,000 were manufactured on the site. The bricks made at Corinella were thought to be superior to those from Sydney (Coutts 1983).

The Corinella brick industry and the others that followed it a few years later at Portland and Port Phillip were based on the hand made technology, that is the primary use of non-mechanized methods to take the clay through the stages of brick production, as detailed by Dobson (1850).

Although major improvements were made in the 1850s to brick moulding and firing, in Victoria it seems that they had little influence on the brick industry (Lewis 1972:193-200; Mayes 1861:280). It is only in the 1870s that the adoption of this technology occurs with the use of brick machines and Hoffman Kilns (Birmingham *et al.* 1983:53-74).

These changes resulted in not only a better brick that was more durable and consistent in size, but also in an increase in the numbers of bricks produced. Much of the 1880s boom housing in Melbourne was constructed from extruded or dry pressed bricks.

ECONOMIC HISTORY

The change in production technology has their origins in the 1850s but were only adopted in Victoria during the 1870s. The first Hoffman kiln for example was erected in 1870 at the Hoffman Brickworks in Brunswick. There are a number of reasons for this delay in adopting new technology.

Parsons has noted "the size of each unit within the Victorian brick manufacturing industry was rigidly determined by geography and geology" (1970:417). This may be a little extreme since in the case of geology, suitable clays seem to be widely distributed. The major determinant was transporting a heavy load on poor roads.

This seems to have forced the industry to adopt two strategies. Firstly regional brickworks developed, such as those at Echuca, Ballarat, Bendigo and Portland, near regional towns where it is presumed a good demand for bricks could be expected and transport costs were lower.

Secondly, there were mobile brickmakers opening pits as the demand required. In the Westernport area a "heart-shaped frog" brickmaker worked on French Island and at Corinella on the mainland. It also appears that some brickmakers worked part time, brick manufacture not being their main occupation.

At this level of production the advantages of introducing machine based production would be marginal, as Mayes points out (1861:280), despite a healthy shortage of building material.

The 1870s seem to be a crucial decade for the Victorian industry. At this time the railway network began to provide a regional transportation network. This allowed the reduction of transport costs, expanding the market for the Melbourne based companies and providing incentive to mechanize. Many of the regional brickworks closed and the more efficient mechanized brick press and Hoffman kiln were adopted in others.

There must have also been some improvement in the nature of capital as the mechanization of the brickworks was a capital intensive operation with little initial prospect of returns until the brick presses had arrived for the U.K., the kilns erected and equipment tested.

The history of the Hoffman company is quite extraordinary, because only one year after its establishment by local businessmen in 1870, the company had obtained 15% of the local market, selling 249 900 bricks per fortnight (about eight times the output of the handmade brickworks). Despite cost cutting by the handmade brick makers, Hoffmans and the similarly mechanised Northcote companies dominated the market (Parsons 1970:419).

However competition does not seem to have eliminated the Melbourne based handmade brickworks, for Sutherland in 1889 lists some 15 such companies. The figures quoted for employment compared with production also shows that the ratio of workers to bricks remains fairly constant over the whole industry, suggesting that any economics that mechanization offered were in other areas such as fuel costs and economies of scale rather than in reduced labour costs.

The hand brick manufacturers were beaten by the 1890s depression when building virtually stopped and a vicious price war occurred. Even the large companies such as the Northcote works were unable to sell stocks and were forced to close down production and lay off the workforce (Lemon 1983:113).

The response of the brick industry was to form a co-operative to share work and regulate prices and quality. The co-operative seems to have excluded hand made brickworks as its major partners. From its inception in 1896 the price of bricks virtually doubled from 20 shillings per 1000 to 40 shillings per 1000 in 1900 (Royal Commission on the Brick Industry 1914:7). This was achieved by keeping production low (Lemon 1983:130).

Hoffman, Northcote, Butlers, Fritsch-Holzer and New Northcote were the main companies involved, although a number of other companies subsequently joined or left (City Brick left, Clifton joined when it resumed operations). The Co-operative leased the following companies' yards and equipment, effectively preventing their operation: Warburton Brick Coy., Preston (Argus 8/10/1913:13) Brunswick Brick Tile and Pottery (Argus 15/10/1913:15), John Glew, Builders, Walkenden, Clifton, Sweet, Wilsmere, Box Hill, Blackburn, Cornwall, Nolan, Ringwood and Ferry (Argus 30/7/1913:15).

It was alleged that the Co-operative was responsible for high prices, poor quality, refusal to supply and various other monopolistic activities (see the Royal Commission of the Brick Industry), but the Co-operative was not a monopoly as some companies outside it (City, Excelsior, Oakleigh).

The Government's response was to attempt to introduce more competition by developing a state-run brickworks. Land was purchased in Thornbury (now the site of the Aboriginal Advancement League) in 1908 and construction started. The Co-operative lowered prices to 38 shillings per 1000. This and the controversy surrounding the land purchase (Lemon 1983:146-47) resulted in the project being stopped and the building sold to Cliftons.

Two years later as part of the State Coal Mine development at Wonthaggi, the State Brickworks was started. Initially it was to provide bricks for the mine works and to supply the railways. But it was hoped to use the cheap coal to produce a competitive brick for the Melbourne market. Allegedly poor quality was a problem (although many of the allegations came from those associated with the co-operative) and by 1912 the works were effectively closed.

But by this time a more serious rival had emerged, in the Glen Iris Brick Tile and Terracotta Coy, formed by disgruntled builders. It has a site at Glen Iris but was compelled to move by the local Council and by the Co-operative blocking access to the land. An agreement was entered into with the Government for a lease of the Thornbury site and to provide the Government with bricks at 31 shillings per 1000 for the next 21 years. The Thornbury works started in early 1913 (Argus 11/9/1912, Argus 11/6/1913, Lemon 1983:147).

In 1913 the Government held an enquiry into the brick industry. The proceedings and its own report provides information about the brick industry at that time. However the start of the First World War seems to have overshadowed the recommendations of the report and they do not seem to have been implemented.

THE BRICK IN VICTORIAN SOCIETY

The place of bricks in the culture of Victoria may seem an odd sort of question. However the continued popularity of bricks compared with other building materials indicates some position in Victorian culture other than just an economic one.

Early brick buildings were covered by a stucco rendering which was moulded and ruled to imitate stonework. This expressed the social status of building materials in early Victoria, preserved poor quality bricks and helped waterproof walls.

It is not until the late 1860s that bricks were exposed, under the influence of the architect Joseph Reed. Reed constructed several prominent buildings such as Rippon Lea 1868-76, The Independent Church at Collins and Russell St. 1968, and the Faraday St. School, Carlton. The bricks for the Independent church are, according to Freeland (1972:145) to have come from the works of John Glew in Essendon. Reed's designs use a dark brown brick with red and white bricks to provide the decorative effects. Similar effects are to be found in many terrace houses constructed around this time. This use of bricks as part of the decoration of buildings marks both an increase in its status and an improvement in quality.

In the late 1880s a change in architectural styles towards the American Romanesque in public buildings and the Queen Ann and Federation styles in private homes resulted in a change from the stucco covered style and polychrome brick style towards the dominance of the red brick. Red bricks were combined with white bricks and terracotta tiles and decorations to provide a vital and eccentric architectural style that existed through the '890s depression until the post first war period. Areas developed over the time, such as Camberwell and parts of Malvern and Caulfield are dominated by this style. In following years red brick was the basis for solid suburban development and in a sense gained an equivalent status.

Despite the development of cheaper, more efficient building materials, brick remains a popular building material. As Laird notes it is part of the "Australian tradition of bricks and mortar being the only requirements of a solid home" (1974:31).

CONCLUSION

This brief history is only a summary of various studies, most of which have not dealt directly with the brick industry. Further work is planned to develop a system of dating bricks via changes in brick morphology. This approach offers the archaeologist and architectural historian a method for dating structures, additions or modifications to structures that may not be documented.

The history of brickmaking also gives insight into the process and consequences of technological change and on the economic and social history of Victoria. If the past has relevance, then this history surely will increase our own perception of what is happening to our society in the face of technological change.

ACKNOWLEDGEMENTS

I would like to acknowledge the assistance of A. Cremin, R. Elphinstone, C. Johnson and G. Presland.

REFERENCES

Argus Melbourne daily newspaper

Birmingham, J., I. Jack and D. Jeans 1983 *Industrial Archaeology in Australia: Rural Industry*. Heineman, Australia

Coutts, P.J.F. 1983 Corinella a forgotten episode in Victoria's history. *Records of the Victoria Archaeological Survey* 15, Ministry for Conservation, Victoria

Dobson, E. 1850 A Rudimentary Treatise on the Manufacture of Bricks and Tiles (reprinted 1971). *Journals of Ceramic History* 5

Freeland, J.M. 1972 *A History of Architecture in Australia*. Penguin Australia: Ringwood, Victoria

Laird, J.A. 1974 An Architect on Bricks. In Anon. (ed) *Brickwork without tears*. Brick Development Research Institute, School of Architecture and Building University of Melbourne.

Lemon, A. 1983 *The Northcote Side of the River, City of Northcote*. Hargreen Publishing Company: North Melbourne

Lewis, M.B. 1972 Victorian Building. Unpublished Ph.D. thesis, Architecture Dept. University of Melbourne: Melbourne

Mayes, C. 1861 Essay on the manufactures more immediately required for the economical development of the resources of the colony. In *The Victorian Government Prize Essays 1860*. Government Printer, Melbourne

Parsons, T.G. 1970 Some aspects of the development of manufacturing in Melbourne 1870-1890. Unpublished Ph.D. thesis Monash University: Melbourne

Royal Commission on the Brick Manufacturing Industry 1914 *Victorian Parliamentary Papers* Vol 2, Government Printer Victoria

Victoria Archaeological Survey
P.O. Box 262
ALBERT PARK. VIC. 3206.