

# A history of Australia's Kodak manufacturing plant

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## **Abstract**

After 96 years, Kodak Australia, which began in 1908 after it merged with the Melbourne photographic firm Baker and Rouse, closed its manufacturing plant in Melbourne. This was the end of silver-halide-based photographic production in Australia. After the closure of the site, Museum Victoria collected items pertaining to the manufacture of photographic materials and the history of Baker and Rouse and Kodak Australia. The museum now has a comprehensive collection regarding the history of photographic manufacture in Australia, its social history, technological changes in photography from 1886 to 2004, and Australia's role in the history of photography.

## **Introduction**

At 3.30 pm on 16 September 2004, employees at Australia's Kodak manufacturing plant in Coburg, a suburb of Melbourne in Victoria, were told at a staff meeting the factory would close. The plant would stop operating on 26 November 2004, with most of the employees leaving a week later (Gooch and Leyden 2004).

This was another factory closure in Victoria, a state once regarded as the manufacturing capital of Australia. As Victoria's manufacturing industry is a key collecting area for Museum Victoria, staff at the museum contacted Kodak Australia to determine if it could acquire material relating to the plant. Although the museum could not acquire parts of the plant due to the scale of some of the equipment, it was able to acquire a range of materials relating to the history and manufacture of silver halide photography in Australia.

**The early years: Baker and Rouse**

The closure of Melbourne's Kodak plant was the end of what had begun as an Australian company in 1884. Thomas Baker ran a business, which he called the Austral Plate Co, 1884, from his home in Abbotsford. The company manufactured and developed photographic materials and plates. According to legend, Baker, with the aid of his wife Alice and her sister Eleanor, manufactured plates at night which he sold by day (Lowe 1974: p9). By 1885 the Austral Plate Co had a listed outlet at 190 Russell St in Melbourne, which remained until 1891.

Thomas Baker (b. 1854) had worked as a registered pharmaceutical chemist in Maryborough, Queensland in 1876 (Lowe 1974: p9). It is unknown when Thomas Baker became interested in photography. However, being a chemist he would have come across many of the chemicals required to produce photographic plates. Interestingly, a number of photographers operated in Maryborough at the time. One, E B Cardell (based in Bazaar St), worked as a photographer and also ran a pharmacy. He moved to Maryborough in 1874, where he remained until 1875. Coincidentally, both Cardell and Baker worked in Adelaide prior to moving to Maryborough (Safier 2004). Despite this coincidence, it is not known if they ever crossed paths.

In 1881 Thomas Baker and his wife Alice (née Shaw) moved to Melbourne and purchased a property, known as 'Yarra Grange', on the Yarra River at Abbotsford. From 1882 to 1883 Baker undertook a medical degree at the University of Melbourne, which he did not complete due to his consuming interest in the production of photographic dry plates.

Thomas Baker, like George Eastman, the founder of Eastman Kodak in Rochester, New York (USA), was an entrepreneur. Eastman started producing photographic plates after reading Charles Bennett's formula for a dry-plate emulsion, published in the February 1878 edition of the *British Journal of Photography and Almanac* (Brayer 1996: p27). Like all entrepreneurs, Eastman saw an opportunity to improve on how photographic dry plates were produced, after observing a number of firms in England producing dry plates using the "old handicraft methods" (Brayer 1996: p29). These firms included The Liverpool Dry Plate Company, Wratten & Wainwright Ltd, Mawson and Swan, and B J Edwards (Brayer

1996: 29, *British Journal Photographic Almanac and Photographers' Daily Companion* 1883). George Eastman saw that improvements could be made, and developed and patented a coating machine which he tried to sell to these British photographic firms during a trip to London in 1879 (Brayer 1996: p29).

In April 1880 Eastman produced dry plates using his coating machine, which he sold to a few photographers and stores. Word soon spread that he was producing superior, streak-free plates at a reasonable price (Brayer 1996: p32). By December that year the Eastman Dry Plate Company had been created, which became effective on 1 January 1881 (Brayer 1996: p37). By 1885 Eastman had opened his first store in London, which was followed by the opening of a manufacturing plant in Harrow (Brayer 1996: p77).

Although it is not known where Baker learned to produce dry plates, it is highly likely that, like Eastman, his technical knowledge came from the *British Journal of Photography and Almanac* (Beale n.d.). He may have also obtained information from various publications available at the time, such as the *Photographic Printers Assistant* by William Heighway.<sup>1</sup>

Thomas Baker was not the first person in Australia to successfully produce dry plates; this is credited to Phillip Marchant, who coincidentally was also from Adelaide. He manufactured gelatine dry plates under the name Adelaide Instantaneous Dry Plate (Davies and Stanbury 1986: p54).

Baker, like Eastman, was successful in marketing and selling photographic plates and was able to expand his photographic manufacturing and retail business. In 1887 he formed a partnership with accountant John J Rouse. When the two men met, John J Rouse (b. 1861), who grew up in Melbourne, was working as an accountant and sales manager for a Sydney photographic merchant and importer at a branch store in Melbourne. Together they expanded the company, which in 1894 became known as Baker and Rouse Australia Laboratory.

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1 Although there was no evidence to suggest it belonged to Thomas Baker, a third edition of this manual, dated 1886, was found amongst the items acquired from Kodak by Museum Victoria.

Baker concentrated on improvements to the manufacturing of plates and production in the laboratory, and Rouse concentrated on setting up a network of retail outlets.

Baker and Rouse had very different personalities. Thomas Baker was said to be reserved and John Rouse athletic and outgoing. After Baker's unexpected death on 4 December 1928, John Rouse wrote to George Eastman:

During this long partnership he [Baker] never interfered with me, and never took my part in the running of the works. Although we were entirely different dispositions we had only one subject in view, namely the success of the firm. (Beale n.d.)

Over the years the Austral Plate Co operated under the name Baker and Company Laboratory, Baker and Rouse Australia Laboratory, and, after the merger with Eastman Kodak, became known as Australia Kodak Limited, Kodak (Australasia) Pty Ltd, Kodak (Australia) Pty Ltd, and Kodak Australasia Proprietary Limited.

### **Baker and Rouse merge with Kodak**

The Austral Plate Co continued working from Baker's home until 1886, after which it moved into a three-storey building nearby (Beale n.d.) to accommodate its 10 employees. In 1887 the new factory was producing a new bromide paper, known as Austral Pearl Bromide, which replaced albumen paper. By the 1900s the Abbotsford factory was producing bromide and gaslight papers, negative materials, mounts, envelopes and ready-mix chemicals (Beale n.d.).

The business expanded as Baker and Rouse took over existing companies or trade outlets. They imported Eastman products from London and in 1888 obtained a trade agency for the American Eastman products, which they successfully sold.

Between 1887 and 1900 Baker and Rouse opened stores and outlets in 14 locations in Melbourne, Adelaide, Brisbane, Hobart, and Sydney. Their first wholesale and retail store opened at 37 Collins St, Melbourne, where Lichtner & Co, a photographic supply store, had operated.

Due in part to the success of sales of Eastman products at Baker and

Rouse, Kodak Limited opened (in 1900) its own branch in Melbourne, at 284–286 Collins Street. However, the store did not match the sales figures of Baker and Rouse, which continued to have good sales. Contributing to Kodak Limited losses were the high tariffs imposed on imported films.

In 1905, after Thomas Baker visited George Eastman in Rochester, Baker and Rouse were appointed the sole Australian agents for Eastman Kodak products. The agreement included the sale of the Kodak Limited shop in Collins Street. In return Baker and Rouse agreed to purchase a certain percentage of Kodak products directly from Rochester, rather than London. A clause in the agreement provided that at a suitable time Kodak could purchase Baker and Rouse (Beale n.d.).

That time came in 1908 after import tariffs, introduced in 1907, greatly increased the cost of imported goods. Thomas Baker traveled to Rochester again and convinced Eastman of the benefits of a merger between Baker and Rouse and Kodak Limited. This was the beginning of the new company, Australia Kodak Limited. Baker saw the merger as an opportunity to upgrade and expand the factory in Abbotsford. Kodak saw this as a way of avoiding tariff imports, by manufacturing and finishing products in Australia. In June 1909 the company opened a store in Wellington, New Zealand, at 6 Mercer Street, which from 1912 operated under the name Kodak (Australasia) Limited.

Thomas Baker returned to Melbourne in 1908 with technical information, formulae and procedures from Kodak Limited, and a plan to reorganise and extend the Abbotsford factory on the Yarra Grange site. New buildings for the factory and offices were erected and staff numbers increased (Beale n.d.). In 1909 Baker asked George Eastman to send a trained Kodak staff member to Melbourne to assist with the setting up of film, paper and emulsion production. A man named J Defendorf was sent by Eastman a year later.

As the popularity of photography increased, so did the number of available materials and the need to continuously expand the factory. Also, by the 1920s the company had grown too large to be run predominantly by Baker and Rouse and their families. Up until that time the company had been run like a family business, and staff had been part of the 'Kodak family'. With the expansion of products, a new four-storey building

(Building 23) was constructed on Southhampton Crescent in Abbotsford in 1927. The building, which was the largest owned by the company, was used for film and paper inspection and packing, for product-testing and emulsion melting, and to supply equipment to service the coating room.

In December 1928 Thomas Baker died unexpectedly. John Rouse had to acknowledge that although he had successfully assisted Baker in running the company, he had little experience with the manufacturing side of the business. This prompted him to send a request to George Eastman and William Stuber (the expert in emulsion-making at Kodak Park in Rochester) (Brayer 1996: p29) asking for Kodak to send him someone who knew about film, plates and paper. They sent Henry Foote, who was appointed Controller of Sensitized Goods Manufacture at the Abbotsford factory. He was 26 years old and remained with Kodak until 1962. At this time Rouse, who was based in Sydney, appointed his son Edgar Rouse, a science graduate, as Managing Director and Abbotsford Factory Manager.

In 1934 the purpose-built 'Kodak House' opened at 252 Collins St, Melbourne, and became the marketing headquarters in Melbourne. The 'Block' store relocated to this new building, which had a Kodak showroom for motion picture (cine), a theatrette, film library and a retail store on the ground floor. Professional and wholesale were located on the first floor and offices located on the second floor. Repairs and maintenance were located on the third floor and there were extra floors available for future expansion (Beale n.d.).

On 7 September 1938 John J Rouse died in Sydney at the age of 77 and Edgar Rouse succeeded him as Chairman and Chief Managing Director.

### **The Abbotsford factory**

In 1936 the Abbotsford factory had become the first place outside North America to process Kodachrome film (A nation of shutterbugs 2004). A new building, at the already crowded Abbotsford plant, was built where the garage had been located. Further building changes continued at the site during the 1940s and 1950s. This included the creation of the emulsion department and an analytical and technical services laboratory, upgrading the film coating machine, installation of a separate over-coating station,

and upgrading of the recovery department.

By 1949 the Abbotsford factory, which employed 650 staff, was producing film, plates, paper and photographic chemicals. The factory was undertaking developing and processing of film and cine processing. However, by the 1950s space had run out at Abbotsford and a property in nearby Burnley was purchased to set up the photofinishing laboratory and photochemical department. The powder and solution departments were also transferred to Burnley from the original bluestone cottage at Abbotsford, which now housed the coating technical group. This group was set up to monitor, control and undertake product appraisal of film and paper coating operations.

In 1955 production of Kodachrome began in Australia, and by 1957 a decision had been made to start assembling cameras in Australia using parts and accessories imported from Rochester and Harrow. Later cameras were produced using locally made components. In 1960 Kodacolor film processing was also introduced at Abbotsford.

Due to an increase in demand for production, upgrading of the emulsion preparation and coating facilities was required, and with this the Abbotsford site was no longer adequate. This prompted the company to look at alternative sites for the factory. In 1943 the company purchased 23.2 hectares of land in Coburg, which would eventually increase to 27 hectares.

### **The Coburg plant**

Growth worldwide continued in the photographic industry during the 1950s, and Kodak took advantage of Australian import license restrictions, which limited the purchasing of overseas-finished equipment. As a result Kodak concentrated on the production of raw materials and accessories such as reels, cassettes, slide boxes and cameras. In 1956 design work began on the factory in Coburg for the film finishing department. The next stage of design work was for the emulsion coating area, the engine room, and the amenities building. In mid-1957 the contract for stage one for a new factory in Coburg was signed and building began.

The powerhouse personnel were the first to move onto the Coburg site in 1959, followed by the X-ray and sheet film (Building 5) and roll and movie

film departments (Building 4). In 1960 the emulsion and coating trace, and the paper finishing departments (Building 13) were completed and commissioned. By the end of that year the garage (Building 14), distribution (Building 6), and the workshops (Building 12) were completed (Beale n.d.).

Most staff still remained at Abbotsford, as buildings were added in the proceeding years, and by 1966 all the departments from Abbotsford had relocated to Coburg. By 1967 most of Yarra Grange had been sold and today it forms part of the Carlton United Breweries Limited site.

By 1963, through the purchasing of local shares, Eastman Kodak owned 99% of the Australian company, which by now had new management (Beale n.d.). After thirty years of close involvement in the daily activities of the company, Edgar Rouse and Henry Foote had retired. The company was now predominantly owned by Kodak in Rochester, and the Australian balance sheets came under close scrutiny. Greater pressure was placed on the Australian company to perform financially. Rochester called on the Australian plant to “optimize performance and reduce waste” (Beale n.d.). In addition, photographic technology was beginning to change rapidly, with the life of a product reducing from 40 to 10 years (Beale n.d.).

### **Reduction in the use of silver halide**

The closure of Kodak’s Coburg plant was a business decision similar to that faced by many companies that were once based on silver halide photography and its associated industries. These companies now either no longer exist or have shifted towards imaging or digital photography/technology – a change which has resulted in reduced demand for traditional photographic film and papers. Along with this there has been a rapid decline and discontinuation of silver-halide-based products.

AgfaPhoto (which started the Agfa trademark in 1897) became insolvent in 2005 after more than 100 years in business. The company is now a “100% business-to-business company, fully focused on its two business groups; Graphic Systems and HealthCare” (Agfa 2006).

Ilford, founded in 1879, went into receivership in August 2004 and its business no longer concentrates on silver halide photography. In 2005 Ilford Imaging Switzerland was acquired by Oji Paper Co, one of Japan’s largest paper companies. Ilford is now the second largest manufacturer of inkjet



'photo' paper, which is considered by the company to be more 'profitable' than the traditional photographic industry (Ilford 2004, Ilford 2005).

In 2006, after 103 years in the industry, Konica announced that the company would withdraw from the camera and photographic business by 2007. Fujifilm, which is due to celebrate its 75th anniversary in 2009, has shifted its focus to inkjet technology (dyes and inks), polarizing plate material for LCDs, and semi-conductor technologies. Although Fujifilm announced it would continue to support its customers with silver halide products, it's unknown how long this will last, particularly with the changing market place (International Contact 2006: pp11-14).

Similarly, Kodak has become an "imaging business in the digital age" (International Contact 2006: pp11-14). In 2005 digital sales for the Eastman Kodak Company were 54% of the company's total revenue. This was the first time digital imaging sales were greater than those for traditional imaging products, a trend that will never be reversed. However, despite these changes, the role of photography, or 'imaging', which continues to be dictated by technological advances, can be summed up by Henry Foote's welcoming speech at the opening of the Coburg plant (Beale n.d):

We have lived through all of those episodes that represent human progress; depressions, periods of prosperity, periods of great happiness, periods of great sadness. In our 75-year history there have been many such intervals that we are exceedingly proud of – we are proud to have grown with the Australian people to have been part of the development of this country.

It became evident to all of us that we could not permanently face up to the future, the industrial progress, the growth that is taking place in this nation today in our old factory, and a new site in Coburg was selected. Today we officially close the history of Abbotsford and 75 years of photographic manufacture there. It is with some regret and some sorrow, but we are proud to present her at Coburg, a new factory, that we know is going to play an even greater part in the future that this nation has in front of it.

Although Foote's speech was given in 1961 it is perhaps just as relevant today, although with the closure of the Coburg factory, albeit only after 45

years, the 'future' in Australia's photographic history no longer exists:

If we go back to Abbotsford, our old site, there is still a well-preserved building with the date 1886 on it. That date represents the beginning of photographic manufacture in Australia. We, as an industry, are proud to be associated with that small band of secondary industries tracing its history into the past century. Our history is the history of Australian people.

Museum Victoria's acquisition of materials relating to Kodak's history represents the end of traditional photographic production in Australia. The museum acquired items pertaining to Baker and Rouse, and the manufacturing and production of photographic films, plates, papers, and motion picture films, and other analogue imaging technologies.

This material will prove to be a great resource for studying the history of photographic manufacture in Australia, its social history, technological changes in photography from 1886 to 2004, and Australia's role in this history. The collection will enable curators and conservators to learn about the manufacturing techniques used to produce materials for the most prevalent 20th century photographic processes. Understanding the history of manufacturing and how these materials were produced will assist conservators to identify flaws or problems associated with the processes.

Today approximately 400 employees remain at the new Melbourne headquarters of Kodak (Australasia) in Collingwood, not far from where the company started. However, the manufacturing of photographic materials is now part of Australia's history and not its future. This is the "natural evolutionary progress of photography" (Romer 2005: pp1-2) and what has occurred is "the closing of another chapter in the history of photography" although "perhaps the last chapter" (Romer 2005: pp1-2).

### **Acknowledgements**

Special thanks must go to all the staff at Kodak who assist and supported us with this acquisition, particularly Kate Metcalf. I'd also like to thank Museum Victoria staff: Fiona Kinsey, Curator, for involving me with this project; and Maryanne McCubbin, Robin Hirst, Linda Cook, Moreland

SCM staff, Conservation staff, and Collection Management staff. Particular thanks must go to the past Kodak employees who supported Museum Victoria with the sorting of the pallets and dedicated their time to telling me wonderful stories and putting up with my endless questions: David, Ed, Peter, Alan, Neville, David, John, David, Russell, Les, Alan, Ron, Max, Tony, Jill, Elaine, Jim and Ian.

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