A case for photographs

Jason Benjamin

The photographic collections held by the University of Melbourne are a rich resource for those interested in the history of photography in Victoria. Notable collections include those of the Grainger Museum, the Ian Potter Museum of Art and the University of Melbourne Archives (UMA), all of which contain works by some of Victoria's best-known photographers.[1] Of particular significance, however, is UMA's small but important collection of daguerreotypes and ambrotypes,[2] the first photographic processes widely practised in Victoria.

Often referred to as cased photographs, for the small protective boxes in which they were presented, these processes were in popular use in Victoria from 1845 until the mid-1860s, when albumen print *cartes-de-visite* began to dominate the photographic trade.

One aspect of daguerreotypes and ambrotypes of particular interest is the materials and techniques used in the sealing and casing of the images. Often demonstrating a high level of finish and design, the casing and sealing components form an important part of the overall object: a cased photograph.[3] Although it is usually the image contained within the case that is the primary focus, the case and the sealing components are elements of the work of art that deserve attention in their own right.

The UMA selection, although relatively small (three daguerreotypes and 22 ambrotypes), includes representative examples of the various case designs and sealing techniques used during the 1850s and 1860s, thus providing a good overview of the development of this art form. For the examples with a known Victorian provenance, these casing elements can also reveal important information on the origins of the photographic supplies being used locally. This in turn provides us with an insight into the influences of the international photographic trade on early photography in Victoria.

UMA's largest single collection of cased images comes from the papers of the Armytage family, wealthy pastoralists who had established themselves in Victoria from the 1830s after moving from van Diemen's Land. They are best known today as the former owners of the historic house 'Como' in South Yarra. Consisting of two daguerreotypes and 16 ambrotypes (a number of which were separated from their cases prior to deposit at UMA), this collection is

Photographer unknown, Armytage family group, including Charles and Caroline Armytage and their eldest child, Charles Norman Armytage, at 'Fulham' near Balmoral, c.1858–1859, quarter-plate daguerreotype, housed in a wooden-based, leather-covered case, manufactured c.1857–1858, 8.1 x 9.3 x 1.5 cm. Armytage Family Collection, University of Melbourne Archives.

Opposite: The embossed combination floral and geometric external case design is more intricate and dominates more of the case surface than the Strathfieldsaye Estate daguerreotype case of the early 1850s illustrated on p. 37. The use of gold borders, which became popular during the 1850s, further adds to the busy effect.

Below: Interior view, illustrating the casing components including mat, protector and embossed velvet pad. The leather hinge can also be seen as well as the more ornate nature of this example in comparison with the Strathfieldsaye Estate daguerreotype. The colour effects on daguerreotypes were achieved by applying dry pigment combined with gum arabic with a fine brush and then using heat and moisture generated by breathing on the image to adhere it to the surface.

significant for the many images, predominantly portraits, known to have been taken in Victoria.

A smaller collection of five cased images is held in the Strathfieldsaye Estate papers which chronicle the Disher family of Stratford in Gippsland. Among this collection is the oldest example of a daguerreotype held by UMA. Of particular note is a rare half-plate landscape ambrotype from the James Stewart Johnston papers, which depicts the National Trust and Victorian Heritage Register listed 'Glenara' homestead at Bulla.[4]

The daguerreotype was the first photographic process practised in Victoria and was introduced to the then Port Phillip District of New South Wales in August 1845 by George Baron Goodman (d.1851), Australia's first professional photographer. Perfected in 1839 by Louis-Jacques-Mandé Daguerre (1787–1851), who built upon the work of earlier pioneers, the daguerreotype was the first practical photographic process to be widely used by professional photographers. Popular until the late 1850s, the daguerreotype image was formed on a highly polished silver-coated copper plate. The mirror finish made the image difficult to see at particular angles. As this process did not utilise a negative, the image created was

unique and could not be duplicated without re-photographing it.

Although it is unclear who first introduced the ambrotype process to Victoria, the first advertisement for the process by a professional photographer appeared in 1854.[5] The basic ambrotype process was first made public in 1851 by its inventor, Frederick Scott Archer (1813–1857), and quickly gained popularity. The ambrotype is an under-exposed negative on glass that is made positive by covering the reverse of the glass with an opaque coating, usually a black lacquer. Once the reverse is coated the end result is a soft and pearly positive image without the reflective surface of the daguerreotype. As with the daguerreotype this process also produces a unique image.

The image surfaces of both the daguerreotype and ambrotype are highly sensitive to mechanical and environmental damage, which meant that protective sealing and housing methods were required for preservation. Depending on the region, certain protective conventions developed that, in concept, changed little throughout the period during which these types of images were produced. In continental Europe the most common practice was to adapt conventional picture framing methods using mats under glass that favoured
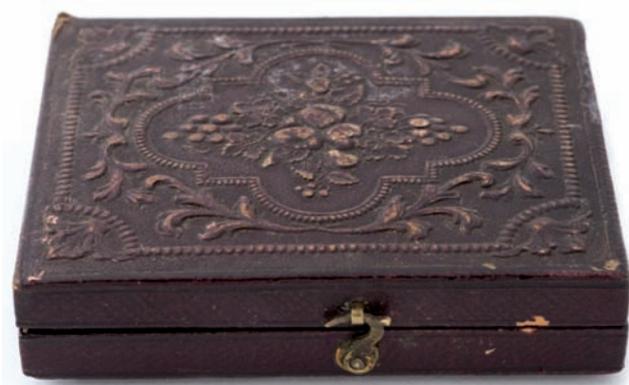
the displaying of images on walls.[6] In Britain and North America, however, the most common practice was the adoption of small cases that had originally been designed for the housing of miniature portraits painted on ivory.[7] In conjunction with these cases, protective sealing methods utilising mats, glass, tapes and preservers—a thin metal wraparound frame—were developed.

The art of case making and the manufacturing of sealing accessories for these formats reached its height in North America, where between the 1840s and 1860s millions of cases were manufactured annually for the photographic trade. As well as supplying the domestic market, the cases and sealing components were also exported. Advertisements for local photographic suppliers firmly establish that Victoria was a part of this trade.[8] Although in many instances the origins of the cases and sealing components are unclear, a number of examples held by UMA confirm that America was the source for some of the cases being used in Victoria.

The most common form of case represented in the UMA collection is that of a shallow base and lid constructed from wood. Usually of a combined depth of several centimetres, these wooden-based

cases were manufactured in five standard sizes,[9] and were the predominant style used internationally. Except for minor structural changes, these standard wooden cases were consistent in basic construction throughout their period of use. The skeleton structure of the earlier cases consisted of ten pieces of shaped wood, five pieces each for the base and lid. This structure was made up of a rectangular base of solid wood with four rails glued to the edges to form the side rim. In America from the early 1850s a design consisting of seven pieces of wood for each half of the case was introduced, to prevent the warping that was common with the earlier design. The additional two pieces of wood were used as cross-grain reinforcing of the two baseboards. The most common type of wood used was a soft North American native pine.[10]

It is rare to be able to see the underlying structure of these cases but a detached pad from the lid of an Armytage family quarter-plate daguerreotype affords us an opportunity to do so. This particular example demonstrates the seven-piece construction introduced in America during the early 1850s, with the cross-grain reinforcing plainly visible. The daguerreotype housed in this case (illustrated on pages 34–35) is

Left: The case features a relatively simple combination floral and geometric embossed design. Note the visible joins in the leather along the case's edge which, in contrast with the Armytage family daguerreotype case, are quite obvious.

Below: Interior view revealing plain mat, lack of preserver and simple embossing of velvet pad.

also of particular interest as it is a rare surviving example of an external view. This group portrait, which includes Charles and Caroline Armytage and their eldest child, Charles Norman, standing in front of their homestead at 'Fulham', the family's property near Balmoral in Victoria's Western District, would have been taken in about 1858–1859 and is one of the later daguerreotypes produced.

The greatest change to the cases during their period of use concerned the design elements employed on the external surfaces. Earlier cases were generally plain with only a simple geometric design on the lid, but by the 1850s more intricate designs were favoured and usually appeared on both sides of the case. Geometric and floral designs were the most popular and all the examples held by UMA fall into these two categories.[11] The Strathfieldsaye Estate daguerreotype illustrated above is a good example of the early use of the intricate floral and geometric designs that became increasingly favoured. Dating from the early 1850s, this sixth-ninth plate brown leather case is embossed with a central motif of flowers and fruit surrounded by a combination of geometric and foliate borders. Although combining both common design elements, the overall effect is one of relative simplicity, which

contrasts with later embossing designs which are far more intricate and dominate more of the case surface. Gold borders—which further added to the busy appearance of many designs—also became popular during the 1850s.

The exterior finish of cases commonly consisted of leather (usually a paper-thin sheepskin), paper or cloth. The majority of the UMA's cases with a Victorian provenance are finished with leather, suggesting that this was the preferred style locally. From the early 1850s the finish was usually embossed prior to being glued to the case. This was achieved using a brass cylinder die,

cut with raised design features. The embossed layer, slightly larger than the case surface, was placed upon the already glued wooden surfaces of the top and base of the case, then repeatedly brushed with a blunt rubber stick until the glue set. This process was mechanised in 1854 by the use of a press which was able to glue embossed surfaces on to six cases at a time.[12]

The next step in the finishing process involved attaching a single strip of thin, high quality leather to the front rail, two side rails and partially to the back rail. The quality of the craftsmanship in paring and feathering the leather margins

Below: Thomas S. Glaister, Portrait of an unknown woman, c.1854, uncased ambrotype, 8.4 x 7.2 cm. Armytage Family Collection, University of Melbourne Archives. The Armytage Family Collection was gifted to the University in 1968 by Mrs Constance Fitzpatrick (née Armytage) and the estate of Miss Leila Armytage.

The brass mat and protector and the cover glass have been separated from the case, which has been lost. The portrait demonstrates the use of black lacquer to produce a positive image. This photograph is significant as one of few of the period to be identified with a photographer's name.

Right: Photographer unknown, Portrait of an unknown man, c.1850–1859, daguerreotype, housed in a wooden-based, leather-covered case, manufactured c.1850–1859, 11.8 x 9.3 x 2.0 cm. Armytage Family Collection, University of Melbourne Archives.

This case features a rare green velvet pad and heavily embossed mat.

resulted in almost imperceptible joins in the different pieces of leather once they were glued down.[13] The high quality craftsmanship in forming these joins is evident in many of the UMA's examples, although not in all. The rather obvious joins in the Strathfieldsaye Estate daguerreotype case illustrated on page 37 suggest that a more rudimentary approach was taken in these earlier examples.

The hinge joining the two halves of the case was generally manufactured from a single piece of heavier leather and was commonly called the 'inside-outside back'. It was attached to both the inside and the outside portion of the rear rails, concealing the exposed wood not covered by the rail strip.[14] Later American cases also used cloth to form this hinge and at least one example of this can be found in the Armytage Family collection.

The pad used inside the lid was designed to further protect the image and generally consist of a cardboard mat, cotton wool wadding and, most commonly, a silk or velvet fabric which was folded over the cardboard and glued in place. In earlier cases the covering fabric was plain but from the late 1840s onwards the velvet was usually embossed with ornate designs. The most common colours were reds, pinks, rust and burgundy, although

the Armytage Family collection also has rare examples of purple and green (illustrated above right). A velvet-covered strip of cardboard, usually the same colour as the pad, was used to line the inside rails of the base to form a tight border to hold the image in place. The Strathfieldsaye Estate daguerreotype pad on page 37 is a good example of the simpler designs favoured in earlier years, with its single flower motive surrounded by a plain geometric border.

As noted above, the general structure of cases did not change significantly and it was largely the style of the decorative elements that altered. The sealing components used for the image, however, experienced a

greater level of stylistic and technical change. The earliest known sealing technique used in Victoria was the Wharton frame which was in currency until at least 1847.[15] Named after its designer Thomas Wharton, a Birmingham brass founder, this frame consisted of a solid brass plate that was indented with a well to fit the daguerreotype plate and four edge flaps that were bent around the daguerreotype, mat and glass to seal the unit together before being fitted into the case.

The Wharton case seems not to have been used later than 1847 and until the introduction of preservers in the early 1850s only a thin tape was used to seal the image. This method had been standard convention in America since the early 1840s, and involved sealing the daguerreotype, along with the mat and cover glass, with tape manufactured from a heavy tissue or writing paper spread with gum Arabic.[16] These tapes continued to be used after the introduction of preservers and can often be seen around the edges in less well-finished examples. A quarter-plate ambrotype depicting Caroline Armytage, without a preserver or case, affords us an opportunity to view this taping system in some detail, with its fine quality, lightly embossed sealing paper (illustrated opposite).

Photographer unknown, Portrait of Caroline Armytage, c.1860, quarter-plate ambrotype, mounted but without a case, 18.0 x 14.6 cm. Armytage Family Collection, University of Melbourne Archives.

Embossed paper has been used as sealing tape. The border is of gilt card rather than the more typical brass mat. Also unusual is the use of white painted cover glass to perform the visual function of a mat.

Preservers were used in America as early as 1847 but were not common until about 1850,[17] and not in Victoria until after 1851. The preserver was designed to hold the image unit together in the same manner as the tape but with the added advantage of providing an aesthetic frame. Preservers were manufactured from paper-thin, pliable sheet brass, cut to a rectangular shape with malleable flaps that were wrapped around the image plate, mat and glass. The preservers were generally embossed, at first with simple designs, but later, especially during the 1860s, with quite ornate elements that could encroach upon both mat and image. This evolution in design is evident in the UMA collections with later images demonstrating a tendency towards the more ornate, visible in a number of the Strathfieldsaye Estate ambrotypes.

Mats have been a consistent part of the sealing process for cased photographs since the early 1840s and are present in all intact examples held by UMA. The early mats were relatively plain with ellipse, double ellipse, oval and octagon being the shapes favoured for the viewing window. They were usually made of sheet brass or gilt card. Sheet brass appears to have been the most common material used in Victoria, although there are two examples of gilt card used with ambrotypes in the Armytage collection. As with preservers, the later mats were usually more ornate and increasingly utilised embossing as a design element, which again is evident in the Strathfieldsaye Estate ambrotypes.

Although the covered wooden cases were the predominant format used in Victoria, an example of an ambrotype housed in a thermoplastic Union case in the Strathfieldsaye Estate collection confirms that this format was also in local use. Union cases were manufactured from an early type of moulded plastic made from shellac, wood fibres and tinting agents, which allowed for much bolder bas-relief designs than those possible with embossing. Designs depicting historical events, people, animals and places became popular, as did an expanding range of the floral and geometric designs used with the embossed wooden cases.

America was the primary manufacturer of the Union case, with the first patent for a specific manufacturing process being granted to Samuel Peck of New Haven, Connecticut, in October 1854.[18] There was one known English manufacturer, John Smith of Birmingham, who filed a thermoplastic case patent in 1859,[19] but most examples found in Australia were probably imported from America. This is supported by the Union case held by UMA (illustrated on page 40) which is identical to published images of American-made examples.[20] The Strathfieldsaye Estate example consists of a quarter-plate metal hinged black case with a 'C' scroll border and central Maltese cross design on both lid and base. Although the portrait of the unidentified gentleman is undated, his style of dress suggests the late 1850s to mid-1860s. This date range is further supported by the presence of embedded hinges, which were introduced in 1856.[21]

Photographer unknown, Portrait of an unknown man, ambrotype, c.1856–1866, housed in a moulded thermoplastic Union case manufactured in North America, 12.6 x 10.5 x 2.3 cm. Bequest of Dr Harold Clive Disher, 1976, Strathfieldsaye Estate Collection, University of Melbourne Archives.

This example of a Union case was manufactured in America after 1856 and demonstrates the use of embedded hinges.

Although daguerreotype and ambrotype photographs were produced in their thousands by professional photographers, their fragile nature has resulted in relatively few making their way into public collections.[22] The University of Melbourne Archives' three daguerreotypes and 22 ambrotypes dating from the 1850s and 1860s are therefore valuable resources in the study of this period of photography.

Jason Benjamin is Coordinator of Conservation Programs with the Cultural Collections Group, University of Melbourne. Prior to this he was Coordinator of Reference Services at the University of Melbourne Archives. He has recently completed a graduate certificate in photographic materials conservation at the University's Centre for Cultural Materials Conservation.

Notes

1   Spanning more than 150 years, these collections include works by Thomas S. Glaister, Charles Nettleton, Mina Moore, Jack Cato and Wolfgang Sievers, to name a few.
2   During their period of production in Australia, ambrotypes were commonly referred to as collodion positives or positives on glass. The term ambrotype (derived from the ancient Greek word for imperishable and first used to describe the process by its American patent holder, James Cutting) has subsequently become the widely accepted term for this process.
3   Although predominantly used for daguerreotypes and ambrotypes, cases were also used to house tintypes and early albumen prints. An example of a cased albumen print

can be found in the Armytage Family Collection held by the University of Melbourne Archives. Measuring 4.7 x 4.3 x 1.2 cm, this leather-covered case was designed to fit a sixteenth-plate daguerreotype or ambrotype but has been used to house a trimmed albumen print portrait of a young woman.
4   Photographer unknown, View of 'Glenara' homestead at Bulla, c.1857–1860, half-plate ambrotype, housed in a wooden-based, leather-covered case, manufactured c.1857–1860, 13.3 x 18.4 x 2.5 cm. James Stewart Johnston Collection, University of Melbourne Archives.
5   Alan Davies and Peter Stanbury, *The mechanical eye in Australia: Photography 1841–1900*, Melbourne: Oxford University Press, 1986, p. 24.
6   F. and M. Rinhart, *American miniature case art*, New Jersey: A.S. Barnes & Co., 1969, p. 17.
7   M. Susan Barger and William B. White, *The daguerreotype: Nineteenth-century technology and modern science,* Washington: Smithsonian Institution Press, 1991, p. 202.
8   The Batchelder and O'Neill Daguerreotype and Photographic Portrait Studio was one of the main suppliers of photographic equipment and materials in Victoria from as early as 1857. The company's advertisement in the 1859 *Sands & Kenny's commercial and general Melbourne directory* lists both England and America as the sources of their goods.
9   The standard sizes were whole plate at $9^{1}/_{8}$ x 7 inches, half-plate at 6 x $4^{7}/_{8}$ inches, quarter-plate at $4^{3}/_{4}$ x $3^{3}/_{4}$ inches, sixth-ninth plate at $2^{7}/_{8}$ x $2^{3}/_{8}$ inches and sixteenth-plate at 2 x 1¾ inches.
10 Rinhart, *American miniature case art*, p. 18.
11 Cases decorated with historical scenes and portraits were popular in America, but the general lack of examples in Victorian collections suggests that they were primarily manufactured for the local market rather than for export.
12 For a more detailed description of this process see Rinhart, *American miniature case art*, p. 18.
13 Rinhart, *American miniature case art*, p. 19.

14 Rinhart, *American miniature case art*, p. 20.
15 Although no examples of George Baron Goodman's Victorian photographs have been identified, his surviving photographs produced during the mid-1840s in New South Wales are in Wharton frames. Victoria's second photographer, Douglas Kilburn, is known to have used Wharton frames for images produced in Melbourne during 1847.
16 Barger and White, *The daguerreotype,* p. 203.
17 A. Kenny, *Photographic cases: Victorian design sources 1840–1870*, Atglen, PA: Schiffer, 2001, p. 152.
18 C. Krainik, *Union cases: A collector's guide to the art of America's first plastics*, Grantsburg: Centennial Photo Service, 1988, p. 5.
19 J. Hannavy, 'John Smith and England's Union cases', *The Daguerreian Annual: Official Yearbook of the Daguerreian Society*, Eureka, CA: The Daguerreian Society, 1997, p. 47.
20 See Kenny, *Photographic cases*, p. 102.
21 The embedded hinge system, as demonstrated by this Union case, was patented by Samuel Peck in 1856. Peck's design resolved the problem of cases breaking during the hinging process (which up to this point involved drilling a hole through the case) by embedding the metal supports of the hinge into the thermoplastic while still in a plastic state.
22 In addition to the fragility of these formats, the fact that many were sent 'home' to family and friends by a largely immigrant population has also greatly contributed to their scarcity in Australian public collections. Helen Ennis muses that future histories of early Australian photography may in fact be written in Britain rather than Australia (Helen Ennis, *Photography and Australia,* London: Reaktion Books, 2007, p. 14).