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## The good oil on Bromoil – Bromoil Photography

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### ABSTRACT

*What is a Bromoil print? Also known as an alternative process or pigment control process, the bromoil process was invented in 1907 and is still practiced today by a dedicated few. It is a relatively obscure process that combines photography, painting and printmaking. A bromoil print is a photograph from which the original silver is removed and substituted with a pigment in an oil base. Both black and white and colour prints can be produced using this method and the final appearance of the print will depend on how the ink is applied to the matrix. An outline of the historical context of the process will be included and contemporary photographers who are using this process will be introduced. An explanation of the process of producing bromoil prints will be presented following discussions with a contemporary Melbourne photographer using this method of printing. Reference will be made to examples in Australian*

*collections.*

### INTRODUCTION

Bromoils are one of a family 'pigment processes'<sup>1</sup> which enjoyed a great vogue in the Pictorialist<sup>2</sup> movement in the early 1900s. As a contrast to the sharp focus of contemporary photography of the time, pictorial photographers used the camera as an aesthetic instrument to produce images in a blend of naturalism, impressionism and art nouveau styles, thus elevating photography to an art form. Pictorialism, had its origins in the UK in 1892<sup>3</sup> and quickly became international as networks of mostly amateur photographers became established and spread across North America, Asia and Australia over a period of only a few years. Australian Pictorialism started in the late 1890s<sup>4</sup>. The movement was promoted through camera clubs, photographic journals, exhibitions and international competitions and the style itself remained popular until WW2,

before it fell out of popularity.

Bromoil photography was invented in 1907 by Englishman C. Wellbourne Piper<sup>5</sup> and introduced into Australia in 1910 by John Kauffman<sup>6</sup>. Bromoil was one of the most favoured photographic processes used by the pictorialists. Special bromoil papers were marketed between 1920 to the 1930s<sup>7</sup>. This process allowed the photographer freedom to manipulate the image beyond a purely mechanical reproduction of glass plate negatives, producing often quite ethereal effects, where images looked more like etchings than photographs. To suppress detail in order to achieve a more artful effect such as this, was considered avant-garde and in stark contrast to the prevailing trends of realism and clarity.

#### WHAT IS A BROMOIL PRINT?

In photographic texts bromoils are referred to as an alternative pigment process, a dichromate process, a pigment control process and a non silver process. This is not to be confused with the related bromoil transfer<sup>8</sup>, the oil pigment process, which proceeded bromoil<sup>9</sup>; or brometching, which succeeded bromoil c.1935<sup>10</sup>.

David Lewis (1994) states 'A bromoil print is a silver bromide<sup>11</sup> or chlorobromide<sup>12</sup> photograph in which the silver image is removed and a greasy pigment is substituted...'<sup>13</sup>

A bromoil transfer is produced by putting an inked bromoil print through a press while in contact with an art paper. The image is therefore transferred onto a new support. At least two pulls through the press after inking up the matrix in stages is called a multiple transfer.<sup>14</sup>

Put simply, to produce a bromoil, a normal enlargement is made to produce a black and white print. The print is then immersed in a chemical solution which bleaches away the silver image and tans or hardens the gelatin in proportion to the amount of silver in the image. This leaves a gelatin layer hardened or insoluble proportionally to the degree of silver that was present in it. After soaking, the

bleached print (or matrix as it is called) is inked up with a lithographic ink, applied with a brush. The hardened gelatin will absorb the oily ink, while the unhardened gelatin, which has absorbed water in the soaking, will repel it. This allows ink to build-up proportionally in the midtones and shadows, while repelling ink from the highlights which have absorbed more water. Thus a unique pigment-based version of the original image is created.

#### *The bromoil process*

The process is well documented in texts such as Lewis<sup>15</sup>, Nadeau<sup>16</sup>, and Crawford<sup>17</sup> or online<sup>18</sup>, but no amount of reading will replace working with a practicing bromoilist or participating in workshop to fully understand this demanding and time consuming technique. A brief explanation of the process follows, excerpts of which have been taken from Luis Nadeau and David Lewis's books.

#### *Paper*

Early bromide papers manufactured specifically for bromoils were not hardened,<sup>19</sup> or supercoated<sup>20</sup>, but had a soft emulsion. These papers are no longer available. It is possible to use some supercoated papers according to experienced bromoilists such as David Lewis. Prints can be made on resin coated or fibre-based photographic papers, preferably with a matt or slightly textured surface. A glossy paper is not recommended for beginners, as this surface does not receive the ink well.

#### *Development*

Developers free from hardeners, which will affect the gelatin, are recommended for bromoils. After development rinse the print, immediately fix in a non-hardening fixer, such as sodium thiosulphate (hypo) and then wash thoroughly and air dry.

#### *Bleaching and Tanning*

Many different formulae for bleaching have been recommended over the years<sup>21</sup>. Bleaching removes the silver image and at the same time hardens the areas of gelatin in proportion to the amount of silver removed. When the process is complete

only a pale shadow of the original image is left. The print is washed, fixed, washed again and dried.

#### *Soaking the matrix*

The matrix requires a period of soaking to swell the gelatin. Water temperature and soaking time will control the swelling. The image will now appear in relief with the highlights swollen and the shadows sunken. The ink will be taken up in the sunken areas which hold the least amount of water.

#### *Pigmenting*

After wiping off the excess surface water, a stiff oil-based ink is applied with a firm brush. Nadeau advocates the use of top quality 'stag-foot' brushes made of polecat bristles, as was traditionally recommended. As this type of brush is no longer commercially available, contemporary bromoilists are more relaxed about using a cheaper substitute, such as an imitation badger shaving brush! The brush type will affect the grain produced. Alternatively a brayer (or roller) can be used to apply the ink, but this will not produce the grain that you get with a brush. Inks can be made using linseed oil and a dry pigment, although commercially available lithographic inks are widely used today. Most bromoils are monochromatic. A wide range of pigments can be used, although black and brown predominate. The print should be touch-dry within two days.

#### THE IDENTIFICATION OF BROMOIL PRINTS AND BROMOIL TRANSFER

The picture obtained in the bromoil process consists of a pigment image on a gelatin paper. The image is on top of and not buried in the emulsion. The image often has a soft granular or stippled appearance, depending on the hardness of the ink used and the stiffness of the brush employed. The support papers vary and may be resin coated or fibre based. A properly processed print can be considered as permanent as the paper support. As pigments are used, there should be no fading evident.

With a bromoil transfer the ink is matt and

the art paper support is clearly evident. A plate mark may also be present.

#### HISTORY OF PICTORIAL PHOTOGRAPHY IN AUSTRALIA

Pictorialism was introduced into Australia by John Kauffman (1868-1953). He was a well traveled amateur photographer who studied in Europe, where he was exposed to the prevailing trend of Pictorial Photography. On Kauffman's return, his interest inspired other photographers to examine how they worked. The NSW Photographic Society formed in 1894, in particular came to actively promote Pictorialism and other amateur photographic clubs were to follow the trend. Contemporary journals also disseminated technical information, reviews of exhibitions and local and overseas news to stimulate readers.<sup>22</sup>

Today Harold Cazneaux (1878 – 1953) is best known as the father of Pictorial Photography in Australia and the bromoil process was to become a Cazneaux trademark. Cazneaux was so inspired by the work of Kauffman that he eventually left a career as a commercial photographer to concentrate on Pictorial Photography. In 1916 he and a group of six friends, all members of the NSW Photographic Society, set up the breakaway Sydney Camera Circle pledging to advance the art of Australian Pictorial Photography and break away from the European style<sup>23</sup>. The founding members were, Cecil Bostock, James E Paton, W.S. White, Malcolm McKinnon and James Stenning. The Victorian Pictorial Workers Society was a counterpart to the Sydney Camera Circle.<sup>24</sup>

The emphasis in this paper is on those Australian Pictorial Photographers who are known to have used the bromoil process and an indication of which institutions hold their work.

In Victoria there was L.W. Appleby (18? – 1951) who ran a successful commercial studio using bromoils for portraiture, J. Temple Stephens who photographed the tea trees of Phillip Island and John

Bertram Eaton (1881 – 1967) who photographed coastal scenes and landscapes (NLA, SLV). A collection of bromoils by J. B. Eaton has recently come to light in the La Trobe Picture Collection at the SLV. Cato (1955)<sup>25</sup> goes into some detail on the technique of this particular photographer and notes that Eaton made his exposure through a sheet of sand blasted plate glass which he placed on top of the bromide paper when printing imparting graininess not unlike a mezzotint.

Other Australian amateur photographers using the bromoil and bromoil transfer processes included, Stanley Eutrope (1891), Peter Lawrence (1882 – 1970) worked with Harold Cazneaux, Norman C. Deck (1882 - 1980) who specialised in coastal scenery (AGNSW, NGA, NLA), Monte Luke (1885 – 1962) who specialised in society portraits, advertising and landscapes (NLA), Henri Mallard (1884 – 1948) photographed the building of the Sydney Harbour Bridge (NLA, ACP), W.H. Moffitt (1880 – 1948) farming landscape (AGNSW, NLA), George J. Morris (1884 – 1959) produced the largest bromoil transfers ever seen (NGA, bromoil brush set), F Vaudry Robinson (active 1920s) produced both monochrome and colour bromoils, L. Hey Sharp (1885 – 1965) lectured in the bromoil process (NGA, SLNSW, Macleay Museum), R.V. Simpson (d.1967), Arthur Smith (d.1945) (AGNSW), Dr. Julian Smith (1873 – 1947), all of whom used the bromoil technique on and off. Their work appeared regularly in the local exhibitions and overseas salons in the 1920 – 30s. The artist Lionel Lindsay is also known to have used the bromoil process as early as 1911<sup>26</sup>.

For an in depth history of the Pictorial Movement in Australia, see Newton (1979)<sup>27</sup> and Willis (1988)<sup>28</sup>. For further biographical information see Newton (1980)<sup>29</sup> and the Lebovic catalogue (1998)<sup>30</sup>.

#### CONCLUSION

Today, far from becoming obscure, the bromoil process is enjoying a resurgence in interest. Evidence of this is the

popularity of groups such as the Bromoil Circle of Great Britain<sup>31</sup>, the New Pictorialist Society in the USA<sup>32</sup> and the International Society of Bromoilists<sup>33</sup> on the internet, who have brought together contemporary photographers who are willing to share their experiences in order to promote the art of bromoil.

#### WEB SITES

Cec Brown, Australian Bromoilist  
<http://www.nrg.com.au/~soggydog/>

Bromoil and Oil Pigment Printing by Terry King  
[www.Hands-on-pictures.com/Bromoil2WP.htm](http://www.Hands-on-pictures.com/Bromoil2WP.htm)

Bromoil Printing by Ralph A. Davis 1964  
[www.psa-photo.org/bromoil.htm](http://www.psa-photo.org/bromoil.htm)

Bromoil – Early Photographic Processes  
[www.edinphoto.org.uk](http://www.edinphoto.org.uk)

The Bromoil Page by Per Volledal  
<http://home.powertech.no/pervo/bromoil.htm>

Bromoil – Alternative Processes  
[www.silverprint.co.uk/altproc6.html](http://www.silverprint.co.uk/altproc6.html)

The International Society of Bromoilists (UK)  
<http://alt-photo.com/alt-photo/bromoil/index.html>

What is a Bromoil? by Gene Laughter  
<http://alt-photo.com/alt-photo/bromoil/HISTORY/>

A Method for Making Oil Pigment Prints by Ernest J. Theisen  
<http://alt-photo.com/alt-photo/bromoil/ARTICLES/>

[www.bromoil.com/process.htm](http://www.bromoil.com/process.htm)

The Bromoil Process by Norman Gryspeerdt  
<http://www.gryspeerdt.co.uk/process.htm>

Luis Nadeau web site  
<http://www.photoconservation.com/>

Austin Alternative Process Group, USA.  
<http://unblinkingeye.com/AAPG/index.html>

Bromoil reading room  
<http://alt-photo.com/alt-photo/bromoil/reading%20room.html>

#### ENDNOTES

<sup>1</sup>the pigment processes were: gum bichromate, bromoil, and carbon/carbro processes.

<sup>2</sup>Exponents of art photography became known as Pictorialists.

<sup>3</sup>Newton, Gael. 1980, *Silver and Grey, Fifty Years of Australian Photography, 1900 - 1950*, Angus and Robertson, Australia.

<sup>4</sup> ibid

<sup>5</sup> Nadeau, Luis 1985, *History and Practice of Oil and Bromoil Printing*, Atelier Luis Nadeau, New Brunswick, Canada. p. 4.

<sup>6</sup> Newton, Gael. 1980, *Silver and Grey, Fifty years of Australian Photography, 1900 - 1950*, Angus and Robertson, Australia.

<sup>7</sup>1989 *Masterpieces of Australian Photography*, Josef Lebovic Gallery, Sydney, Australia. p.198.

<sup>8</sup>Lewis, David W. 1994, *The Art of Bromoil and Transfer*, David W Lewis, Ontario, Canada. pp. 85 – 94.

<sup>9</sup><http://unblinkingeye.com/AAPG/OP/op.html>

<sup>10</sup>[http://www.edinphoto.org.uk/1/1\\_early\\_photo\\_graphy\\_-\\_processes\\_-\\_brometching.htm](http://www.edinphoto.org.uk/1/1_early_photo_graphy_-_processes_-_brometching.htm)

<sup>11</sup>a definition of bromide paper can be found at [http://photography.about.com/library/glossary/blef\\_bromide.htm](http://photography.about.com/library/glossary/blef_bromide.htm)

<sup>12</sup>a definition of chlorobromide papers can be found at

[http://photography.about.com/library/glossary/blef\\_chlorobromide.htm](http://photography.about.com/library/glossary/blef_chlorobromide.htm)

<sup>13</sup> Lewis, David W. 1994, op cit. p.15.

<sup>14</sup> Lewis, David W. 1994, op cit. p.95.

<sup>15</sup> Lewis, David W. 1994, op cit.

<sup>16</sup> Nadeau, Luis. 1985, op cit.

<sup>17</sup> Crawford, William. 1979, *The Keepers of Light*, Morgan and Morgan, Dobbs Ferry, New York, USA.

<sup>18</sup>[www.edinphoto.org.uk/1/1\\_early\\_photography\\_-\\_processes\\_-\\_bromoil.htm](http://www.edinphoto.org.uk/1/1_early_photography_-_processes_-_bromoil.htm), <http://www.gryspeerdtd.co.uk/process.htm>, <http://www.alternativephotography.com/bromoil.html>, <http://www.bromoil.com/> are a few examples of what is available online.

<sup>19</sup> Hardening agents added to the emulsion inhibit the swelling of the gelatin. A soft swellable gelatin is necessary in the bromoil process.

<sup>20</sup>Supercoating is the addition of a hardened gelatin layer over the emulsion to prevent abrasion.

<sup>21</sup> See the bromoil reading room site which includes text from old and out of print books on bromoil photography at <http://alt-photo.com/alt-photo/bromoil/reading%20room.html>

<sup>22</sup> Willis, Anne-Maree. 1988, *Picturing Australia, A History of Photography*, Angus and Robertson, Australia. pp.131 – 132.

<sup>23</sup> Newton, Gael. 1980. The European style was seen to be dull and did not reflect the bright light prevalent in Australian conditions.

<sup>24</sup> ibid

<sup>25</sup> Cato, Jack. 1955, *The Story of the Camera in Australia*, IAP, Melbourne, Australia.

<sup>26</sup> Newton, Gael. 1988, *Shades of Light*, Collins, Australia.

<sup>27</sup> Newton, Gael. 1979, *Australian Pictorial Photography*, Art Gallery of New South Wales, Sydney, Australia. Catalogue.

<sup>28</sup> Willis, Anne-Maree. 1988, *Picturing Australia, A History of Photography*, Angus and Robertson, Australia. pp. 131 – 146.

<sup>29</sup> Newton Gael. 1980. op cit.

<sup>30</sup> 1989. *Masterpieces of Australian Photography*, op cit.

<sup>31</sup>

[http://www.gryspeerdtd.co.uk/bromoil\\_circle.htm](http://www.gryspeerdtd.co.uk/bromoil_circle.htm)

<sup>32</sup> <http://www.eheisen.com/bio.html>

<sup>33</sup><http://alt-photo.com/alt-photo/bromoil/index.htm>

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