



Article: Not Drowning, Waving: Complications with the Preparation and Display of Unconventional Photographs and Works of Art on Paper at the National Gallery of Australia

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Topics in Photographic Preservation, Volume 12.

Pages: 86-98

Compiler: Brenda Bernier

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Topics in Photographic Preservation is published biannually by the Photographic Materials Group (PMG) of the American Institute for Conservation of Historic & Artistic Works (AIC). A membership benefit of the Photographic Materials Group, *Topics in Photographic Preservation* is primarily comprised of papers presented at PMG meetings and is intended to inform and educate conservation-related disciplines.

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**NOT DROWNING, WAVING: COMPLICATIONS WITH THE PREPARATION AND
DISPLAY OF UNCONVENTIONAL PHOTOGRAPHS AND WORKS OF ART ON PAPER
AT THE NATIONAL GALLERY OF AUSTRALIA**

Andrea Wise, Fiona Kemp, James Ward, and Jaishree Srinivasan

Presented at the 2007 Joint PMG/ICOM-CC WGPM Meeting, Rochester, New York.

Abstract

Photographs and works of art on paper come in many shapes and sizes and routinely cross the boundaries of other conservation disciplines. The National Gallery of Australia (NGA) has numerous examples of unconventional photographs and works of art on paper in the collection. These works often pose extraordinary problems for display, storage and travel. This paper uses four case studies to illustrate the challenges presented by such works. All these works of art are particularly fragile and have inherent problems associated with their construction. They include:

- *Fading*, (1991) by Alfredo Jaar, mixed media photographic work, nineteen laminated direct positive colour photographs with four metal, water-filled, trays.
- *Red Rain* 2003, by Dadang Christanto, wool, laminated joss paper, gold leaf, ink, and pigments.
- *Sandwich Man (L'Homme Sandwich)* 1926, *Publicity Man (L'Homme Reclamé)* 1926, *Costume Model of a Martian Guard for the Film 'Aelita'* c.1923, three puppets by Alexandra Exter, watercolour and collage on cardboard with wood, cotton, string, book cloth, copper, sequins, steel tacks, bridge nails, steel wire and eyelets.
- *La Bête en Valise* 1942-1954 by Marcel Duchamp, cardboard and wooden box containing miniature replicas and reproductions of works by the artist.

The paper outlines the preparation of the works for display, transport and storage by paper conservators at the NGA.

Case Study 1: *Fading* 1991 Alfredo Jaar

Fading, created by the Chilean artist Alfredo Jaar in 1991, in response to the situation of Vietnamese refugees in detention centres in Hong Kong, was acquired by the NGA in 1994. The work comprises nineteen laminated direct positive colour photographs of a larger (3x [101.4 x 101.4cm]) and smaller size (16 x [16.4 x 16.4cm]) that are immersed in water in four square steel trays (depth 13.2cm x width 120cm x 120cm). The photographs are laminated on both sides with a polyester film bonded with a polyethylene resin. The artist's intention was to create four metal pools reminiscent of developing trays in which the photographs became evidence of the plight of refugees on flimsy overcrowded boats and a record of their subsequent continued mistreatment in detention camps.



Figure 1. Alfredo Jaar, *Fading*, 1991, Collection of the National Gallery of Australia.

The unusual conjunction of water, metal and photographs as integral components of this composite work, presented a number of inherent challenges for exhibition. These became apparent during the initial display period in the early 1990's and were compounded by further display and partial treatment at this time. The first and most significant damage was to one of the immersed photographs, which delaminated on an edge allowing water to penetrate, causing problems with both laminate and paper-based photograph. In addition, the water in the trays became stagnant over time, causing slimy deposits. Extensive rust stains on the inside and base of the trays, engendered accretions and brown deposits on the laminated photographs. Precipitating salts from the water produced a white scum build-up on the laminate surfaces and the use of tap water while on loan to external galleries, exacerbated the formation of these white deposits.

Each challenge was approached individually in different ways during the 1990s. The initial problem of the delaminated work required curatorial intervention and liaison with the artist. Should the damaged photograph be repaired, replaced or removed? The curatorial preference was that the photograph be repaired or replaced; the artist wanted to remove the photograph altogether if the choice lay between displaying the work or not. This raised questions about the nature of the work, which the artist considered complete with nineteen photographs, but later,

still considered complete with eighteen. During the early 90's, fungicide was added to the water to reduce the level of micro-organism activity – possibly contributing to further problems. Attempts to repair the laminate were unsuccessful and discussions about replacing the damaged photograph have been intermittently ongoing for a number of years. After correspondence with the artist, steps were taken to attempt to alleviate the potential for damage through immersion in water by floating the photographs instead. Unfortunately, in addition to slightly altering the aesthetic of the work, this temporary solution compounded the problem of the white deposits. These, in turn, had to be removed after each display, causing scratching of the laminate surface. The rust which developed in the metal trays was mechanically removed after each display period and corroded areas were treated with tannic acid and a mixture of 50/50 carnauba and beeswax. In a later treatment, the trays were cleaned, the wax removed and a synthetic lacquer was used to coat the inside of each of the four metal trays. This was only partially successful as, over time, the lacquer became scratched and abraded, exposing the metal to water and creating sites for more corrosion activity.

Our treatment options had to ensure that the visual integrity of work would not be compromised. An effective treatment had to address the formation of rust in the trays and the resultant deposits on the laminate surface of the photographs and the build-up of white scum. Rust is caused by the oxidation of iron in the presence of dissolved oxygen and an aqueous electrolyte solution.¹ Some of the solutions considered included recoating the tray using a suitable surface coating such as a wax or paint; treating the water with an oxygen scavenger such as sodium nitrite; using a sacrificial anode such as zinc or magnesium to protect the iron from corroding; using distilled or de-ionised water instead of tap water to eliminate white deposit build-up on the photographs, and using a chelate to remove the white deposits from the photographs.

Experiments with four mild steel trays were used to test the effectiveness of sodium nitrite, zinc and magnesium as corrosion inhibitors.² Sodium nitrite was found to be the most successful rust inhibitor and provided effective protection from oxidation for 25 days. Although zinc and magnesium slowed the rate of rust formation in the tray, rust began to form in the trays after 24 hours. Zinc and magnesium are oxidised preferentially and go into solution since they have a more negative standard reduction potential than iron.³ The iron is protected against corrosion only while it is in electrical contact with the zinc or magnesium, and this proved difficult to achieve.⁴ Merck Merckoquant[®] analytical test strips were used to detect calcium, iron and zinc in the white deposits on the laminated photographs. Using soft cottonwool swabs to avoid further scratching, the deposits were carefully removed, with three solutions of 5% w/v EDTA in deionised water, buffered with ammonium hydroxide to pH 5, pH 9-10 and pH 10-11.⁵ This was followed by swabbing with deionised water and thorough drying with lint-free cloth. Sodium nitrite provided complete protection against rust for the subsequent display of *Fading*. Sodium nitrite however needs to be used with caution because of its toxicity and environmental risk. More tests are being conducted to find ways of treating the solution after display to enable its safe disposal.

To date discussions with the artist are ongoing and further display is subject to ongoing monitoring to ensure that no other damage is evolving. In addition to being a complex piece, the work must also be considered in light of Occupational Health and Safety (OH&S) regulations. It was omitted from display in a recent exhibition because of the danger it might cause as a tripping

hazard, as well as the potential for visitors to dip their hands into the water and damage other unframed photographs on display. *Fading* has stimulated some interesting investigations into the complexities of cause and effect, producing a considered approach to display, which has been complimented by simple preventive measures in an attempt to provide a holistic treatment.

Case Study 2: *Red Rain* 2003 Dadang Christanto



Figure 2. Dadang Christanto, *Red Rain*, 2003, collection of the National Gallery of Australia.

Another installation piece which provoked serious OH&S discussion was *Red Rain*, (*Hujan Merah*) by the Indonesian, Darwin-based artist Dadang Christanto (1957-). It was acquired by the NGA in 2003 following its inclusion in an exhibition at the Australian National University (ANU), *Witnessing to Silence: Art and Human Rights*. *Red Rain* is a large installation piece measuring 4.0 x 9.0 x 5.0 metres, consisting of 1,965 laminated ink drawings on joss paper which are installed into a grid system in the ceiling forming a canopy. From each drawing gazes a despondent face, with a six metre length of red wool falling dramatically to the floor. The work was initially made for exhibition in South Korea in 2000. Dadang Christanto's works have

recurring themes of oppression and violence; his father was a victim of the political purges in Indonesia during the overthrow of the Sukarno government in 1965-66. Robyn Maxwell, Senior Curator of Asian Art at the NGA, notes

*The faces in Red Rain are distorted with sorrow, the red thread streaming from each drawing alluding to the tears of blood shed for victims of political and human rights abuse.*⁶

Red Rain was purchased incomplete - the artist continued to add to it in the year following acquisition.

The purchase of the work coincided with Dadang Christanto's time as artist-in-residence at the ANU in Canberra, allowing some dialogue between the artist, the curator and conservation. An area of concern was considered to be the use of a plastic laminate material and its far from ideal ageing properties. While the artist requested advice and information from conservation on whether a different laminate could be used, he had already completed two thirds of the work, and it was considered inadvisable to recommend a different material that could potentially alter the appearance significantly at this late stage. However the involvement of the artist proved invaluable in other ways. With his input, conservation was able to refine the display system, preparing stocks of materials and enlisting staff to assist with assembly. His willingness to provide samples of the laminated joss paper allowed testing to occur before the display system was finalised. A modular design was essential given the labour-intensive nature of the assembly and the final arrangement took into consideration the de-installation, storage and future re-installation of the work.

The current display system has been significantly modified from the original method employed at the ANU. This was partially motivated by the need to accommodate a much larger work, as *Red Rain* had substantially increased in size since it was first displayed. In addition stringent OH&S regulations pertaining to works of art suspended above the viewer had to be addressed. While the laminate has the disadvantage that it will crosslink and yellow, which is likely to impact on both the appearance and longevity of the individual drawings, it did allow conservation to devise a system which incorporated the use of a pressure-sensitive double-sided tape - not a material commonly recommended in conservation literature, but a solution to a problem in this case. It was found that the double-sided tape could be applied, removed and replaced on the verso of the laminate with minimal impact to the surface. The next challenge was to find a support material onto which the drawings could be adhered. This needed to be light-weight and rigid enough to suspend safely with minimal planar distortion. The artist had requested a dark background. It was also desirable that the support have an aesthetically pleasing surface finish and acceptable conservation qualities, e.g. no off-gassing or inherent degradation. After investigating several options, a material called Dibond⁷ was used as it satisfied all the necessary requirements.

The artist supplied only the laminated drawings to the NGA in several cardboard boxes together with verbal instructions for the preparation and suspension of the work. Each of the 1,965 drawings had to be first threaded with an appropriate length of wool prior to adhesion to the Dibond panels. This took a team of ten people three weeks, rotating through the different tasks. Synthetic red wool had been used for previous display, but this was prone to static and air

movement, gathering fluff and dust. After discussion with the artist, it was recommended that the synthetic wool be replaced with natural dyed spun wool, to alleviate these problems. The red wool had to be cut into pre-measured six metre lengths and rolled around small Mylar tubes; a plastic covered paperclip was used to hold each roll of wool in place. The wool was threaded through from front to back, using existing holes in the original drawings; holes were made in the new drawings using a needle, according to the artist's instructions. A small knot secured the wool on the back of the drawing and a spot of archival PVA ensured it did not pull through due to the weight of six metres of wool on the other side.

To avoid installing each drawing one by one, with the artist's approval and input they were attached with appropriate spacing, in a grid arrangement, onto the Dibond panels, in numerical order. Tabs of thin 3M double-sided tape were adhered to the back of each drawing in all corners and in the centre where the wool was positioned. Once adhered to the Dibond panels, this prevented the drawing from being pulled downwards by the weight of the wool. The panels were of four different sizes to accommodate the final shape of the assembled work and slid easily into a prefabricated metal grid, suspended from the gallery ceiling for installation. Once in place, the small rolls of red wool paper clipped to each drawing were released and allowed to unroll to the floor.

Crating was designed to take this modular system into consideration for long-term storage. On de-installation, the drawings were not removed from the panels. Instead each panel was kept intact and placed horizontally into slot crates. The crates accommodate the wool which was re-rolled onto Mylar and clipped into place. The installation was carried out by six people over a period of two weeks. Surprisingly there was minimal ongoing maintenance in situ; re-adhering a handful of drawings and re-positioning and rolling woollen strands. Easter 2005 presented the only major incident when a small child ran into the centre of the woollen strands. This did not cause lasting damage, but took several people several hours to untangle. The work was on display for eighteen months and was de-installed with relative ease, over a period of three days during May 2006. Although not ideal for works of art with paper components, this extended display period takes into account the complexity of assembly and installation and the likelihood that it will be some time before *Red Rain* is shown again. It was considered a reasonable compromise to keep this extremely popular work accessible.

Case Study 3: *Sandwich Man (L'Homme Sandwich) 1926, Publicity Man (L'Homme Reclamé) 1926, Costume model of a Martian guard for the film Aelita c.1923 - three puppets by Alexandra Exter*

The Russian artist Alexandra Exter (1882-1949) studied art in Kiev and Paris, absorbing the influences of the major trends of the period, particularly Cubism and Futurism. She taught and exhibited, becoming interested in theatre set and costume design. After emigrating from Russia to France in 1924 she continued to work on theatre design and children's books until she died in obscurity and poverty in 1949. The three puppets by Alexandra Exter in the collection of the NGA remained in her possession and their provenance can be traced directly back to her estate.



Figure 3. Alexandra Exter, *Sandwich Man* (*L'Homme Sandwich*) 1926, *Publicity Man* (*L'Homme Reclamé*) 1926, collection of the National Gallery of Australia.

The two large marionettes, *Sandwich Man* and *Publicity Man* were purchased by the NGA in 1977. These puppets date from 1926 and were designed to be used as characters in a film that was never made.⁸ The puppets are essentially advertising men; both feature American images and advertising. *Sandwich Man* is promoting Carnation Milk while simultaneously drawing attention to *The International Theatre Exposition* at the Steinway Building in New York; this exhibition included works by Exter. *Publicity Man* advertises Goodrich tyres and travel on a American shipping line. The puppets are similar in dimension, *Sandwich Man* measures 53.5 x 30.5 x 10.5 centimetres, while *Publicity Man* is 66.5 x 23.0 x 10.6 centimetres. They are fully

articulated and constructed from collage on cardboard and wood, cotton, string, book cloth, cotton reels and nails.

The smallest puppet of the three, *Costume model of a Martian guard for the film Aelita* dates from 1923 and was purchased by the NGA in 1980. It was reconstructed by Exter after the prototype fabricated for the film in 1924, for which she designed the costumes and sets. Based on a novel by Tolstoy, *Aelita* tells the story of a young engineer who dreams he travels to Mars, where he assists the population to depose an oppressive regime, replacing it with a government of the people. While the real costumes covered the actors from head to foot, the Martian guard measures just 26.2 x 12.2 x 5.7 centimetres. It is constructed of watercolour-painted cardboard, cotton, steel wire and tacks and has jointed limbs but is not fully articulated in the way that the two larger marionettes are. All three puppets are rare objects and display weakness inherent to their materials and construction.

The two larger marionettes had been suspended long-term on strings and although probably not intended to last, this had contributed considerably to their deterioration. A curatorial request in 2005 to devise new display devices for a free-standing showcase, to allow a 360° view, prompted initial investigations by conservation. At this time, images of the puppets on their original 1920s supports were compared with images of the puppets on later-design supports. The animation created by the earlier supports had been lost, and it was suggested that the new supports be designed in such a way as to reintroduce this. Due to its essentially static nature, this was not a requirement for the Martian guard. All three works had undergone basic conservation treatment and stabilisation in preparation for loan to a European institution in 1999. At this time X-rays were taken which highlight the inner structure of the puppets. Examination of X-rays for *Sandwich Man* and *Publicity Man* reveals that the limbs are joined simply with fabric glued to the wooden elements. Cotton reels, screws and nails are evident in the arm and leg structures. Martian guard is altogether simpler in construction, being comprised of paper and cardboard.

Various treatments had been undertaken on the works at the NGA since their acquisition. Initially the two articulated marionettes had been restrung according to the 1926 documentation. Prior to loan in the 1990s, *Sandwich Man* and *Publicity Man* had both been surface-cleaned. Their wooden feet had been nailed to the stand. These were released and magnetic strips were attached, as part of the support arrangement created for the overseas loan. Treatment of the Martian guard involved re-adhering loose cardboard elements and consolidating frayed fragments of textile. All three works had new cases constructed for transport and storage. The existing NGA stand for *Sandwich Man* and *Publicity Man* was of painted wood with both puppets supported together which limited flexibility and positioning. Two proposals resulted from conservation discussions with curatorial. Each puppet would be exhibited on an individual support, closer to that of the original design, allowing more space and articulation. Investigations would be made into adapting the top of a free-standing showcase to allow the puppets to be suspended, avoiding the visual interference of other exhibition devices. Any support had also to take in account the considerable weight of the wooden elements of the puppets, which cause uneven stress and unpredictable movement. In addition to having limited movement, the Martian guard was also lighter and smaller. The existing acrylic stand, made in the 90s, provides sufficient support for the puppet and currently requires no further modification.

For the two larger marionettes, individual prototype stands were constructed in the NGA workshop. These were inspired by an earlier design, constructed in the 1990s, which used one base and two uprights of differing height. The first prototype stands, made from wood and painted, were deemed unsuitable due to incorrect positioning of the uprights on the base. New prototypes were devised by approximating the proportions from images of the original 1920s supports. In order to achieve the original clean lines and design statement, powdered coated metal was used in the final construction. A weighted base was necessary to ensure stability during display. For the Martian guard, a simple acrylic stand, shaped under heat and pressure, provides adequate support. The puppets went on display as the centrepiece of a conservation exhibition, *Abracadabra – the Magic in Conservation*, held at the NGA in 2006. The exhibition had children as its target audience and the puppets were a great favourite. They illustrate that sophisticated elegant works can emerge from the basic elements of childhood art – paper, cotton reels and string. We hope that the quiet simplicity of the supports is the perfect complement.

Case Study 4: *Boîte-en-valise* 1942-1954 by Marcel Duchamp



Figure 4. Marcel Duchamp, *Boîte-en-valise* 1942-1954, collection of the National Gallery of Australia.

Boîte-en-valise by the Dada artist, Marcel Duchamp (1887-1968) was purchased by the NGA in 1979, but has not been on display in recent years due to its inherently fragile nature. The work is

thought to have been constructed in the period 1942-1954 as part of a total edition of three hundred. These *portable museums in a box* contain miniature versions and reproductions of paintings, installations and sculptures Duchamp considered central to his oeuvre. In an interview in 1955 the artist stated

It was a new form of expression for me. Instead of painting something the idea was to reproduce the paintings that I loved so much in miniature. I didn't know how to do it. I thought of a book, but I didn't like that idea. Then I thought of the idea of the box in which all my works would be mounted like a small museum, a portable museum, so to speak, and here it is in this valise.⁹

Duchamp made small 'deluxe editions' and larger 'ordinary editions' of the *Boîte-en-valise*; the former distinguished by the inclusion of a leather case. The construction of these works occurred over a period of more than thirty years, beginning in Paris around 1940 and continuing after Duchamp's relocation to New York in 1942. From 1955 Duchamp produced the editions but no longer assembled them personally. Instead, various components were despatched back to Paris, where some of this construction was carried out by Duchamp's step-daughter Jacqueline Monnier. The last work in the edition of three hundred was completed as late as March 1971. The NGA's *Boîte-en-valise* is thought to have been constructed in New York. While it does not include a leather case, it does have its own peculiarity; a *pochoir* print of *Mariée*, together with a stamp signed and dated 1937 by Duchamp. This feature was apparently only included on gifts for friends. In fact the artist had the collotype reproduction prints made between 1936 and 1940 and incorporated them into boxes assembled at a later date.

This complex multi-component structure, measuring 7.9 x 35.5 x 39.5 centimetres closed, includes glass, vinyl, ceramic, wood, cloth-covered board, suede and cardboard, together with screen-printed acetate and *pochoir* reproduction prints. The artist chose an elaborate *pochoir* method, where the printed images have colour hand-applied through stencils, even though much quicker printing techniques were available. The box contains miniature replicas of Duchamp's *Ready-mades: Paris Air* 1919, *Traveller's Folding Item* 1916, and *Fountain* 1917, together with sixty-eight printed reproductions of his other works. It is designed to unfold like an extended triptych: at the sides elements slide out and other loose components can be completely removed and arranged as part of the display. Printed on the lid of the box is "*de ou par/Marcel Duchamp/ou/Rose Sélavy*" [from or by Marcel Duchamp or Rose Sélavy].¹⁰

The nature of the *Boîte-en-valise* is such that it relies on movement, with sections unfolding, sliding and being lifted out. The sheer weight of the work folded onto itself, over a sixty year period, had resulted in distortion of the flat sections, together with pressure on the internal components. The work was exhibiting signs of wear and tear as a result of this movement, but also through the natural mechanical and chemical deterioration of the wide variety of materials utilised in its construction. The main body of the cardboard box and other cardboard pieces were joined with cloth gum tape which had ripped and frayed. Wooden miniature framing elements had become detached and some lost altogether through adhesive failure. Some of the image areas on acetate had become distorted, and a protective acetate sheet inserted behind the central image area had become detached and warped. A green suede finishing strip attached on two of the flat

folding images had disintegrated almost completely. Overall there was noticeable fading and discolouration on all the cardboard and tape pieces.

Due to its structural fragility, general complexity and loose and missing components, the work had not been on exhibition for a number of years. For these reasons, both curatorial and conservation staff highlighted it as a priority for treatment. It was proposed that the work be stabilised and a support created for display to allow it to be viewed at 360° in a free-standing show case. Stabilising the various components, with minimal intervention, was the primary objective in order to preserve the artist's original intent. With careful reference to alternate versions of the *Boîte-en-valise* in other collections and the standard text¹¹, conservation treatment progressed slowly.

Reinforcement of the gummed cotton tape was essential to provide some structural integrity. This was carried out using a light-weight cotton fabric and Beva film adhesive. The reinforced tapes were then reapplied to the object with wheat starch paste. The distorted clear acetate sheet behind the central image was replaced with a piece of polyester Mylar film of the same thickness. The original acetate sheet had deformed and no longer fitted into the wooden framework. In addition, it was considered that the original acetate sheet was in the early stages of vinegar syndrome and would only compound problems in the remaining acetate if left in place. Missing laminated wood edging, utilised to create the optical effect of framing on some of the printed images, was replaced with commercially available wood veneer edging. One more complex wooden framing element was reproduced in the NGA workshop and bleached to approximate the colour of the original pieces. A stitched green suede strip, strategically placed between two of the upright, flat wings, had degraded to such an extent that it was no longer fulfilling any structural role. This was carefully removed and replaced with aged green suede¹² of similar weight and appearance. Lining of the original suede was considered, but rejected due to its extremely perished nature. The new strip of suede was lined with a thin piece of Japanese paper using Beva film adhesive. This provided a barrier to allow attachment to the work with wheat starch paste. Small losses and abrasions throughout the image areas were retouched with watercolour to give the work visual cohesion. The original acetate film and green suede pieces were retained together with the work in the new storage box.

The standard text was invaluable in allowing careful study of the various components of the *Boîte-en-valise*. In turn this assisted the treatment process and partial restoration of certain elements. Discreet, custom-made acrylic supports were designed and made to support the various components in their open position; an acrylic box supports the body of the work, while smaller stands support the side extensions, minimising instability while on display. In the treatment of this work it was vital to fully engage curatorial and workshop staff to establish realistic expectations of what could be achieved. This ultimately resulted in a stable, cohesive work with minimal visual changes. The work is currently central to the Surrealist and Dada display within the Gallery.

Conclusion

While not at all exhaustive, the case studies illustrate some of the challenges presented by a large and diverse collection of photographs and works on paper, such as that held at the NGA. Each one demonstrates the importance of assessing works on a case by case basis; the characteristics will always determine the requirements for exhibition and storage. With the increasing number of complex, multi-component works in the NGA collection, discussion and preparation for installation also routinely includes plans for de-installation, storage and ease of re-installation. Two of the case studies feature works by Alfredo Jaar and Dadang Christanto, who provided input and guidance. The works by Marcel Duchamp and Alexandra Exter involved more consultation with curators who contributed vital historical information, an overview of artistic intent and the aesthetics of display. In-house workshop staff debated the intricacies of constructing custom-made supports and their willingness to suggest materials, construct prototypes and accommodate changes was invaluable.

Complex, fragile works on paper survive surprisingly well and the care we take as conservators should complement the commitment of the artists. Alfredo Jaar's expressed wish about *Fading* was that the work should be

*...as "natural" as possible, with all its imperfections and "deteriorating" process.*¹³

Most works are irreplaceable, but in our concern to ensure their longevity it is important to bear in mind their sometimes ephemeral nature and respect the artist's intent and the work's accumulated history.

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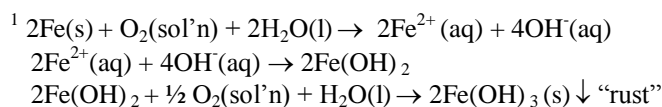
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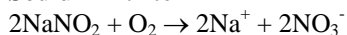
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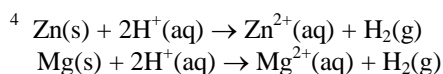


² A 2g/L solution of sodium nitrite in tap water was placed in one tray and topped up with more solution as the water evaporated. Zinc pellets and magnesium ribbon were placed in two other trays with tap water. A fourth tray was used as a control and filled with tap water.

Sodium nitrite



³ Zn -0.76 V, Mg -2.34 V, Fe²⁺ -0.44 V



⁵ Helen Burgess, *The Use of Chelates in Paper Conservation*, The Paper Conservator, Volume , Institute of Paper Conservation, (date), p

⁶ Robyn Maxwell, *From the North: Dadang Christanto*, Artonview, Issue No 40 Summer 2004, p 32

⁷ DIBOND® is a registered trademark of Alucobond Technologies. DIBOND® specifications for the Aluminium Composite Panels - one or both sides stove-lacquered or one side metallic-aluminium, reverse mill finish; composite structure consists of outer layers 0.3 mm aluminium, polyethylene core; panel thickness are 2, 3, 4 and 6mm; sheet sizes are 1000 x 2050 mm, 1250 x 2500 mm, 1500 x 3050mm and 1500 x 4050 mm; good UV stability; temperature range resistance from -50°C to +80°C

⁸ Michael Lloyd and Michael Desmond *European and American Paintings and Sculpture 1870-1970 in the Australian National Gallery*, The Australian National Gallery, Canberra 1992 p 154. The film was by Urban Gad a Danish film maker.

⁹ *ibid*, p 122

¹⁰ Rose Selavy was Duchamp's alter-ego or female persona

¹¹ Ecke Bonk (translated by David Britt) *Marcel Duchamp The Portable Museum The making of the Boîte-en-valise de ou par Marcel Duchamp ou Rose Selavy*, Thames and Hudson London 1989

¹² National Archives of Australia provided the new storage box. Thanks go to Prue McKay for the green suede.

¹³ Alfredo Jaar, in correspondence, National Gallery of Australia, artists' files.

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