

The Crossing of the Red Sea in the National Gallery of Victoria, Melbourne

KERMES

NICOLAS
POUSSIN.
TECHNIQUE,
PRACTICE,
CONSERVATION

Laurie Benson, Carl Willis

A Brief Introduction to The Crossing of the Red Sea and its restoration

Laurie Benson

The chronology and life of Nicolas Poussin's *The Crossing of the Red Sea* (Fig. 1) and its pendant, *The Adoration of the Golden Calf* (National Gallery, London), is well known and thoroughly documented.¹ Both were commissioned in 1632 for the wealthy Amedeo dal Pozzo, marchese di Voghera (1579-1644), the elder cousin of Poussin's most influential Roman patron and supporter, Cassiano dal Pozzo (1588-1657). Poussin completed both paintings in 1634.²

The Crossing of the Red Sea is an impressively theatrical conflation of elements drawn from the Old Testament book of Exodus XIV, chapters 26-31, specifically 26-28:³

26: And the Lord said unto Moses, Stretch out thine hand over the sea, that the waters may come again upon the Egyptians, upon their chariots, and upon their horsemen.

27: And Moses stretched forth his hand over the sea, and the sea returned to his strength when the morning appeared; and the Egyptians fled against it; and the Lord overthrew the Egyptians in the midst of the sea.

28: And the waters returned, and covered the chariots, and the horsemen, and all the host of Pharaoh that came into the sea after them; there remained not so much as one of them.

Amedeo's reaction to the painting is not recorded. We know he died in 1644 and both works were last recorded with the dal Pozzo family by Luigi Pietri Scaramuccia, a visitor to Turin in 1674.⁴

That *The Crossing of the Red Sea* is among Poussin's finest works is unquestioned. Giovan Pietro Bellori made reference to the work in the very first biography of Poussin published in 1672,⁵ and it is also briefly mentioned in letters by Poussin, although he writes about producing a reduced version with only twenty-seven figures as opposed to the incredible eighty-nine that are present in this painting.⁶ Being such a well-documented and outstanding example of Poussin's work, the bibliography for the painting is immense.

THE CROSSING OF THE RED SEA TODAY

Carl Willis has eloquently articulated here why the painting, now almost four hundred years old, cannot appear today as it did when Poussin painted it. Although the changes in the appearance of *The Crossing of the Red Sea* affected by the recent treatment are subtle rather than radically overt, this shift is absolutely critical to the reading and enjoyment of the painting. Poussin's brilliant use of colour and light that is integral to this extremely complex composition was, to a degree, masked. Poussin has precisely layered frieze-like figure groups that diminish in scale and are elemental to the astonishing depth and enormity of space he has created. The artist has used contrasting rich colour to both distinguish individuals and link disparate groups, and colour draws the eye to key parts of the painting that convey the intense drama of the narrative. Colour helps create the visual harmony that is the hallmark of Poussin's finest work and his controlled use of strong colour is one of his outstanding contributions to Baroque art. It is a legacy that influenced many generations of artists who followed him, including Jacques-Louis David and Paul Cézanne.

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Fig. 1 – Nicolas Poussin, *The Crossing of the Red Sea*, (1632-34), oil on canvas, 155.6 x 215.3 cm, National Gallery of Victoria, Melbourne, Felton Bequest, 1948 (after the 2011-12 treatment).



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Fig. 2 – *The Crossing of the Red Sea* before the 2011-12 treatment.

Fig. 3 – Photograph under ultraviolet light before the 2011-12 conservation treatment. The black patches throughout the upper half of the painting reveal the largest areas of retouching left by the previous restorer to mask the abraded original paint surface.



It is also now evident that Poussin very carefully manipulated the play of light on the landscape as well as in the sky to reinforce the sense of depth he created in the composition. The sense of careful gradation of light to create depth was obscured until the recent treatment of the work. Consequently, a discernable sense of unity between land, sea and sky has returned, making it far more visually coherent and appealing.

The conservation of The Crossing of the Red Sea

Carl Villis

From the beginning it was clear that the project for the restoration of Nicolas Poussin's *The Crossing of the Red Sea* would bring its own unique set of challenges and surprises. This was perhaps inevitable, given the painting's status as one of the greatest treasures of the National Gallery of Victoria, and the noteworthy sponsorship of the restoration by BNP Paribas during the Gallery's 150th anniversary year (2011).

Yet these matters were only the lead-in to what has proved to be a fascinating process of discovery and transformation of Poussin's marvellous work, which stands as a superlative example of 17th century figurative and landscape painting. Thanks to new technical analysis and the timely re-emergence of a high-quality replica, our knowledge about the painting has been substantially enriched and redefined throughout the course of the treatment. This new-found understanding was the key to a comprehensive restoration campaign aimed at reinstating some of the lost visual and tonal harmonies of the painting.

The painting before treatment

The Crossing of the Red Sea had been earmarked for cleaning and restoration well before work commenced in late 2010. For many years there had been a perception that the vitality of the work was diminished due to a yellowing varnish. To some viewers a more disturbing impact came from old damage in the upper half of the painting,

specifically the mountain landscape and the stormy sky. Compared to other Poussin paintings from the 1630s, these details appeared unnaturally heavy and lacking in definition, and seemed somehow disconnected from the bustling human activity of the lower half of the composition.

The painting had been cleaned by the prominent London restorer Horace Buttery in 1960 after its appearance at Anthony Blunt's landmark Poussin exhibition held at the Louvre in May of that year.⁷ Soon after, it was displayed in the National Gallery in London alongside its original pendant, Poussin's *The Adoration of the Golden Calf*, 1633-34, before its return to Melbourne in 1961.⁸ The London exhibition provided the opportunity for both newly cleaned paintings to be viewed together, where they were favourably received.⁹

It was perhaps indicative of a long-running history of condition-related problems that the Melbourne picture was sent to Buttery so soon after its previous cleaning. Anthony Blunt recalled to art historian Franz Philipp that the painting had been restored in London in 1947, the year before it was purchased by the Felton Bequest.¹⁰ A lapse of just thirteen years between cleanings suggests that there was dissatisfaction with appearance of the painting. Buttery, who was picture restorer to the Royal Collection, was the Melbourne Gallery's preferred option for the treatment of some of its most valuable European paintings.¹¹ It is likely that his brief was to resolve some pre-existing problems with the sky and landscape.

The extent of Buttery's restoration can be seen in a photograph of the painting under UV light, taken before the 2011 treatment. (Figs. 2-3) The dark passages which stood out from the rest of the painting revealed the large areas of retouching required to cover a worn original surface. This indicated the painting had suffered significant abrasion across its upper half, specifically in the clouds, the blue sky, mountains and trees.

Technical examination

POUSSIN'S PREPARATORY TECHNIQUES

As with any major conservation treatment, the cleaning of *The Crossing of the Red Sea* could not proceed without thorough documentation of



its condition and an investigation into the materials and techniques used by the artist. Consequently, the painting was examined with x-radiography,¹² (Fig. 4) IR reflectography (Fig. 5) and UV light photography, (Fig. 3) It was photographed before treatment and then continually throughout the cleaning, varnishing and retouching process. Eighteen cross section paint samples were also taken from the painting before treatment.¹³ (Figs. 6-8)

The information drawn from this process laid a foundation of understanding about the material content of the painting, its history and changed appearance, as well as an insight into Poussin's working methods.

In addition to documenting the surface condition of the painting, there were two other areas of particular interest that came into focus during the technical examination: Poussin's characteristically rigorous technique, and an enquiry into the extent of colour change in the painting over the past centuries. One part of the painting illustrates both of these issues – the blue-draped male figure helping to retrieve armour from the water. (Figs. 9a-b)

Radiography of this figure revealed an important facet of Poussin's painting process. It showed that the artist first painted the figure completely unclothed and only added the drapery at a later

stage when the flesh paint was dry; the form of the body is clearly discernible through the deep blue drapery covering the lower waist and legs, which is mostly transparent in the radiographic images. This same unconventional method was found in at least six other figures in the painting, including the four principal figures in the foreground. It is uncommon to find draperies painted on top of a completed nude figure; usually one would expect to see the drapery integrated with the figure during an earlier phase in the process – for example, in a preparatory drawing or painted sketch rather than on the canvas. Many artists would have considered Poussin's approach to be uneconomical; however, it does appear consistent with what we know about the painter's meticulous working practice.

Giovan Pietro Bellori's first-hand account of the life of Poussin, based on direct contact with the painter and published not long after Poussin's death in 1665, provides us with invaluable insights into his character, beliefs and working habits.¹⁴ Bellori describes Poussin's painstaking method of gradually working up his compositions from initial sketches through to the final product. The artist would begin with an initial series of sketches done in pen and wash to establish a broad plan for the composition. A number of

Fig. 4 – X-radiograph.

Fig. 5 – IR reflectogram.

Fig. 6 – Cross section of a paint sample taken from along the top edge of the painting, where pale blue of the sky begins to meet the dark cloud; (a) normal and (b) UV light.

Fig. 7 – Cross section of a paint sample taken from the rich blue drapery of the pointing figure between the kneeling white-turbaned foreground figure and the central blue-clad foreground figure; (a) normal and (b) UV light.

Fig. 8 – Cross section of a paint sample taken from the flesh tone of the white-turbaned foreground figure in the area of the shoulder; (a) normal and (b) UV light.



Fig. 9 – Detail of the central foreground figure, (a) after conservation treatment and (b) X-radiograph. The radiography reveals the complete form of the figure beneath the blue drapery, demonstrating Poussin's method of constructing semi-clad figures first as nudes and only later adding draperies.



Fig. 10 – Nicolas Poussin, *Crossing the Red Sea*, pen and brush and brown wash over sketch in black chalk, 18.5 x 26.0 cm, The State Hermitage Museum, St Petersburg, Transferred from the Collection of the Academy of Arts, Petrograd, 1924 (inv. no. OR-14541) © The State Hermitage Museum.

sketches relating to *The Crossing of the Red Sea* have survived.¹⁵ Several of them do not resemble the final scene, but one, now in the Hermitage Museum, St Petersburg, sees Poussin working the image into the form we are now familiar with, suggesting the painter habitually worked through many possible variations of composition before settling on a plan. (Fig. 10)

Next, to refine the individual figures and groups, he would make a three-dimensional model of the scene with small nude figures sculpted from wax, 'in order to see the natural effects of light and shadow on the bodies'.¹⁶ Following this, another set of little sculpted figures ('bozzette di mezzo palmo') would be made to determine the arrangement of draperies over the human forms. This would be followed by yet more developed drawings of nude figures in watercolour.

This rather elaborate process reveals Poussin's primary visualisation of his figures and groups as naked sculptural forms which would only later be adorned with drapery, as we found in the primary figures of *The Crossing of the Red Sea*. The habit may have come from Poussin's career-long study

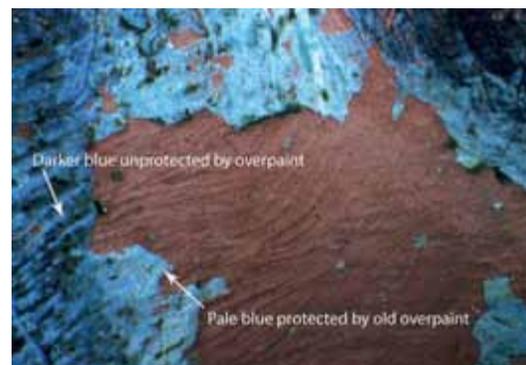
of Greco-Roman sculpture as inspiration for his painting.¹⁷

DARKENING OF COLOURS

Examination of the blue drapery of the central figure also provided insight into another critical feature of the painting: a darkening of the colours and tones. During the examination it was noted that a cluster of paint losses in the blue drapery were covered with two successive layers of restorer's retouchings. Some of these extended past the paint losses over to the undamaged parts of the original lapis lazuli/lead white surface, effectively covering them for decades or possibly centuries. This appears to have shielded parts of the blue surface from the worst effects of overcleaning and light exposure. When these old retouchings were later removed, they revealed a pale blue from the original paint surface that was far brighter than the rest of the surface. (Fig. 11)

This suggests that the intensely deep blue of the drapery on the central figure – which forms part of the signature trio of primary colours that confront the viewer – was originally intended to be quite pale in appearance. An examination across the entire passage of blue revealed other scattered residues of the pale blue upper layer, suggesting that a very thin pale lapis lazuli and lead white finishing layer was present on top of a darker toned under-layer. (Fig. 7) The loss of the pale layer by abrasion may explain why other passages of the

Fig. 11 – A stereomicroscope detail of a paint loss from the blue drapery of the central foreground figure. This area had been covered by two layers of old retouching which had covered parts of the blue. Once removed, remnants of the drapery's original pale blue tone were revealed.



painting – such as the clouds – now appear so dark.¹⁸ (Fig. 6)

Concerning flesh tones, sample 3, taken from the shoulder of the white-turbaned foreground figure, was made up of vermilion mixed with lead white and a small quantity of black. (Fig. 8)

COLOUR AND TONAL CHANGES IN POUSSIN'S PAINTINGS

The change of colours and tones in paintings over time is a phenomenon which has been widely observed in paintings from all ages. Explanations for these shifts in appearance can vary, depending on – among other things – the chemical nature of the artist's materials, the environments in which the paintings are housed, and the processes to which paintings are subjected. There are probably very few components of any painting which stay immune to the effects of oxidation, time and human intervention. Indeed, the issue with most old paintings is not whether change in appearance has occurred, but to what degree the change has occurred.

Colour and tonal change has been acknowledged as an important consideration in assessing the appearance of Poussin's paintings.¹⁹ In particular, it is clear that some of his paintings now display an exaggerated contrast between the darkest areas and the brightest, with the result that the brighter elements – for example, the figures and the sky – can appear somewhat isolated from their surrounds. Where this phenomenon has occurred, the subtle shifts within the middle tones, which play an important role in establishing the effect of volume and spatial recession in an image, can be lost. This appears to be the case with *The Crossing of the Red Sea* where many darker passages such as the clouds, foreground, hills and even the water appear tonally flat, leaving the figure groups seemingly suspended in indeterminate space.

Up to the time of treatment, no dedicated examination of colour change in Poussin's paintings had been carried out. One theory for the darkening was that the paint layers have gradually become transparent, revealing a dark priming layer beneath.²⁰ Many paintings made by artists working in 17th century Rome (including, on occasion, Poussin) carried a dark brown ground layer. This, however, was not the case with *The Crossing of the Red Sea*. Cross sections of paint samples from the painting demonstrate that Poussin chose a thick pale ground layer containing calcium carbonate (chalk), silica and iron oxide. (Fig. 6) It is unlikely this type of ground layer would substantially darken the image; in fact, it would tend to have the opposite effect if the paint layers became more transparent.

While it is possible that many of the greens, browns and greys of the painting have darkened due to chemical change within the pigment or from exposure to light, the discovery of the pale paint around the blue losses suggests, in this case at least, that abrasion of pale uppermost layers of paint may be responsible for the altered tonal and chromatic values in the painting.



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Treatment

REMOVAL OF OLD VARNISH AND RETOUCHINGS

Following the examination and documentation process, the painting was cleaned. As the varnish and overpaint were removed, the full extent of wear and tear on the surface of the painting became evident. Abrasion across the top half of the painting was the most disturbing feature, particularly in the clouds. No part of this area was unaffected by what must have been severe scraping of the surface during a past treatment.

Old photographic records suggest that this damage took place – or was revealed – during the 1947 cleaning. The earliest photograph of the work published in Otto Grautoff's 1914 catalogue (Fig. 12) shows the painting with its sky noticeably different from a later reproduction taken after 1947 and published in Blunt's catalogue for the 1960 exhibition.²¹ (Fig. 13)

On this evidence it appears that the soft outer edges of the clouds and a pale top layer of the upper central band of cloud were removed, creating a jarring division between the upper and lower parts of the painting. Detail images of the painting

Fig. 12 – Photograph of the painting published in the book *Nicolas Poussin* by Otto Grautoff, 1914. It shows that the painting's sky was considerably different in the early 20th century.

Fig. 13 – Photograph taken following the 1947 cleaning but before the 1960 restoration, it confirms that the appearance of the painting was markedly changed by the 1947 treatment.



Fig. 14 – Detail taken after the removal of old varnish and retouchings in 2011. The pale patches in the dark clouds indicate the areas of strongest abrasion.

Fig. 15 – Detail taken after the removal of old varnish and retouchings in 2011. Cleaning of the painting revealed extensive loss of detail in the right mountain peak and of the trees in the wooded landscape.

Fig. 16 – Detail taken after the removal of old varnish and retouchings in 2011. In the lower half of the painting, the abrasion to the paint surface resulted in numerous speck losses which were strongly evident in the flesh tones.

taken after the 2011 cleaning reveal the extent of abrasion in these critical areas. In the clouds abrasion can be seen extending through the paint and ground layers, occasionally even down to the raw canvas. (Fig. 14)

Similarly, the twin mountain peaks and wooded landscape on the left were abraded to the point that a significant degree of original detail was lost and partially repainted by restorers in successive restorations. (Fig. 15)

The lower part of the painting had also suffered from harsh cleaning, although in some respects the result was different. (Fig. 16) Rather than the effect of uniform abrasion across the surface, the

lower half displayed numerous small pit-like losses across the surface, particularly in the areas of flesh paint.

LOST DETAILS REVEALED

Once the layers of old varnish and overpaint were removed, the painting was revarnished,²² preparing it for the next stage of treatment – retouching of the lost and worn areas of paint.²³ The challenge of this phase lay in the number and extent of damaged areas across the surface. In places where the paint losses were small and dispersed across the surface, the damaged passages could be reintegrated with discreet applications of retouching paint. However, in the more broadly abraded areas where entire layers of paint had been largely worn away, a more reconstructive process would be required to bring greater definition to features which had lost much of their original form.

In 1960 Horace Buttery was faced with this unenviable task, with very little information to assist him in the reconstruction of the lost passages. It is possible, though unlikely, that he may have referred to old photographs or two 17th century copies of the work: an engraving made by Etienne Gantrel in the 1680s, (Fig. 17) and a tapestry of the image made by the Gobelins workshop in Paris, also dating from the 1680s. (Fig. 18)

Both the engraving and tapestry show the image reversed. When they are inverted to match the original, they display certain discrepancies in detail which reveal them to be less than exact replicas of the original painting. Nevertheless, they do indicate a lively arrangement of clouds and a receding landscape marked by intervals of light and shade, features which appeared mostly lost in Poussin's worn original. Without the aid of useful copies or documentary photographs, Buttery could only hope to partially rectify what remained of the worn surface, with little scope for actually retrieving some of the lost detail. This would probably have been the same objective for the 2011-12 treatment had there not been a major turn of events which would dramatically affect its outcome.

The Gallery's records for *The Crossing of the Red Sea* had long contained a reference to a painted replica made in Paris during the 1680s by none other than Charles Le Brun (Fig. 19), France's most influential painter in the second half of the 17th century, a colleague of Poussin and a strong adherent to his theories.²⁴ The painted copy had not been recorded since 1773, when it was sold at auction in England, and was presumed lost or destroyed.²⁵ It did not resurface in public until late 2009 when the NGV was contacted by the Iris and B. Gerald Cantor Center for Visual Arts at Stanford University in the United States. The museum had just received the lost replica on loan from a private collection in the San Francisco Bay Area where it had been held since the 1960s.²⁶

The re-emergence of this painting from obscurity enabled us to gain more than a glimpse into the past of the Melbourne Poussin. Although the Stanford replica has some minor structural and surface problems (not least a discoloured varnish), it is

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Fig. 17 – Etienne Gantrel (engraver), *Passage through the Red Sea*, after Nicolas Poussin, engraving, 56.3 x 74.3 cm (image); 63.5 x 82.4 cm (sheet). Research Library, The Getty Institute. The image has been printed in reverse to provide a direct comparison between the painting and the engraving.

undoubtedly far better preserved than Poussin's original, particularly in those areas where Poussin's is so notably worn.

This high-quality replica was painted to the same dimensions and proportions as the original. The transcription of composition and detail from the original is remarkably faithful but for one odd exception: the copyist completely omitted the red-brown 'pillar of fire' along the far-right edge of the painting. The omission of this crucial detail – for it represents God to whom Moses appeals – is inexplicable yet deliberate.²⁷

A comparison between the two paintings seems to confirm the key theories about the changes which have taken place in the original. A major difference in tonal values is evident in many areas, with the landscape, sky and water all now significantly darker in Poussin's original.

In the Stanford replica the viewer is able to see more delicate modulations of the effect of sunlight across both the figures and the landscape, while in the Melbourne original it is only the figures which seem to capture the light and retain their luminosity. The flattening of the brown and green tones of the topographical details in Poussin's original made it particularly hard for the eye to register exactly where in the landscape the figures were located, particularly the row of smaller background figures. It was only by looking at the replica that one could confidently recognise that the figures were placed on a raised escarpment in the middle distance.

Another stark indication of the tonal change is evident in the blue drapery of figures. The replica reveals a far paler blue than we now see in the original, which appears to corroborate the findings of the examination of the paint surface around the old loss described earlier.

It is, however, the wealth of detail in the sky and landscape of the replica which provides us with the most intriguing insight into the alteration which has taken place in the original *The Crossing of the Red Sea*. (Fig. 20)

Rather than the surviving solid bank of dark grey cloud left with the original, the replica shows

that there were in fact two separate strata of grey clouds. (Fig. 21) One, through the centre and top edge of the painting, is a pale grey-blue band of high cloud, which tapers out to thin streaks across the sky over the twin mountain peaks. Thin trails of bright white highlights give definition to the underside and edges of this cloud. Separate from this upper cloud, and far closer to the scene involving Moses, is a heavy cluster of dark storm clouds in the top right corner of the painting. These are clearly intended to be the clouds described in the Old Testament which were to come between the armies of Egypt and Israel, providing darkness to one side and light to the other (Exodus 14:20).

Like the pale grey upper cloud, the dark clouds of the Stanford replica also trail off, not horizontally but downwards towards the sea, perhaps representing heavy falling rain. These clouds also contain some bright white lines and outlines, giving form to the individual clouds which make up the mass.

On the Melbourne picture it is clear that the band of pale upper cloud had darkened and lost most of its energetic highlights, as well as the distinctive thinning streaks of grey where the cloud



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Fig. 18 – Jean-Baptiste Mozin (workshop of), *Le Passage de la Mer Rouge* (1685), after Nicolas Poussin, basse-lisse weave, wool, silk and gold thread, 335.0 x 488.0 cm, Paris, Mobilier National (GMTT 34/3). The image has been printed in reverse to provide a direct comparison between the painting and the tapestry.

Fig. 19 – Charles Le Brun (attributed to), *The Crossing of the Red Sea* (after Poussin), oil on canvas, 158.1 x 213.4 cm, Private collection, on loan to The Iris and B. Gerald Cantor Center for Visual Arts, Stanford University, USA.



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Fig. 20 – (a) Nicolas Poussin, *The Crossing of the Red Sea*, detail, before conservation treatment, 2011-12. (b) Attributed to Charles Le Brun, *The Crossing of the Red Sea* (after Poussin). When viewed side by side, a darkening of tone is evident in many areas of the Melbourne painting, particularly in the blue passages. Also notable is a comparative lack of definition in the foreground and landscape.



20a



20b

Fig. 21 – (a) Nicolas Poussin, *The Crossing of the Red Sea*, detail, before conservation treatment, 2011-12. (b) Attributed to Charles Le Brun, *The Crossing of the Red Sea* (after Poussin). A comparison of the damaged upper half of the Melbourne painting with its Stanford counterpart reveals the loss of critical details of the mountains, landscape and clouds.



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21b

trails off. It had largely merged with the lower dark clouds below to form a single, triangular blanket of heavy grey and black in the upper half of the painting. Harsh cleaning of the dark thunderclouds resulted in the complete loss of their wispy edges, exposing the pale blue sky which was originally intended to serve as a layer of underpaint.

Dozens of other instances of lost detail from the painting have come to light through the rediscovery of this important copy. It has proved crucial in answering one particular problem which had previously troubled some viewers. In amongst the main throng of figures was a face, possibly of a woman, with her head turned towards the viewer.

(Fig. 22) Two features of this face appeared incongruous with the surrounding figures: it was far sketchier in execution than any other, and it did not sit comfortably with the body on which it rested. In fact, with the face shown nearly front-on, the neck appeared unnaturally contorted, with the body turned around in the opposite direction.

Instead, the Stanford replica revealed the back of a head and a pair of ears. The corresponding figures in both the engraving and the tapestry appear to confirm that the Stanford figure was the one Poussin left, suggesting the one present on the Melbourne painting was a later restorer's addition. However, close examination of the NGV face before and during cleaning indicated that the

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22b



Fig. 22 – (a) Nicolas Poussin, *The Crossing of the Red Sea*, detail, before conservation treatment, 2011-12. (b) Attributed to Charles Le Brun, *The Crossing of the Red Sea* (after Poussin). The face of the blue figure in the Melbourne painting was initially thought to be the work of a restorer, but was later shown to be Poussin's first attempt at the figure; he modified it by turning the figure away from the viewer. The original figure resurfaced in the 1947 cleaning of the painting.

'wrong' face was indeed original to the painting. When the paint surface was viewed under stereoscopic magnification it displayed similar characteristics in craquelure and pigment composition to other areas of original paint. So how could it be that other 17th century copies of the painting contradicted the information on the original? The likely answer is that Poussin initially sketched the figure looking out towards the viewer but for some reason was unhappy with it, so he repainted it, with the new head turned around the other way. In time, probably during the 1947 cleaning, Poussin's revised head was scrubbed off, revealing the earlier version beneath. The reason the earlier head now sat so uncomfortably on the blue-clad body was the result of a modification made by Poussin when he reworked the figure. In order to show the figure turned away, he had to add the right shoulder to what was previously a side-on view of the figure. This modification was now visible as a timentito of darker and thinner paint.

RECONSTRUCTION OF LOST DETAIL

Thanks to the unexpected discovery of the Stanford replica, it was now possible, for the first time in generations, to envisage how *The Crossing of the Red Sea* must have once appeared. The full harmonies of Poussin's carefully arranged tones and colours, along with his integration of figures into the landscape, could now be better understood. In the treatment of old paintings it is exceptionally rare to find such a valuable early record of the appearance of an artwork. There was no question that the copy would be critically important in the campaign to recover some of what the painting had lost. But it posed an interesting question: is it appropriate or even desirable to attempt reconstruction of something now irrevocably lost to the original work?

The answer depends entirely on the individual's

viewpoint. Convincing arguments can be made for either a highly reconstructive course, or one with minimal intervention. Both methodologies can claim fidelity to the artist as a guiding principle, with the reconstructive approach placing primacy on the legibility of the image left by the artist: that it is most important to provide the viewer with a reasonably intact manifestation of the image in order for it to be properly appreciated and understood. The latter gives priority to respecting what remains of the original hand of the artist and to the entitlement of the viewer to easily identify which parts of the painting are original and which are not. Underlying this philosophy is a recognition that changes in the appearance of an artwork need not necessarily be remedied, and that viewers are capable of filtering out the effects of change or damage when they look at a work of art.

Cultural factors play a big part in how we choose to conserve and view old paintings, which is why conservation theory and practice can vary so greatly from one country to another. At the same time, many conservators across the world recognise that retaining fidelity to the image, the artist's hand and the physical history of the picture need not be mutually exclusive.

Each of those factors influenced the decision-making behind the restoration of *The Crossing of the Red Sea*. Most critically, key details of the mountain landscape, the trees and sky were partly reconstructed with the aid of the Stanford replica because abrasion of the original paint surface in those areas left their original forms almost illegible. However, there were other features which were altered by abrasion – for example, the darkened blues, browns and greens – which were not retouched to match the replica because the darkening was not considered to be compromising the overall legibility of the painting.

The guiding philosophy throughout the treatment was to keep the intervention to the minimum

required to make the less intact parts of the painting work harmoniously with its well-preserved passages, respecting at the same time changes that have occurred as a result of the passage of time.

Acknowledgements

An earlier version of this text was published in a limited edition book in 2012 to recognise the

sponsorship of the painting's restoration by BNP Paribas Australia. The author wishes to thank Helen Glanville and Claudio Seccaroni for their assistance in bringing the present article to publication; and the following people for their important contributions to the conservation project: John Payne, Gerard Vaughan, Didier Mahout, Bernard Barryte, Ted Gott, Laurie Benson and Mary-Jo Lelyveld.

Notes

- ¹ Cifani 2000, p. 564. Cifani and Monetti discovered banking details of the Galli Tassi family, who were Amedeo's chief bankers, that confirmed the two paintings were paid for by instalments, starting in July 1632.
- ² Ferretti 1985, p. 618.
- ³ Philipp 1964, pp. 80-99. Philipp here deconstructs the iconography of the painting in the context of extant preliminary drawings.
- ⁴ Ferretti 1985, p. 617.
- ⁵ Bellori 2005, p. 314.
- ⁶ The author is grateful to John Payne for laboriously counting the principal figures in the painting.
- ⁷ Blunt 1960, cat. no. 37.
- ⁸ *The Adoration of the Golden Calf* was restored around this time by Herbert Lank (personal communication, David Bomford, 2010).
- ⁹ Keith Sutton, Round the London art galleries, 'The Listener', 2 February 1961, p. 232.
- ¹⁰ Philipp 1964, p. 96 n. 58.
- ¹¹ In 1955 a precedent was set when the Gallery sent Giambattista Tiepolo's *The Banquet of Cleopatra* to Buttery for restoration. Over the following decade the practice of sending the Gallery's most valuable paintings to specialist restorers in Europe continued: *The Madonna and the Child*, formerly attributed to Jan van Eyck, was cleaned by Paul Coremans in Brussels in 1958, and Thomas Gainsborough's *The Rt. Hon. Charles Wolfran Cornwall* was cleaned by Buttery in 1961.
- ¹² The painting was x-rayed in 2003 and digitally assembled by the author and John Payne in 2011. Poussin's practice of painting drapery over naked figures is evident in the radiographs and is discussed in main text of this article, along with his reworking of the turned figure in blue. Beyond these important modifications, the radiographic image reveals no substantial reworking of the arrangement of figures. However, there appears to be more significant reworking of the landscape. The shape of the mountains in the upper left portion of the painting reveals that the left of the two peaks was original-

ly considerably lower than first intended, while the waters to the right of Moses appear to have been paler and more turbulent than they now appear. Another curious alteration is evident in the radiograph: in the landscape, where the row of small background figures are gathered atop the rocky escarpment, an indeterminate form - perhaps representing the wash of a crashing wave against the shore - is clearly visible. Another feature of the painting which is clearly visible in the radiographic image is the stitching of the horizontal join in the canvas in the upper third of the painting.

- ¹³ They were analysed by Deborah Lau, CSIRO scientist, by means of EDS and Raman particle analysis.
- ¹⁴ Bellori 2005, pp. 323-325.
- ¹⁵ Other preparatory drawings by Poussin for *The Crossing of the Red Sea* are in the Hermitage (inv. nos. 14540, 14542), and two in the Louvre (see Friedländer 1939-74, vol. I, nos. 20, 21, plates 12, 13). The dating of the three Hermitage preparatory sketches has been a subject of debate. Friedländer (1939) and Blunt (1979) believed the drawings related to the Melbourne *Crossing* of 1633-4, but Rosenberg (1995) asserted that they instead relate to a later version from the late 1640s, a painting which was never completed.
- ¹⁶ Bellori 2005, p. 323.
- ¹⁷ McBurney 1994.
- ¹⁸ Lead white, which is responsible for the pale tone of the passage of blue, is considered a highly permanent pigment. It is not affected by light exposure but can darken on contact with pigments containing sulphides, including ultramarine, though this is unlikely to occur in oil paint films. See Gettens 1993, pp. 71-72.
- ¹⁹ Wine 2001, p. 296; Van Eikema Hommes 2004, p. 109.
- ²⁰ Wine 2001, p. 296. The author comments: 'In common with many paintings by Poussin, for example NG5763, the visual appeal has suffered mainly because the increased transparency of the paint with age reveals more of the ground colour beneath'. For a discussion on the process of increased transparency in oil

paint films, see Van Eikema Hommes, pp. 37-39.

- ²¹ Grautoff 1914, pp. 150-151; Blunt 1960, cat. 37.
- ²² The old natural resin varnish and retouchings were removed with solutions of acetone in odourless mineral spirits. Some older insoluble retouchings were removed by scalpel under magnification. Infilling of old paint losses was done with Modostuc acrylic filler. The painting was revarnished with an MS2A modified polycyclohexanone resin, 30% w/v in mineral spirits. The varnish solution contained 2% v/v Tinuvin 292 hindered amine light stabiliser.
- ²³ In-painting was done with powder pigments bound in solutions of the MS2A varnish resin.
- ²⁴ Le Brun accompanied Poussin on his return to Rome from Paris in 1642.
- ²⁵ The Christie's Robert Strange sale, 5 March 1773, lists a copy of *The Crossing of the Red Sea* 'by Charles Lebrun' (lot 107).
- ²⁶ Thanks to the research of Lynn Roberts and Sarah Grandin, a provenance for the Stanford *Crossing* reads as follows: from the Robert Strange sale in 1773 the work was purchased by someone named Parsons and then perhaps acquired by Sir Thomas Rumbold for his home, Woodhall Park. It may then have passed to Samuel Smith, who purchased Woodhall and its contents about 1801. Alternatively it may have been acquired by his heir, Able Smith, when he inherited and redecorated the estate in 1834, for he had the painting reframed by Smith & Son, a leading London framer. *The Crossing the Red Sea* remained in the house until the family sold it and dispersed its contents in 1931 - at which time it was evidently re-attributed to Poussin. The parents of the present owners purchased it in the 1960s.
- ²⁷ The Etienne Gantrel engraving of *The Crossing of the Red Sea* also shows the image without the pillar, suggesting in all probability that the engraving was made not from Poussin's original but from the 'Le Brun' replica.