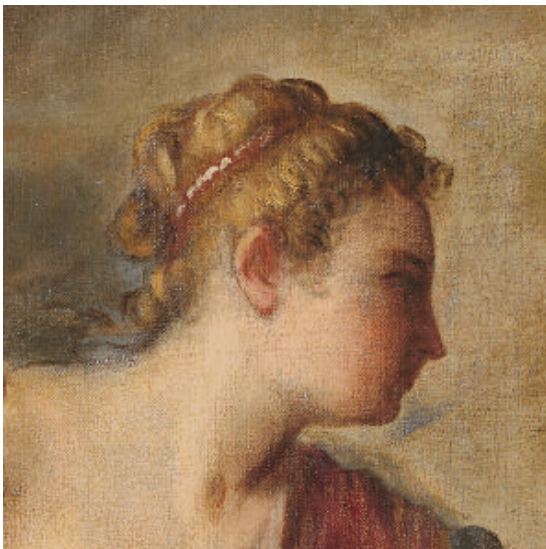


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Titian's Painting Technique from 1540



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FRONT COVER

Titian, *Diana and Actaeon* (NG 6611; NGS 2839), 1556–9 (detail).

TITLE PAGE

TOP LEFT: Titian, *The Vendramin Family, venerating a Relic of the True Cross* (NG 4452), 1540–5 (detail).

TOP RIGHT: Titian, *Diana and Actaeon* (NG 6611; NGS 2839),
1556–9 (detail).

BOTTOM LEFT: Titian, *The Death of Actaeon* (NG 6420),
c.1559–76 (detail).

BOTTOM RIGHT: Titian, *The Tribute Money* (NG 224),
1567–8 (detail).

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The Conservation History of Titian's *Diana and Actaeon* and *Diana and Callisto*

JACQUELINE RIDGE and MARIKA SPRING

The 1932 conservation treatment of *Diana and Actaeon* (CAT. 4) and *Diana and Callisto* (CAT. 5) – including cleaning, lining and restoration – was the subject of a detailed commentary published in 1933 in the *Burlington Magazine* in two parts, the first by the art critic and scholar Roger Fry¹ and the second by the restorer Stanley Kennedy North,² who carried out the work on the paintings. Kennedy North's extensive documentation on this treatment in the archives of the National Galleries of Scotland provides further information on the state of conservation of the paintings at that time, and has additional interest as a record of his own particular approach. The paintings again underwent conservation treatment in 1998–9, including relining, with an account being given in the 'Technical Note' accompanying the entry on these paintings in the catalogue of the 2004 exhibition *The Age of Titian* at the National Galleries of Scotland.³ This essay summarises what is known of the conservation history of these two works, and also functions as a basis for understanding and interpreting their present condition and appearance.

The paintings originally formed a pair within a series of mythological paintings (*poesie*) that Titian painted for Philip II of Spain. In June 1559 Titian reported to his patron that they were finished, noting that he had begun painting them three years earlier. They were shipped from Genoa to Cartagena in Spain, continuing their journey by road, arriving in Toledo in autumn 1560 before finally being taken to Madrid. They are recorded as being in the Alcázar in 1623, and remained in Madrid until in 1704 they were presented by Philip V to the French ambassador Antoine, 4th Duc de Gramont, who gave them to the French Regent, Philippe Duc d'Orléans.⁴ They are recorded in the Orleans inventory of 1724 and would probably have been on public display, along with other works from the Orleans Collection, when Horace Walpole visited the Palais-Royal, the Paris seat of the Duc d'Orléans. Walpole recorded his general impressions in a letter to the Earl of Strafford, dated 25 August 1771, commenting that 'The Duke of Orleans' pictures and the Prince of Monaco's have been cleaned, and varnished so thick that you may see your face in them; and some of them have been

transported from board to cloth, bit by bit, and the seams filled up with colour; so that in ten years they will not be worth sixpence. It makes me as peevish as if I was posterity!⁵ While these two works have escaped the transfer to new supports suffered by a significant number of other works that were in the Orleans Collection, they may even so have been among the paintings that underwent conservation during a concerted restoration campaign in the 1770s.⁶

The paintings remained in the Orleans Collection until the French Revolution, when they were sold, eventually making their way to London in 1793, entering the collection of Francis, 3rd Duke of Bridgewater, in 1798. On his death in 1803 the paintings passed to his nephew and heir Lord Gower and they hung in Cleveland House (just off Pall Mall in London), which became Bridgewater House when it was remodelled between 1846 and 1854 with the inclusion of a grand picture gallery in which the paintings were displayed until the Second World War.

The only documented conservation intervention before that of Kennedy North in the 1930s was that by H.G. Haines.⁷ This is known from a comment by Claude Phillips in a report to the Wallace Collection trustees in January 1899 on the proposed treatment of Titian's *Perseus and Andromeda*, where he noted that he had recently seen Haines working on *Diana and Callisto* and *Diana and Actaeon* in London.⁸ Kennedy North added further conjectures about the conservation history of the works before this time, based on what he observed on the paintings during his detailed condition assessment in 1932, before he commenced his own treatment. He states that 'By the time they got to London, they had suffered many tortuous journeys, ... yet the actual fabric breakdowns in them are surprisingly few.'⁹ As would be expected, the paintings had been lined, and from studying the X-radiograph plates he concluded that 'fissures and lesions in the original canvases ... were mended in the eighteenth-century overhaul and although somewhat crude, they have become an integral part of the fabric ...'¹⁰ The 'eighteenth-century overhaul' that he mentions was not a recorded intervention, but was an inference drawn by Kennedy North

from his conclusion that the full lining that was in place in 1932 on *Diana and Callisto* was carried out shortly after the paintings arrived in England, perhaps in conjunction with their sale in London in 1798, on the basis of the type of canvas that was used. The lining canvas had a herringbone weave that he considered was 'similar to that used by fashionable English portrait painters during the end of the eighteenth century and beginning of the nineteenth century', asserting that 'I have never yet seen anything but English paintings on this canvas'.¹¹ This was removed during the 1932 treatment and specimens of it have been preserved in the conservation record (FIG. 250). Herringbone weave canvas was more widely available than Kennedy North's statement suggests, however, and its use does not therefore constitute certain proof that he was correct in his assertion that the painting was lined on its arrival in England, but given the expected lifetime of a lining it seems quite likely it was lined either then or a little earlier while it was in Paris.¹²

Kennedy North stated that herringbone weave canvas was chosen by English portrait painters because of its smoother surface, which avoided the distracting rectilinear grid pattern of a tabby weave canvas appearing in more thinly painted areas such as the faces of the figures. The lining canvas in place on *Diana and Actaeon*

before the 1932 treatment was instead of a conventional tabby weave, and it may be that the different smoother herringbone canvas was deliberately chosen for lining *Diana and Callisto* because its original canvas is finer than that used for *Diana and Actaeon*, and so it might be expected to be more susceptible to the weave of the lining canvas creating a visible imprint in the paint as a consequence of the moisture, heat and pressure used for glue-paste lining at this time. The original canvases were also prepared in different ways – *Diana and Actaeon* has an oil-bound priming on top of a thin glue-bound gesso ground, so that the total thickness of the oil paint layers is greater than on *Diana and Callisto*, where the canvas was prepared only with the gesso, another factor making the latter more vulnerable to the effects of lining (see CATS 4 and 5). This has also had an influence on the overall condition of *Diana and Callisto*, however, and so it may be instead that the lining canvases were different because the two *poesie* were lined at different times, with *Diana and Callisto* perhaps requiring treatment earlier.

By the time Kennedy North was commissioned to restore the paintings in 1931 their condition seems to have been far from ideal: as he described in his report (FIGS 251 and 252), the lining canvases had separated from the original in large areas, there were 'heavy



FIG. 250 A piece of the herringbone weave lining canvas removed from *Diana and Callisto* in 1932 and included in Kennedy North's documentation. He records the thread count as 48 × 68 to the inch.



FIGS 251 and 252 *Diana and Actaeon* and *Diana and Callisto* before the 1932 conservation treatment, as included in Kennedy North's documentation.



circular bulges in the corners' apparently caused by 'lesions from the stretchers' and the paint had blistered in many areas, marked on photographs together with other points of interest as part of Kennedy North's documentation, which was unusually detailed (FIG. 253).¹³ He stated that 'Many places ... were so disintegrated and fragile that they were in imminent danger of falling off and being lost forever', but also that 'actual fissures and lesions in the original canvas ... are surprisingly few'.¹⁴ His assessment of the state of conservation of the pictures was aided by X-radiographs made at his set-up at Hampton Court, and an extraordinary number

of macrophotographs and details were also taken as a record of the paint surface (FIG. 254).

In 1930 Kennedy North had written a short note in the *Burlington Magazine* on the application of X-radiography to the study of Old Master paintings,¹⁵ concentrating especially on its use for assessment of condition and outlining his experience from the many examinations that he had made with this technique – he was described in his obituary in 1942 as having 'made himself a master of the means of diagnosis such as X-ray, ultraviolet ray, infra-red ray and microscopic examination and all the relevant chemistry of the



FIG. 253 Photograph No. 2 of Kennedy North's documentation for *Diana and Actaeon*, showing the painting before cleaning with colour-coded annotations. What he describes as 'actual fissures and lesions in the original canvas' are marked in red. The bituminous paint which he believed dated from the eighteenth century is marked in green and what he considered to be mastic varnish tinted with Italian earth that was used to tone down the flesh paint is marked in yellow.

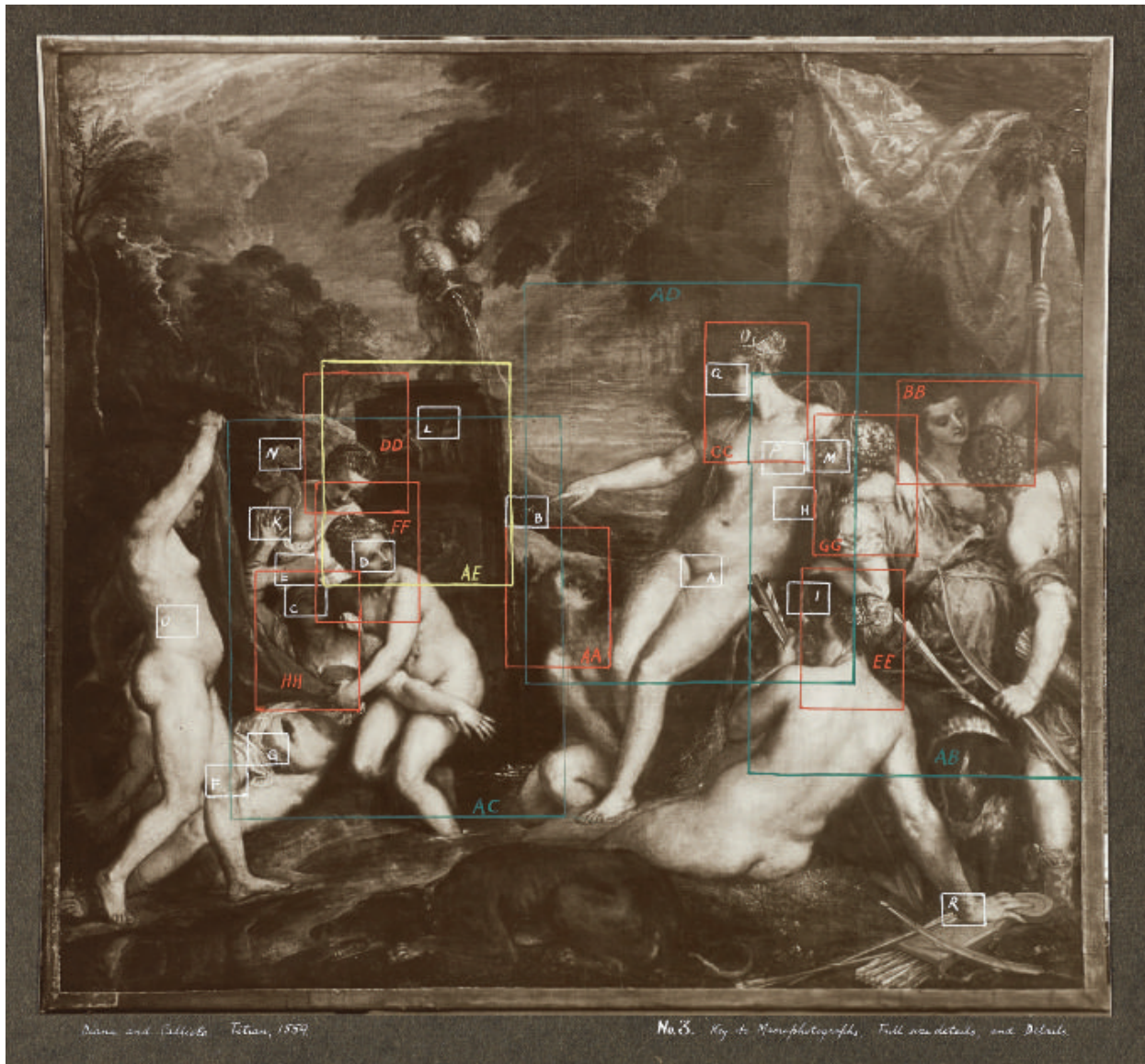


FIG. 254 Photograph No. 3 of Kennedy North's documentation of the 1932 treatment of *Diana and Callisto*, showing the painting after conservation had been completed and with colour-coded annotations marking the locations of the details and macrophotographs.

subject'.¹⁶ The papers that Kennedy North published around this time all express a desire to promote a scientific approach to the conservation of paintings and he was clearly very interested in new technologies that could be used to examine them. He was not alone in this, however, and it was part of a general trend, with 1930 seeing the first international congress of picture restorers held in Rome, entitled 'International conference for the study of scientific methods for the examination and preservation of works of art', and the launch in 1933 of the specialist journal *Technical Studies in the Field of the Fine Arts*.¹⁷

As well as the structural problems Kennedy North described, he stated that the 'many layers of varnish

had arrived at a breakdown point, forming a grey-brown veil over the whole painted surface'.¹⁸ His interpretation of what he could see on the surface was that, in addition, 'bituminous paint' was 'liberally used' in dark areas in the architecture, foliage and the nymph with her back turned towards the viewer in *Diana and Callisto*, which he thought had probably been applied in the eighteenth century, and that the lighter flesh of the female figures had been toned with mastic varnish tinted with what he described as Italian earth 'because the figures must have appeared to start too much out of their background'.¹⁹ These areas were recorded on the annotated photographs (FIG. 253) and had, according to Kennedy North, later received a further coat of copal oil varnish, perhaps

in the mid nineteenth century. As he notes, 'in the six summer months of 1851, the year of The Great Exhibition, 80,000 persons visited the Bridgewater Gallery',²⁰ where these two works were on show, and 'in view of the great number of people known to have frequented them [Bridgewater Gallery in this case] large quantities of dirt, miasmata and condensation would require removal from time to time; and those who did this were undoubtedly fond of the varnish brush giving every now and again a lustrous refreshed appearance wondrous to behold, but quite temporary'.²¹ London was a highly polluted city at this time, and there were similar concerns at the National Gallery nearby, where 'Mr Segquier' (in this case John Segquier) was appointed the task of 'attending from time to time to keep the pictures ... in a sufficient state of cleanness that they may be fairly seen by the Public'. As well as careful wiping with a cotton or silk handkerchief, the paintings were 'in some few cases sponged also, previous to polishing', although this was to be done as infrequently as possible, and after around 1850 measures were taken to protect as many of the paintings as possible with glass.²²

Kennedy North did not even mention the recorded treatment by Haines in around 1899. He perhaps did not know about it, but if he did he may have believed that the presence of the multiple varnish layers and accretions that he saw implied that this was a 'refreshing' of the kind outlined above rather than a full varnish removal. Helmut Ruhemann commented that for restorations at the end of the nineteenth and beginning of the twentieth century 'the darkened old varnish layers (and with them many a tinted one put on by eighteenth- and nineteenth-century restorers) were either taken for part of the artist's work, or the romantic "golden glow" was so admired that more of it, in the form of pigmented varnishes, was applied'.²³ Interestingly, a pair of paintings by Canaletto now in the National Gallery depicting Piazza San Marco in Venice (NG 2515 and NG 2516) cleaned by Haines in 1903 also had surface coatings that by 1942 had already yellowed to the extent that it was felt that they needed to be removed.²⁴

Kennedy North removed the old lining canvases and the glue, treated the mould discovered in the remains of the lining glue, and relined the works with fresh canvas. He used 'paraffin wax (melting point 65.5C)' as the adhesive,²⁵ a choice intended to provide a moisture barrier and to encapsulate the entire structure thus avoiding future blistering in the paint, which he believed was caused not only by atmospheric changes

(humidity) but also by the tension of excessive varnishing and repaints on the paint. The next rather more eccentric and unusual step was that the reverse of the canvas lining received a 'further protection of aluminium leaf' with the aim of stopping the ingress of moisture and 'the whole strained upon teak stretchers'.²⁶ Finally a webbing of interlacing flax ribbons three inches wide was attached across the back (FIG. 255).

Once the paintings had been lined, the thick and discoloured varnish was removed, together with repaint and restorations. The influence of his approach on the appearance of the paintings after treatment was perhaps felt most in his restoration, which was minimal, as he 'naturally desired to leave them stripped of their later additions'.²⁷ This is perhaps better understood in the context of the 1920s and 1930s, a time of change in conservation practice when, as described by Ruhemann (who was working in London at this time himself), restorers were moving away from the 'traditional application of tinted varnishes and of comparatively lavish oil retouchings' towards 'clear untinted varnishes and more sparing retouchings', and 'a more scientific outlook was gaining ground'.²⁸ This did not necessarily mean 'scientific' in the modern sense of the word, but rather an evidence-based approach to conservation that aimed to understand as much as possible about the structure and condition of a painting through utilising the new technologies that were becoming available thanks to scientific advances. It was perhaps even more, however, a reaction against the practices of earlier generations of restorers, which, it was felt, left the true beauty and colour of paintings obscured underneath layers of varnishes and toning. Kennedy North stated that 'The number of repairs [retouchings] necessary for me to make, mostly on *Actaeon*, were few, fortunately in unimportant places, and aggregate an area of less than two square inches. But for these no painting, glazing or scumbling of any kind have been done by me on these two pictures.'²⁹ No varnish was applied but rather the surface was coated with paraffin wax – a layer that he believed would protect the paint from moisture and not discolour, thus avoiding any repetition of disfigurement the past practices of varnishing had caused.

The extent to which the paintings had been submerged under the discoloured surface coatings and grime is captured in Fry's effusive commentary after the cleaning, published in the *Burlington Magazine* alongside the account of the conservation history and treatment by Kennedy North. He remarks that 'the thick veils of

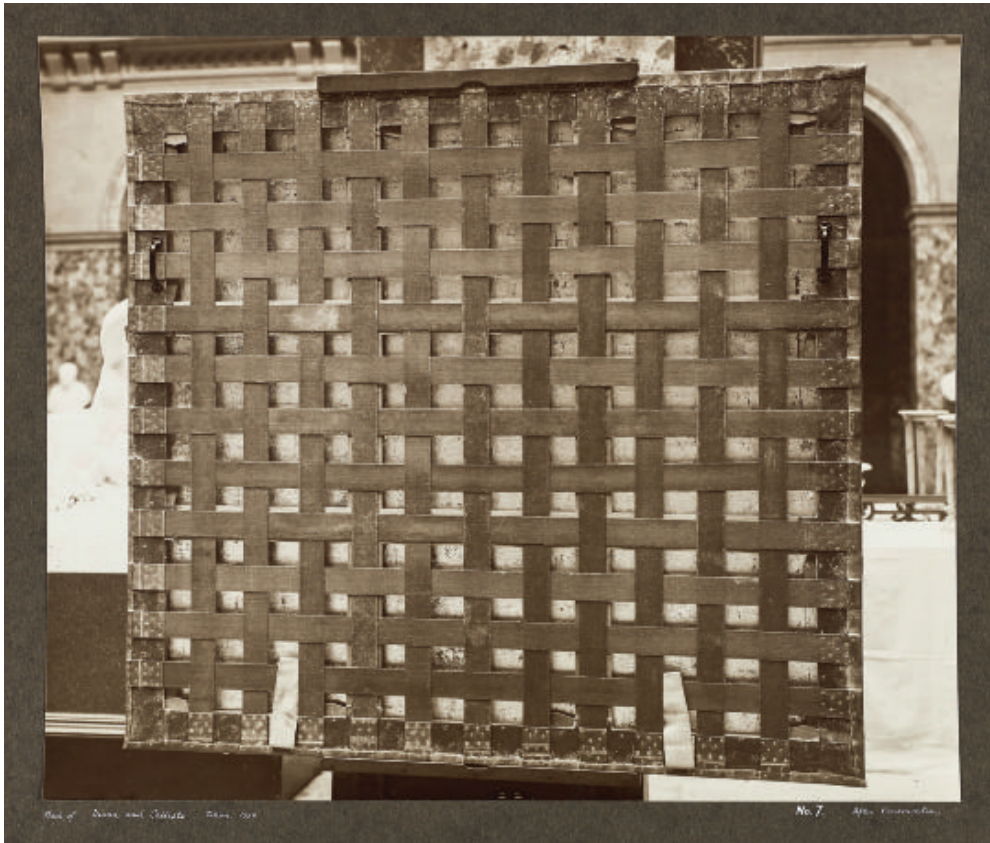


FIG. 255 The reverse of *Diana and Callisto* after completion of the structural treatment, as included in Kennedy North's 1932 documentation.

dirty varnish and repaint [...] have now been so fortunately conjured away', enthusiastically declaring 'I knew that Titian was a master of rich and sumptuous colour. I knew how splendidly he could evoke from his blues and crimsons their fullest and deepest resonance. I had scarcely guessed at the extraordinary subtlety with which he could modulate in keys of silvery and pearly coolness, that he could be so gaily luminous, so elusive and atmospheric without ever losing the force and intensity of the chromatic structure.'³⁰

By 1998, however, the lining performed by Kennedy North was failing as a direct consequence of the very low tack of the paraffin wax used as an adhesive, giving rise to undulations and buckling in the canvas. In addition, although the paraffin wax he applied as a coating had not yellowed as would have happened with a natural resin varnish, it had attracted and imbedded dirt over the years, becoming a cloudy layer lying like a veil over the paintings so that they had taken on a rather dull appearance. John Dick's 1998 condition report noted that 'This wax coating is thickly and unevenly applied to the point where the canvas weave and many small deformities in the surface have been filled and obscured. The wax has become opaque and

considerable surface grime is lodged on the surface.'³¹ The decision was therefore made to clean and reline the paintings. When the 1932 lining canvas was removed the wax adhesive that had been applied by Kennedy North could be seen to have remained as two discrete layers, indicating that it had been heated so gently that it had been insufficient to create a strong bond. This was removed, along with the remains of an older glue-paste adhesive still remaining on the back of the original canvas and a new lining canvas adhered with Beva 371 adhesive. The wax canvas borders that had been attached in 1932 were also taken off, revealing again the edges of the paintings.

The wax coating was easily removed and further localised cleaning was undertaken in areas where some residues of an older varnish remained trapped in the paint texture. The very local and minimal areas of restoration applied by Kennedy North were also removed. The thick layer of wax, in addition to having become an opaque and obscuring veil, was hiding the paint texture with the lively choppy brushstrokes that are typical of Titian. The many alterations and adjustments in the composition made by Titian had been revealed by X-radiography already in the 1930s, and explained

the presence of distinctive and localised drying cracks in the areas of the more major pentimenti. Dick's approach to the restoration, while not as austere and dogmatic as that taken in the 1930s, involved relatively restrained and judicious in-painting of losses – including those that had been left exposed by Kennedy North – as well as some retouching of the most prominent cracks in the paint where they significantly disrupted forms. The paintings were once again varnished, in this case with the natural resin dammar, to allow sufficient saturation that the true colours of the paint could be realised.³²

The very full records that Kennedy North left of his 1932 treatment were in line with more general developments at the time, motivated by a spirit of openness and a desire to raise standards within the profession; the 'Manual on Conservation and Restoration of Paintings' published as an outcome of the 1930 Rome conference, for example, included a template or model for conservation documentation.³³ Kennedy North's blow-by-blow description of the condition has, however, perhaps encouraged others to believe that the paintings are in a poorer state than they actually are, or than other paintings by Titian, as is evident most notably in Harold Wethey's account.³⁴ As Hugh Brigstocke remarked in

1978 (before the 1998 treatment), in response to Wethey's comments: 'This absence of retouchings in areas of paint loss has resulted in over pessimistic statements about Kennedy North's treatment and about the picture's present condition.'³⁵ The paintings are undeniably affected by wearing and increased transparency of the paint in some of the more thinly painted darker areas, which means that even after the restoration of the late 1990s, in *Diana and Callisto* in particular there are some awkward juxtapositions of well-preserved paint with worn areas. The studies presented in this volume of the *National Gallery Technical Bulletin* have also helped to clarify that the differences in condition of the two works are caused to a great extent by the differences in the technique of the two works, particularly the choice of a different canvas that was not prepared in the same way. As Brigstocke notes, however, 'the paintings are fundamentally in good condition',³⁶ and as Kennedy North stated in the last lines of his 1933 article in the *Burlington Magazine*, 'When consideration is given to the packing, unpacking and journeys in days when transport of such large pictures must have been a serious thought, the condition of these two Titians is truly astonishing.'³⁷