

**E. H. Gombrich, *Controversial Methods and Methods of Controversy*,
The Burlington Magazine, Mar., Vol. 105, No. 720, 1963, pp.90-93 [Trapp
no.1963C.1]**

SIXTEEN years ago the Director of the National Gallery concluded his introduction to the exhibition of cleaned pictures with words of admirable fairness:

However safe the method, however correct the principle, there will still be a margin for legitimate discussion concerning the finished product. Much of the criticism comes from those who best know and most love the pictures, in the ownership of which they have a share. Their criticism may help those who are responsible never to forget the extent of their responsibilities and to be always re-examining their principles and methods.[1]

How fruitful discussions could be if they were conducted in this spirit. Nobody who criticizes the policy of a great institution expects such criticism to be accepted without further argument. What one has the right to expect, however, is that the answer should concern itself with the substance of the criticism. What might be loosely called the National Gallery's `side' in the present controversy[2] has fallen so short of this standard that two separate issues have unfortunately emerged. The methods of controversy must be shown up before the substance of the present disagreement can again be brought into focus.

Mr Denis Mahon professes to deplore `a tendency . . . towards the breakdown of communication between some art historians on the one hand and *some* of those with particular experience of conservation problems on the other' (p.461) . I must at least be grateful to him for having inserted the qualifying `some', which I have italicized. For I should not like it to be forgotten that I originally produced that small piece of evidence, which seems to be such a thorn in the flesh of the radical strippers, in support of an authority whose `particular experience of conservation problems' Mr Mahon can hardly deny, however much he may disagree with his views – I mean Professor Cesare Brandi, for many years head of that Istituto Centrale del Restauro in Rome, to which the world owes the rescue of many precious treasures endangered by the war.[3]

Professor Brandi, it will be remembered, had argued that both technical and textual evidence pointed to the aesthetic relevance of veiling effects in which (in Baldinucci's words) `the colouring ... is pleasantly obscured as if it was covered by a very thin veil'. Professor Brandi's conclusion was briefly that in these subtle effects glazes, varnish and patina sometimes interact in a manner that calls in question the controversial methods of radical cleaning. It was when the spokesmen of the National Gallery disputed this widely held view[4] that I tried to draw their attention to the famous report in Pliny in which a veiling procedure is attributed to Apelles.[5]

Having made my little point, and having had to make it twice, I would not have dreamt of returning to it once more if Miss Plesters and Mr Mahon had shown that they had at least read these six lines of text. Instead they used it for a remarkable demonstration of how many irrelevancies can dance on the point of a needle. Since this demonstration, unfortunately, is presented with such assurance that many readers have taken it for an argument, I must take note of the breakdown and spell out the text of which I am as tired as many of my readers must be.[6]

What is it these six lines say?

(1) The great painter Apelles invented many things from which others profited, but one of his inventions nobody could imitate; it was a procedure by which he spread something on his finished paintings which both protected them and had certain aesthetic effects.

The Experimental Officer of the National Gallery's scientific department now lists the titles of fourteen recipe collections from the eighth to the eighteenth centuries which do not contain the prescription for that coating of which Apelles took the secret into his grave (p.453). Can she have read the text under discussion, and can she really think that medieval recipe books could have the remotest bearing on the problem raised?

(2) The stuff Apelles used for this inimitable dual purpose procedure is called by Pliny an *atramentum*, a 'blackening'. Miss Plesters hopefully suggests that the word is ambiguous because a work by Caneparius of 1619, entitled *De Atramentis*, does not only deal with inks (p. 453). Few books deal only with the subjects mentioned in the title, but there is really no need for discussion here, since the same book of Pliny which treats of the history of painting also treats of painters' media and has a lengthy paragraph on the various forms and uses of *atramenta*, including a report on a special *atramentum* obtained by Apelles from burned ivory and a remark that *atramentum* suspended in vinegar makes indelible marks – not, one presumes, invisible ones.[7]

For this is the main argument Miss Plesters and Mr Mahon use in disputing the relevance of the Pliny passage for any question concerning tinted varnishes. The *atramentum*, they claim, may well have looked dark in the jar, but lots of materials which look dark in bulk may still be transparent when spread sufficiently thin. Apelles' secret *atramentum* may not have differed in this respect from later varnishes which also look dark in the jar and transparent on the panel and yet have a certain colouristic effect.

If my critics had read through the whole of the Pliny passage with an open mind they could have saved a good deal of *atramentum*. For Pliny's description of what the '*atramentum*' did to the colours makes these speculations about its supposed colour in the bottle quite irrelevant.

(3) The aesthetic effects of the *atramentum* are described in Pliny's brief text in three different forms of words and in one comparison. The first wording is doubtful, since the text is probably corrupt. It says that the stuff 'by reflecting ... brought out ...' The earlier readings are that by reflection it brought out the brightness of the colours, or that by reflecting the brightness it brought out the colour, but there are at least three more variants, one that by reflecting the light it brought out the colour *white*, one that it brought out the brightness of *all* colours, and one that it brought out another colour.[8] But this and other uncertainties of reading are less damaging than might at first appear, for we learn further that the *atramentum* served the important purpose of preventing the brightness of the colours from offending the eye and 'imperceptibly to impart austerity' to 'excessively brilliant colours'. The effect, we learn, was as if one looks through a *lapis specularis*, a window stone– and it is clear from the context that the comparison is with a semi-transparent medium which protects the eye from painful dazzle.

Pliny's description, then, may be obscure, but it is not as obscure as all that. Sellers was surely right when she concluded from the comparison of the *atramentum* with a *lapis specularis* (a word she translates as talc) that the procedure would be that of a coloured varnish, a glaze. She was wrong in a footnote which I am now accused of having ignored, and which Mr Ruhemann echoed, 'that it is absurd to talk of glazing that raised the picture's colour as a whole, and yet toned it down'. If she

thought it absurd she need not have accepted the reading of 'album', a word I actually queried in my original communication.

It so happens that a very interesting fresh interpretation of Pliny's report has meanwhile been put forward in a recent book on Apelles that puts all former speculations out of court.[10] But it will be remembered that I was never concerned with the technical meaning of the passage as such, but only with its effect on Renaissance and post-Renaissance aesthetics: the idea, in a prominent place, that there was such a thing as 'an excessively florid colour' that could and should be toned down in a final operation to prevent its brilliance from offending the eye. My small point was precisely that a procedure which performed the function of protecting the painting from dust and dirt (an aspect I did not, of course, overlook, for instance in David Durand's account, as Miss Plesters alleges at length (p. 454), but which I did not think worth repeating in every rehash) also performed a colouristic function which is allegedly reserved exclusively for glazes. It is this duality of purpose which makes the passage so inconvenient to those who are fond of insisting that it is only the modern critics of their methods who persistently confuse these two purposes. It *must* be possible to remove varnishes without harming the intended aesthetic effect, for varnishes ought to be totally transparent on the picture. They therefore must not have had a share in the intended appearance of the painting, at least not beyond that of a replaceable gloss that any fresh protective coating could supply.[11]

Pliny never stated – nor did I – that the *atramentum* of Apelles, whatever it was, must have been spread evenly on the picture or that it could not have been possible to modulate the thickness and effect of the glaze which emulators of Apelles may have used in later times.[12] Nor do I see the need to accept the alternative between a tinted glaze which must exclusively tone down the colours and a totally transparent varnish that can enhance them. The effects of semi-transparent layers can hold their surprises. One of these possible effects is precisely that the layer does not only tone down the colours but also facilitates colour induction, the appearance, that is, of complementary colours in adjoining areas. It so happens that this effect increases dramatically if the contours of the inducing patch are blurred or masked. Hence even the superimposing of tissue paper will 'bring out' a complementary colour from a neutral area.[13]

One hesitates to draw attention to such effects, for when I attempted to point to the interaction of colours in my previous article Mr Mahon retorted 'that it was perhaps hardly necessary to demonstrate in such detail the existence of a principle which has been regarded as a commonplace for centuries' (p.470). There is a special branch in the Department of Nemesis which looks after those who claim to know all about a subject. Mr Mahon proceeds to explain that the precise action of a coloured overall coating '... in distorting the original interrelationship of the colours can quite easily be verified' (*ibid.*) by means of coloured spectacles. I had the privilege recently of discussing some of these complexities with a leading authority in the psychology of perception. His reaction to Mr Mahon's proposal was distinctly uncomplimentary.

There is an important difference between the filtering-off of certain wavelengths from the entire field of vision and the inspection of a limited area on which a transparent layer has been superimposed. Moreover, 'when two surfaces are in close contact with no space between them, they are said to be in "optical contact", and light reflected out from a transparent surface making optical contact with a lower one is quite different from that which is obtained if the two surfaces do not make contact'.[14]

I do not wish to imply that none of these facts is known at the conservation department of the National Gallery. But I would suggest that if this debate is to lead beyond all this transparent blackening it should lead to a closer consideration of the optical, psychological, and aesthetic effects on which the

magic of painting rests. So far only questions of abstract colour harmony have been raised, and that in the most subjective terms. The transformations colours undergo within the illusionary world of representational painting are even less well understood. In my book on *Art and Illusion* I have only scratched the surface. But before this activity is carried further from the 'Library' to the 'Studio' we should really make a start with investigating the various ways in which veiling may mobilize rather than deaden the visual imagination.

The National Gallery Report insists that 'a general coating of yellow or brown reduces the form and the space which were the preoccupation of most artists throughout the whole tradition of the Renaissance and as long as its influence continues to be felt. Yet the strengthening of form and the enlargement of space which so often emerge as the result of cleaning are rarely acknowledged by these critics' (P.82).

Nobody doubts that the effect described can sometimes result from judicious cleaning of darkened pictures. It is not these cleanings, however, which have evoked criticism. Is it not possible, on the other hand, that the removal of all perceptible layers of veiling make a picture look flat? The illusion of space and form may well be lessened when the bare pigments on the canvas obtrude too forcefully on our attention. Perhaps this is one of the explanations of the impression which some of these paintings make of being 'stripped' or 'naked' – paint rather than paintings? And would not this psychological fact also help to explain the comforting assurance which one often hears uttered, that these newly cleaned pictures will look less raw in a few years' time when they again recede behind that veil we are not allowed to call patina?

The National Gallery Report and the two writers in this journal find it particularly incredible that such effects should have been calculated in advance by Venetian painters who took the subsequent alteration of appearance into account. Yet this is precisely what Ridolfi praises in Tintoretto. Admittedly, he does not speak of the effect of varnish but of the influence of distance which, characteristically (and very one-sidedly), he attributes to the action of the intervening layer of air. Discussing the master's paintings in the Scuola di San Rocco, the seventeenth-century critic mentions those who missed in these paintings a certain softness of colour that appeals to the eyes of the less understanding. 'However', he writes, 'delicacy and finish are not always to be praised in an artist, and they are specially superfluous in compositions placed at a distance from the beholder, since the air which comes in between our sense of sight unifies the bold brush strokes with a rare blending, rendering them sweet and pleasant at a distance. Hence Tintoretto is commended by wise artists, since he was able to imagine the effect which his paintings would have in situ . . .'[15]

What really happens in the eye, or rather in the mind, when distance leads to a loss of detail and how far such effects can be simulated by a veil of varnish, are problems which are certainly not sufficiently investigated.

Questions of this kind cannot be disposed of by reference to the tone of a sleeve and a book which was revealed when a particular varnish was removed from a particular Guercino (p.469). We are, or ought to be, speaking about nuances which almost elude description and may yet affect the whole appearance of a painting.

Mr Mahon asks the rhetorical question: what conception Dr Kurz and I *can* have of 'the practical processes of picture restoration', if we are really able to persuade ourselves that our comparison with architectural restoration 'makes sense' (p.470). Neither Dr Kurz nor I believe that Viollet-le-Duc dipped a swab in acetone when he restored a cathedral. But his work was guided by an image of

what he took to be the pristine appearance of an ideal cathedral. Even the picture restorer must and will be influenced in his difficult task by the image he has formed of the original appearance of the work he hopes to restore. He will be influenced by his scale of values, his unconscious bias and his conscious convictions. It is this image which the art historian has the right to question, and to which, perhaps, he can make a contribution.¹⁶ Referring to the blue in the coat of Titian's *Virgin* (No.635), the National Gallery Report admits that it 'undoubtedly strikes harsh to many observers'. However, they write, 'there is nothing to show that Titian had soft or timid taste' (p.84). This is the kind of remark that reveals in a flash a whole scale of values to which the art historian has a right to object. Why should it have been 'timid' in the early Cinquecento to avoid harsh colours, and why should the artist be defended against the presumed accusation that his taste is 'soft'? Were the Vivarini considered more courageous than Giorgione? Mr Mahon takes exception to my 'curiously comprehensive pronouncement' that to earlier generations 'predilection for bright colours was a sign of an uneducated taste' (p.463). Contempt for glitter and gaudiness is certainly a commonplace in all discussions of taste. Here, too, there is still a great deal of scope for research, both in the psychology and in the history of taste.^[17] But the kind of evidence we need must have more relevance to artistic taste than has the colour of trousers worn in Titian's time, which the National Gallery Report seriously cites in support of policy decisions.

I hope I do not underrate the importance of scientific evidence for our understanding of painting techniques and the problem of restoration.^[18] But I do not think that this evidence alone will ever decide whether particular paintings should be stripped of all varnish and only coated for protection with transparent stuff, or whether, even in cleaning, their skin should be respected and possibly restored, as many with 'experience of conservation problems' continue to advocate and to practise.^[19]

According to Pliny, the greatest painter of antiquity was of the opinion – fear nothing, gentle reader – that the cobbler should stick to his last. Miss Plesters, no doubt, can list a number of books from the Middle Ages and even from modern times in which this advice is not referred to, and yet it would not be a bad thing if we all took it to heart. The restorers' excursions into Italian philology, the Official Report's discussion of the history of taste, the scientist's interpretation of a classical author and the connoisseur's explanations of colour theory have not exactly encouraged me as an art historian to follow the National Gallery's invitation and inspect their laboratories. Such a visit can teach the historian no more than a visit to an operating theatre can teach the layman in medicine. If he is wise he will not try to judge whether a particular operation is or is not necessary, or whether a particular surgeon is taking certain excessive risks. But if widespread uneasiness develops about a particular kind of operation advocated by one school of surgery at one famous hospital, even the layman can attempt to judge – yes, even if he were blind – what sort of arguments are used to counter this criticism.

It is for this reason that admirers of the National Gallery and its devoted staff have a right to regret the absence from this debate of the scholarly spirit that marks their famous catalogues and that inspired the Director's words quoted at the beginning of this article. Such methods of controversy may be quite effective in the short run – but what is meanwhile to happen to the pictures?

¹ *An Exhibition of Cleaned Pictures*, London [1947], p.xxiv. The paragraph ends with the remark: 'Such criticism fails in its effect, however, if it falls too wide of the mark'. It did not look at the time as if this was meant as an escape clause by which any criticism could be barred.

2 HELMUT RUHEMANN: 'Leonardo's Use of Sfumato', *The British journal of Aesthetics*, I, No.4; the Annual Report of the National Gallery [1962]; JOYCE PLESTERS: 'Dark Varnishes – Some Further Comments', *THE BURLINGTON MAGAZINE*, CIV, No.716 [November 1962], p.452. It is perhaps worth mentioning that my reply to the first of these in *The British Journal of Aesthetics*, II, No.2 has not been so much as mentioned in the remaining three publications.

3 CESARE BRANDI: 'The Cleaning of Pictures in Relation to Patina, Varnish, and Glazes', *THE BURLINGTON MAGAZINE*, XCI [July 1949] and XCII [October 1950].

4 NEIL MACLAREN and ANTHONY WERNER: 'Some Factual Observations about Varnishes and Glazes', *THE BURLINGTON MAGAZINE*, XCII [July 1950].

5 My letter to *THE BURLINGTON MAGAZINE*, XCII [1950], p.298; 'Dark Varnishes: Variations on a Theme from Pliny', *ibid.*, CIV [February 1962], p.51.

6 I should like to quote this text here in the version I should perhaps have quoted from the outset, the reading in the Teubner edition (Leipzig [1897]) by C. MAYHOFF, v, p.265: '*Inventa eius et ceteris profuere in arte; unum imitari nemo potuit, quod absoluta opera atramento inlinebat ita tenui, ut id ipsum, cum repercussum claritatis colorum omnium excitaret custodiretque a pulvere et sordibus, ad manum intuenti demum appareret, sed et luminum ration magna, ne claritas colorum aciem offenderet veluti per lapidem specularum intuentibus et e longiquo eadem res nimis floridis coloribus austeritatem occulte claret.*' The letters printed in roman type are the editor's emendations. For some variant readings, see the note below.

7 Pliny's description is found in *Historia Naturalis*, xxxv, 41-3: 'Atramentum, too, must be considered an artificial pigment, although the earth also provides it, and in two different ways. For in some places it oozes from the ground like brine, in others the earth itself is sulphur-coloured and proves suitable for the purpose. Painters have been found who are prepared to dig up charred material from the tombs in which it was interred. All such methods are indecent and newfangled, for atramentum is already prepared from soot in various ways, by burning turpentine resin or pitch, and special buildings, without exit for the smoke, are constructed for the purpose. The finest kind of atramentum is thus made from the wood of the pitch-pine. It is sophisticated with the soot from furnaces and bath-houses, which is used as ink in writing books.

Some make atramentum by drying and igniting wine-lees, and assert confidently that, if the lees come from good wine, the atramentum produced resembles *Indicum*. Polygnotus and Micon, the celebrated Athenian painters, made their 'black' from grape-skins and called it *tryginon*. Apelles had the idea of making it by burning ivory, and the product is called 'elephant-black'.

An *Indicum*, the method of preparation of which I have not as yet been able to discover, is imported from India. It is made also by dye-workers from the black scum which adheres to copper dye-pans. It is manufactured, too, by charring pitch-pine wood, and grinding the charcoal in a mortar. This latter variety is wonderfully like the pigment of the cuttle fish, but is never made from these creatures. All atramentum is perfected by the sun, writing ink being finally made up with gum, and painters' black with glue. Marks made with atramentum, which has been brought into the fluid state with vinegar, are very difficult to remove by washing.'

(*The Elder Pliny's Chapters on Chemical Subjects*, Part II, edited with translation and notes by KENNETH C. BAILEY, London [1932], pp.85-7.)

8 The readings are in the order quoted: '*idipsum repercussu claritates colorum excitaret*'; *repercussu claritatis colorem ... excitaret*'; '*colorem album excitaret*' (Sellers); '*colorum omnium excitaret*'

(Mayhoff); '*colorem alium excitaret*', which is the reading adopted in J. OVERBECK: *Die Antiken Schriftquellen*, Leipzig [1868], P.356.

9 For the expression see PLINY: *Historia Naturalis*, xxxvi, 160 (Bailey's edition, quoted above), p.267. The editor adds: 'It seems certain that the lapis specularis of the Romans was, in many cases, one or other variety of mica, a group of rock-forming minerals including muscovite (or Muscovy glass), biotite, lepidolite, and other minerals. These minerals cleave readily into tough elastic sheets of great tenacity, used even now as windows in peep-holes of furnaces and other places where the temperature is too high to permit the use of glass. They range in hue from absolutely colourless and transparent (as in muscovite) to black and opaque (as lepidomelane) ... *lapis specularis* may also mean gypsum or selenite, a mineral which sometimes occurs in transparent folia, which may be as much as a yard across, and, like mica, have been used for windows.'

10 WILHELMINA LEPIK-KOPACZYNSKA: *Apelles, der berühmteste Maler der Antike*, Berlin (Akademie Verlag) [1962], pp.23-31. The author here expands the hypothesis of her dissertation, *colores floridi et austeri* (*Jahrbuch des Deutschen Archäologischen Instituts*, 73 [1958], 79-99) according to which *colores floridi* is the technical name for glossy colours, *colores austeri* for matt earth colours. She makes a case for the majority of the first-mentioned category to have been glazes, the second body colours. It is the excess of sheen or gloss which, in this interpretation, is reduced by a thin layer of powdered burnt ivory suspended in some transparent medium. According to the author its dual purpose was that of protection and the colouristic effect of making the surface imperceptibly matt – the opposite, as it happens, from the effect discerned by Miss Plesters and Mr Mahon.

11 I have drawn attention in my recent article to a certain danger of circularity in this classification: whatever yields to our solvents must be a replaceable varnish and only what remains can have been a glaze. I should have thought that these methodological doubts – which PROFESSOR BRANDI also raised in a different form in his rejoinder ([1950], p.297) – would have been a more interesting subject for discussion than the mythical glass bottles in Apelles' studio. These, I fear, owe their prominence to a careless phrase in my letter concerning Mr Witherop's experiment with varnishes. I had wondered there 'how the evidence I tried to present can be affected by the technical analysis of un-tinted varnishes'. Mr Mahon now gravely suggests that I 'interpreted, as analysis, Mr Witherop's admirably precise description of the materials he employed', and appears to believe that analysis is always chemical analysis. I admit that I should have said 'the technical analysis of the procedure and effect', but I find it hard to reconcile Mr Mahon's desire to score with his advocacy, on the same page, of a 'genuine pooling, without distrust and *arrière-pensée*, of the most diverse forms of knowledge' (p.461). Old varnishes, by the way, appear to get more and more transparent the longer this controversy goes on. In 1950 Messrs MACLAREN and WERNER still wrote that 'the extent to which the artist may have allowed, if at all, for the colour of the fresh varnish must remain a matter of speculation' (p.192).

12 I do not wish to go over this ground once more, particularly since Miss Plesters has conceded the wide diffusion of Pliny's works. There were actually sixteen editions of Pliny in Italy before 1500 and nine Italian ones (the first being Landino's of 1474) before Vasari inserted Adriani's paraphrase in his second edition. The official Report's aside that Titian's age was at that time 'very advanced' strikes me as particularly irrelevant.

I must be grateful to Miss Plesters and Mr Mahon for their diligent search for other references, but I fail to see why these references are represented like refutations of my argument. Miss Plesters, for instance, writes that H. E. RASPE in his *Critical Essay on Oil Painting* [1781], implies 'that the use of (tinted) varnishes was considered rather disreputable' (p.455). She can have read Raspe as little as

she has read Pliny. He says that `many excellent modern artists ... use this ... Van Heyden has probably glazed and varnished his pictures in such a manner. Some Venetian masters are supposed to have done the same.' It is true that fraudulent pasticcio painters are mentioned who deliberately darken copies to make them look old, but this reference is introduced as an example of secret recipes and only confirms the similarity which the atramentum had in the mind of every unprejudiced reader with the patina of old paintings.

13 C. E. OSGOOD: *Method and Theory in Experimental Psychology*, New York [1953], p.234. The author subsequently describes another such phenomenon of interaction, which, to his knowledge, has not been reported previously. It concerns the opposite effect of colour summation in which a white patch is tinged with the tone of the adjoining blue, if the abruptness of the contour is broken down. New observations of this kind therefore continue to be made.

14 RALPH M. EVANS: *An Introduction to Color*, New York [1947], p.72.

15 CARLO RIDOLFI: *Le Maraviglie dell'arte*, ed. D. VON HADELN, Berlin, II [1924], p.33: *`Ne già come alcuni poco conoscitori del buono dell'Arte si credono, furono quelle opere fatte dal Tintoretto per disprezzo, non vedendovisi certa sfumatezza di colori, the appaga l'occhio de' meno intendenti; poiche non sempre è lodato nel Pittore l'vsar le delicatezze e'l finimento, che senza dubbio e superfluo in que' componimenti spetialmente, the vanno collocati in luogo distante dalla veduta, poiche l'aere, the si frapone alla virtù nostra visiva, unisce con raro condimento le pennellate gagliarde, rendendole soavi e grate nella distanza. Quindi è, the da saggi Artefici vien commendato it Tintoretto, poiche seppe immaginarsi l'effetto, the far potevano le Pitture ne' luochi loro, usando un finimento bastevole & proportionato al sito ...'*

16 I should like here to quote the wise and modest words written by JAKOB ROSENBERG on the occasion of the Rembrandt exhibition: `Controversy still rages between the two schools of thought, as to how far one should go in the cleaning process ... Unequipped as this writer is on the scientific side, he hesitates to give any advice on this thorny problem. But from what he has seen in recent years he becomes more inclined to recommend moderation . . . Perhaps more gradual cleaning procedures with milder means are possible, and a stopping at the right time, even though some of the old varnish is left on the picture surface (the pictures themselves are old, after all, and the varnish was considered a part of the painting procedure by the old masters). In the National Gallery in London it was possible this year to see side by side two Rembrandt paintings representing the same old lady (Margaretha Trip) at about the same time, one of them thoroughly cleaned and showing the kind of harsh effect just mentioned, with an exaggerated contrast of light and dark and a loss of transitions and overtones; the other one uncleaned, i.e., with its old varnish which, however, is still sufficiently transparent and shows just a slight yellowing. I have not the slightest doubt that Rembrandt himself would have preferred the effect of the uncleaned picture. One has only to look at the master's etchings and drawings to be convinced how vital to him was the total tonal harmony, and consequently the transitional tones as well as the overtones. And I doubt whether it was any different with Titian, with Rubens, with Velazquez – in short, with all the great painters' (*The Art Quarterly*, XIX [1956], p.389). Can the Trustees have had cognizance of this opinion and yet authorized the `cleaning' of the very picture which a leading authority on Rembrandt had singled out for its convincing appearance?

17 Cf. my articles `Visual Metaphors of Value in Art', *Symbols and Values: an Initial Study*, ed. L. BRYSON et al., New York [1954], pp.255-79, and 'Psychoanalysis and the History of Art', *The International Journal of Psychoanalysis*, xxxv [1954].

18 The official Report of the National Gallery professes to infer from a remark to which I was provoked in a public discussion – that I would consider some of my evidence valid `even if I was blind' – that I regard `studio experience' or `laboratory findings' as `irrelevant' (p.79). I would see the *non sequitur* even if I were blind.

19 The principal method of controversy to which one must object is the implication that there is no controversy among the informed. Mr Ruhemann's unforgotten characterization of the cleaning controversy as `the perennial delight of the uninformed' (loc. cit., p.234) is only the extreme example. Need one quote another expert such as VALENTINER who remarked more truly that `we are passing through a period in which there exists a considerable difference of opinion regarding the restoration of old masters' (*Art Quarterly*, XIX [1956], P.396)? Yet, when I introduced my criticism in this journal with a motto from Doerner: `I may be wrong ... but our old paintings are too precious to subject them to controversial experiments ...' the Report of the National Gallery placed it `on record that experiments at the National Gallery with *new* materials and methods (my italics) are made only on worthless pictures acquired for that purpose' (p.75). The method in a nutshell.