SHARED RESPONSIBILITY
A SEMINAR FOR CURATORS AND CONSERVATORS
PROCEEDINGS
NATIONAL GALLERY OF CANADA, OTTAWA
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* Translated from the French.
Man's Effect on Paintings

Ian S. Hodkinson

Abstract: This paper attempts a general analysis of the kinds of people who have an effect on paintings. It looks at the nature of the interactions between people and paintings, and assesses the changes to the paintings which result from the interactions. The focus narrows to examine the particular ways in which curators, conservators, and conservation scientists have an effect on paintings as a consequence of their professional involvement with them. Examples are given where the meaning of the art has been distorted by the actions of later hands—acting sometimes in well meaning but misguided ways, and other times with the intent to deceive. Some examples are used to illustrate the dilemmas which have to be faced by curators and conservators, in weighing the options open to them when considering future conservation approaches.

Mankind has a profound effect, for better or worse, on everything with which it comes into contact, and paintings are no exception. This paper addresses itself specifically to paintings, but most of the points being made have general application to art works as a whole. Paintings are subjected to the effects of Man at every stage in their history and, in fact, Man seems to be at least partly responsible for most of the changes to paintings which are of importance to us as curators and conservators. Certainly, there are changes which result from agents outside Man's control—the slow, inexorable effects of natural deteriorative processes, or the sudden catastrophic effects of natural disasters. But now, there is growing evidence that man's ignorance and carelessness is exacerbating the effects of natural deterioration, and may be affecting both the frequency and magnitude of natural disasters. It is difficult to know where to begin discussing this topic, and equally difficult to know where to end. To narrow the scope of this paper to within manageable limits, I will begin by describing the people who have an effect on paintings. Then the attributes of paintings will be examined as a means of exploring the interactions of people with them, together with the consequences of these interactions. Finally, some examples will be described to illustrate the dilemmas which curators and conservators face, in weighing the options open to them when considering future conservation approaches.

People who have an effect on paintings

Who are the people who interact with paintings in ways which will have an effect on them? They are many and varied. They can be individuals, social groups, or mankind as a whole. Their influences can be direct or indirect, and they can be physical or metaphysical. There is, in fact, a long list of people who have an effect on paintings, and who have complicated interactions with each other in the process. Figure 1 shows a table indicating People Who Have an Effect on Paintings. It is, of course, an over simplification, but the complexity can be gauged by the realization that several types of people appear in both columns, and also that the same person, or group, may fit more than one category.

They naturally begin with the people who created the paintings in the first place; these I regard as the "originators" of the art. Here, it is important to look beyond the effects of the artist as a single, original, creative genius and realize that there are many other contributors, both direct and indirect, who have an effect on the result of the creative process. After its completion, the art continues to be affected by a wide range of people who come into contact with it, for one reason or another. These I call the "users" of the art. Users can be: i) amateurs who use the art primarily for aesthetic or spiritual stimulation; ii) professionals who in addition to deriving intellectual stimulation, use art as part of their professional stock in trade; or iii) those whom I call intermediaries, that is, people who use the paintings not at all for their artistic content, but merely as a vehicle for some other type of professional activity that also can have profound effects.

Turning now to the paintings, we think that we know what we mean by "paintings," but, in fact, they are not easy to define. We dare not define them as two-dimensional, for in the
modern era of mixed media, painted sculpture, and sculptured paintings, the lines of demarcation are grey indeed. Furthermore, conservators have learned that they ignore the third dimension at their peril when examining and treating even those paintings which would have been called two dimensional in the past. One definition of a painting could be that it is a unique art object which derives its significance primarily from having been painted, that is to say partly or wholly covered, mostly by direct processes, with one or more layers of pigmented substances which are physically and/or chemically attached to its surface by a binding medium. This is a very factual definition, but it focuses entirely on the painting’s physicality. Certainly, paintings can be extremely complicated objects physically, with great potential for material interactions, but their significance also derives from non-material or metaphysical attributes, equally complex, and infinitely more difficult to define.

Attributes of paintings

In Figure 2, an attempt is made to illustrate schematically the physical and metaphysical attributes of a painting. On the left, physical form is divided into material form, that is to say, the substances and juxtapositions of substances from which the painting is constructed, and which define the conceptual form or perceptual aspects of form such as dimension, line, shape, texture, tone, colour, etc. On the right are the metaphysical aspects or content which evoke the senses to stimulate the message or meaning of the work by means of a particular modality such as Realism, Naturalism, Illusionism, Impressionism, Expressionism, Abstractionism, Symbolism, etc. The emergence of an Individual style depends on indivisible interactions of Form and Content. Together, these three give all paintings degrees of significance, but only the dynamic conjunction of form and content, the physical and metaphysical, can produce great art.
Agents of change

As soon as works of art are completed, they begin to change. This is inevitable, even to great paintings, which are well constructed, with good materials. Such is the nature of the materials, and the effects on them, of various agents over time, and of human interaction. Some changes are physical and can be immediate and terminal, like the reported wilful destruction by Lady Churchill of Graham Sutherland’s portrait of her husband.¹ Some can be nearly catastrophic, for example, from the construction of storage vaults on the banks of a river, below the flood level. Other physical effects are slower and more subtle, such as the gradual loss of colour or other photo-chemical degradation of materials from over exposure to light, or the development of cracks from the release of stresses generated by oscillating Relative Humidities.

It is interesting to compare three attempts which have emerged over the last thirty years to classify alterations to works of art. They are interesting, not only because they seem to reflect the concerns of the institutions from which they...

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**CAUSES OF DAMAGE TO MUSEUM OBJECTS**

- Humidity
  - Excessive Dryness
  - Embrilliment by desiccation
  - Damage to marquetry
  - Slackening of canvas
  - Rapid changes
    - Movement of hygroscopic materials
    - Warping of wood
    - Flaking of paint
    - Activation of soluble salts
  - Excessive wetness
    - Damp
    - Heat

- Contaminated Air
  - Sulphur dioxide
  - Bleaching
  - Hydrogen sulphide
  - Tendering
  - Soot
  - Dust
  - Staining
  - Blackening of lead pigments
  - Tarnishing of metals

- Neglect
  - Accident
    - Exposure to excessive light, heat, and humidity
    - Careless handling and packing
  - Pests
    - Moth
    - Wood Beetles
    - Termites
    - Rats
    - Mice
    - Fungi
    - Bacteria

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*Figure 3 Causes of damage to museum objects. (Pledger and Reith, 1956; reprinted with the permission of the Oxford University Press).*

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emanate, but also because they illustrate changing attitudes and understanding in the field. The first, illustrated in Figure 3, is taken from H.J. Penderleith’s classic work of 1956, The Conservation of Antiquities and Works of Art² based largely on his experiences in the British Museum. The table is headed Causes of Damage to Museum Objects and classifies the causes under the three headings of Humidity, Contaminated Air, and Neglect. Coming out of an institution in that decade, located in a temperate zone, with a highly industrialized atmosphere, before the Clean Air Act had its effect, in an institution with millions of objects languishing in basement storage areas through which the heating pipes ran, it is not difficult to understand the logic of this tabular organization. Note that, under Contaminated Air, no mention is made of nitrous oxides. At that time, the major preoccupation was with sulphur emissions. Also note, under the Humidity heading, that Excessive wetness is shown as causing tightening of canvas while Excessive dryness is listed as causing it to slacken. More will be said about this later.

Compare this information in Figure 3 with similar didactic material shown in Figure 4.

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**AGENTS OF DETERIORATION OF HISTORIC AND ARTISTIC WORKS**

1. **UNSTABLE HUMIDITY AND TEMPERATURE**

   **CONSTANT HIGH HUMIDITY**
   - Mould and mildew form, corrosion of metals, slackening of canvas,
   - Softening of supports of paper, wood and leather.

   **CONSTANT LOW HUMIDITY**
   - Desiccation and embrittlement of supports of wood, paper, canvas, leather
   - Tightening of canvas.

   **RAPID CHANGES**
   - Movement of hygroscopic materials, causing flaking paint, cracking of supports, warping of wood.

2. **POOR TECHNIQUES AND MATERIALS**

   **PREMATURE FAILURE**
   - Caused by choice of unstable artists’ materials. Unusual techniques and mixtures.
   - Poor handling and storage in studios.

3. **BAD MANAGEMENT**

   **POOR STORAGE**
   - Damage by pests, woodworm, beetles, silverfish, flies, mice.
   - Overcrowding of works, bad stacking, inaccessibility, leads to damage.
   - Damage by condensation, overheating, fire, excessive dust and dirt.

   **CARELESS HANDLING**
   - Unsafe packing, poor packing crates.
   - Faulty handling in transit, unusual weather conditions.
   - Careless supervision in photography, cinema, television productions.

4. **AIR POLLUTION AND NATURAL AGEING**

   **CITY GASES**
   - Sulphur dioxide, hydrogen sulphide and oxygen in industrial atmospheres cause rapid corrosion and chemical deterioration of materials.
   - Air borne dust and dirt particles act as carrying nuclei for gaseous contaminants which etch, pit, discoulour surfaces of art works.
   - Natural ageing of varnishes and media (yellowing, fogging) and deterioration of pigments by oxidation and chemical breakdown.
   - Bleaching, yellowing, embrittlement of paper, canvas, wood, vegetable dyes by air and strong light.

**Figure 4** Agents of deterioration of historic and artistic works.
(National Conservation Research Laboratory, National Gallery of Canada, Ottawa, circa 1971.)
used circa 1971 by the National Conservation Research Laboratory of the National Gallery of Canada. There are telling differences. Firstly, the changes are now characterized as Deterioration rather than damage, giving more recognition to them as ongoing processes. Secondly, the groupings are different. Since the National Gallery of Canada collects contemporary works, a separate category is identified for Poor techniques and materials, commonly referred to in conservation as "inherent vice." The rather passive term Neglect has been replaced by the more active reference to Bad Management. All the housekeeping problems of storage, overcrowding, pests, safety, environmental control, handling, packing, and transportation are included, with appropriate Canadian references to unusual weather conditions.

In addition to Air Pollution, natural ageing processes are now included. The role of light in oxidative reactions is pointed out, but still the role of nitrous oxides is not yet recognized. A very interesting point is that here Constant High Humidity is credited with the slackening of canvas while Constant Low Humidity is shown as

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**AGENTS OF CHANGE TO HISTORIC AND ARTISTIC WORKS**

1. **PHYSICAL AGENTS**
   - Poor construction (inadequate design and strength)
   - Normal wear and tear from usage
   - Careless handling, storage and exhibition
   - Careless transportation
   - Accident
   - Damage from cleaning (abrasion and removal of original material)
   - Physical alteration from restoration and conservation treatments
   - Environmental factors (induced stress, strain and failure)
     - Water (condensation, rain, flood, fire fighting, extremes and variations of Relative Humidity)
     - Pressure (e.g. from crystallization of soluble salts)
     - Heat (radiant energy from lighting, heating, fire, \(\rightarrow\) lowering of RH)
     - Cold (freezing of water content, \(\rightarrow\) increase in RH)
     - Wind (abrasion and erosion)

2. **CHEMICAL AGENTS**
   - Poor construction (unstable or incompatible materials present)
   - Chemical residues from processing and manufacture
   - Chemical interactions and residues from conservation treatments
   - Environmental factors -
     - Oxidation
     - Moisture, especially high RH (increase in chemical activity)
     - Heat (increase in chemical activity)
     - Light (decolorizing, discoloration and other photo-chemical changes)
     - Chemical pollutants (sulphur dioxide, hydrogen sulphide, nitrous oxides, ozone, formaldehyde, etc.)
   - Particulate matter (dust, dirt, soot, etc.)

3. **BIOLOGICAL AGENTS**
   - Microbiological -
     - Fungi, bacteria, (especially in high Temperature and RH)
   - Macrobiological -
     - Insects
     - Rodents
     - Birds
     - Animals
     - Homo sapiens

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*Figure 5* Agents of Change to Historic and Artistic works. (Queen's University Art Conservation Program, 1989). It should be noted that whilst most types of change from original state in historic and artistic works can be regarded as "damage" or "deterioration," there are some changes which may be seen as contributing to the "aesthetic merit," or the "historic or sociological significance" of the object. All changes or additions to an object should be carefully examined from this point of view before a decision is made to reverse or remove them. Changes can be brought about by Physical, Chemical, or Biological agents, and complex interactions of all three.
causing tightening of canvas—seemingly a contradiction of the information given by Plenderleith! Did someone make a mistake? Not exactly. Both statements are based on accurate observations. The difference lies in the probability that the observers were not viewing quite the same objects under quite the same conditions. If unpainted canvas composed of cellulosic fibres is exposed to excessive wetness, it tightens, and in excessive dryness, it slackens, just as Plenderleith indicated (and as any Boy Scout will verify). However, if the canvas is coated with glue size and paint layers the behaviour is not quite the same. Up to certain levels of high humidity, (usually between 75% and 85% Relative Humidity, depending primarily on the weave geometry of the canvas) a painting will slacken, but above that level, cross-sectional fibre expansion will cause it to tighten. Conversely, a traditionally painted canvas will slacken in low RH only down to a certain level, after which shrinkage of the glue size layer will cause it to tighten. Both are partly correct, and both partly wrong, for a traditionally constructed painting will tighten and develop harmful stresses at both ends of the Relative Humidity scale. In Canada, these extremes are commonly experienced throughout an annual humidity cycle, and this is one of the reasons that environmental controls are so important in preventive conservation.

The third attempt at classification is my own, used in the teaching programme at Queen's University (Figure 5). Here, the point is made that not all changes must be regarded as damage, or deterioration, with automatic attempts at reversal or restoration. It is suggested that all changes and additions be thoroughly examined to determine how and why they got there and what their current and future significance is, before new intervention takes place. Changes are characterized as resulting from Physical, Chemical or Biological agents, and interactions of the three. Other notable features are that under the Physical agents heading, Vandalism is included, a phenomenon of increasing importance which could profitably be the topic of a seminar all on its own. Also, mechanical engineering concepts such as induced stress are introduced, reflecting the researches of Mecklenburg, Hedley, and others. In addition, there is recognition that physical damage can occur as a result of restoration and conservation treatments. This is true also of Chemical agents and is included under that heading, as are nitrous oxides and modern pollutants, such as formaldehyde from building and case construction materials.

In this classification, Man is listed, somewhat whimsically, as a Biological agent of change, but considering that he is responsible for creating, or at least exacerbating, most of the other agents of change, perhaps more emphasis should be placed on Man's critical role in the management—good or bad—of cultural property.

Significance of paintings

Most of the examples, in all three attempts at classification of agents of change, are of physico-chemical changes; but just as important are metaphysical changes in the significance of paintings. These can occur partly as a result of physico-chemical changes, but are brought about more by changing human perceptions. They may be rooted in changes of fashion which cause paintings to elicit different emotional and spiritual responses. They may stem from a reverence toward the signs of age shown in the connoisseur's preoccupation with, for example, patina and craquelure, and are perhaps exemplified by the shock often experienced as a result of seeing a work after cleaning, or after having a discoloured varnish removed. They may derive from the work acquiring important historical significance. Or, they may result from a spiritual idolization of paintings, such as the public's perception of the Mona Lisa, or, in a more extreme form, the believer's attribution of miraculous powers to devotional representations of the Madonna. In any event, paintings are in a continual state of physical and metaphysical flux which changes their significance to the particular society that is interacting with them at any given moment in their history. Figure 6 attempts to show this Continuum of Significance Modifications in schematic form.

On the left, is the original significance of the painting. To be sure, the artist's intent is of prime importance, but there are elements of significance present of which even the artist is unaware, elements which are the results of contemporary influences and contemporary attitudes and perceptions. There is also latent significance, yet to be recognized by future
human perceptions. From this point on, the significance of the work exists in a continuum of change. There is set in motion a continuous process of re-interpretation of both the original and acquired significance. Some changes take place naturally; some result from human intervention. Others may result from lost understanding of the original metaphors and symbolism. Some elements of the original significance are lost, never to be recovered; some are recovered or partially recovered by arthistorical and scientific research, and by restoration processes. Other so-called restoration processes can irrevocably damage a painting's meaning, and yet others may add new significance.

The current significance of a painting can be regarded as existing in tension between lost and acquired significance and relies on interpretation of the importance of original versus acquired significance. This is our point of departure here and now. We are the temporary custodians of the paintings, and our actions will greatly influence their future significance. We can have an immediate effect by practising interventive restoration and conservation treatments. We can have short term effects, short, that is, in the great scheme of things, by practising (or ignoring) preventive conservation. Our actions may also deeply influence long term significance, but of that we can know little, since we cannot predict the philosophical and behavioural approaches of our successors.

**Ethics and conservation**

Faced with the need to use and interpret art for the present generation, we can lose sight of our moral obligation to pass it on to the future, with its physical and metaphysical significance undiminished at least, and enhanced at best. This applies to conservators and curators alike, but each has different, and sometimes conflicting, objectives which sometimes have led to adversarial positions being assumed. The origins and effects of these different perspectives are admirably explored in Phillip Ward's book entitled *The Nature of Conservation: A Race Against Time.* Curators can become so caught up in their functions of administration, exhibition, education, and increasingly in marketing their merchandise, that they have sometimes lost sight
of the physical and chemical deterioration which may result from their endeavours. Conservators, on the other hand, can sometimes become super-conscious of the deteriorative effects of usage, and adopt a "holier-than-thou" attitude, in attempting to prevent change, while not recognizing the needs of other museum professionals to carry out their duties on behalf of society. These confrontations are now less frequent; there is now a much greater meeting of minds. As conservation awareness has spread, museum personnel generally are more concerned about restricting potential deterioration. Conversely, conservators now see themselves much more in the role of attempting to provide information, derived from research and experimental experience, to help other museum professionals to carry out their mandates with the least potential hazard to the art works. These attitudes are clearly reflected in the Code of Ethics and Guidance for Practice for Those Involved in the Conservation of Cultural Property in Canada. The first clause of this document states that it is the responsibility of the conservator, acting alone or with others, to strive constantly to maintain a balance between the need of society to use a cultural property, and the preservation of that cultural property. This is a significant and welcome departure from previous definitions of the conservator's role.

The Code of Ethics goes on to outline guidance for conservation practice. In it, wise statements abound with regard to preventive conservation, examination procedures and records, treatments, restoration, etc. These are all entirely necessary, for we are sometimes not conscious enough of the negative effects of changes brought about by intervention conservation treatments. Fortunately, this too is changing and improving, but not enough. So long as it is possible for the uninformed, untrained, and unskilled to set up as conservators or restorers without regulation, or at least accreditation, and so long as there are uninformed custodians of art prepared to use them for a quick, cheap (and sometimes not so cheap!) fix, then "ravaged images" will continue to occur.

We all have responsibilities in this regard. The conservation community needs to ensure the maintenance of ethics and standards; to carry out research on materials and their deterioration and conservation; to provide training and accreditation; to make information available to collectors, artists, and institutions; and to understand the functions and needs of related museum professionals. Curators should develop awareness of the potential hazards of their actions; acquire understanding of deteriorative processes; and be prepared to get involved in conservation issues and decisions. Everyone concerned requires a high degree of open mindedness. All are trying to make ethical decisions about the way in which art should be used and preserved, but what are "ethical" decisions? While the Code of Ethics gives admirable definitions and guidance on principles, these principles are often not so clear when we attempt to put them into practice. Such principles include that of "respecting the physical and conceptual integrity of the cultural property," that of "reversibility," that of "minimal intervention," and so on.

**Interventive conservation—some examples**

The interventive conservation processes which are most likely to alter the appearance and significance of a painting are:

1. Cleaning and varnish removal.
2. Structural consolidation.
4. Restoration and reintegration.
5. Revarnishing.

In all of these activities, there are usually several possible treatment options, each with positive and negative aspects. Furthermore, the options change from case to case. The scope of this paper does not allow for extensive discussion of all of these areas of concern, but it may be useful to examine some relevant examples.

With regard to *cleaning* and *varnish removal*, it is unfortunate that the two activities have become lumped under the term "cleaning," for they are normally fundamentally different processes. The former is the removal of accidentally acquired surface grime and accretions, while the latter is the removal of a deliberately applied surface coating. There should be no quibble about the ethics of removing the former (provided it can be done
safely) but removal of the latter (safely or otherwise) is clearly a matter of great contention, to judge from the controversies that have continued to erupt at intervals for centuries. It is a source of great dismay that conservators, who are presumably aiming at clarifying and defining their professional activities, should continue to use ambiguous terminology in such a critical context. Use of the term "surface cleaning" for the removal of grime and the term "cleaning" for the removal of varnish is far from accurate. That the two activities can be clearly separated has been shown in many published examples. A good illustration is given in Ruhemann\(^9\) where a painting entitled *Italian Lake* by Herring is shown during treatment with several zones. One zone is discoloured yellow/brown with surface grime, another has the grime removed showing a faintly yellowed varnish layer under it, and three others show the varnish removed—in this case, probably unnecessarily.

Varnish removal is the most hazardous interventive treatment, and is undoubtedly the one which has caused more loss of significance in paintings than any other. The damages which can be the result of harsh varnish and overpaint removal are evident in the painting of *Vulcan and Aeolus* by Piero di Cosimo\(^{10}\) (Figure 7), which had been restored in Europe before it was acquired by the National Gallery of Canada in 1937. The damage from abrasion and powerful solvent action shown in Figure 8 is obvious. Some of the paint and ground has been removed right down to the high points of the canvas weave, while in the hollows, residues of old dark varnish still remain. Another type of problem is demonstrated in the painting in Figure 9 of *The Fable of the Sun and the Wind* by Gaspard Dughet,\(^{11}\) acquired in 1966 by the Agnes Etherington Art Centre. After being "cleaned" by a private conservator in that same year, there was great consternation that so much dark red ground was visible and so much landscape seemed to be missing. The "conservator" claimed that only later overpaint had been removed. Neither could argue from a sound footing as neither had adequate photo-documentation. However, as shown in Figure 10, later ultraviolet examination revealed two things. Firstly, it showed that the major damage was indeed the result of a much earlier intervention which had been masked by extensive repainting, and a subsequent discoloured varnish; and it was the discoloured varnish and the earlier overpaint that had been removed. Secondly, it revealed that both the earlier restoration and the recent attempt at varnish removal were incompetent. The earlier restoration had decimated the original paint surface, and the latter had left the painting patchy and inharmonious. A large proportion of the original significance of this painting has been irretrievably lost. The acquired significance is that the painting can now be used as it is, in a negative sense, as didactic material in the training of conservators. Much more could be said on the topic of varnish removal, but this will be dealt with by another speaker later in this seminar.

Turning to structural consolidation, and to lining in particular, there are many options available to the conservator, as there are continuing debates, with respect to methods, materials, adhesives, etc. Recently, there has been a trend toward avoiding lining if at all possible. While conservatism is admirable as a principle, it too must be tempered by a realistic appraisal of its possible long-term harmful effects. The condition of the portrait shown in raking light in Figure 11, of *Principal Thomas Cook*, by the Montreal artist Samuel Palmer,\(^{12}\) perhaps carries a salutary lesson. The painting is covered by a virtual catalogue of crack patterns. But the really interesting thing is to compare the cracking of the paint on the areas which have been patched with those which have not. The detail in Figure 12 shows that the areas backed by a stiff support, i.e. the patches, are in fine shape, while the unsupported areas are in dreadful condition. The purist, minimalist approach would perhaps have been not even to use patches, but merely to adhere the tears with butt joins. Had that been done, the entire painting would now perhaps be severely cracked. It is certainly arguable that a full lining would have been a more effective preventive conservation measure. If minimalism is applied as an ideology, without proper regard to the individual needs of the paintings, we may run the risk of condemning some of them to an early demise.

With regard to the removal of later additions, the little copper panel shown in Figure 13, which was previously attributed to the circle of Paul Brill,\(^{13}\) had an odd area of apparent overpaint at the bottom centre which showed slightly darker by ultraviolet fluorescence
Figure 7  Piero di Cosimo, *Vulcan and Aeolus* (National Gallery of Canada, Ottawa).

Figure 8  Detail of the painting in Figure 7 showing an area on the breast of the reclining figure in the foreground. Abrasion and paint loss can be seen in some areas right down to the canvas, while in the hollows, residues of dark varnish remain.

Figure 9  Gaspard Dughet, *The Fable of the Sun and the Wind* (circa 1690). (Agnes Etherington Art Centre, Kingston). Arrows indicate examples of original paint surface extensively damaged by early incompetent varnish removal, partly disguised by overpaint. (Photograph: Victor Sakuta).

Figure 10  Ultraviolet fluorescence photograph of the painting shown in Figure 9. At A, the full impact of the abraded original has been revealed by the removal of the discoloured varnish, while in another area, shown at B, the strong fluorescence shows that it is still covered with the old varnish.
Figure 11  Samuel Palmer, Portrait of Principal Thomas Cook (Queen's University, Kingston, Ontario), shown in raking light before restoration. The arrows indicate distinct areas that do not exhibit the same degree of cracking as the rest of the painting. (Photograph: J. Bourdeau).

Figure 12  Detail of Figure 11. Note where the areas supported by a stiff patch on the verso do not exhibit the same degree of cracking as the rest of the painting.

Figure 13  Unknown, Untitled Landscape (Private Collection), before treatment. The area below the dotted line appeared darker in ultraviolet fluorescence, indicating previous intervention. (Photograph: J. Caverne).

Figure 14  Same painting as in Figure 13, after treatment. Removal of overpaint reveals that the painting is a fragment of a larger composition. Would it be ethical to cover up the figure fragment again to make a complete landscape?
examination. Other investigative techniques were inconclusive, but solvent tests showed that this area was quite soluble, indicating more recent application. After consultation with the owner, it was decided that the overpaint should have a small trial area removed. This revealed that the overpaint covered a fragment of a figure visible in Figure 14. The owner was unhappy that the pretty little landscape, previously apparently complete, was actually a fragment of a larger painting, cut down presumably to remove a very damaged section. The original significance had been substantially altered, but the present form was pleasant enough. It was agreed to remove the overpaint completely, to explore the style of the figure painting, to see if it could help with attribution. The owners, however, were adamant that it should be later covered up again, to make it once more look like a complete landscape. The conservator, while willing to remove the overpaint, felt that covering it up again with modern overpaint was ethically unacceptable. Fortunately, a confrontation was averted for two reasons: firstly, the owners were sophisticated enough to be content with the picture being exhibited as a fragment; and secondly, the figure fragment turned out to be in excellent condition and exquisitely painted. It is probably a representation of St. Francis, and sufficient to reattribute the painting to Girolamo Muziano (1532-92). But let us suppose that the owners continued to insist that the figure fragment be overpainted. Would this in fact have been unethical? It is undeniable that the painting has lost much of its original significance. Now the immediate reaction of the viewer on seeing the truncated painting is "Oh! what a pity!" whereas on seeing the painting with the figure fragment overpainted to complete the landscape, the reaction is one of pleasure at seeing a little gem of a landscape. If the presence of the figure fragment is fully documented, if the overpaint is cleverly done, with reversible materials, is there really an ethical problem with its being covered again? We know that it can be removed again if necessary, and the potential hazard of that may be more than offset by the protective effects of the overpaint. In many cases, original paint uncovered from overpaint has turned out to be in better condition than that which was left exposed.15

There are many other interesting cases where the later additions are complete paintings covering the original. Some of these are reworkings of the original subject, but others are of totally different subjects. One such painting, a Still Life with Flowers in the Dutch manner from a private collection, is shown in Figures 15, 16, and 17. The owner had noticed that some paint was lifting from the surface of this flower painting, and proceeded to pick at it until about a square foot of it was removed, to reveal the head of a madonna. Realizing, at this stage, that this might not be the correct thing to do, the painting was brought into the lab, together with the picked off bits in a little tin box! (Man's effect on paintings with a vengence!) What should one do now? Should one sacrifice the upper painting for the lower one? Is the earlier painting any more deserving of survival than the later? Does one attempt to separate the layers and have two paintings? Or does one take the minimalist approach and do nothing, thereby regarding the painting like an ethnographic artifact, its significance now a testament to the foolishness of the persons who covered the earlier painting in the first place, and the others who picked off parts of the upper painting so drastically in the second?

Consultation and collaboration in conservation

Where difficult decisions have to be made, ideally there should be a consultative process involving not only the owner of the work but also, where possible, art historians and, when required, conservation scientists. This is difficult in the private sector, where time is money and where it is unlikely that owners will be prepared to pay for such elaborate consultations; but fortunately it is happening more and more in museums. In cases where paintings have assumed the status of "world heritage," international commissions are also becoming more common.
Figure 15 (left). Double painting: Unknown (in the Dutch manner) *Still Life with Flowers*, over an earlier *Madonna and Child with St. Joseph*. (Private collection). The owner has picked off an area of the top painting, approximately 20 x 30 cm, to reveal the heads of the Madonna and St. Joseph.

Figure 16 (below left) and Figure 17 (below right). Details from the painting in Figure 15. Which painting is more deserving of survival?
A fine example of just such a collaborative effort is the conservation treatment of van Gogh’s Self-Portrait Dedicated to Paul Gauguin (1888) in the collection of the Fogg Art Museum in Boston\(^7\) (Figure 18). Only a brief mention can be given here, but there is an excellent publication giving a full description of the case history co-authored by the collaborative team.\(^8\) When this van Gogh was being considered for conservation, some unusual damages and restorations were noticed. These included, among others, remnants of the partially erased dedication inscription along the top, the partially erased signature in the lower right corner, areas of carelessly applied fill and poorly matched overpaints in the top right quadrant, and a disturbingly mismatched area of restoration above the proper right shoulder. A fascinating and exhaustive art historical and technical analysis revealed that, in all probability, the portrait was one given by van Gogh to Gauguin as a gift; and some damages and some of the subsequent attempts at restoration were in all likelihood from the hand of Gauguin himself. This knowledge led to the decision to merely clean and consolidate the painting, but not remove the evidence of the van Gogh/Gauguin relationship, albeit they mar the aesthetic integrity of the original work. In this case, preserving the acquired historical significance was preferred to returning the work closer to its original aesthetic significance.

There is no doubt that this was a valid, that is to say, an ethical, decision. But so too would have been a decision to visually reintegrate the damages, particularly on the shoulder where they are visually most disturbing. These are subjective judgements with no right or wrong. Both could be regarded as ethical decisions. The important thing is that the decisions be well informed, thoroughly researched, well documented, carefully considered and expertly carried out. Whatever is done will still have the effect of leaving the work changed. But that is inevitable. We are, like it or not, only a small part of the continuum of change, and we can only hope that our best efforts and considered decisions will command at least the respect and understanding of the generations yet to come.

Figure 18 Vincent van Gogh, Self-Portrait Dedicated to Paul Gauguin (Arles, 1888). (The Fogg Art Museum, Harvard University). The old disfiguring restorations in the top right quadrant and above the proper right shoulder were retained in the latest conservation treatment because they have historical significance. Was this the only valid decision? (Photograph: The Fogg Art Museum, Harvard University, Cambridge, Massachusetts. Bequest: Collection of Maurice Wortheim, Class of 1906).
Notes

1. It is believed by some that this event never took place. In any event the whereabouts of the painting in question is unknown.


3. This table was taken directly from educational projection slides made at the National Conservation Research Laboratory, the precursor of the Canadian Conservation Institute, housed at that time in the National Gallery of Canada.


10. Oil and tempera on canvas. 155.5 x 166.5 cm. Collection: National Gallery of Canada, Ottawa (Accession No. 4287).

11. Oil on canvas. 53.3 x 81.3 cm. Collection: Agnes Etherington Art Centre, Kingston, Ontario (Accession No. 9-12). Catalogue of the Permanent Collection, 1968, p. 34.

12. Oil on canvas. 92 x 76 cm. Collection: Queen’s University, Kingston, Ontario.

13. Oil on copper. 27 x 19.5 cm. Private collection.

14. If this is so, the painting is not northern at all but Italian, by an artist who was well known for his landscape settings in the Flemish style. There is a work also on copper by this artist in the collection of the National Gallery of Canada, Landscape with St. Onophrius, 39.7 x 28.6 cm (Accession No. 15679). It has dimensions very close to those which can be estimated as the original size of the work in question, and is stylistically and technically similar.

15. Ruhemann, Cleaning of Paintings, 1968, Plate D, p. 139, shows a detail of the Titian Noli me Tangere in the National Gallery, London, (No. 270), where a 19th century overpaint used to slim down the figure of the Magdalen has been removed revealing the original (protected by the overpaint) to be in much better condition than the exposed paint.

16. Oil on canvas. 121.9 x 81.2 cm. Private collection.

17. Oil on canvas. 60.5 x 49.4 cm. The Harvard University Art Museums, Cambridge, Massachusetts. Bequest: Collection of Maurice Wertheim, Class of 1906.


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