

Training
in the
conservation
of paintings

Calouste
Gulbenkian
Foundation
1972

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Training in the conservation of paintings

Report of a committee to consider the establishment
of an Institute for training in the conservation of
paintings and drawings

Calouste Gulbenkian Foundation
U.K. and Commonwealth Branch
London 1972

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Foreword

The provision that is made in the United Kingdom for training in the conservation of works of art, particularly of paintings, has been a matter of growing concern for some years. Early in 1969, the Standing Commission on Museums and Galleries and the Calouste Gulbenkian Foundation consulted together, and agreed that it would be useful if the whole problem were to be investigated by a committee of enquiry which the Foundation offered to set up and finance. It was decided that the terms of reference for the enquiry should be:

To consider the desirability of establishing in the United Kingdom an institute for training in the conservation of paintings and drawings and the objects, size, organization, location and financial requirements of such an institute; and to make recommendations.

The Standing Commission and the Foundation wish to express their most sincere thanks to Sir Colin Anderson and his colleagues for the investigation they have carried out. The Foundation has much pleasure in being able to make public the report of the Committee's findings.

Rosse

Chairman
Standing Commission on
Museums and Galleries

José de Azeredo Perdigão

Chairman
Calouste Gulbenkian Foundation,
Lisbon

December 1971

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Miss Janet Holt

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1. Introductory

Terms of reference

1. Representations having been made during the past five years or more to the Government and other authorities about the shortage of fully qualified restorers of works of art, you invited us to consider the desirability of establishing an institute for training in the conservation of paintings and drawings; to consider the objects, size, organisation, location and financial requirements of such an institute; and to make recommendations.

2. We are aware that it was only after long discussion that the conservation training which we were asked to consider was limited to paintings and drawings; and it has been clear to us from the first that there is also a pressing need for training in the conservation of other works of art. Some authorities have represented to us that there should be one unified policy to govern all the various branches of conservation and that, as a step towards this aim, training in many branches of conservation ought to be provided within the same institution. It was, however, the conservation of paintings which immediately concerned the Government at the time, and this was the branch of the subject designated for our enquiry. But we have not excluded the idea of a more comprehensive institute in our deliberations, and we have in fact invited evidence from practitioners in other fields, recognising that it might well be found that training in the conservation of paintings and drawings would itself be enriched by the inclusion, now or later, of training in a wider range of media in the same institute.

3. We have also had it in mind that the scope of the institute we recommend might, in time, widen in other directions; and we can foresee important developments in the application of science and technology. We are conscious that control of the environment, which is vital to the preservation of works of art in a stable condition, has not yet been mastered; and its possibilities may greatly influence the future nature of the training which we have under consideration. Although our recommendations are concerned with the immediate future, they are made with a view to later development in ways which

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cannot immediately be determined and they must not be regarded as final.

Procedure

4. After a preliminary meeting in November 1969, the Committee began work in January 1970. We have met sixteen times in Committee and have taken evidence in plenary session and in informal discussion, with interested persons and bodies having experience both of the use and of the practice of conservation and knowledge of the problems involved. We have also visited a number of establishments in which training is provided, both at home and abroad. A list of all witnesses and representatives of institutions visited is contained in Appendix A.

Precedents

5. We are not aware of any previous comprehensive report on this subject but the International Council of Museums (ICOM) held a conference in New York in 1965 on the theme of Conservation. A selection of papers presented to the joint meeting of the ICOM Committee for Museum Laboratories and the ICOM Committee for the Care of Paintings was published in 1969 entitled 'Problems of Conservation in Museums'.*

Definition of terms

6. We believe that certain terms which will be in constant use throughout this report need defining. They are:

(a) *Conservation* – all that concerns the condition and the preservation of the work of art, the control of its environment and its restoration.

(b) *Conservator* – one who, in the broadest terms, is concerned in conservation as defined above.

(c) *Cleaning* – the removal of dirt or discoloured varnish and previous re-paint from a work of art.

(d) *Restoration* – includes

(i) cleaning as defined above (c);

(ii) stabilizing and consolidating the surface material of the work, its ground and support;

(iii) filling in, if thought necessary, areas from which original material is missing, with the aim of restoring the picture to an appearance as near as possible to that intended by the artist.

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- (e) *Restorer* – one who undertakes some or all of the processes as defined above.
- (f) *Trainee restorer* – one who is under training in the restoration of paintings, and drawings whether at a museum, gallery or institute or as an apprentice to a private practitioner, and is receiving a salary.
- (g) *Student* – one under training in the restoration of paintings at a recognised educational establishment, and supported by a LEA or DES grant or by private means.
- (h) *Qualifying year* – in which the prospective trainee is introduced to the craft and assessed for aptitude, manual dexterity and inclination.
- (i) *Basic course* – two years training, not to be regarded as a full restorer's training.
- (j) *Advanced course* – four/five years training leading to a final award as a qualified restorer.

Recommendations

7. We shall recommend that a national centre of conservation, grant-aided by the State, should be set up; and that it should be charged with the following functions:
 - (a) conservation and restoration of paintings and drawings from public and private collections, supplementing but not replacing the conservation and scientific departments in public museums and galleries;
 - (b) training in the conservation and restoration of paintings and drawings;
 - (c) research into the scientific and technical problems and implications of conservation, and maintenance of records of conservation work;
 - (d) dissemination and publication of information concerning conservation.
8. We recognise that in recommending an institute with the functions at (a), (c) and (d) we are travelling beyond our terms of reference which referred only to (b) training. The reason is that the greater part, especially of the latter years, of a restorer's training cannot be given elsewhere than in a first class workshop whose prime concern is the actual conservation of works of art of high quality and adequate variety, and we regard the inclusion of this and the other functions as essential to a central training institute.

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9. The absence at present of an institution such as we outline in paragraph 8 is, we are convinced, a gap in the nation's equipment which it is essential to fill; and we consider that the Government should accept responsibility for the establishment of a Central Institute for the Conservation of Paintings and Drawings,* and should make the necessary funds available for it as an entirely new commitment.

10. A summary of our recommendations is contained in paragraph 94, and a tentative estimate of the initial cost of equipping such an institute (excluding the cost of premises of 1,500 square feet) at £180,000 and of the annual running cost at £95,000 is contained in paragraph 95.

* The Central Institute for the Conservation of Paintings and Drawings known hereafter as the Central Conservation Institute.

2. The Problem

Existing provision for the conservation of paintings in the United Kingdom

11. Before the second world war, no art gallery in this country had its own conservation department. Paintings were cleaned and restored as and when the authorities considered it necessary, by independent restorers; and the Weaver Report of 1948 (see paragraphs 14 and 15) mentions that only thirty-two paintings from the National Gallery were cleaned between 1900 and 1933.

12. On the appointment of Mr Kenneth Clark (now Lord Clark) to the National Gallery as Director in 1934, however, the Gallery started a programme of greater activity in cleaning. Mr Ruhemann, who had lately left Germany, was retained on contract, as Consultant Restorer. Mr Rawlins was appointed at the same time, as Scientific Adviser, and an Honorary Scientific Advisory Committee was set up. A few years later, on the outbreak of war, the paintings were removed from London to an air-conditioned store, with a conservation studio, in Wales. The opportunity provided by these conditions, coinciding with the presence in this country, as refugees, of highly skilled restorers from abroad, who had been employed in established conservation departments of major museums, gave a new stimulus to professional interest in the conservation of works of art and encouraged not only the National Gallery but other museums and galleries also to consider seriously setting up their own conservation departments.

13. In 1946, as soon as the war ended and the paintings returned to the National Gallery, its conservation department, as such, was set up. Mr Ruhemann could work only part-time for the National Gallery since he was by then in charge of the newly established technology department of the Courtauld Institute, but he was appointed consultant restorer with a staff consisting of an unestablished restorer and a craftsman.

14. The return of the paintings from their air-conditioned wartime store to the normal climate of the National Gallery raised immediate

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problems of environmental control; furthermore, when they were put on view there was lively criticism in *The Times* correspondence columns of those which had been cleaned. This led to the 'Cleaned Pictures' exhibition of 1947, showing the seventy-four paintings which had been cleaned since 1936 accompanied by appropriate photographs; and to the appointment by the Trustees of a committee of two experts under a lay Chairman to report on the whole question of conservation at the National Gallery. These were: Dr Paul Coremans, head of the Institut Royal du Patrimoine Artistique, Brussels, and Mr G. L. Stout, head of the Department of Conservation, Fogg Museum of Art, Harvard, under the chairmanship of Dr R. H. Weaver, President of Trinity College, Oxford. Their report, which has not been published in full, was summarised in an article by the Chairman of the Committee in *The Times* of 8th May, 1948.

15. Of the recommendations made to the Trustees by the Weaver Committee, those which most concerned the development of the National Gallery's Conservation Department were the following:

- (a) the installation of air-conditioning to preserve the paintings;
- (b) close consultation and collaboration between the Conservation and the Scientific Departments, and the provision of facilities for continuous fundamental research;
- (c) additional staff and other facilities for a permanent Department of Conservation.

16. During the last twenty years or so the importance of conservation has gained general recognition and a number of public museums and galleries have set up and added to their own departments of conservation of paintings and drawings. At the same time, the number of independent restorers, many of whom are highly qualified, and of their clients (who include many public museums and galleries), has also risen. These developments are described in the following notes:

1. *Conservation and scientific departments in public Institutions* (see also Appendix B)

(a) *National Gallery*

In 1949, as a result of the Weaver Report, an increased establishment (chief restorer, two restorers, three assistant restorers and a craftsman) was approved for the National Gallery Conservation Department but by 1954 only the chief restorer, Mr Lucas, one restorer, Mr Brommelle, one master craftsman, two craftsmen I and one craftsman II

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were actually appointed. In addition, Mr Ruhemann was still working as a part-time consultant. Today the establishment is twelve, including technical grades, craftsmen and student trainees under the Government Temporary Training Scheme (paragraph 24).

Also as a result of the Weaver Report, there was an immediate increase in the staff and activities of the National Gallery Scientific Department and a change in the functions of the Scientific Advisory Committee, which, originally set up to advise the Scientific Adviser, became in 1951 the direct advisers of the Trustees on the scientific and technical problems of conservation. The present establishment of the Scientific Department, all grades including Mr Garry Thomson, the Scientific Adviser, is five.

(b) *Tate Gallery*

The Tate Gallery also equipped a conservation studio and the chief restorer, Mr Slabczynski, was appointed in 1955. An additional restorer was appointed in 1956 and an assistant in 1958. Today the establishment is thirteen, all grades, including two trainee students under the Government Temporary Training Scheme (paragraph 24).

(c) *Victoria and Albert Museum*

In 1958 the Victoria and Albert Museum consolidated the workshops of all its departments, to form one department under Mr N. Brommelle, who was appointed Keeper in February 1960. The section dealing with the conservation of paintings and drawings today has a staff of seven.

(d) *National Galleries of Scotland*

The National Galleries of Scotland have an establishment of five for paintings and drawings, the Chief Restorer working on a part-time basis with four full-time members of staff.

(e) *National Maritime Museum*

The National Maritime Museum has an establishment of three in its conservation studio for paintings.

(f) *British Museum Print Room*

The workshop for the conservation of prints and drawings attached to the British Museum Print Room has an establishment of five. All the department workshops in the British Museum can turn to the British Museum Research Laboratory for advice about conservation problems which may involve fundamental scientific research.

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(g) *The Department of the Environment* also has a staff of sixteen restorers and technicians, employed mainly for the conservation of murals and easel paintings in government buildings.

(h) *Regional Museums and Galleries*

The following museums and galleries also have their own departments for the conservation of paintings: the Shipley Art Gallery, Gateshead, whose department was set up as long ago as 1950; the Bristol City Art Gallery; the Bowes Museum, Barnard Castle; the Dundee Museum and Art Gallery; the Glasgow Museum and Art Gallery; and the Southampton Art Gallery. The total number of approved conservation posts is ten. Approval has recently been given by Birmingham Corporation for a conservation department at the City Museum and Art Gallery, with a staff of one Keeper, two conservation officers, and three technical assistants.

(i) *Area Museum Councils*

In 1963, the Government agreed to support with a matching grant local expenditure on eight Area Museum Councils providing various services on a cooperative basis for museums and galleries all over England, Scotland and Wales. Four of these Area Museum Councils provide facilities for the conservation of paintings and drawings in addition to the conservation of other museum objects, and give advice on the care of paintings. The number of restorers and technicians employed by the four Area Museum Councils involved is eight.

2. *Independent restorers*

(a) *Service to public Museums and Galleries*

Several of the most important publicly owned museums and galleries use the services of independent restorers for their work, normally retaining one of these as general advisor and in some cases giving him studio facilities in the gallery. These include the National Museum of Wales, The Wallace Collection, the Courtauld Institute Galleries, the Ashmolean, the Fitzwilliam, the City Art Gallery, Manchester, the Walker Art Gallery, Liverpool, the City Art Gallery, Birmingham, and the City Art Gallery, York. Many of these prefer an arrangement of this kind to a conservation department of their own since the total amount of work involved would not be sufficient to justify each of them in employing full-time

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restorers of the quality needed for their best paintings, even if such restorers were available.

(b) Service to other institutions and private collections

Important institutions (such as the National Trust, the Soane Museum, the Dulwich Art Gallery), the owners of great private collections (the foremost of whom is Her Majesty the Queen), and the art dealers, employ independent restorers. As can be seen from the annual lists of Fellows of the International Institute of Conservation since its foundation in 1950, the pressure of demand from such sources has resulted in this country in a considerable increase of the number of such restorers, many of whom were trained in the conservation departments of the national galleries.

Deficiencies in the provision of conservation today

17. The increase in conservation services and in the number of practising restorers, especially over the last twenty-five years, which we have described in the last section, indicates a changed attitude to conservation in this country, but the evidence we have received shows that the provision of services has in fact lagged far behind the general recognition of their importance; and that it is now quite inadequate both to the need and to the demand.

18. We have abundant evidence of the unsuitable conditions in which works of art have to be kept for lack of staff, buildings and funds. Those museums and galleries which provide their own conservation service find that the size of their establishments, their premises and their funds for this purpose are unequal to more than a fraction of the work needed to display their collections in the condition in which they ought to be seen. Moreover, the capacity at their disposal tends to be fully occupied by the emergencies created by change of climate and the hazards of the ever-increasing number of demands for loan exhibitions elsewhere so that too commonly none is left for a planned programme of restoration. Similarly, we learn from those who share the services of the Area Museum Councils, or compete for those of independent restorers, of long waiting lists for work or advice. There are also grave deficiencies in the national ability to care for wall paintings, which constitute an important aspect of our medieval and, indeed, our later heritage.

Commonwealth and developing countries

19. A similar situation exists in several Commonwealth countries, including Canada, India and Australia. There is also a need to offer

practical help to the developing countries in the protection, restoration and conservation of their antiquities. The problems raised by this work are not all archaeological; and they can only mean another call on the available number of trained restorers of paintings and drawings.

Shortage of fully trained restorers

20. The most constant complaint aroused by the present situation is of the shortage of fully trained restorers; and this has long been recognised as well-founded. The approved posts of restorer grades (i.e. excluding scientific and technical grades and craftsmen) in public museums and galleries listed in Appendix B have increased since the war from nil to fifty-one* posts; but not all of these are filled and there are everywhere complaints of inadequate establishments and of the need for more posts in conservation which could not however be filled even if they were approved.

21. Our evidence suggests that the public museums and galleries are the chief sufferers from this shortage, since a considerable proportion of those who have been trained in the conservation departments of museums and galleries for subsequent service within them have abandoned them for more remunerative private work, especially in London. But the independent restorers also are hard-pressed; and the most skilled among them, who do much work for public institutions, are unable to keep up with all the demands made on them.

Danger of unqualified practitioners

22. Another important feature of the shortage has been put to us forcibly by our witnesses. The danger is not simply that paintings are deteriorating for lack of attention; indeed, by no means all those paintings which need restoration need it immediately or deserve it at all. It is also that where the demand exceeds the supply there will always be unqualified persons ready to fill the gap. So the problem is twofold; how to increase the number of qualified restorers, and how to ensure that their qualifications are recognisable and can be insisted on, so that those who do not possess them are not encouraged to operate.

Future demand for restoration

23. We may hope that with an understanding of the conditions under which paintings can retain their qualities, and with highly

* This figure does not include the seven posts (with the grade of assistant restorer II) available to students under the Government Temporary Training Scheme.

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developed scientific methods of analysis, restoration and environmental control, the conservation work done today will be more lasting than in the past. If so, the need for the restoration of old paintings could decrease in the ultimate future. Certainly it is the sub-standard condition in which many of the country's works of art are still housed that is the prime cause of the need for so much conservation work as it is now apparent should be done. It seems clear even so, that the prospect of a falling off in demand for conservation is remote. Controlled environment is in its infancy, and even such supposedly beneficent inventions as air conditioning have through their wrong application sometimes caused damage; the need for restoration can still recur at comparatively frequent intervals in the same painting; no system of priorities could practicably be devised whereby only those works of art which need and deserve conservation receive the attention of qualified restorers; and, to complete the story, new paintings, presenting restoration problems of great complexity, are being produced. There would thus seem little likelihood that demand for the services of restorers could soon be satisfied.

Government Temporary Training Scheme

24. Before you asked us to consider long term arrangements for training, emergency action was taken by the Government towards reducing the shortage of trained restorers in the short term and providing a cadre of instructors for future training. It had become clear that neither a national institute of training in conservation nor any other scheme involving additional training duties for existing restorers, if this were recommended and approved, could do anything for some years after its establishment to remedy the shortage of fully trained restorers. On the contrary, it was likely to be an additional claimant for the services, as teachers, of the few fully qualified restorers now at work. For this reason the Government decided in 1968 to make fuller use immediately of existing training capacity by increasing experimentally the number of trainees (normally restricted to those destined for service in the institution in which they are trained) in the National Gallery, Tate Gallery and Victoria and Albert Museum. The two galleries agreed to accept for training, at the rate of one or two a year, a total of four students each, and the Victoria and Albert Museum a total of six students, at any one time, for a four-year conservation course leading to a diploma. (Paintings as well as other works of art are restored at the Victoria and Albert Museum, but under this temporary scheme trainees are accepted there only for sculpture, drawings and applied arts.) The first six appointments, selected from 323 applications, were made in 1969.

Need for a Centre of Conservation and Training

25. While the Government Temporary Training Scheme may prove an admirable stop-gap, we are satisfied, as a result of our review of the existing conservation services, that some more permanent provision ought to be made for the future. This is not only a question of providing more facilities for training. We are convinced that there is another important element which is conspicuous by its absence: this is some central and independent point of reference, study and authority to which the separate bodies can turn for discussion, help and advice, or to which they can send work involving particularly difficult problems. Even if the establishments in the public museums and galleries were increased to the size recommended by their authorities, if conservation departments were provided in some of the institutions which now have none, and if all the resulting vacancies could be filled, there would still remain this serious lack of a central point of reference. In these circumstances indeed, a centre would become even more necessary. The number of different places where conservation work is being undertaken, whether by the staff of museums and galleries, or by the Area Museum Councils, or by independent restorers, has already greatly increased and is increasing. When one considers the number of important collections which rely on the services of individual independent restorers (see paragraph 16, 2) the lack of a focal point for information and consultation becomes very clear. Certainly many individual restorers and curators achieve an admirable relationship of this kind with the relevant specialists in the national institutions, but the national institutions have very limited capacity to undertake work on other than their own collections. We are convinced that a Central Conservation Institute is needed, to undertake, subject to priorities, the restoration of paintings and drawings in public or private ownership, to constitute an authoritative source of advice, and to form a centre of discussion and study, with the necessary appurtenances of library and documentary and photographic archives.

26. As will be seen from the next chapter, in which we consider the elements which our witnesses have advised us are essential to the training of restorers, we are forced to the conclusion that if there is one element in training which is wholly indispensable, it is a long period of work in close association with a trained restorer, who is himself engaged not merely, or even primarily, in teaching, but in the serious restoration of works of art of high quality and adequate variety. Although there are aspects of the restorer's training which can be supplied in class or in lectures, this apprenticeship element

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will only be present in an institution where actual conservation of works of art is the prime object, as it is in a museum or gallery or in the studio of a first class independent restorer. The Central Conservation Institute which we recommend would be just such an institution. That is why we feel justified in stretching our terms of reference to recommend that, since the two deficiencies of the existing set-up, the lack of regular training and the lack of a central institute, are interdependent, they should both be solved together by the establishment of a Central Conservation Institute which should also provide training.

3. Training in the conservation of paintings and drawings

Scientific aspects of conservation

27. The term 'conservation' covers a vast range of activities. It must embrace all that is implied by 'environmental control', and the study of the physical and chemical composition and changes of all the material elements of a work of art, its support, base, pigments, media and varnishes. It includes, too, the provision of the necessary scientific and technical equipment, heating and lighting, and the air conditioning and humidification to prevent and counteract deterioration. These aspects of conservation represent, as far as may be possible, the substitution of prevention for cure; and their importance cannot be over-stated. But the contributions of this kind to the conservation of paintings must come from scientists, architects or engineers, many of whom will scarcely be in immediate contact with the individual work of art; and no institute of training in conservation could attempt to provide the scientific or technical training for such experts, who will be applying to conservation problems the scientific and technological expertise which they will have acquired elsewhere. There must, instead, be the closest possible cooperation with them, so that directors of conservation departments and restorers, may make optimum use of available scientific and technical knowledge.

28. We cannot lose sight of the scientific and technical aspects of conservation referred to above. If, as we recommend, training in the conservation of paintings and drawings is to be provided in a Central Conservation Institute which is not confined to training, that Institute will itself make use of all relevant available knowledge and research. Moreover, we consider that it should provide both for student restorers to give full weight in their training to the scientific and technical aspects of conservation and also for such scientists, technicians, architects and engineers as wish to study this branch of their subject to receive instruction in the appropriate aspects of conservation. We recognise here that one of the major assumptions on which our proposals are based is the cooperation of the Scientific Department of the National Gallery. The Central Conservation Institute which we propose is bound to depend, in its conservation and restoration work, in its training and in its research, upon the

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help of the Scientific Department, as does the Conservation Department of the National Gallery itself, and as do the conservation departments of all other museums and galleries in the country. To suggest duplicating its expensive equipment would be as unrealistic as it would be impossible to duplicate the expert staff to use it.

29. An institute of training in conservation of painting and drawing must, on the other hand, be concerned primarily with cure rather than prevention; that is, with the craft of restoration, the assessment and correction of damage and decay in individual works of art. This implies personal access by the students to these works and close association with those working on them. No organised course of appropriate training in this craft exists in this country. Its provision raises special problems in the educational context. The rest of this chapter therefore will refer throughout to *restoration* rather than *conservation*.

Approach to Training in Restoration

30. We recognise that there are deep convictions leading to serious divisions of opinion as to the most suitable method of conserving and restoring paintings. We are not asked to involve ourselves in these controversies and have only considered them with reference to the widely based training we intend to propose. We would hope that the existence of a Central Conservation Institute would lead to the general exchange of opinions on this subject with less prejudice, and within a wider circle, than happens today. It would be an important element in the training we shall propose that students should have the chance of being present when the problems raised by precious works under restoration were being discussed with the restorer by scientists, art-historians and curators.

31. We have discussed with our witnesses the qualities and qualifications which a first class restorer should have, and the elements of a training designed to develop them. We have also discussed the period and plan of such a training, together with the age of entry and the admissible pre-entry qualifications: and the means by which a student may be maintained during his training; and we have studied the forms of training given in this country and abroad.

Qualities of a Restorer

32. There is general agreement among our witnesses that, apart from the moral attributes of patience, honesty, modesty and persistence, the restorer should possess:

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- (a) visual understanding and a feeling for art and sensitivity towards the intention of an artist; this implies a special kind of self-effacing artistic sense combined with an historical approach;
- (b) manual skill, draughtsmanship and a knowledge of painting techniques;
- (c) a knowledge of and interest in art history sufficient to enable him to base his understanding of the methods and idiosyncracies of the painters of the past, and his interpretation of their intentions, as far as possible, on ascertainable facts;
- (d) a working knowledge of such chemistry, physics and biology as is relevant to the practical problems;
- (e) the practical mechanical ability to use simple scientific equipment;
- (f) enough scientific understanding to apply to his work the results of scientific research and appreciate the relevance of new techniques and methods as they emerge.

By the balanced development of these qualities the restorer's training must leave him aware of the extent to which he must subject his own personal taste and inclination to the ascertainable facts both of science and of history.

Duration of Training

33. All our witnesses are agreed that a number of years of relevant (but not necessarily all specialised) experience are needed to form a fully responsible restorer; and that this experience should include an advanced course, lasting at least four to five years, of specialised training, i.e. training not less intensive than that which is now given in the National Gallery or Tate Gallery, with added facilities for regular instruction in the scientific, theoretical and historical aspects of conservation, theories and practice of painting, general science and art history. This course would not normally be available to students of less than twenty years of age or more than twenty-five; and might be preceded by any appropriate experience including art school, university or workshop experience; but, for those who decide on a career in the restoration of paintings immediately on leaving school, there is agreement that a basic course in conservation ought to be available at recognised institutes of further education to lead to the advanced course. If, as we think necessary, an award is given at the end of the advanced course, the total period after leaving school at say seventeen years to the award of the certificate would be at least eight years. The certificate would then normally be gained at about twenty-four to twenty-six years of age and would

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qualify the student for a responsible subordinate position in a museum or gallery where he would normally spend one or two years before full independent responsibility could be assumed.

34. In recognising the need for a training period of seven years from leaving school to the final award, we equate conservation as a profession with medicine, architecture and the law. This is a point which has been much stressed by our witnesses who are fully conscious that recognition of the status of restorers by public authorities with the resulting rise in the general level of salaries would itself be an important factor in reducing the shortage of fully trained restorers. Some of our witnesses have been in favour of a post-graduate degree but we would prefer to stress the professional rather than the academic nature of the training we propose.

Apprenticeship

35. For the development of the combined sensitivity, judgment, knowledge and skill which make up the art and science of restoration, and for the acquisition of confidence in its use, all witnesses agree that the only adequate training is to work very closely with an experienced practising restorer who is himself working on a sufficient variety of first-class material. Either in the conservation department of a museum or gallery or in the studio of a first-class independent restorer, this form of training provides certain essential conditions:

- (i) a high ratio of staff to students;
- (ii) the presence in the studio of works of art of high quality and sufficient variety throughout the training;
- (iii) constant contact and consultation with the curatorial staff of a museum or gallery.

Our witnesses believe that only in such circumstances can the teacher properly assess the pupil's potentialities; and only so, while performing simple tasks under direction, can the pupil learn, with an immediacy which would be impossible in classes or demonstrations, to give his mind to the problems and considerations raised by work which is as yet far beyond his own capacity to execute.

36. Nearly all our witnesses who were themselves restorers had been trained by working as an apprentice to a restorer, whether privately or in the conservation department of a museum or gallery. It seemed to us not surprising that they should unanimously recommend the same type of training for others. This view indeed was shared by most of the other witnesses we heard in this country, and our own instinct supported it; but at first we suspected that we were sharing

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a very natural prejudice in favour of what was the familiar procedure. As a result, we were prepared, when we visited establishments abroad, to be met by some cogent arguments in the contrary direction in favour of a training in which not only the background subjects such as elementary science and art history but also much of the actual restoration would be taught by means of class- and lecture-room instruction in an institution whose sole or primary purpose was training.

Apprenticeship training in courses visited by the Committee

(a) In Centres of Conservation

37. This was not, however, our experience. All but one (Stuttgart) of the institutions in which training takes place which we visited in Europe and one (Oberlin) of the three which we visited in the U.S.A. are in fact primarily centres of conservation, in which the main purpose is the actual restoration of works of art. In all these, the restoration training is preponderantly practical, with the students, as soon as they are sufficiently advanced, working as assistants to the qualified restorers on the conservation staff, on the inspection and restoration of paintings; while theoretical instruction and in some cases background instruction in science, art history and painting is given in class, lectures and seminars, and research is also undertaken into the problems of conservation, both scientific and technical. The Institutes at Brussels, Rome and Madrid, although they do not replace the conservation departments in the greater museums and galleries, are the national conservation centres for churches and other national monuments, for the smaller museums and galleries and for the private owners of important works of art. Two of these, the Istituto Centrale del Restauro in Rome and the Instituto Central de Restauracion in Madrid University, provide a full professional training lasting three or four years; and the Institut Royal du Patrimoine Artistique, which provides no formal course for students, has an international advanced course of one year for professional restorers, already qualified and practising, mainly from abroad. This Institute, however, like the Doerner Institute in Munich, and the conservation departments of the larger galleries both in this country and abroad, also carries a small number of trainees intended to continue working in the institute itself, whose training normally lasts about four years.

38. At Oberlin College, Ohio, the Intermuseum Conservation Association was established in 1952 by fifteen mid-west art museums for the conservation of their collections on a cooperative, self-support-

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ing, non-profitmaking basis, under the Directorship of Mr Richard Buck, on whom our National Gallery called in 1949 for advice and personal help in the formation of its conservation department. The Association has recently set up a three-year postgraduate course with the help of the Ford Foundation. The first set of three students, entered in 1970, have only just completed their qualifying year, after which it is intended that they should work for two years on the inspection and restoration of paintings as apprentices to the Association. They receive a stipend throughout the three-year course, and a certificate of the Association, not a university degree, at the end.

(b) *In Institutes primarily concerned with Training*

39. The Institut für Technologie der Malerei in Stuttgart is the only institute that we visited in Europe which is primarily for training, and in which actual restoration of works of art is undertaken only with a view to its value in training. Here, however, the two training courses offered are part of a programme lasting in all five years or more, two or sometimes three of which must be passed in conservation studios, often abroad. The main course, lasting six semestres (about three years) is for students qualified by at least three years satisfactory practical experience in a conservation department; and, during the course, periods of practical work in the summer vacations as temporary assistants in conservation studios elsewhere are arranged for the students by the Institut. An introductory course of one year is also provided at the Institut, and is accepted as one of the three years of experience qualifying for the main course.

40. In the Conservation Centre of the Institute of Fine Arts, New York University, which was established in 1960, and also in the course which has recently been established by Mr and Mrs Sheldon Keck as one of the Cooperstown Graduate Programs of the New York State University, Oneonta, similar measures are taken to ensure that the students have a period or periods of apprenticeship which, it is recognised, must be taken in a working conservation studio and not in an institute primarily devoted to training. These periods are equated in the United States with hospital internships of medical training, and are so designated. The New York University course, under Professor Lawrence Majewski, of which Mr Keck was the first director, provides for a seven-month internship during the third of the four years' training at the Centre, and this may be extended into the fourth year; at the Cooperstown course, which

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has so far only just completed its first year, a full year's internship is intended to occupy the last year of a three-year course.

41. The adequacy of the detached periods in Stuttgart, New York and Cooperstown, and the desirability of so complete a division between the organised training and the apprenticeship periods will be discussed later in this chapter; for the present these courses have been quoted as evidence that apprenticeship is recognised even in centres of more formal training as essential to the training of a restorer of paintings. We have no doubt of this; we are convinced that the advantages of this form of training which are set out in paragraph 35 cannot be dispensed with, and that this is a type of training which cannot be given in any institution which is concerned exclusively with training. The low proportion, 1/1 or 2/1 of students to skilled restorers, would be quite uneconomic unless these restorers were engaged on work of importance in an institute primarily concerned with the actual work of conservation of paintings. The number of master restorers needed for a comparatively small number of students could not be justified by their teaching activities alone. It is true that the proportion of students to teachers over the whole of their training, including the theoretical studies dealt with in the following paragraphs, would not be equally low, but it is not suggested that these background subjects should be taught by skilled working restorers. In any case, works of high quality would not be entrusted to a conservation training institute if they were to be used primarily as teaching material; nor, without such high grade material could the constant presence of curators and art historians be expected. Their visits would be limited to official classes and lectures.

Background and Theoretical Instruction

42. As regards the other qualities listed in paragraph 32 as needing to be developed in the course of a restorer's training, witnesses with experience of training are satisfied that given the necessary aptitude, a student can acquire the scientific and art historical background in theoretical and practical classes and lectures during his training; provided he shows some evidence of manual dexterity, painting technique also can be developed during the course, although it would be unusual for a candidate for this work to have had no experience whatsoever of painting either at school or at an art school or by his own efforts. It has been made clear to us that these three background subjects, science, art history and painting, are essential to the training of a restorer either as pre-entry qualifications or as part of the main course.

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43. It is interesting in this connection that even restorers who have themselves been trained as apprentices, and those who are themselves giving such a training to their assistants, admit that there is a risk in a pure apprenticeship training that these background subjects might be neglected. Herr Wolters, head of the Doerner Institute in Munich, which is not a training institute but accepts volunteer trainees, regretted, on their behalf, the lack of such instruction in the institute, although he did not see any possibility of supplying it. A good master can direct his apprentices's reading and study of works of art, and encourage him to attend art or science classes as necessary, but this leaves too much to the enterprise of the student and to the teaching predilections of the master to be recommended as ideal.

44. We consider, therefore, that there is a need in this country for a centre in which the theoretical and background instruction is carried out; and in recommending this we would urge that very serious consideration be given to the form of such instruction. We are assured, for instance, that a restorer of paintings and drawings does not need a deep knowledge of science; he needs only to be able to understand the implications of what the scientists, and the equipment at their disposal, can tell him. But in order to acquire this moderate but specialised understanding, the student, especially one who has had little previous interest in science, needs a course expressly devised by experienced conservators, scientists and craftsmen, to show at all points the relevance of the scientific principle under consideration to the work of conservation. No such training exists at present. Such a course would provide the restorer student with all he needs to know in order to check his own instinct and judgment against scientifically ascertainable fact; but such a course could also lead, in the case of the more scientifically inclined student, to more advanced studies which it should be possible for him to take in some other institution. Similarly, the art history taught in the courses available at the centre which we consider desirable would be to a great extent a history of painting technique and materials, and would be closely allied to the study of painting itself, but here, also, one would hope, there would be the possibility of proceeding to particular studies elsewhere for those who wished to enlarge their knowledge.

45. These considerations point to the advantage of close association with a university or other institute of further education; and to the inevitable dependence of a Central Conservation Institute on the help and cooperation of the National Gallery Scientific Department (paragraph 28) and of the Courtauld Institute (paragraph 87).

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Supplementary instruction for trainees in other studios

46. If, as we recommend, an institute is established which provides a carefully prepared scheme of special instruction in the scientific and art-historical background of conservation, and also in the theory of conservation, we would also recommend that the lectures and seminars in which such instruction would be given should not be confined to the few students in training at the Institute. The institute would be performing an important function if it were able to supply, at any rate for those within reach, the instruction which, as shown in paragraph 44, is missing in the studios of the national museums and galleries. We would recommend also that such instruction should be made available in concentrated courses of two or three weeks or more to supplement the apprenticeships of those who are serving in other parts of the country. No doubt the Institute would also wish to satisfy the inevitable demand for special advanced or refresher courses for British and foreign restorers.

Instruction for curators and art historians

47. We have been impressed by the need, brought to our notice by several of our witnesses, for authoritative courses in conservation for those who do not intend to become restorers themselves, as an essential element in museum studies or in art history. This need could well be met by the Institute we have in mind.

Training in a variety of media

48. We have also consulted our witnesses as to the need for the training of restorers of paintings and drawings to include experience of other arts and crafts, and the desirability of a training institution which covers, not merely murals and polychrome wooden sculpture, the conservation of which comes so close to that of easel paintings as to be almost inevitably undertaken by those trained in work on easel paintings, but also stone and metal sculpture, ceramics, textiles, furniture and the rest. Our witnesses agree that, from the point of view of the restorer of paintings and drawings there is little or no advantage in a training which devotes time to work on other media. We have seen conservation courses designed on the principle that students take up their training with a general interest in conservation and decide on their preferred branch after a year or two years training; but although such students undoubtedly exist, we would not expect them to be those who ultimately become restorers of paintings. Restorers of paintings, we would suppose, would normally be drawn to this work, whatever their former experience, by a basic interest in painting which later concentrates itself on conservation.

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49. We do not therefore consider it necessary for the training of restorers of paintings and drawings that it should be carried out in the same institute as training in the conservation of other works of art. We would not, however, wish to restrict the Institute's activities in any way, especially as regards research, records and publication; and we recognise that it may prove convenient, if an institute of conservation is set up, for it to add also to the variety of media in which restoration is carried out and training given. Much of the background instruction, and much of the scientific equipment in the Institute (which, even with the cooperation of the National Gallery Scientific Department in more advanced research and analysis, would be needed for day-to-day work) could economically be shared. We would therefore not exclude the possibility of widening the Institute's scope, which would parallel the development which has taken place in Brussels; but we put it on record here that purely in order to enrich the training of restorers of paintings and drawings, we do not consider the inclusion of works of art in other media necessary, and would not recommend it as an immediate step.

Combination of Apprenticeship and Theoretical Training

50. There is general agreement among our witnesses that an ideal training programme would provide for practical training by the apprenticeship method and also for the theoretical and background instruction in the form of lectures, demonstrations and practical classes. Whether these are given simultaneously or in succession and whether the whole training or even the whole of the advanced training, is given at one place or many, seems often to be a matter of choice or opportunity; and, as can be seen from the analysis of the courses and required qualifications of establishments where training is given (Appendix C), there is considerable variety of practice as regards the chronological pattern of these essential elements. But certain considerations relating to the training of the restorer of paintings and drawings as distinct from either the scientist professionally employed in conservation or the conservator of archaeological or other works of art, have emerged in the course of our study; the most important of these is the length and unity of the apprenticeship period, which in our view, should be not less than four consecutive years, preferably in the same studio, immediately before the issue of a certificate.

51. Most restorers of paintings are attracted to this work only some years after leaving school, so that the earlier part of their further education often has nothing to do with the technique of

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restoration; and this tendency, which is likely to continue, has advantages in broadening the culture of the restorer. Once specialisation has begun, however, it is normal for the practical and theoretical training to be carried out simultaneously; and for the simpler processes as well as such background work as the copying of paintings, and the study of science and art history, to be taught from the beginning. This we would consider correct, although some witnesses have spoken to us of the danger of allowing any of the technical skills to be learnt until the student has given adequate evidence of his vocation. We have even been told of a proposed course of training which, in order to avoid the risk of launching half-trained restorers, would begin with three years of formal instruction in art and art history, in which no practical training in restoration would be provided until specialisation in the fourth and fifth years. It is true, as all agree, that the half-trained restorer can be a most dangerous enemy to paintings but we consider that the proper way of meeting the danger of half-trained restorers operating independently is not by deferring the technical training but by instituting a generally accepted award for those who are properly trained (see paragraph 55). The importance of craftsmanship is so cardinal that we are convinced that it should be cultivated from the beginning.

52. This is the method of most of those courses which take place in institutes of conservation. Those which are held in institutes primarily devoted to training, Stuttgart, the Institute of Fine Art, New York University and Cooperstown, are able to provide practical instruction only on paintings specially obtained for the purpose; consequently the true apprenticeship, in which the students work beside expert restorers engaged on paintings of quality, must be taken in some other institution during the vacations or for longer periods, sandwiched between sections of the course, or as a final year. Thus the Stuttgart Institut requires three years work in one or more conservation studios before entry to the main course, and in the United States the award of a certificate requires a penultimate year (at the Conservation Centre, New York) or final year (at Cooperstown) of 'internship' at another institution. In our view the separation of the training, as such, from the apprenticeship is an expedient made necessary by circumstances; and in the case of restorers of paintings it means that the student begins his apprenticeship before he has had time to be of use to the receiving institution, and leaves before he has had time to create the confidence between his master and himself which would enable him to profit fully from

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the apprenticeship. This is not equally true of the scientist, or of the conservator of objects other than paintings. Moreover, like all forms of training, this fragmented programme can, given outstanding masters and outstanding students, and some further years of experience, ultimately produce first-class restorers even of paintings. But it is not what we would recommend as the ideal course qualifying a student for a certificate of proficiency in the restoration of paintings and drawings.

53. Our visits have confirmed our view that the ideal specialised training must take place over at least four years in an institute of conservation, with the student, as soon as he can do so without danger, performing increasingly difficult tasks in close association with a skilled restorer who is himself working on varied and high quality material; and that his theoretical and background instruction should be obtained during the same period.

Pattern of Training

54. The kind of scheme which emerges from the foregoing considerations in the light of all the evidence is:

(a) *Basic Course*

For the period before entry to the Advanced Course, there is general agreement that a minimum of three years satisfactory education resulting either in a university degree in any subject, a Dip.A.D. or any other equivalent, or a period in a workshop, would be acceptable providing in all cases that the student is able to satisfy the authorities by interview and appropriate tests as to his natural aptitude for the work. But it is generally felt that some specialised conservation training also should be available before entry to the Advanced Course for those who are attracted to this profession at school-leaving age. Such specialised training, which would probably consist of a qualifying year corresponding to the foundation year at an art school followed by a regular two year course of practical and theoretical work, might reasonably exempt the student from one or perhaps two years of the advanced course.

(b) *Advanced Course*

For those with no previous specialised training, this should be a five years course. The first year would probably be an introduction to the techniques involved, from which those who attended the basic course at (a) above would automatically be exempt on production of a certificate of satisfactory attendance. The four

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remaining years would be primarily an apprenticeship, accompanied by lectures and classes, not necessarily all in the same institution as the apprenticeship, on the theory and history of conservation and on background subjects.

Award

55. The importance of a generally recognised award has been put to us very strongly and we believe it to be a matter of importance. In the first place, as we have pointed out in paragraph 22 it is necessary to public employers, to private clients and to the safety of the works of art themselves that the restorer's qualifications should be recognisable in order that those who do not possess them may not be encouraged to operate. Secondly, the uncertain status, and consequently the inadequate remuneration, of restorers in the public service is a matter of concern to the profession and is thought to be one of the causes of their shortage. Some witnesses have suggested that the award of a postgraduate degree would be the right remedy for this situation; but it is our view that for a profession so preponderantly practical, and with so high a proportion of craft as against academic learning, a respected professional award carrying the minimum assurance of five years of specialised training, as part of at least seven years of further education in all, comparable, as we have pointed out in paragraph 34, with those of medicine, architecture and law, would be more appropriate, and, once recognised, equally honourable.

56. In a profession of such comparatively small numbers a recognised award is something which must take time to establish. It would be our recommendation that this award should, in the first place, be the certificate given by the Central Conservation Institute to its own students at the end of the advanced course; but it would be our hope that, on suitable evidence of skill and experience, the Institute would also award it externally to those trained in other studios, such as those of the national museums and galleries, and that it would come to be regarded by the profession as the official award.

Student Finance

57. It would seem desirable that the training should be available to students without payment if necessary and should qualify them for maintenance. As regards the Basic Course, local education authority grants would normally be available, providing the institute in which the course is given is recognised as an institute of further education.

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In the Advanced Course for students of postgraduate standing, we would expect that some students would be able to claim their maintenance by State Bursaries from the Department of Education and Science; others might be employed as salaried trainees; others might receive specially endowed scholarships.

4. Training already available in the U.K.

Training in the Conservation of Paintings

58. We give here a brief description of the provision of training in conservation of paintings and drawings in this country today; further details of the courses are given in Appendix C.

(a) *Apprenticeships*

(1) *Public Institutions*

The National Gallery, Tate Gallery, Victoria and Albert Museum, National Maritime Museum, National Galleries of Scotland, Bristol City Art Gallery and others, train their assistants as necessary, in their own studios. The length of the apprenticeship in these institutions cannot be exactly determined, since it varies with the amount of the trainee's previous experience. It may be anything between three and six years; but it is a continuing process during which the trainee, who receives a salary throughout from the institution concerned, gradually becomes useful to his teacher. The moment at which full responsibility is attained depends on the trainee's ability, on staff vacancies and on the work involved, and cannot be exactly fixed.

Students at the National Gallery, Tate Gallery, and Victoria and Albert Museum under the Government Temporary Training Scheme (see paragraph 24) receive the same training as those training for service in the same institution, but their training is limited to four years for a student at 20-25 years of age. They also receive a salary as though they were members of the establishment, since the DES does not recognise the museums and galleries as 'institutions of further education' for training purposes, and the students are therefore not eligible for DES or LEA grants.

(2) *Independent Restorers*

It is normal for independent restorers to train their assistants in much the same way as the institutions mentioned above, paying them a salary during training.

(b) *Courses for Students*

(1) *The Courtauld Institute – Technology Department*

A two-year postgraduate course leading to a certificate of the Institute is given for two or at most three students a year in the Technology Department of the Courtauld Institute. The Institute was founded in 1931 as an institute of the University of London for the study of the history of European art.

The Technology Department was founded in 1933. Among its facilities is a laboratory for the conservation and scientific investigation of works of art. During the pre-war years postgraduate research was its main activity; and when the Courtauld Institute re-opened after the war students were accepted for a regular training course in the conservation and scientific investigation of paintings. The students in the Technology Department have access to all of the Institute's facilities, the library, photographic collections and the slide library.

(2) *Gateshead Technical College*

A two-year course started at the Shipley Art Gallery in 1967 with three students. It has been transferred to Gateshead Technical College. The College unlike the Gallery is recognised by the DES as an institute of further education and thus is able to obtain LEA grants for its students. Teachers and students work on material from the Shipley Art Gallery and other collections in the locality, in close relation with the Gallery. Students may be school leavers or graduates. Neither the number of staff nor the accommodation, nor the supply of first-class material to work on, is considered by the College authorities to be adequate to provide the advanced training which would lead to a final certificate of proficiency (see paragraph 55).

Students at the end of their course are examined by an external examiner from the Courtauld Institute of Art and they receive a certificate from the Technical College, but they are expected to spend one or two more years at a more advanced course or under supervision at some museum or gallery before reaching the standard of a final qualification. A third year is now proposed, not as a final year qualifying for an award, but as a preliminary year giving an opportunity for classes in the necessary back-

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ground subjects, especially art history, and for the elimination of unsuitable students.

(3) *Independent Restorers*

We have not enquired into any arrangements which individual independent restorers may make for accepting fee-paying students.

Training on the Conservation of Drawings

59. Paper conservation forms part of the course at the Courtauld Institute (paragraph 58 (b) (1) above); and part of the syllabus of a two-year course in archive preservation and repair which was started at the Camberwell School of Arts and Crafts in 1970 would be relevant to the conservation of drawings. The Victoria and Albert Museum's share in the Government Temporary Training Scheme also includes a four-year traineeship in the conservation of water-colours. The Print Room at the British Museum accepts students from time to time for short periods in the conservation workshop attached to that department.

Training in the Conservation of Mural Paintings

60. There is no formal course of training in the conservation of mural paintings in the United Kingdom. The Department of the Environment trains its own restorers as do the private restorers engaged on this work. The Institute of Archaeology, University of London, advises on the conservation of mural paintings from the archaeological point of view. The three-month summer course for foreigners run by the Istituto Centrale del Restauro in Rome, for the Rome Centre, is open to British students of conservation.

Award of Proficiency

61. At present, on completion of his training at any of the courses described above, the trainee has nothing but the reputation of his place of training as a general recommendation – and this is not the case only in this country. There is, of course, no better recommendation to a well informed prospective employer; but the owners of paintings in need of restoration ought to be able to turn to a recognised qualification as protection against untrained practitioners.

62. For the professional restorer of several years standing a valuable international mark of respect from his fellow restorers is fellowship of the International Institute of Conservation. This institute has considered suggestions that it should give some more formal

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certificate of proficiency at a less advanced stage of the restorer's career, but has not seen its way to do so.

63. For conservators starting on a career in museums and galleries, the Museums Association* would be prepared to award its Conservation Certificate on the completion of an approved training in the conservation of works of art (with final examination and recognised award), and after a minimum period of full-time work on conservation in a museum or gallery. At present, however, it awards its Conservation Certificate, in conjunction with the City and Guilds of London Institute, only to conservators of archaeological objects, since this is the only branch of conservation in which the approved training, with examination and recognised award, is given. The training is a two-year course at the Institute of Archaeology, London University; and the Museums Association Certificate is awarded to holders of the Institute's Certificate, provided they also have two years of full-time conservation service in a museum. The Museums Association has been active in pressing for the establishment of a similar advanced course in the conservation of paintings.

Student Finance

64. Neither the museums and galleries nor any independent restorers' courses are regarded by the DES as institutions of further education for the purpose of either local authority grants or Government studentships. The Courtauld Institute, as part of London University, and the Gateshead Technical College are so recognised and students accepted by them are eligible for discretionary grants. At present therefore, except for these two institutions, all students of conservation in this country must be trained either at their own expense or at that of their employer or teacher.

* The official body of the museum profession, with representation of the museum authorities as well as of the staff.

5. Conclusions

Lack of a complete Advanced Course

65. We have compared the training available today in the United Kingdom as described in Chapter 4, with the scheme of desirable training which emerged from the evidence which is summarised towards the end of Chapter 3 (paragraph 54) in order to estimate the extent to which recognised training, as distinct from the unknown possibilities of private teaching and apprenticeship to independent restorers, is at present available to cover the eight years from school-leaving to the final award. This comparison shows up the lack of a standard advanced course of mixed apprenticeship and theoretical instruction, to which a basic course could lead, and which would itself lead to a final award. Such a course is vitally needed, in our view, not only to provide a long-term substitute for the Government Temporary Training Scheme (paragraph 24) and to increase, as necessary, the number of students in training, but to provide a link between the present diverse centres of training and supplement their facilities and to establish a recognisable final award which could be made available externally, on suitable evidence of skill and experience, to students trained in these other courses (paragraph 56).

Numbers involved

66. We take it as a certainty that more restorers must be trained in addition to those who, whether in the public institutions or in independent studios, are being trained by restorers with whom they intend to work. How many more, however, cannot be estimated with any certainty. The number must, at any rate, be sufficient to replace, on a permanent basis, the total of nine restorers of paintings and drawings covered by the Government Temporary Training Scheme. Correlated with the proposed five year course this would mean two, or three additional qualified restorers a year from the end of the first complete five year course. The need may well prove to be greater than this, but it would not be realistic to count on immediately securing the services as master restorers of more than the number of fully trained restorers needed to undertake this amount of additional training without hindering the work on which they are now

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engaged. This small addition, however, would represent some five per cent of the whole force of trained restorers working in public institutions. We do not believe that it would be realistic to attempt training on a substantially larger scale at the outset.

Craftsmen

67. Some witnesses have pointed out that the shortage of craftsmen (museum technician grades) is as serious as the shortage of qualified restorers themselves. We do not consider, however, that this shortage can be remedied by the very specialised type of course which we envisage for the Conservation Institute, though we would expect the Institute, like other conservation studios, to train and teach its own craftsmen and technicians.

Basic Course

68. It can be seen from Chapter 4 that Gateshead Technical College provides a basic two-year course, for which an additional foundation year is proposed, for four or five students a year. These students, whether school leavers or graduates (or the equivalent), qualify for LEA grants. On completion of the course, students receive a certificate and qualify for advanced training under supervision in a conservation studio elsewhere.

69. At present, however, there is no advanced course in the country to which holders of the Gateshead certificate can expect to proceed. We would therefore advise great caution in setting up any more basic courses before it is certain that the provision of advanced training is sufficient to absorb not only the students who may be trained in the proposed new courses, but also those who will come to the advanced course with equally valid, though less specialised, qualifications from art schools, universities or with other experience. It is true that individual students leaving the course at Gateshead have, in fact, been accepted for further training at some of the national museums and galleries, the Ministry of the Environment and Stuttgart, but the need for a more regular and more assured advanced training course does not rest only on the prospects of individual students. The policy governing the basic training course must depend to a great extent upon the nature of the advanced course to which it leads; consequently an authoritative central course of advanced training seems to us essential to the development of the basic course.

70. Only when such an advanced course is in being, therefore, would we consider that the time had come to increase the provision

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of basic training by setting up one or more similar courses in technical colleges elsewhere. In such a development, the college should be closely associated, as at Gateshead, with a good local gallery and within reach of the specialist facilities of a University.

Advanced Course

71. The national museums and galleries, and some of those in the regions, provide advanced training by accepting trainees for their own succession and expansion needs. Apart from the Government Temporary Training Scheme (paragraph 24), however, these institutions do not undertake to train for other than their own service (although inevitably some trainees leave to work elsewhere); and since the museums and galleries participating in the temporary scheme cannot continue to take even the four or five extra trainees each to which it commits them without curtailing their own activities, this scheme must be replaced by some permanent alternative. Such an alternative we have set out to find.

Possible extension of the Government Temporary Training Scheme

72. Since, however, we have been very conscious of the need for economy not only in expenditure but also in the use of the few fully trained restorers who would have to carry out whatever additional training we recommended; since, moreover, the training in the museum and gallery conservation departments was represented to us as being attended by advantages unobtainable in any other existing institution (paragraph 35); and since the numbers involved, as shown above (paragraph 66) are not large; we have felt bound to consider whether a simple extension of the temporary scheme on a permanent basis might not meet the need.

73. The scheme might be extended by bringing other institutions into the scheme and arranging for the acceptance of trainees on the same terms, at the National Maritime Museum, the National Galleries of Scotland, the Prints and Drawings Department of the British Museum, Bristol City Art Gallery and some others, if these institutions were willing; alternatively it might be extended by increasing the numbers accepted at the three national institutions now involved; or by some combination of the two.

74. We saw objections to this solution, however, in whichever way it was carried out. To increase the number of institutions taking part in the scheme would only perpetuate the present situation in which several separate autonomous and unconnected places give their own

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individual forms of training, often excellent, but whose quality and whose awards, if awards are made, cannot be standardised. In a world of controversy, moreover, the multiplication of such small, closed centres is likely to foster unnecessary doctrinal differences; and these institutions provide their trainees with no regular background or technical instruction.

75. Moreover, if the present temporary scheme were to continue restricted to the three national institutions at which it now operates, it has been represented to us that the training could not be given to any more than are having it now without losing the advantages it has at present. The present staff and accommodation of these institutions would not be sufficient to allow them to increase their annual intake of trainees for a four-year course; indeed, we have been told by the National Gallery that even with the present numbers they have regretfully had to suspend for the duration of the scheme the facilities which they had formerly made available to restorers from abroad for short periods of study in the Gallery. The staff and accommodation within the studios of the national institutions could no doubt be increased to accommodate more students; but the character of the studios would in that case be changed from that of workshops solely concerned with the welfare of the galleries' paintings to that of a national training establishment with responsibilities to the students. Such obligations could only be satisfactorily fulfilled by the institution of a complete course of mixed theoretical and practical instruction, and the training would lose its present character of apprenticeship, and the institutions concerned would consider, in our view rightly, the provision of such training to be outside their province. One of our main objects in considering this solution was the possibility of adding to the number of trainees without removing trained restorers from their important conservation work to a separate institution. But representatives of the national museums and galleries have themselves expressed the view that the distracting presence of additional trainees would cause them more difficulty than even the full-time removal of one trained restorer from their staff.

A Central Institute of Conservation

76. After considering these possibilities we are convinced that what is needed is not just more training. What is needed is rather a centre by the existence of which the training now available in disconnected studios may be drawn together and unified. We conclude that such a centre must be an institution which is itself providing the complete

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advanced training, practical as well as theoretic; and that it must therefore be an institution in which conservation of important works of art is carried on by first-class restorers for its own sake. It also follows that this must be the central point of reference, study and authority, the Central Institute of Conservation, with a library, archive, photographic records and publications, of which we indicated the urgent need at the outset of our enquiry (paragraph 25). This therefore is the kind of institution which we recommend.

77. We are convinced of the need of such an institute, for the preservation and dissemination of knowledge; and we have no doubt of the practical value which it would have for restorers and for curators generally. We are also convinced that institutions and private collectors alike would make ready use of the conservation service it would provide. We should expect it, as a conservation studio, to have equal status with the conservation departments of the national institutions, and we would not expect it to be short of work. Indeed it would probably have to use a system of priorities in accepting work, based on its importance and urgency, as does the Brussels Institute.

Location

78. We have naturally sought to decentralise the location of the Conservation Institute but were influenced by several factors; the necessity for continuous contact with the curatorial staffs of the national institutions, the presence of restorers who might be employed as teachers, the presence of an adequate supply of high quality material, the availability of specialist scientific expertise and equipment and the presence of a well-established art history library. These considerations led the Committee to the conclusion that Central London must be the location, and indeed that convenient contact with the National Gallery Scientific Department localised still more closely the area appropriate for a Conservation Institute.

Relation of the Central Institute to a National Museum or Gallery

79. Here, again, we have thought it right to consider whether, in its own interest or in that of economy, it should not be more or less closely attached to some existing institution; and we again considered the conservation departments of the national institutions. Such an attachment might enable the students to profit, not only from the work in progress within the Conservation Institute itself, but also from the work which would be continually taking place in

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the conservation department of the museum or gallery on paintings of high quality and wide variety from its own collection; moreover, without disturbing the work of the museum or gallery, it might be possible for the Institute to share some of its administrative facilities, equipment, library etc. The established reputation of the museum or gallery also might encourage owners to entrust material to the new Institute. After consideration, however, it became plain that any true administrative attachment would be open to the same objections of *changed responsibilities and divided interests* that we saw to the extension of the temporary training scheme. We were also inclined to doubt whether the Central Institute which we had in mind ought to be labelled as it inevitably would be, with the particular theories and philosophy belonging to a given museum or gallery. We believe, therefore, that the Institute should not be administratively attached to a museum or gallery.

80. At the same time we regard the cooperation and interest of the national museums and galleries as a matter of the first importance to the Central Institute. We conceive that the Institute would wish them to be associated, by representation on its governing body or otherwise, with its policy; and we would above all hope that the national institutions would make their conservation departments as accessible as possible to its students, as well as to those who would use the Institute for research and other purposes. These considerations would have a bearing on the siting of such an institute. If, for instance, the addition promised for the future to the Tate Gallery site should prove to afford space, our objection to administrative attachment would certainly not extend to sharing a site. On the other hand the National Maritime Museum, whose physical capacity for expansion of its conservation training, given the necessary increase in staff, is greater at present than that of the National or Tate Galleries, would seem to us too remote from the centres of art and conservation in London for us to consider it a suitable location for a central institute.

Association of the Central Institute with an Educational Institution

81. We have also considered the possibility of attaching the Institute to an existing educational establishment; a polytechnic, an art school, or a university. The immediate advantage of such a proposal, besides the economical use of common administrative and other services, would clearly be automatic eligibility of the students for Government maintenance grants. Against it, in the case of all educational establishments whose expenditure has ultimately to be justifi-

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fied by productivity in terms of pupil/teacher ratio and such considerations, is the extremely small number of students for whom the Institute's main course would be intended. If, as some witnesses have suggested, the practical training were to be separated from the theoretical and the proposed institute were only to provide instruction in art history, art and science, and in the theory and history of conservation, in class and lecture, for students who were either on release from apprenticeship in some studio or conservation department, or were taking a one- or two-year course before or after, or between periods of practical training, such an institute could well justify itself as part of a polytechnic. In such an instance, there is little doubt that the needs of such a training institute in the matter of an archive, library and equipment would be met. But although we would recommend that the Institute's theoretical and background instruction should eventually be made available on appropriate terms to supplement apprenticeships served elsewhere, we do not believe that an institute could perform the co-ordinating and guiding functions which we envisage for it within the total training facilities of the country, unless it was itself carrying out actual conservation work of the highest quality, and training students by apprenticeship to carry out such work. The main training course in such an institute must, in our view, be the four- or five-year course, for about three students a year, or fifteen in all, at any rate at the beginning, in a 1/1 or 2/1 student/teacher proportion, and we do not think this appropriate to an educational institution.

Attachment to a Polytechnic

82. As there are no art schools within the four Inner London polytechnics we have considered the possibility of establishing the institute as a course in the Humanities Department of the Thames Polytechnic which would afford, in immediate proximity, first-class scientists and scientific equipment. Here, however, there would be no material for conservation work, as at a museum or gallery, nor any special inducement to owners and curators to entrust their works of art for use as study material, and, like the National Maritime Museum, it would be at a distance from the other centres of art and conservation in London. For these reasons and those in the preceding paragraph, we cannot recommend this as a solution. Even if the expense of its non-teaching activities, including its conservation work, could be carried for a time by a sympathetic stretching of the rules governing expenditure on its activities, we believe that the need to comply with these rules would, before long, reduce it to a purely training establishment.

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Attachment to an Art School

83. It might seem that an art school would be a more likely base for a conservation institute than a polytechnic. The fact that, despite the changes in outlook and technique which have taken place in painting and drawing as they are studied in art schools today, painters and restorers are basically interested in the same craft suggests that this would be a suitable activity for an art school. Here again, however, is the objection of the Institute's student/teacher ratio, which could not be justified in an art school leading to Dip.AD; and there is still the same objection of principle to attaching to an institution whose primary function must continue to be educational the responsibility for actual conservation work on first-class material.

University Art Schools

84. The Royal College of Art and the Slade School are, however, in a special category, being University bodies, the Royal College as the equivalent of an independent University, and the Slade as part of University College. A Conservation Institute included within the framework of a university might qualify, at least as well as do certain University museums, for financial support from the UGC. But, although we have given this possibility serious consideration and have discussed the matter with Sir Robin Darwin, and although the position of the Royal College in proximity both to the Victoria and Albert Museum and to the Imperial College would be important advantages, we still feel that, even in a university, association with an art school, whose activities were solely connected with teaching, would not be favourable to the Central Conservation Institute's non-teaching activities in the practice of restoration.

Attachment to the Courtauld Institute

85. The advantages of attaching the Central Institute of Conservation in some way to the Courtauld Institute (also an Institute of London University) would be considerably more compelling. As shown in Chapter 4, the Technology Department of the Institute already has a post-graduate course of mixed practical and theoretical training, for two or three students a year, and thus, like the conservation departments of the national institutions, goes some way to cover the needs of the advanced course we have recommended as desirable. This course is at present one of only two years, and this is too short a period for a recognised final award without a further period of apprenticeship in a studio or conservation department. But the course has been in existence, with some interruptions, since 1946; and the Courtauld Institute's collections are of the

highest quality and of great variety. In actual restoration, and especially in the matter of scientific investigation and advice, the Technology Department does much work for other public and private collections, and provided this service before any other public institution in this country.

86. If the Courtauld Institute Technology Department could be expanded into an establishment of the size and scope of the institute we have in mind, with staff and buildings adequate to the activities which we recommend for it, it would seem to us in principle a most suitable nucleus for a Central Conservation Institute which would then be a separate institute of London University, closely associated with the Courtauld Institute, and although it would share its library and other facilities it would nevertheless be more than a department of it. It would hardly be possible to investigate realistically the provision of space which is likely to be made available to the Courtauld Institute within the future building plans for London University, in respect of a hypothetical scheme, but it seems to us improbable that the present plans would admit expansion on the scale required for the purposes of a Conservation Institute in the near future. Certainly the expansion of the Courtauld Institute in Portman Square which is within sight would not be adequate.

87. In the circumstances, therefore, we consider it more realistic to assume that the Central Conservation Institute which we believe to be necessary is entirely independent of any other institution. We would wish merely to note here our recognition of the kinship between the institute which we have under consideration and the Courtauld Institute, and of the suitability of a Central Conservation Institute to a university frame if, in the course of time, London University should be disposed to adopt it. It has been a normal process that independent institutions should be adopted by universities – the Warburg Institute and Percival David Foundation were so adopted – and this process continues. But we believe that the institute which we recommend should be set up as a separate project, and that its initial testing period should be passed unhampered by the immediately conflicting demands of other schemes within the university itself, which would be inevitable if it were to start its life as part of the departmental structure of any university.

Constitution of the Institute

88. For our summary of recommendations and estimate of cost in the next chapter, therefore, we have assumed that the Institute will

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be independent of any other organisation; and that it will be constituted and supported by the Government. As regards its constitution we can only give an indication of the kind of body we envisage and of the importance which we attach to the representation of the major museums and galleries, of the International Institute of Conservation and of the Museums Association, on whatever Board or Council is responsible for its management.

Staff of the Institute

89. As regards the staff of the Institute, the precise needs will be for the governing authorities and director to decide, but we have assumed for our estimate of cost, which applies only to the early years and initial expenses, the minimum full-time staff of restorers, scientists, technicians and craftsmen necessary to enable the Institute to absorb two or three trainees a year for a five-year course without over-crowding or impeding the work of restoration, together with the staff initially needed to build up the Institute's library, archives and other research and publication activities. In addition to this full-time staff, it would be necessary for the Institute to call upon a panel of specialists in the scientific and art-historical aspects of conservation, for lectures and classes.

90. We also envisage a panel of restorers of note, who would be prepared to come to work, on their own material or on that of the Institute, within the Institute, for certain periods. It seems to us that at any rate during its formative stages, it is only by some such means that the Institute could make use of the best talent available, with the least possible loss of the master-restorer's time.

Location and Space

91. The assumption made in the two preceding paragraphs that visiting restorers and other specialists would be readily available for part-time teaching would imply, as we have already indicated in paragraph 78, that the Institute would be situated in Central London. We also assume the availability, for art history studies, of the art libraries in Central London, especially those of the Victoria and Albert Museum and the Courtauld Institute of Art; and we are thus able, in our estimate of the accommodation needed, to limit the Institute's own library to books and periodicals on the technique of conservation, some three thousand volumes, which could be accommodated in a moderate sized room which could do duty also as lecture room for about thirty people and as the board room. Similarly, our estimate of expenditure on scientific equipment is confined

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to the comparatively modest microscopes, X-ray equipment and photographic apparatus needed in the Institute itself on the supposition that the National Gallery Scientific Department will be at hand for consultation and help.

92. Our estimate of cost is thus based on the advantages, which we consider essential to the work of the Institute, of a location in Central London. We would have wished to include in our estimate, under the head of initial expenditure, a figure for 15,000 square feet of well-lit accommodation in Central London, comparable, perhaps, to a house in Carlton House Terrace, but the cost of purchase and adaption even in the limited area we consider suitable would vary so much that we can hardly reach a realistic estimate. Moreover, we hope that it may prove possible to find this accommodation in premises, or at least on a site, already in the possession of the Government, and to reduce expenditure on the building in some such way as we have indicated in paragraph 80. We have not therefore included a figure for this item.

Income

93. We have also found great difficulty in estimating the Institute's income. The rate of growth cannot be foreseen either in its student numbers or in its restoration and advisory work. But we do not envisage nominal fees in either case; and we would expect that after the first five years the charges for services and tuition fees would go far to offset the annual cost of the Institute.

6. Recommendations

94. The following is a summary of the recommendations made or implied in the preceding chapters:

I. *Central Conservation Institute of Paintings and Drawings*

(a) that the Government should undertake, as a national responsibility, the establishment of a Central Conservation Institute (paragraphs 9, 25, 76, 77);

(b) that this Institute should be charged with the following functions:

(i) conservation and restoration of paintings and drawings in public and private collections, supplementing but not replacing the conservation and scientific departments in public museums and galleries;

(ii) training in the conservation of paintings (including mural paintings) and drawings;

(iii) research into the scientific, technical and historical problems and implications of conservation, and maintenance of records of conservation work;

(iv) dissemination of information concerning conservation by means of lectures and publications, the provision of a technical library and facilities for discussion and in such other ways as may seem appropriate;

(c) that this Institute should be situated in Central London (paragraph 78);

(d) that this Institute should be closely associated, by representation on its governing body and in other ways, with the national museums and galleries and other bodies carrying out or concerned with conservation (paragraph 88);

(e) that this Institute should be financed, as to its recurrent expenses by:

(i) a Government grant-in-aid;

(ii) earned income from the restoration of paintings and drawings; and from investigation and research undertaken, and advice given, on their conservation;

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- (iii) earned income from tuition fees;
- (iv) private benefactions towards the endowment of scholarships and for other purposes;

and as to the initial cost of setting up, by:

- (i) a Government grant-in-aid;
- (ii) such contributions as may be obtained from private sources and charitable trusts.

II. *Training in the Conservation of Paintings and Drawings*

(a) that, in the exercise of its functions at I (b) (ii) above, the Conservation Institute should provide an advanced course of training for restorers, of up to five years duration (paragraphs 33 and 53); and that this course should:

(i) combine practical and theoretic instruction, the students taking part, to the extent that they are able to do so, in the conservation and restoration work of the Institute, as assistants to the Institute's staff of restorers (paragraph 33); and that special thought be given to the form of background and theoretic instruction which should be available in lectures and classes (paragraph 44);

(ii) require, as entry qualification, a minimum of three years previous experience after leaving school which might include the attainment of a university degree in either science or arts; or the equivalent, for instance Dip. A.D.; or relevant workshop experience (paragraph 54);

(iii) recognise, as specialised experience entitling the student to exemption from the first year of the course, a certificate from the basic course in conservation, notably the course provided by Gateshead Technical College; or other experience regarded by the Institute as specialised (paragraph 54);

(iv) not normally be available to applicants of less than twenty or more than twenty-five years of age (paragraph 33); or initially to more than three students in one year (paragraph 66);

(b) that the Institute should provide such other training as its authorities may think fit, including:

(i) training for restorers, technicians or craftsmen for employment in the Institute itself;

(ii) supplementary instruction in science, art history, and the theory of conservation for trainees in other conservation studios lacking the facilities for this form of instruction (paragraph 46);

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- (iii) shorter advanced and refresher courses open to British and foreign restorers (paragraph 46);
- (iv) lectures and classes on the implications of conservation, the technique of painting and history of materials for curators and art historians (paragraph 47);
- (c) that the Institute should award a certificate:
 - (i) on the satisfactory completion of its four/five years advanced course, after such tests of proficiency as may be considered appropriate (paragraph 55);
 - (ii) externally, on the recommendation of the training authorities and after the appropriate tests of proficiency, to students or trainees from other conservation studios (paragraph 56);
- (d) that encouragement should be given to such other institutions as have the capacity to accept students for advanced training (paragraphs 58 (a) (1) and (b) (1), and 71);
- (e) that, provided sufficient facilities for advanced training are known to exist, as and when additional basic training becomes necessary, a further course of basic training should be started at a technical college closely associated with a good local gallery and within reach of the specialist facilities of a university (paragraph 70);
- (f) that students for the advanced course should be supported as appropriate in individual cases either by Department of Education and Science State Bursaries, or by privately financed scholarships vested in the Institute, or towards the end of their training as salaried trainees. We envisage that the students of its other courses would be financed as appropriate by their own employers, by scholarships or otherwise at the discretion of the Institute's authorities (paragraph 57).

Estimates of cost

95. The following is a tentative estimate of the cost of the recommendations made in the preceding paragraph. The assumptions of location, size of building, staff and equipment on which these are based are indicated in paragraphs 89-91.

I. Capital outlay

- (a) *building* (see paragraph 92)
capital cost of accommodation of 15,000 square feet in Central London

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(b) <i>equipment and materials</i> conservation studios, workshops, photographic studio and library	£100,000
(c) <i>general furnishing of the Institute</i>	£80,000

II. *Recurrent costs*

(a) <i>rates</i> (calculated at .634 of a £1 per square foot)	£10,000 p.a.
(b) <i>gas, electricity and water</i> (calculated at .630 of a £1 per square foot)	£10,000 p.a.

(c) <i>full-time staff</i>	
director	
deputy director	
2 restorers grade I	
2 assistant restorers grade I	
1 principal scientific officer	
1 senior experimental officer	
2 senior conservation officers	
3 assistant conservation officers	
1 senior photographer	
1 photographer	
1 registrar	
1 librarian, executive officer grade	
1 senior personal secretary	
2 clerical officers	
1 porter, attendant grade 4	
1 nightwatchman, attendant grade 4	
1 carpenter, museum technician grade	
3 cleaners	

part-time staff would also be employed bringing
the cost per annum to £70,000

(d) materials, upkeep of the library, photographic and documentation archives per annum	£5,000
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III. *Income* (see paragraph 93)

- (a) from services
- (b) from tuition fees

Appendix A: List of witnesses from whom we have received evidence either in person or by correspondence

Mr Geoffrey Agnew	<i>President of the Society of London Art Dealers</i>
Mrs Eve Baker	<i>Private restorer</i>
Professor R. W. Baker	<i>Private restorer</i>
Mr David Baxandall	<i>Former Director of the National Galleries of Scotland</i>
Mr Germain Bazin	<i>Conservateur en Chef du Service de la Restauration des Peintures, Musée du Louvre, Paris</i>
Mr Jacob Bean	<i>Keeper of Drawings, Metropolitan Museum, New York</i>
Sir Anthony Blunt	<i>Director, Courtauld Institute of Art, London University</i>
Mr John Brealey	<i>Private restorer</i>
Mr N. S. Brommelle	<i>Secretary General IIC; Keeper of the Conservation Department, Victoria & Albert Museum, London</i>
Miss Anne Buck	<i>Chairman, Museums Association former Working Party on Conservation; Keeper of the Gallery of English Costume, Manchester,</i>
Mr Richard D. Buck	<i>Director, Intermuseum Laboratory Allen Art Building, Oberlin, Ohio</i>
Mr W. T. Chase	<i>Head Conservator, Freer Art Gallery, Washington</i>
Mr G. L. Conran	<i>Director, Manchester City Art Galleries</i>
Mr F. Constantine	<i>Director, Sheffield City Art Galleries</i>
Mr Cyril Cooper	<i>Deputy Secretary of IPCS</i>

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Mr A. W. Cunliffe	<i>Directorate of Ancient Monuments and Special Services, Department of the Environment</i>
Mr C. C. Cunningham	<i>Director, The Art Institute of Chicago</i>
Sir Robin Darwin	<i>Rector of the Royal College of Art, London</i>
Mr Martin Davies	<i>Director, National Gallery, London</i>
Mr Francis Dolloff	<i>Conservator of Drawings, Museum of Fine Arts, Boston</i>
Mr Clifford Ellison	<i>Chairman, Associated British Picture Restorers</i>
Miss Jaqueline Folie	<i>Administrative Assistant, Institut Royal du Patrimoine Artistique, Brussels</i>
Miss N. Goetghebeur	<i>Restorer, Institut Royal du Patrimoine Artistique, Brussels</i>
Professor E. H. J. Gombrich	<i>Director, Warburg Institute, London University</i>
Professor Lawrence Gowing	<i>Professor of Fine Arts, Leeds University</i>
Mr Basil Greenhill	<i>Director, National Maritime Museum, London</i>
Mr F. Hanrott	<i>Registrar and Secretary, Council for National Academic Awards, London</i>
Mr E. G. Harding	<i>Senior Conservation Officer, Department of Prints and Drawings, British Museum, London</i>
Mr R. Harrison	<i>Director, South Eastern Area Museums Service</i>
Mr Bruno Heimburg	<i>Chief Restorer, Doerner Institute, Munich</i>
Dr J. Hell	<i>Private restorer</i>
Miss Ardene Hilton	<i>Assistant Secretary, IPCS</i>
Mr A. W. M. Hodges	<i>Senior Lecturer, Conservation Department, Institute of Archaeology, London University</i>

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Dr J. Hodgkinson	<i>Assistant Professor, Department of Fine Art, Queen's University, Ontario</i>
Mr James Howard	<i>Conservator, Gardner Museum, Boston</i>
Mr John Hulme	<i>President of the Association of British Picture Restorers ; Private restorer</i>
Mr Gordon Hunting	<i>Deputy Director, Thames Polytechnic, London</i>
Mr Sydney Hutchison	<i>Secretary of the Royal Academy, London</i>
Mr John Jacob	<i>Curator, Iveagh Bequest, Kenwood, London</i>
Mr Michael Jaffé	<i>Reader in the History of Western Art, Cambridge University</i>
Mr Alfred Jakstas	<i>Conservator, The Art Institute of Chicago</i>
Miss Elizabeth H. Jones	<i>Chief Conservator, Fogg Art Museum, Boston</i>
Mr Stephen Rees Jones	<i>Head of the Technology Department, Courtauld Institute of Art, London</i>
Professor Caroline Keck	<i>Conservation of Historic and Artistic Works, Cooperstown Graduate Programs, New York State</i>
Professor Sheldon Keck	<i>Conservation of Historic and Artistic Works, Cooperstown Graduate Programs, New York State</i>
Dr H. Kühn	<i>Chief Scientist, Doerner Institute, Munich</i>
Mr Herbert Lank	<i>Member of the Council of IIC ; Private restorer</i>
Mr Michael Levey	<i>Keeper, National Gallery, London</i>
Dr D. Lodewijks	<i>Director, Central Research Laboratory for Objects of Art and Science, Amsterdam</i>

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Mr Arthur Lucas	<i>Chairman, IPCS Restorer's Group ; Chief Restorer, Conservation Department, National Gallery, London</i>
Professor Lawrence Majewski	<i>Chairman, Conservation Center of Institute of Fine Arts, New York</i>
Miss Eleanor McMillan	<i>Chief Technician, Conservation Analytical Laboratory, Smithsonian Institution, Washington</i>
Mr J. McMillan	<i>Assistant Director of Education, Gateshead</i>
Miss Agnes Mongan	<i>Director, Fogg Art Museum, Boston</i>
Sir Thomas Monnington	<i>President of the Royal Academy, London</i>
Mr E. F. Croft Murray	<i>Keeper of Department of Prints and Drawings, British Museum, London</i>
Mr Charles Olin	<i>Chief Conservator, Conservation Laboratory, National Collection of Fine Arts, Washington</i>
Dr R. M. Organ	<i>Director, Conservation Analytical Laboratory, Smithsonian Institution, Washington</i>
Mr W. Percival-Prescott	<i>Secretary, Restorer's Group of IPCS ; Paintings Restorer, National Maritime Museum, London</i>
Professor A. Philippot	<i>Chief Restorer, Institut Royal du Patrimoine Artistique, Brussels</i>
Professor P. Philippot	<i>Deputy Director of the Rome Centre</i>
Dr Harold Plenderleith	<i>Director of the Rome Centre</i>
Miss Joyce Plesters	<i>Assistant Scientific Adviser, Science Department, National Gallery, London</i>
Miss Pauline Plummer	<i>Private restorer</i>
Sir John Pope-Hennessy	<i>Director, Victoria and Albert Museum, London</i>

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Miss Pamela Pratt	<i>Lecturer, Institute of Archaeology, London University</i>
Mr E. E. Pullée	<i>Chief Officer, National Council for Diplomas in Art and Design</i>
Sir Norman Reid	<i>Director, Tate Gallery, London</i>
Mr Theodore Rousseau	<i>Vice-Director and Curator in Chief, Metropolitan Museum, New York</i>
Mr H. Ruhemann	<i>Private restorer</i>
Mr Meritt Safford	<i>Conservator of Drawings, Metro- politan Museum, New York</i>
Mr J. Marchbank Salmon	<i>Principal, Croydon College of Art, London</i>
Miss E. Sayre	<i>Keeper of Prints and Drawings, Museum of Fine Art, Boston</i>
Dr D. Sebera	<i>Science Lecturer, Conservation of Historic and Artistic Works, Cooperstown Graduate Programs, New York State</i>
Mr Stefan Slabczynski	<i>Head of the Conservation Depart- ment, Tate Gallery, London</i>
Dr R. Sneyers	<i>Director, Institut Royal du Patrimoine Artistique, Brussels</i>
Mr H. F. van Sonnenburg	<i>Conservator of Paintings, Metro- politan Museum, New York</i>
Mr A. N. Stewart	<i>Chief Restorer, Directorate of Ancient Monuments and Special Services, Department of the Environment</i>
Professor R. Straub	<i>Director, Institut für Technologie der Malerie, Stuttgart</i>
Mr F. Sullivan	<i>Resident Restorer, National Gallery, Washington</i>
Mr Martin Summers	<i>Member of the Society of London Art Dealers</i>
Mr Wilfred Taylor	<i>Head of Conservation Department, Gateshead Technical College</i>
Mr R. H. G. Thomson	<i>Scientific Adviser to the Trustees, National Gallery, London</i>

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Professor G. Urbani	<i>Deputy Director, Istituto Centrale del Restauro, Rome</i>
Mr M. H. Warnes	<i>Senior Conservation Officer, Department of Prints and Drawings, British Museum, London</i>
Lt.-Commander D. W. Waters	<i>Secretary, National Maritime Museum, London</i>
Dr A. E. Werner	<i>Keeper, Research Laboratory, British Museum, London</i>
Mr E. van de Wetering	<i>Co-ordinator, Conservation and Restoration Departments, Central Research Laboratory, Amsterdam</i>
Dr Christian Wolters	<i>Director, Doerner Institute, Munich</i>
Mr F. R. Woodward	<i>Director, Shipley Art Gallery, Gateshead</i>
Mr H. R. H. Woolford	<i>Chief Restorer, National Galleries of Scotland</i>
Mr W. J. Young	<i>Head of Research Laboratory, Museum of Fine Arts, Boston</i>
Professor G. Zarnecki	<i>Deputy Director, Courtauld Institute of Art, London University</i>

Appendix B: Approved posts in June 1971 in conservation departments in the United Kingdom and Northern Ireland

I. APPROVED POSTS IN THE CONSERVATION DEPARTMENTS DEALING WITH PAINTINGS AND DRAWINGS IN THE NATIONAL MUSEUMS AND GALLERIES

1 (a) *The National Gallery – Conservation Department*

- 1 Chief Restorer Keeper Grade
- 1 Restorer I
- 4 Assistant Restorers I (partly trained)
- 2 Assistant Restorers II (trainees under the Government Temporary Training Scheme)
- 1 Senior Conservation Officer
- 1 Assistant Conservation Officer
- 1 Museum Technician
- 2 vacancies for trainees under the Government Temporary Training Scheme, Assistant Restorer II Grade. To be appointed in September/October 1971.

(b) *The National Gallery – Scientific Department*

- 1 Scientific Adviser Keeper Grade
- 1 Principal Scientific Officer
- 1 Senior Experimental Officer
- 1 Experimental Officer
- 1 Assistant Experimental Officer

2 *The Tate Gallery – Conservation Department*

- 1 Keeper of Conservation
- 3 Restorers I
- 3 Assistant Restorers I
- 2 Assistant Restorers II (trainees under the Government Temporary Training Scheme)

TRAINING IN THE CONSERVATION OF PAINTINGS

1 Museum Technician I

1 Museum Technician III

2 Museum Technicians V

Two posts are vacant, which are expected to be filled during the year, 1971.

1 Restorer I

1 Museum Technician

3 (a) *The British Museum – Conservation Department, Prints and Drawings*

2 Senior Conservation Officers

2 Conservation Officers

1 Museum Technician

(b) *The British Museum – Research Laboratory*

1 Senior Principal Scientific Officer

2 Principal Scientific Officers

1 Senior Scientific Officer

1 Scientific Officer

2 Senior Experimental Officers

2 Experimental Officers

3 Assistant Experimental Officers

3 Senior Conservation Officers

2 Conservation Officers

1 Assistant Conservation Officer

4 *The Victoria and Albert Museum – Conservation Department, Paintings and Drawings*

1 Keeper

1 Restorer I

2 Restorers II

1 Assistant Restorer II

1 Conservation Officer

2 Assistant Conservation Officers

One vacancy for a trainee restorer in the conservation of drawings and water colours, under the Government Temporary Training Scheme, to be appointed in September/October 1971.

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- 5 *The National Maritime Museum – Conservation Department
for Paintings*
- 1 Restorer I
 - 1 Conservation Officer
 - 1 Technician III
- 6 *The National Galleries of Scotland – Conservation Department
for Paintings*
- 1 Part time Chief Restorer
 - 1 Restorer I
 - 1 Museum Technician III
 - 1 Museum Technician IV
 - 1 Senior Museum Assistant
- 7 *The National Museum of Wales*
- 1 Assistant Conservation Officer

II. APPROVED POSTS IN THE CONSERVATION
DEPARTMENTS OF THE DEPARTMENT OF THE
ENVIRONMENT

England – Ancient Monuments Branch

- 1 Chief Restorer
- 3 Restorers I
- 2 Restorers II
- 2 Assistant Restorers I (trainees)
- 1 Museum Technician
- 1 Museum Technician II
- 3 Museum Technicians III

Scotland – Ancient Monuments Branch

- 1 Restorer I
- 1 Conservation Officer
- 1 Assistant Restorer I (vacant)

Appendix B *continued*

III. SURVEY OF ARRANGEMENTS FOR THE CONSERVATION OF PAINTINGS AND DRAWINGS IN MUSEUMS AND GALLERIES IN THE UNITED KINGDOM AND NORTHERN IRELAND

The following information has been received from fifty-six museums and galleries in the United Kingdom and Northern Ireland about approved posts for staff involved in the conservation of paintings and drawings, and their alternative arrangements with independent restorers or the Area Museum and Art Gallery Services. These figures do not include staff involved in the conservation of other works of art.

AMAGS: Area Museum
and Art Gallery Service
IR: Independent restorer

<i>Gallery/Museum</i>	<i>Staff/Approved Complement</i>	<i>Approved posts vacant</i>	<i>Alternative arrangements</i>	<i>Costs</i>
Aberdeen Art Gallery & Museum	None	None	IR	£200 p.a.
Barnard Castle: The Bowes Museum	1 full-time quali- fied restorer	None		Salary £1,515-2,025 Materials £100 Framing £70

<i>Gallery/Museum</i>	<i>Staff/Approved Complement</i>	<i>Approved posts vacant</i>	<i>Alternative arrangements</i>	<i>Costs</i>
Birmingham Uni- versity Barber Institute	None	None	IR	
Birmingham City Museum & Art Gallery	<i>w.e.f. 1 April 1971</i> Keeper of Conser- vation (PO 1 (f) £3,048—3,471) 2 Senior Conser- vation Assistants (AP 4/5, £1,776 —2,268) Technical Assistant (in post already) Technical Assistant (framer and gilder) Technical Assistant (Prints and draw- ings) Technical Assistant	Vacant Vacant Vacant Vacant	AMAGS Mid- lands, IR	IR £5,500 Transport £100

<i>Gallery/Museum</i>	<i>Staff/approved complement</i>	<i>Approved posts vacant</i>	<i>Alternative arrangements</i>	<i>Costs</i>
Bolton : Museum & Art Gallery	None	None	AMAGS North West	(not given)
Bournemouth : Russell-Cotes Art Gallery & Museum, & the Rothsay Museum	None	None	IRS	
Bradford City Art Gallery & Museum	1 Technician/Craftsman	1 Technical Assistant	AMAGS North West	Difficult to assess
Brighton Art Gallery & Royal Pavilion	None	None	IR	£300 p.a.
Bristol City Art Gallery	2 full-time trained Restorers (1 Restorer T 5/6; 1 Restorer T 4)	None	AMAGS South West is housed in the Gallery	Approx. £200 p.a.

<i>Gallery/Museum</i>	<i>Staff/approved complement</i>	<i>Approved posts vacant</i>	<i>Alternative arrangements</i>	<i>Costs</i>
Cambridge: Fitzwilliam Museum	No trained staff. 1 attendant who does elementary mounting of drawings. 1 attendant who does some maintenance (as far as their other duties permit).	None	IRS, this Museum has received help from the National Gallery, Tate Gallery, BM & V & A in the past	Staff salaries approx £2,000 Materials £50 Repairs £1,000 Transport £50
Cheltenham Art Gallery & Museum	None	None	IRS	Allowance £300 p.a.
Coventry: Herbert Art Gallery & Museum	None	None	IRS; AMAGS	No realistic figure available
Derby Museum & Art Gallery Strand	None	None	IR; AMAGS	£100

<i>∞ Gallery/Museum</i>	<i>Staff/approved complement</i>	<i>Approved posts vacant</i>	<i>Alternative arrangements</i>	<i>Costs</i>
Dundee Art Gallery	2 full-time qualified restorers. Local Government Technical Grade III-IV	None	Restoration work can also be given out to external approved and qualified experts, e.g. other galleries' restorers	Salaries £2,600 + p.a. Materials £500 + p.a. Transport £50
Exeter City Museums & Art Gallery	None	None	AMAGS South West: IRS	£1,200 p.a. is spent on the restoration of paintings
Glasgow Art Gallery and Museum	1 full-time trained conservator of paintings. 1 Technical Assistant (Museum Assoc. Tech. Cert) who works on prints & drawings	None		Conservator £2,025 - £2,268: pres. actual £2,263. Technical Assistant £1,272 - £1,464 - present actual £1,362. Materials £400 Total £4,030

<i>Gallery/Museum</i>	<i>Staff/approved complement</i>	<i>Approved posts vacant</i>	<i>Alternative arrangements</i>	<i>Costs</i>
Glasgow University Art Collections	1 Sen. Technician. 1 Technician. Both deal with prints & drawings when other duties allow	(None at present, but it is hoped that a new post will be created in the next quinquennium)	IRS for the restoration of oil paintings	Salaries: Sen. Technician £1,398 – £1,707. Tech. £1,041 – £1,410
Gloucester City Museum & Art Gallery	None	None	AMAGS South West	£100 p.a.
Huddersfield: The Art Gallery	None	None	IR who lives in Huddersfield	£100 p.a.
Kingston-upon-Hull: Ferens Art Gallery	None	None	IR	£300 p.a. £50/100 transport
8 Kendal: Abbot Hall	None	None	AMAGS	£50 p.a.

<i>Gallery/Museum</i>	<i>Staff/approved complement</i>	<i>Approved posts vacant</i>	<i>Alternative arrangements</i>	<i>Costs</i>
Leeds: Temple Newsam House	Pictures and Drawings: 1 Technician Supervisor T 3/4. 2 Tech. Handymen Group E	None	IRS for major restoration	Approx. £3,800
Leicester Museum and Art Gallery	None	None	AMAGS Midlands: IR	Grant of £350 p.a.
Lincoln Museum & Art Gallery	None	None	IR	Approx. £250 p.a.
Liverpool: Walker Art Gallery	None	None	The Gallery provides studio accommodation where two trained restorers work part time on the restoration of paintings; Prints and drawings are restored by IRS	Paintings £1,900 p.a. Prints and drawings £750 p.a.

<i>Gallery/Museum</i>	<i>Staff/approved complement</i>	<i>Approved posts vacant</i>	<i>Alternative arrangements</i>	<i>Costs</i>
London: Iveagh Bequest	1 qualified, full-time tradesman MA. Tech. Cert. conserving antique furniture & drawings. 1 part-time qualified tradesman training in conservation of paintings & drawings	None	IRS	Salaries: Qualified Tradesman £1,500, Assistant £1,000. Transport & Materials – £200. Revenue estimate provision for restoration £800 – £3,550 p.a.
London: London Museum	1 Senior Conservation Officer, who carries out 'first aid' work	None	IRS are employed to carry out work needing expert attention	Approx. £500 p.a.
London: National Portrait Gallery	None	None	IRS	Conservation grant £5,000 p.a. approx. 70% was spent on conservation of paintings in 1970/71

72	<i>Gallery/Museum</i>	<i>Staff/approved complement</i>	<i>Approved posts vacant</i>	<i>Alternative arrangements</i>	<i>Costs</i>
	London: William Morris Gallery	None	None	IRS	
	London: Wallace Collection	None	None	IRS	
	Luton Museum & Art Gallery	1 self-trained, part time among other duties such as framing display etc.		AMAGS	Overall costs approx. £100 p.a. of which £80 is salary
	Manchester City Art Gallery	1 Technician		AMAGS: IR	Annual Allocation £500
	Manchester University: Whitworth Art Gallery	None	None	AMAGS North West. IRS for prints and drawings	Annual preservation grant £500 (a proportion of this fund is allocated to textile conservation) Transport approx. £40 p.a.

<i>Gallery/Museum</i>	<i>Staff/approved complement</i>	<i>Approved posts vacant</i>	<i>Alternative arrangements</i>	<i>Costs</i>
Middlesbrough: Dorman Museum	Keeper of Fine Art is a trained Conservation Officer	None	IRS	
Newcastle upon Tyne: Laing Art Gallery	None	1 Restorer AP II		Salary AP II £1,272 – £1,515 p.a. Expenses £350
Northampton Museum and Art Gallery	None	None	AMAGS Midland: IRS	Annual Grant £100 + £400 in 1970 on a special item
Norwich Castle Museum	None	None	AMAGS: IRS	IRS £780 AMAGS £20 Transport £100 Total £900 p.a.
Nottingham Art Gallery	None	None	AMAGS: IRS	Approx. £150 – £200 p.a.
Oldham Art Gallery and Museum	None	None	AMAGS North West	£500 p.a.

74	<i>Gallery/Museum</i>	<i>Staff/approved complement</i>	<i>Approved posts vacant</i>	<i>Alternative arrangements</i>	<i>Costs</i>
	Oxford: Ashmolean Museum	1 full-time mounter 1 full-time letterer	None	IRS	Salaries & fees approx. £3,200 p.a.
	Paisley Art Gallery	None	None	IRS	£150 - £250 p.a.
	Plymouth City Museum & Art Gallery	1 AP IV	None	AMAGS: IRS	Approx. £2,000 p.a.
	Port Sunlight: Lady Lever Art Gallery	None	None	IRS	Variable
	Preston: Harris Museum & Art Gallery	None	None	AMAGS: IRS	£200 approx. p.a.
	Reading Museum and Art Gallery	None	None	AMAGS: IRS	Varies from nil to £450 p.a.
	Salford Art Galleries & Museum	None	None	AMAGS North West	Negligible amount

<i>Gallery/Museum</i>	<i>Staff/approved complement</i>	<i>Approved posts vacant</i>	<i>Alternative arrangements</i>	<i>Costs</i>
Sheffield Art Galleries	1 fully-trained restorer of paintings & drawings (£920—£1,515) and 1 technician who gives part time assistance (£1,272)	None	Occasionally an IR is employed	Approx. £3,500 p.a. which covers salaries, materials, photography, transport
Southampton Art Gallery	1 fully-trained restorer AP III-IV	None	IRS	
Southport: Atkinson Art Gallery	1 part-time restorer with long experience	None	AMAGS	Annual cost varies
Stoke-on-Trent City Museum and Art Gallery	None	None	AMAGS	
Sunderland Museum and Art Gallery	No trained staff	None	Gateshead Technical College Restoration Department	£450 p.a. on oil paintings

<i>76</i>	<i>Gallery/Museum</i>	<i>Staff/approved complement</i>	<i>Approved posts vacant</i>	<i>Alternative arrangements</i>	<i>Costs</i>
	Swansea : Glynn Vivian	None	None		
	Ulster Museum, Belfast	Restorer G. I Technician Technician	Vacant		
	Wolverhampton Municipal Art Gallery	None	None	IR: AMAGS	£300 (actual) £500 (available)
	Worthing Museum & Art Gallery	None	None	AMAGS South Eastern: IR	Approx £75 p.a.
	York Art Gallery	1 Technical assistant pay grade: Miscellaneous 5/6	None	IRS	Restoration grant £600 p.a.

IV. AREA MUSEUM AND ART GALLERY COUNCILS

Eight local organisations, known as Area Museum and Art Gallery Councils, covering the whole of England, Scotland and Wales, provide services such as conservation, display, temporary exhibitions, cataloguing etc., on a cooperative basis for those museums and galleries which cannot economically maintain their own; and, on occasion, for areas without museums. They are financed by subscription from local government and other museum authorities in each case and, since 1963-64, have received a Government grant of up to fifty per cent. of their annual expenditure on these services. They charge the participating museums and galleries for their services, but in some cases, notably in the conservation of high quality objects owned by small museums which cannot afford an economic fee, the work is done at the expense of the Area Museum and Art Gallery Council.

Conservation is undertaken of objects of art, archaeology and natural history, but not all the Area Councils provide conservation in all three branches; and their priorities are governed by the needs of the museums in their areas. Four Area Councils, the South West, the Midlands, the North West and the South Eastern, provide specifically fine art conservation services for their own areas, and, on occasion, if their capacity allows, for a neighbouring area. In the North of England, Yorkshire and Humberside, Scotland and Wales, other services have taken priority, but Yorkshire and Humberside, by arrangement, calls on the fine art conservation service of the North West based in Manchester, and the needs of the smaller Welsh museums can be satisfied by their long-standing affiliation to the National Museum of Wales.

The existing establishments are as follows:

South West	2 Restorers T5
Midlands	1 Restorer APIV
	An independent restorer is also retained on contract
North West	1 Senior Restorer APII/IV
	1 Assistant Restorer APII/IV
	1 Technical Assistant TIV
South Eastern	2 Restorers APIV, APIII

All the Area Museum Councils complain of the inadequacy of their establishments and of the difficulty of filling the posts.

V. SUMMARY: THE FOLLOWING FIGURES
HAVE BEEN EXTRACTED FROM THE
INFORMATION SET OUT IN SECTIONS I-IV

APPROVED POSTS FILLED IN CONSERVATION DEPARTMENTS
DEALING WITH PAINTINGS AND DRAWINGS IN:

A. *National Institutions (including Government trainees)*

Restorers	25
Conservation Officers	11
Museum Technicians	10

B. *DOE – Ancient Monuments Branch, England and Scotland*

Restorers	9
Conservation Officer	1
Museum Technicians	5

C. *Regional Institutions*

Restorers	11
Conservation Officers	1
Museum Technicians	19

D. *Area Museum and Art Gallery Services – Art Conservation*

Restorers	7
Technician	1

APPROVED POSTS VACANT IN CONSERVATION DEPARTMENTS
DEALING WITH PAINTINGS AND DRAWINGS AT THE TIME OF
DRAFTING:

A. *National Institutions*

Restorer	1
Museum Technician	1
Government Trainees	3

B. *DOE – Ancient Monuments Branch, Scotland*

Restorer	1
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SUMMARY

C. Regional Institutions

Restorers	2
Conservation Officers	2
Technicians	5

Total number of approved posts filled at June 1971:

Restorers	52
Conservation Officers	13
Technicians	35

Total number of approved posts vacant at June 1971:

Restorers	4
Conservation Officers	2
Museum Technicians	5

Vacancies for Government trainees 3

Of the 56 regional institutions contacted, the number with no established conservation staff is 36

Number of the 56 regional institutions employing the AMAGS 25

Number of the 56 regional institutions employing IRS 40

Number of the 56 regional institutions employing the AMAGS and IRS 17

Appendix C: Conservation training courses visited by the committee

I. THE COURTAULD INSTITUTE OF ART, LONDON - TECHNOLOGY DEPARTMENT

1. The Courtauld Institute of Art, an Institute of London University, provides undergraduates and post-graduate courses in the history of art, which lead to London University degrees.
2. The Institute is at present entirely situated in Home House, 20 Portman Square, except for its exhibition galleries and the greater part of its collections of paintings, drawings and other works of art, which are at Woburn Square, in a building shared with the Warburg Institute. The plans for completing the building in Woburn Square provide for housing the whole Institute there.
3. The Institute's art and photographic libraries are available to students; its galleries are open to the public and works of art not displayed in the galleries are available to students.

Technology Department

4. The Technology Department, for the conservation and scientific investigation of works of art, was founded in 1933 and has carried out work for public and private collections since then. Works of art for restoration come from the Institute itself, from the National Trust, the Royal Collection, local museums and private collectors. These are mainly, but not exclusively, paintings and drawings.
5. The department has recently been extended and at present covers about 2,000 square feet at nos. 9 and 10 Portman Close, in the mews behind no. 20 Portman Square.
6. Records are kept of all the paintings of importance and research interest which pass through the Technology Department. Access is given to all *bona fide* enquirers.

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7. Research is carried out on the application of physical and biological sciences to conservation and restoration, but this does not extend to work on environmental control.

8. Facilities are not available on the premises for work involving modern techniques such as X-ray spectroscopy, electron microprobes, neutron activation, but the Technology Department has access to these facilities elsewhere and the students are made aware of these developments in tutorials.

Training Courses

9. The Technology Department provides a two-year training course in the conservation and scientific investigation of paintings, whose syllabus includes:

Art History
Painting Techniques
Basic Physics and Chemistry
Materials Science
Scientific Examination
Conservation

Approximately four-fifths of the student's time is spent on practical work in the department, and visits are made to other conservation studios to see work in hand.

10. Students are also accepted for varying periods to work on research projects.

Award

11. On satisfactory completion of the course, and after an examination of practical and theoretical competence, the student receives a certificate. Those who intend to become professionals would, however, be expected to proceed to some year's further practical work in a conservation studio under supervision before their training could be considered complete.

12. Since 1965 twenty students have passed through the department and completed the course or some research project. Of these, eight obtained posts in museums, the South East Area Museum Service and the Courtauld Institute, eight became independent restorers and four did not obtain conservation posts. So far no student has not completed the course.

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Students

13. The training course is restricted to two students a year, making a total of four in all, plus two students at a time working on research projects.

Entry Qualifications

14. Students must be graduates or the equivalent (e.g. Dip. A.D.) in art, art history or the natural sciences. The average age of entry is 21/22.

Staff

15. The permanent staff of the department consists of the Head of the Department (with the status of Reader), one assistant for conservation, one technician for photography and radiography, and one secretary.

Finance

16. The Technology Department is supported by a share of the Courtauld Institute's share of the Government's funds allocated to London University by the University Grants Committee, and from tuition fees (£60 per annum).

Student Finance

17. The students are supported by local education authority maintenance grants, State Bursaries awarded by the Department of Education and Science or by private means. There is one Courtauld Institute Studentship of £800 per annum.

II. GATESHEAD TECHNICAL COLLEGE - THE CONSERVATION DEPARTMENT

1. The Conservation Department now at Gateshead Technical College derives from the conservation department of the Shipley Art Gallery which was set up in 1950. In 1967 the head of this conservation department started a two-year course of training in the conservation of paintings, but there was not accommodation in the Shipley Art Gallery for more than three students at a time. Moreover, the Department of Education would not recognise the Gallery as an institute of further education, and the students were therefore not able to obtain maintenance grants from the local education authorities. To overcome these difficulties the Shipley Art Gallery negotiated with the Technical College to set up the present course.

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2. The Conservation Department moved out of the Gallery to a neighbouring house belonging to the Technical College, of which the working area is 2,781 square feet. It is hoped to double this area.
3. Paintings are sent to the Department for restoration by the Shipley Art Gallery, the Laing Art Gallery, Sunderland Art Gallery, Durham Cathedral and private collections.
4. Records of the paintings dealt with are kept; and a small library is being built up.

The Course

5. The course is at present of two years duration, and the syllabus includes:

- Organisation of a Restoration Department
- Record Keeping
- Photography
- Theory and Practice of Radiography
- Materials of painting and techniques of the Old Masters
- Causes of Deterioration
- Technical and Scientific Examination
- Methods of Conservation
- Methods of Restoration
- Detection of Forgeries
- Storage and Environment
- Private Study

The greater part of the student's time is spent on practical work.

5. Students have attended art history lectures at Newcastle University but the Technical College hopes to appoint an art history lecturer to its own staff. Chemistry and physics classes and lectures are available within the College.

6. The two-year course is based on a forty-two week year; and students often work at the Shipley Art Gallery during the College vacations. It is intended to extend the course to three years. This will in effect mean that there will be a preliminary year for introductory studies and the assessment of suitability.

Award

7. At the end of the course the students are examined and those who have reached a satisfactory standard are awarded a college dip-

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loma. Those who intend to become professional restorers are, however, expected to proceed to some years' further work at an advanced course such as that of Stuttgart, or to work under supervision in a studio, before their training could be considered complete.

Students

8. Present accommodation is sufficient for a total of nine students, i.e. four or five a year.

9. The minimum age of entry is eighteen, but older students, especially graduates, who form 50% of the applicants, are preferred.

Qualifying experience

10. The minimum academic qualifications for this course are five 'O' levels, one of which must be in chemistry or physics; in practice students have had 'A' levels or university degrees.

Staff

11. The permanent staff is one lecturer and one assistant lecturer.

Finance

12. The Conservation Department in Gateshead Technical College is administered by the Technical College and all expenditure is met by the Technical College. Charges to cover time and materials are made to clients for restoration work.

Student Finance

13. The students, who come from all parts of the country, are supported by local authority maintenance grants or by private means.

III. INSTITUTO CENTRAL DE CONSERVACION Y RESTAURACION DE OBRAS DE ARTS - MADRID

1. The Instituto was founded in 1961 to deal with the conservation of paintings and other objects in churches and in museums which have no conservation facilities of their own. The material comes mainly from churches, whether paintings, frescoes, or polychrome sculpture.

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2. In 1970 the Instituto was moved from its first home, the Cason del Buen Retiro, to the University City, where it has temporary accommodation in the Museum of South America until a separate building is ready. Its premises include scientific laboratories and photographic studios.

The Training School

3. The Training School was started in 1966; and its purpose is the technical training of future restorers and conservators of the works and objects of all kinds which make up the national heritage. It is part of Madrid University.

The Courses

4. The Training School provides a three-year undergraduate course in the conservation of painting, sculpture or archaeology. It also provides, as part of the university course of History of Art, a course in the Philosophy of Conservation. Three- or four-week courses are also given occasionally on special subjects such as the conservation of mural paintings or mosaics.

5. The syllabus for the course in the conservation of painting is:

First year – instruction in history of art; drawing and technique of painting; elementary physics and chemistry; technique of conservation of paintings; photography. Practical work (at least twenty hours a week).

Second year – instruction in history of art; drawing and the technique of painting; physics and chemistry as applied to the conservation of works of art. Practical work (at least twenty hours a week).

Third year – instruction in the history of Spanish art; the criteria applied to the conservation of works of art. Practical work (at least twenty hours a week).

6. Examinations are taken at the end of each year as a condition of acceptance for the following year, and consist of theoretical and practical tests in all the material covered. They are held before a tribunal composed of the Director of the Institute of Restoration as president, and four professors of the School nominated by him.

7. Although the Training School is part of the University, the final award is not a university degree but a professional award from the

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Ministry of Education and Science; the official title is of Restorer in the appropriate section (painting, sculpture or archaeology). Either this title or the Diploma of Restoration which is given by one of the four Advanced Schools of Fine Art in Spain is an essential qualification for employment as a restorer in any State centre of restoration.

Students

8. The number of students is not fixed. Of the fifteen students in the first group to complete their course (1969) nine qualified in archaeological conservation.

9. The minimum age for entry is eighteen; minimum qualifications are: a school-leaving certificate entitling to university entry, or an arts or crafts school diploma often given at a more advanced age; and a special entrance examination with a written paper on a general subject in Spanish Painting (for those specialising in painting) and a test of draughtsmanship and the technique of painting.

Staff

10. The total staff of the Instituto, including all three subjects and the scientific and photographic staff, is about seventy. The number of restorers of paintings and drawings and of wooden sculpture and panel paintings was twenty-five in 1965/66. Most of the first and second year students' practical work is carried out under the supervision of one professor; but this takes place in a large studio only separated by a partition from the larger studio in which the professional restorers are working. The third year students work in a ratio of 1/1 as assistants to these restorers, who otherwise have no teaching duties.

IV. THE INTERNATIONAL CENTRE FOR THE STUDY OF THE PRESERVATION AND RESTORATION OF CULTURAL PROPERTY (THE ROME CENTRE)

1. The Rome Centre was founded in 1958. It was initially sponsored by UNESCO and is now supported by fifty-three nations, who contribute 1% per annum of their contribution to UNESCO to the Rome Centre. Since the beginning, the Rome Centre has worked closely with the neighbouring Istituto Centrale del Restauro.

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2. The Rome Centre promotes conservation projects on an international basis. These are primarily concerned with problems of environmental control, but they include conservation training courses and the provision of scholarships for some of the students at these and other courses.

Courses

3. The Rome Centre's training projects include two courses on the conservation of monuments for architects and art historians, in association with Rome University, and a four months (mid-March to mid-July) 'course of specialisation in the examination and conservation of mural paintings' for trained restorers of paintings, under the direction of the Istituto Centrale del Restauro.

Qualifications

4. The course is intended for restorers of paintings holding a diploma or having at least three years practical experience.

5. The number of participants in the course is limited to ten, and in view of the demand for places, preference is given to candidates attached to institutions interested in the preservation of cultural property or candidates recommended by such institutions. The students come from all parts of the world.

Award

6. The course leads to a certificate of the Rome Centre, awarded after an examination at the end of the course.

Syllabus

7. Apart from practical work and classes at the Istituto Centrale del Restauro, the course includes a period of one/two months working on a site.

Theory

Theory of the restoration of mural paintings

History of mural painting and its techniques

Knowledge of materials used

Causes and processes of alteration

Diagnosis and documentation methods

Conservation and restoration treatments

Practical work

Execution of mural painting according to a historical technique

Handling of materials and products used in conservation

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Examination, diagnoses and restoration of mural paintings: drafting a report

Detachment of mural paintings

Construction of new supports and application of the detached paintings

Work on a Restoration Site (1/2 months duration)

Restoration work *in situ* and discussion of the same during seminars

Examination

Documentation

Fixing

Consolidation

Cleaning

Treatment of lacunae

Transfer if necessary

Student Finance

8. Tuition is free. The Rome Centre provides some scholarships; otherwise maintenance is at the expense of the student or his employer.

V. THE ISTITUTO CENTRALE DEL RESTAURO – ROME

1. The Istituto Centrale del Restauro (ICR) is administratively dependent on the Ministry of Public Instruction, Department of Antiquities and Fine Arts. It is housed separately in a large Roman palace and the total area is approximately 3,473 square metres (37,386 square feet).

2. ICR is a conservation centre and training is one of its activities. Material for restoration comes from public and private bodies. In so far as the works of art are subject to the laws for the protection of the artistic heritage of the Italian nation their conservation is a state responsibility. The restoration of paintings is ICR's main concern, but the conservation is undertaken of bronze, wood, stone and marble sculpture, ceramics, mosaics and terracotta.

3. Records are kept of all the objects treated, with photographic documentation, which are available to all *bona fide* enquirers. Research is carried out on the application of physical and biological sciences to conservation and restoration. The work done on environmental control is theoretical only. This work is done mainly

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in collaboration with Rome University within special programmes agreed with the National Council for Research; more recently a programme of research has been launched with the help of the 'Laboratori Studi e Ricerche' of the Snam Progetti (ENI).

Training Course

4. ICR offers a three-year course in the conservation of paintings with an optional fourth year of advanced study. The course is not divided into separate elementary or advanced sections. About two-thirds of the course is practical work and carried out at the ICR, or as is necessary with mural paintings, on site.

The students receive formal instruction in classes. Among the subjects are:

- Microbiology
- Physics
- Theory in techniques of restoration
- Art history
- Drawing

5. Students also work during the summer vacations on projects undertaken by the ICR. In 1970, for example, at the invitation of the National Gallery in Dublin, a group of students supervised by the Head Restorer, visited the Gallery to work with the Gallery staff on the investigation and conservation of the collection.

Award

6. The course leads to a diploma of the institute and the number of students qualifying each year varies up to the maximum of fourteen.

Students

7. The maximum annual intake for the Training Course is ten Italians and five foreigners.

8. In addition to students taking part in the Training Course, a varying number of foreigners visit the ICR for short refresher courses for the advanced year only, or for the short course on mural paintings run in conjunction with the Rome Centre (see IV above).

Qualifications

9. The minimum entry qualification for the three-year course is the diploma of 'Scuola Media Inferiore'. The average age of entry is eighteen.

Staff

10. The total permanent staff is seventy-one; the number of restorers dealing with several branches of conservation is fifteen, including the principal restorer, and there are eleven technicians. There are six scientists aided by three laboratory technicians. No part-time staff are employed.

Finance

11. ICR is financed by the Italian Government through the Ministry of Public Instruction.

Student Finance

12. The tuition is free. As regards maintenance, some students receive scholarships from a private foundation, and several regions, Sicily and Apulia, for example, have made provision in their programmes for giving scholarships to students coming from those provinces.

VI. THE INSTITUT ROYAL DU PATRIMOINE ARTISTIQUE - BRUSSELS

1. The Institut Royal de Patrimoine Artistique (IRPA) was set up under the Belgian Ministry of Education and Culture in 1934 to conserve the artistic heritage of Belgium, whether in the ownership of public museums or galleries, the church or private persons.

2. Since 1962 the IRPA has been housed in a new building, which also provides accommodation for other national institutions, such as the Archaeological Excavation Service. The area of the conservation studio is 1,100 square metres (11,840 square feet).

3. In addition to the conservation of paintings, the institute undertakes that of polychrome sculpture and other objects on a wooden support, involving other materials such as ivory or enamel, of tapestries and of archaeological antiquities. It does not restore water-colours or drawings, which are dealt with by the Royal Library, and rarely deals with the conservation of oriental works of art.

4. The Institute's library, archives and photographic collections, which have been developed during the last eighteen years, are available not only to the staff and students, but also to all scholars and conservators.

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5. The IRPA is primarily a research institute, where scientific, technical and historical research are its major occupations.

Conservation Staff

6. There is a staff of four/five restorers in the department concerned with the conservation of paintings.

Apprenticeship Training

7. Though IRPA is primarily a research institute, it has since the beginning taken one/two trainees a year for a full training by the apprenticeship method lasting four years. They receive a small salary as trainees, and work closely with the restorer staff as apprentices. These trainees have, before entry, normally attended art schools or have a degree in art history.

Formal Course

8. Since its establishment in the present building, however, it has developed, with financial aid from the University of Ghent, and the cooperation of the Rome Centre, ICOM, and UNESCO, a formal one-year Advanced Course (Cours de Perfectionnement) for ten fully qualified conservators. This course is intended to serve as a consolidation of the students' earlier training and experience and to enable them to study and review the principles governing the practice they have learnt.

Qualifications

9. Candidates must be between 20-35 years of age and have had at least three years of study in a School of Restoration, or five years practical restoration experience under supervision. Candidates may have received their training within the IRPA or be from abroad.

Syllabus

10. About one-third of the course is theoretical and the remaining two-thirds is practical and includes visits to other establishments. The students on this course are taught by the staff of restorers attached to IRPA, four or five in number, and visiting restorers and lecturers, both Belgian and foreign.

Award

11. This course leads to a certificate of the institute, which cannot be equated with any other official degree or diploma.

Student Finance

12. The training is free; but travel and living expenses must be found by the student. Assistance towards these expenses is available to non-Belgian students under various cultural and other inter-governmental agreements, from private foundations, from UNESCO, ICOM, and the Rome Centre.

VII. THE DOERNER INSTITUTE - MUNICH

1. The Doerner Institute is the Conservation Department of the Alte Pinakothek, of which its Director, Dr C. Wolters, is Deputy Director. It is housed separately on an upper floor of the Bayerisches Staatsgemäldesammlungen. The area of the restoration studios and scientific laboratories is approximately 750 square metres (8,073 square feet); this does not include other workshops, offices and the library.

2. The Doerner Institute is a research institute of conservation studies and is consulted by members of the public. The main source of material for conservation is the Alte Pinakothek, and other museums and galleries in Bavaria, but some work is done for private clients. The Doerner Institute specialises in the conservation of easel paintings.

3. Full records of every painting which receives treatment at the Institute are kept. A copy is returned with the painting to the gallery or client and another copy is kept at the Institute. These records are available to members of the staff and *bona fide* scholars, but not to the general public.

4. Research is carried out on the applications of physical and biological sciences to conservation and restoration, and special studies have been made of environmental problems. The findings are published.

Staff

5. The full complement of staff is sixteen, they are:

- 4 Restorers
- 2 Junior Restorers
- 4 Craftsmen (3 carpenters, 1 gilder)
- 1 Photographer (operates X-ray equipment and also works for the Bayerische Staatsgemäldesammlungen)

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- 2 Scientists (1 physicist, 1 mineralogist)
- 2 Assistants for the scientists
- 1 Secretary

Apprenticeship Training

6. The Doerner Institute offers no formal courses, but realises that it has a certain responsibility to train restorers. Two students a year are accepted, if suitable candidates come forward, to train as apprentices. They pay no fees and receive no salary; and are known as 'volunteers'.

7. There is no set syllabus, and the necessary scientific and technical theory is taught as the problems arise during the actual conservation of paintings.

Award

8. The volunteers work at the Institute for three years. No award is given at the end of their time there, but they receive a letter of recommendation from the Director, who takes a personal interest in placing them in suitable posts in galleries and museums where they may gain further experience. Dr Wolters regards the three years training as a grounding only, fitting the student for a post as second restorer in a conservation studio.

Entry Qualifications

9. There are no minimum academic qualifications, but the applicants must have a good general education, and are only accepted for a six month probationary period after a testing interview. The average age of entry is twenty years.

Student Finance

10. The Director has applied without success for state support for students.

VIII. THE INSTITUT FÜR TECHNOLOGIE DER MALEREI – STUTTGART

1. The Institut für Technologie der Malerie is part of the Künste Akademie in Stuttgart and the main centre of the Institute's activities is housed in the same building. The Institut also has a studio at Ludwigsburg, outside Stuttgart.

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2. The department housed in the *Künst Akademie* in Stuttgart covers an area of approximately 355 square metres (3,825 square feet) and the studio at Ludwigsburg covers an area of approximately 100 square metres (1,080 square feet).
3. The Institut is primarily a teaching institute. Works of art for restoration are received from the *Württembergisches Landesmuseum*, Stuttgart, and the *Schlossmuseum*, Ludwigsburg, and sometimes from private clients. They are accepted as training material and chosen for the educational value of the conservation problems they present. The Institut has specialised in the conservation of easel paintings but also deals with a small amount of polychrome sculpture.
4. A small library has been established at the Institut of literature relevant to conservation studies. Records of the works of art treated are kept at the Institut and a copy returned to the owner. The records are confidential and only available to *bona fide* scholars.
5. Some research is carried out by the staff during the spring and summer vacations and includes work on environmental control. Facilities are not available on the premises for X-ray spectroscopy, neutron activation or electron microprobes, but the Institut has access to these facilities and the students are made aware of these scientific developments in tutorials.

Training Courses

6. The Institut offers two courses in the conservation of paintings:
 - (i) a one year preliminary course (qualifying year) held at Ludwigsburg;
 - (ii) a main course held at the *Künst Akademie* lasting six semestres (three academic years).
7. The qualifying year is a practical course, and the theory is only taught as the problems arise. The main course includes about 40% theoretical instruction, but the practical work undertaken in the Institut is supplemented by temporary work in conservation departments in museums and galleries during the spring and summer vacations.

Award

8. Each of these courses leads to a certificate of the Institut. The certificate awarded at the end of the qualifying year exempts a candi-

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date for the main course from one of his three years of previous experience.

Students

9. The annual intake of students for the qualifying year is 3-6 and the maximum number of students who can be accommodated over three years for the main course is nine.

Qualifications

10. Candidates for the qualifying year must have their General Certificate of Education (Matura) or have completed an apprenticeship as a gilder or cabinet maker.

11. Candidates for the main course must have their General Certificate of Education (Matura) and three years experience of practical work in a conservation studio dealing with easel paintings or polychromed sculpture or hold the certificate of the qualifying year and have had two years of studio practice.

Staff

12. The permanent staff of the Institut consists of the Head of the Institut, one lecturer in conservation techniques, one science lecturer, one research assistant and a secretary. Part-time staff are employed for teaching art history and drawing.

Finance

13. The Institut für Technologie der Malerei is financed entirely by the State of Wurttemberg.

IX. THE INTERMUSEUM CONSERVATION CENTRE, OBERLIN COLLEGE, OHIO

1. The Intermuseum Conservation Centre is a cooperative association of fifteen art museums in the American mid-west, founded in 1952 for the purpose of sharing conservation services. It is accommodated in the Allen Art Building at Oberlin College. The ICA is a non-profit making corporation governed by a Board of Trustees and financed independently, principally by the income from the inspections, and laboratory services which it provides for its members and for certain other charitable and educational institutions.

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2. The ICA Laboratory contains a small library of literature relevant to conservation, and a considerable archive has been built up since 1952 of the treatment of objects.

Staff

3. There is a permanent staff of a conservator, who is Director of ICA, an assistant conservator, and a secretary.

Training Course

4. The ICA offered for the first time in 1970 a three-year training programme in conservation. This was made possible by a grant from the Ford Foundation. The first year of this course is a qualifying year. During the second and third years the trainees will take part in the conservation programmes of the ICA Laboratory, including regular visits of inspection to the member museums. About half the trainees' time will be spent on practical work. The trainees are expected to undertake an independent project either at Oberlin or elsewhere during January, and during the summer vacation. They are also expected to participate in seminars (about two a year) held at member institutions.

5. The staff and students have access to the Oberlin College Art Library in the Allen Art Building; and all trainees will be encouraged to augment their academic studies by attending courses available at Oberlin College or, with the Director's approval, at other neighbouring institutions. They may apply for enrolment in the Oberlin College Graduate Programme, leading to a master's degree.

Award

6. On the satisfactory completion of the course the trainee receives a certificate and statement of competence as a practising conservator from the ICA. This certificate is independent of any academic degrees obtained by trainees.

Trainees

7. The training course is restricted to three trainees a year, making a total over a three year period of nine.

Entry Qualifications

8. Individual aptitude rather than academic achievement is required; but the minimum qualifications are indicated as: general education of the level of a B.A. degree; knowledge of art history of the level of an undergraduate major, chemistry or physics of the level of a

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general course; and some studio experience of painting and drawing. The average age of entry is 22/23.

Trainee Finance

9. The trainee receives a stipend of \$6,500 per annum from the Ford Foundation, which is expected to cover all living expenses, tuition fees to Oberlin College, certain domestic and foreign travel, and some personal equipment.

X. ART RESTORATION CENTRE, STATE UNIVERSITY COLLEGE AT ONEONTA, COOPERSTOWN, NEW YORK STATE

1. The Art Restoration Centre at Cooperstown was set up in 1970 to provide a training course as part of the Graduate Programme of the State University College at Oneonta. The first set of students entered in the autumn of 1970.

2. The Centre is purpose built, providing conservation studios, a laboratory and photographic studios. The staff and students have access to the main library on the Cooperstown campus and funds are available to establish a small conservation library in the Centre.

Staff

3. There is a permanent staff of two conservators (both with the status of professor), a science lecturer and a secretary. Visiting specialists are invited to teach on a temporary basis.

Training Course

4. The three-year course in the conservation of historic and artistic works, mainly of American provenance, will consist of two years at Cooperstown followed by a year's internship in some other conservation studio. During the first two years of the course the student attends classes, and does conservation under supervision. Among the subjects taught are:

- Technology and Structure of Artifacts
- Properties and Behaviour of the Materials of Art
- Methods and Techniques of Examination
- Introduction to the Principles of Conservation
- Procedures in Preservation and Restoration
- Applications of Science to the Examination of Artifacts

There is a high proportion of practical work.

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5. The students work on material from small museums and private collections.
6. In the third year the student will serve an internship in an approved conservation department or laboratory in a museum or gallery, under supervision.

Award

7. On the satisfactory completion of the course the student will be awarded a master of arts degree in the conservation of historic and artistic works.

Students

8. The annual intake of students is ten, and after the first year of the course there will be twenty students working at the Centre. The ten final year students will be serving their internships elsewhere.

Entry Qualifications

9. Generally candidates are expected to have a four-year bachelor's degree or its equivalent in art history or science from an accredited college or art school. The candidate must also have some experience of painting and drawing, besides showing manual aptitude. The average age of entry is 22/23.

Finance

10. The Centre is part of the Cooperstown Graduate Programme and as such is financed by the State University College at Oneonta.

XI. THE CONSERVATION CENTRE OF THE INSTITUTE OF FINE ARTS, NEW YORK

1. The Institute of Fine Arts, an Institute of New York University provides undergraduate and postgraduate courses in the history of art and archaeology, which lead to New York University degrees.
2. The Institute is situated in the James B. Duke House on the corner of Fifth Avenue and 78th Street, within a few minutes of the Metropolitan Museum.
3. The Institute has an extensive library and photographic collection.

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Conservation Centre

4. In 1960 the Conservation Centre was opened at the Institute of Fine Arts and is accommodated in the basement of the Duke House.

5. The Conservation Centre, besides offering training, undertakes research in the application of physical and biological sciences to conservation and restoration, dealing with fine and applied art and archaeological objects. Records are kept of all the paintings and objects handled by the Centre, and there is a comprehensive specialist library. Students also have access to the main art and archaeological libraries in the Institute of Fine Arts.

6. The Conservation Centre cooperates with other colleges and laboratories on research programmes and thus has access to scientific facilities which are not available on its own premises.

7. Material for conservation is supplied by small museums and galleries.

Training Course

8. The Conservation Centre provides a three- or four-year training course designed to prepare students for professional competence in art conservation. For those who do not already hold the Master's degree in History of Art (without which the Diploma in Conservation may not be awarded) the first two years of the course combine the introductory study of the theory and practice of conservation with preparation for the Master's degree in Art History and this is taken at the end of the second year. For those who hold the Master's degree in Art History the introductory work of the conservation course may be completed in one year. The main specialised conservation course of the two final years starts with an internship of at least two semestres (one academic year) in the conservation department or laboratory of a museum or gallery in the United States or abroad, and the last year is normally spent on practical work at the Centre.

Award

9. When the student has obtained the Master's degree in history of art, including courses in museum training and connoisseurship and satisfactorily completed the four-year conservation course a Diploma in Conservation is awarded.

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Students

10. The training course is restricted to a maximum intake of four students a year. At present there are nineteen students at the Conservation Centre.

Entry Qualifications

11. Candidates for the diploma course must have a bachelor's degree in history of art and have attended classes in the physical sciences, and show an ability to design and construct works of art. The comparatively high academic qualifications demanded are imposed by the University and it is recognised that they exclude the gifted but less academic restorer.

Staff

12. The permanent teaching staff of the department are:
Chairman of the Conservation Centre (Associate Professor of Conservation)
Senior Scientist (part-time)
Assistant Professor of Conservation
Associate Professor of Chemistry (part-time)
Research Associate (part-time)
Consultant of Textile Conservation

Visiting conservators are invited to teach on a part-time basis.

Finance

13. The Conservation Centre is financed independently of the Institute of Fine Arts. The accommodation and maintenance costs are met by the New York University, but all other costs, including salaries are financed by grants from charitable foundations and donors.

Student Finance

14. There is no state aid for the students. Some fellowships are available, and some help is given towards meeting fees after the first year, but most students support themselves.