

ANNUAL REPORT

1973 - 1974

REPORT OF THE DIRECTOR

CANADIAN CONSERVATION INSTITUTE

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CANADIAN CONSERVATION INSTITUTE

The Director is pleased to report on activities and progress made from April 1, 1973 to March 31, 1974. This is the second Annual Report of the Canadian Conservation Institute. The first Annual Report reviewed activities in the first formative months of the C.C.I. The present Report is therefore the first for one complete year of program activity. It is presented herewith in some detail describing programs in progress at Ottawa Headquarters, as well as across Canada, particularly in the first two regional centres, Vancouver, B.C., and Moncton, N.B.

Notwithstanding the lack of resolution of the space problem in Ottawa for the Headquarters, considerable progress had been made in the various areas. At the present time the Ottawa accommodation is in 2000 square feet on the 7th floor of the National Gallery - Lorne Building, and approximately 7000 square feet in temporary office space of the Bankal Building (Albert and Bank Streets). It is hoped that in the Annual Report for 1974-75 the fundamental problem of space will be happily resolved. In terms of fulfilling the mandate described for C.C.I. it can be said that in the period 1973-74 considerable strides had been made in the three priority areas: conservation services, training, and conservation research.

The report follows reviewing the activities of the functional divisions of the Institute, i.e., Director's office; Conservation Programs; Training Coordination; Conservation Research; Scientific Documentation; Pacific Conservation Centre; Atlantic Conservation Centre.

DIRECTOR'S OFFICE

This office has been a hive of great activity during the year in the planning of programs, recruitment, coordination, public relations, and a host of administrative functions. Permanent staff in this office, together with dates of appointment, are:

Miss Y.B. Gravelle, Executive Assistant (1 July 1973);
Mr. P.J. Chandler, Administrative Officer (30 November 1973).
In addition, temporary staff had been taken on at various times during the year to cope with a massive amount of correspondence, clerical and publication work. Cited here in particular is Mrs. Peggy Wynne (18 October 1973) in acting capacity as Research and Finance Clerk.

Miss Gravelle had organized several meetings of the Regional Advisory Committees (Atlantic and Pacific) and had travelled on separate occasions to Vancouver and Moncton to initiate administrative procedures and set up the office functions there. She has also been responsible for securing and training of secretarial and office staff (temporary and permanent) for the Ottawa Headquarters. Additional activities have been conversion of the C.C.I. Records Management Section to N.M.C. standards; coordinating travel for groups of C.C.I. professional staff on conservation surveys and seminars; and has assisted the Director in a variety of financial and personnel matters during the year.

Mr. Chandler has organized a number of financial control procedures and together with Mrs. Wynne has been instrumental in maintaining a sense of order in a very large purchasing program. The equipment and materials and supplies inventory has grown considerably and major portions transferred to the Vancouver and Moncton centres. A start had already been made on financial coding and delegation of the C.C.I. budget into responsibility centres. A detailed inventory of the C.C.I. holdings in all materiel areas has started and will be consolidated and maintained in the following year.

The Director had travelled extensively across Canada in connection with program development in the regional centres, on consultations of various kinds, recruitment, officiating at openings of the C.C.I. - National Gallery exhibition Progress in Conservation, as well as lecturing at various institutions.

He has also developed and maintained liaison with various governmental, university, and institutional bodies concerned directly or indirectly with preservation of the cultural heritage. Such liaison activity was also pursued at the international level.

The Director had also prepared policy papers on terms of operation of Emergency Conservation projects via the Consultative Committee on National Museums Policy, and also on the matter of charges for C.C.I. conservation work to institutions across the country.

In this first full year of existence a major increase in C.C.I. staff had taken place. A total of 20 new staff were taken on strength during 1973-74; and 2 persons resigned. As of March 31, 1974 the total staff of C.C.I. stood at 30 full-time members plus two persons on contract. The staff list and titles are presented further on in this report.

CONSERVATION PROGRAMS - HEADQUARTERS

The consultant conservators and conservators had moved to temporary quarters in the Bankal Building in downtown Ottawa at the end of August. This was intended to be a holding operation until proper quarters could be secured for carrying out conservation work in the various areas. As space was not forthcoming the conservators were obliged to reduce their work to small objects, consultation services, seminars, and a variety of professional activities not requiring elaborate facilities. Nevertheless, as the sectional reports show, an impressive amount of work had been undertaken.

FINE ARTS

Until October 25, 1973 this program was headed by Mr. Ursus Dix, who was then transferred as Chief of the Pacific Conservation Centre to Vancouver. The work of this section since that date has fallen largely upon Mr. Emil Bosshard. Conservation work had been carried out on two Borduas paintings belonging to the National Museums of Canada, and work at the early stages commenced on eight other paintings belonging to the War Museum and a number of Atlantic Provinces art museums. Consultation visits were carried out on a large 16th century painting in St. Joseph's Oratory in Montreal and at the Musée d'Art de Joliette, P.Q. on their collections and their planned new museum. Short technical articles had been written by Mr. Bosshard for the C.C.I. Newsletter No. 3, and for the German publication Maltechnik-Restaur. He had also participated as a survey team member of the B.C. Conservation survey June-July 1973 described below, and was C.C.I. delegate to a special course held in the Summer of 1973 at Cooperstown, New York on picture relining techniques. Mr. Dix prior to his transfer to Vancouver had spent considerable time organizing the massive conservation surveys in the Atlantic Provinces and British Columbia. He had also carried out extensive planning and ordering of equipment and supplies for the fine arts conservation programs.

POLYCHROMES AND DECORATIVE ARTS

Mr. von Imhoff as consultant conservator was responsible for planning and coordination of a variety of activities in this area. Under his supervision a restricted number of projects have been initiated by the conservators Mr. Stewart Meese and Mrs. Rustin Levenson. Mr. von Imhoff was partly involved in the Atlantic Conservation surveys of May 1973 and extensively so in those for British Columbia. He had contributed extensively to the Planning of the Conservation Training program and had helped develop ideas on the 'mobile conservation vehicle concept'. From October 11, 1973 to January 4, 1974 he was on leave of absence as guest lecturer in Mexico City at the Instituto INAH Paul Coremans, Departamento de Restauracion del Patrimonio Cultural, Cursos Interamericanos. His subject was Basic Principles of Conservation, Documentation, and Non-Destructive Methods of Examination of Works of Art.

Mr. Meese has been engaged in conservation work on two paintings and on an Egyptian Sarcophagus Head belonging to the National Museums. He was also engaged in the B.C. surveys and in some preparatory work on the Conservation Training Program during Mr. von Imhoff's absence in Mexico. Mr. Meese was also extensively involved in researching purchases for specialized equipment for examination and conservation of three dimensional objects.

Mrs. Levenson has been involved in five examination and conservation projects, including one Borduas painting (National Museums), an early period Grenadier's Cap (War Museum), a T'ang Horse and Buddha - both belonging to the New Brunswick Museum at Saint John. She has in addition made contributions through consultations and research into the mobile conservation vehicle concept. Also she has carried out some preliminary studies on cleaning and lining techniques for 'colorfield' paintings. Mrs. Levenson has offered consultations to National Historic Sites on cleaning of marble, and via the C.C.I. Newsletter, practical information on a variety of conservation subjects designed to improve curators and custodians of smaller museums.

ETHNOLOGY

Mr. Per Guldbeck is the Consultant Conservator for Ethnology and has under him Mr. Sten Holm as Conservator. Prior to the arrival of Mr. Guldbeck (October 1, 1973) Mr. Holm had been active essentially in planning and surveys. He had participated extensively in the British Columbia conservation survey with an extended itinerary by himself into the northern parts of the province. Particular consultations were offered to the National Museums archaeologists on the preservation of water-logged wood at the dig in Prince Rupert. Mr. Holm has also carried out an extensive conservation survey for the Ethnology Division, National Museum of Man and for the Redpath Museum, McGill University in Montreal. Since Mr. Guldbeck's arrival further development has taken place on the ethnology conservation program. Mr. Guldbeck has made major contributions to the C.C.I. seminars in Ottawa, Moncton, and Vancouver; he has offered advice to the National Museum of Man on exhibit mounting techniques, and to the Manitoba Museum of Man on care of ethnographic collections. He has also lectured at the Anthropology Museum, University of B.C. Officials from Algonquin College, Ottawa, Queen's University, and National Historic Sites paid special visits to discuss a variety of conservation matters. Research has commenced on conservation of certain classes of ethnographic materials, and both Mr. Guldbeck and Mr. Holm have spent time planning and preparing for lectures to be given in the Conservation Training Program.

ARTISTIC AND HISTORIC WORKS ON PAPER

The Consultant Conservator for this area of activity is Mr. Roger Roche, assisted by Mr. Roy Graf (reported September 20, 1973), as Conservator. Much of the year has been spent in very extensive surveys of collections. Mr. Roche played a major role in the surveys of both the Atlantic Provinces and B.C. Museums. In addition he conducted detailed conservation surveys at the Department of External Affairs in Ottawa in October 1973 and the New Brunswick Archives, Fredericton, in December 1973. The latter survey was necessitated by the floods in Fredericton earlier that year. A special trip was undertaken with Mr. Graf to the Institute of Paper Chemistry in Montreal in December. Mr. Roche had travelled frequently during the year to give lectures and consultations on paper conservation. He has presented workshops and headed up sections at the Conference of Prairie Archivists in Banff, May 1973; at the Learned Societies Meetings in Kingston, Ontario in June 1973; at the Archives Course at Public Archives in Ottawa in August and September 1973; at the B.C. Archives and Libraries Association in Vancouver, February 1974. In addition he played an important role in the C.C.I. Seminars of Ottawa, Moncton, and Vancouver. Mr. Roche has also carried out detailed planning work for the Atlantic Conservation Centre in Moncton, N.B., having made special trips there for such purposes. He has served during the year on the Advisory Committee for Technologist Training of Algonquin College. A variety of visitors came to this section to consult with both Mr. Roche and Mr. Graf on conservation matters: officials from the Bank of Montreal re: conservation of bank notes; Department of External Affairs regarding transporting of collections; Public Archives, Ottawa regarding conservation of books, properties of protective cases and containers, conservation of photographs; Mr. Y. Karsh, Ottawa, regarding preservation and conservation of photographs; Ontario Public Archives, New Brunswick Archives, and Archives of the Canadian Rockies all regarding archives and paper conservation; Etherington Art Centre, Kingston, Ontario regarding general conservation procedures.

Only a limited amount of actual conservation work could be carried out. Such projects completed during the year have been restoration of one Borduas painting, property of National Museums; the examination and assessment of a collection of archival documents from the New Brunswick Public Archives. Special papers have been written (in part) on museum lighting, on packing and shipping, and a detailed report presented on paper conservation research directions. Mr. Graf also reports on his preliminary studies on printing techniques and their identification with some research into ink flow on the paper surface. Also specifications were established for use of plexiglass in 'close' contact with prints and drawings surfaces.

ARCHAEOLOGY

The position of Consultant Conservator in this section had remained unfilled during the year. Ms. Susan Nash, as Conservator, Archaeology played a major role in this area of conservation activity. She commenced work on September 17, 1973, and as her first major task undertook to carry out a three-month detailed survey of the Archaeological Survey of Canada Collections at the National Museum of Man, in Ottawa. A number of items of National importance have now been selected for special study and conservation by C.C.I. Another project of major importance was her evaluation of the water-logged finds of the Prince Rupert, B.C. excavations (National Museum of Man). Consultations with National Historic Sites officials together with extensive literature research were carried out on the general subject of water-logged wood treatment with polyethylene glycol products. The question of presentation during exhibition of such objects has been pursued and a specially designed display case has been proposed. Overall the water-logged wood problem remains however unresolved and involvement of scientific staff in C.C.I. is proposed. A narwhal tooth from an archaeological site in Baffin Island has been accepted for treatment. Biological remains, fungus and lichens have been examined by biologist Mary-Lou Florian.

Preliminary discussions have taken place with Dr. Hanlan of C.C.I. and David Keenlyside of the Archaeological Survey on 'fingerprinting' by special analytical means (EDX - energy dispersive X-rays) of native copper to determine mine sources. Additionally some preliminary testing of elements present in fading photographs have been pursued together with Dr. Hanlan and with strong interest shown by Richard Huyda of the Public Archives and James Borcoman of the National Gallery of Canada.

Ms. Nash (together with Mr. Guldbeck) has offered advice and consultation to Mr. Dix of C.C.I. Vancouver on the design of a combined archaeological and ethnographic conservation facility. She has additionally offered advice on a variety of conservation and related problems of her field to specialists at the University of B.C., at the Art Gallery of Victoria. A trip was made in January 1974 to the Ozette Archaeological Project, Neah Bay, Washington to discuss with Mr. Gerald Grosso, Conservator, the question of conservation of water-logged wood employing polyethylene glycol 1500.

TRAINING

The Chief Training Coordinator, Mrs. Brenda Wallace was appointed on December 17, 1973. However much planning in this important priority area had taken place earlier in the year. The Director had constituted a Conservation Training Committee earlier on composed of the Director; the Assistant-Director, Conservation Research; two Consultant Conservators; and the Chief Training Coordinator; and other persons as required.

A series of meetings with the Public Service Commission and Treasury Board had taken place in the period April-July 1973 from which evolved the C.C.I. Conservator Training Program. This is best described as a three year apprenticeship type training with heavy emphasis on academic subjects but with close direction by specialist staff conservators. This program was ratified by Treasury Board by late summer and plans made for recruitment of the 10 candidates from university graduating classes across Canada. A total of 160 applications were received by closing date in early January 1974. Pre-selection of prospective candidates reduced the number to 50. Intensive interviews of these candidates took place in Ottawa, Moncton, Toronto, and Vancouver to the end of January. The interview board consisted of Mr. Jean Darisse, of the Public Service Commission, Ottawa, Dr. Stolow, Dr. Sebera, Mr. Guldbeck, Mr. Roche, and Mrs. Wallace of C.C.I. The ten candidates finally selected, together with fields of specialization were:

Mr. Jim Purvis, Winnipeg, Manitoba, Paintings and Fine Art;
Mr. Robert J.W. Arnold, London, Ontario, Paintings and Fine Art;
Mr. Patrick J. Legris, Dacre, Ontario, Decorative Arts;
Mr. Rodrigue Bédard, Outremont, Quebec, Polychromes and Decorative Arts;
Mr. John H.A. Grant, Vancouver, B.C., Ethnology;
Mr. Thomas G. Stone, Ottawa, Ontario, Ethnology;
Miss Michèle Larose, Kingston, Ontario, Artistic and Historic Works on Paper;
Mr. Glen H. Sisk, Ottawa, Ontario, Artistic and Historic Works on Paper;
Miss Debora H. Jewett, Halifax, N.S., Archaeology;
Mr. Michael Gates, Edmonton, Alberta, Archaeology.

This program has been scheduled to start in early June 1974, with the period June - August spent as a summer program in Moncton (at the Atlantic Conservation Centre) prior to continuing on a regular basis in Ottawa at Headquarters. Many meetings took place between February and the end of March 1974 to work out the many details, courses, lecturers, schedules, for this program. A considerable number of C.C.I. staff have been selected for teaching and they have been preparing their lectures and didactic materials for some time in advance. Mrs. Wallace had by the end of March properly assumed her role as Training Coordinator.

Another activity during the year, of no less importance has been the series of three seminars organized and presented by C.C.I. in cooperation with the Canadian Museums Association. These were on the topic of "Conservation of Collections: Recent Concepts" and were given in Ottawa (December 3-5, 1973), Moncton (January 7-9, 1974) and Vancouver (January 21-23, 1974). These seminars were very well attended, by approximately 140 directors, curators, conservators, custodians, and university officials from a wide assortment of museum institutions across Canada. The C.C.I. staff involved as lecturers, discussion leaders, and in charge of workshops were: Dr. Stolow, Dr. Sebera, Mr. Guldbeck, Mr. Roche, Mr. Dix, Mr. Rogers, Dr. Hanlan, Mrs. Levenson, Ms. Nash, Mr. Bosshard, Mr. Graf, Mr. Meese, Mr. von Imhoff, Mr. Holm, Mr. Lafontaine, Mr. Byers, and Mrs. Wallace (as Training Coordinator).

Joining these seminars as a special lecturer on biological subjects was Mrs. Mary-Lou Florian (under contract with C.C.I.). The Moncton and Vancouver seminars were conducted in the respective Regional Conservation Centres of C.C.I.

Other conservation seminars, of shorter duration presented by C.C.I. staff have been:

Vancouver. February 1974. Mr. R. Roche, Mr. B. Byers at "B.C. Archivists and Librarians Association".

Medicine Hat, Alberta. March 1974. Dr. N. Stolow, Mr. U. Dix, at "Prairies Provinces Art Association".

Peterborough, Ontario. November 1973. Mr. John Taylor, Dr. N. Stolow at "Third National Conference of the Canadian Rock Art Research Association".

Ottawa, Ontario. March 1974. Mr. W. Bokman and Mr. I. Wainwright at C.C.I. Headquarters on "Photography and Microscopy for Conservators".

Toronto, Ontario. October 1973. Dr. D.K. Sebera at International Institute for Conservation - Canadian Group Annual Meeting.

Cooperstown, New York. August 1973. Dr. D.K. Sebera at Conservation Science Summer Course - Cooperstown Graduate Programs.

Toronto, Ontario. August 1973. Dr. N. Stolow at Religious Archives Conference (Basilian Fathers).

During the year C.C.I. presented two occasional lectures of seminar format to be given by staff or outside specialists. The first was given by Mr. Jose Orraca of Eastman House, Rochester, New York on "Problems of Conservation of Photographic Collections", in Ottawa, October 15, 1973; and the second by Mr. John Taylor, of C.C.I. on "Scientific Studies on Indian Rock Art Paintings", in Ottawa, November 30, 1973.

CONSERVATION RESEARCH

Dr. D.K. Sebera, Assistant-Director, Conservation Research Programs was appointed June 1, 1973; Dr. K.J. Macleod Chief, Environment and Deterioration Research on August 1, 1973; Mr. P. Marriner, Consultant, Exhibition Conservation Research, on August 1, 1973; and Miss E. Schaffer, Research Chemist, Environment and Deterioration Studies, on July 1, 1973.

Considerable time was spent by all staff members in the Conservation Research Division in planning and developing facilities for future use. Thus considerable effort was expended in researching into and investigating the purchase of a wide variety of complex research equipment for use in analytical research services, for the study of deterioration phenomena in works of art and museum objects, and in exhibition conservation studies. Staff members likewise were engaged in a variety of C.C.I. seminars; and in the preparation of technical articles to appear as "Fact Sheets" published by C.C.I.

Dr. Sebera presented lectures on conservation science in Cooperstown in August; chaired an IIC-Canada Group meeting on Conservation Training in Toronto in October, and actively participated in C.C.I. seminars in Ottawa, Moncton, and Vancouver in December and January.

As a member of the C.C.I. Training Committee he planned its programs and prepared the brochure on the C.C.I. Conservator Training Program. He participated in other C.C.I. committees concerned with publications (Fact Sheets), and scientific documentation; arranged for the collaboration of scientific staff with certain conservators on examination of pigments, and the mobile conservation unit. He prepared divisional research programs for 1973-74 and projected to 1974-75, and submitted corresponding budgets. Dr. Sebera has consulted with outside institutions, primarily on conservation training, e.g., at Winterthur, Delaware, and Sir Sanford Fleming College in Peterborough.

ANALYTICAL RESEARCH SERVICES

Dr. J.F. Hanlan, together with Mr. John Taylor and Mr. R. Myers have actively pursued a number of interesting analytical projects of national importance. Notable among these are the Rock Art Studies (Agawa Bay and Lake Wapizagonke) headed by John Taylor, and the Canadian Silver Studies carried out by Robert Myers. In the latter project the first phase on French Canadian church silver has been completed - and the second phase on Domestic and Maritime silver has commenced. Dr. Hanlan reported on the extensive tests and calibrations required to get the elaborate scanning electron microscope to function properly, as well as the calibration of the atomic absorption facility. Certain frustrations had also arisen owing to overcrowding of facilities and staff and dangerous uncontrolled leaks from the roof above. Nevertheless an impressive start had been made in rendering service to a large number of curators and scientists in other museum institutions. Such services and consultations had been extended during the year to the National Gallery of Canada, National Museum of Man, National Historic Sites, Canada Council, Centre for Forensic Science (Toronto), Public Archives, The Royal Mint, etc.

Dr. Hanlan was exchange tour speaker to groups of the Applied Spectroscopy Society in north-eastern U.S.A. in April 1973; invited lecturer at Association for Preservation Technology in Boston in September 1973 and Chairman of Session on X-ray Fluorescence Analysis at the 4th International Conference on Atomic Spectroscopy in November 1973.

John Taylor, has developed a considerable expertise and research interest in Indian Rock Art. Such studies concerned largely the natural deterioration and possible methods of preservation of Indian Rock Painting sites at Agawa Bay, Ontario and Lac Wapizagonke, Quebec; in cooperation with the Ministry of Natural Resources of Ontario and the Anthropology Department of Trent University. Papers have been published on the research carried out during the year. A notable instrumental development was the purchase of a Gandolfi single particle x-ray diffraction camera which now permits x-ray diffraction study of a single particle as small as 50-75 millimicrons in size. Also Mr. Taylor had carried out x-ray diffraction studies on 96 pigments submitted by Mr. von Imhoff.

Robert Myers had spent considerable time developing expertise in the operation of the complex scanning electron microscope (S.E.M.) and in the application of a second analytical tool - the EDX or energy dispersive x-ray apparatus. Both instruments had been brought to functional use and enabled an impressive number of samples submitted by curators and conservators to be analyzed. In addition to papers co-authored with Dr. Hanlan, Mr. Taylor, and Mr. Wainwright, Mr. Myers had prepared an internal report on the Analysis of Indian Trade Silver. Largely by means of the EDX equipment, dozens of routine samples were run off giving answers for specific questions - particularly where it was important not to remove any material whatever from the surface.

Miss Marilyn Wheeler under contract, had carried out specific studies on the application of the atomic absorption equipment for minute samples removed from museum objects. At the latter stage she had carried out evaluations on micro spot tests.

ENVIRONMENT AND DETERIORATION RESEARCH

Dr. K.J. Macleod reports that considerable time was spent since August 1, 1973 in planning, purchasing, and organizational matters. A significant period of time was spent on researching and evaluating costly equipment intended for studies in this program.

Nevertheless certain projects had commenced relating to the study of the deterioration of caribou sinew (Miss E. Schaffer) and on the evaluation of lighting sources for museum display purposes.

Dr. Macleod reports that Technical Bulletins on "Relative Humidity" and "Museum Lighting" have been written up and ready for publication. Consultations were given on lighting questions to the National Gallery, the Canada Council Art Bank Project, and the Canadian Postal Museum. C.C.I. conservators have consulted this section on adhesive deterioration, paper deterioration studies, and properties of water-logged wood.

Mr. George Rogers, Research Chemist had divided his time between research, overseeing the Progress in Conservation Exhibition in various Canadian cities, and preparations for his M.Sc. program at Ottawa University. During this period the Exhibition, which emphasizes the interplay of science and museum disciplines in conservation of collections, had been installed at the Vancouver Art Gallery, Vancouver, B.C.; the Art Gallery of Ontario, Toronto, Ontario; the Art Gallery of Windsor, Windsor, Ontario; Rothman's Art Gallery, Stratford, Ontario; and the Confederation Art Gallery, Charlottetown, P.E.I. Frequently he had given lectures at these centres to staff members and the public, interpreting the more scientific aspects of conservation to non-specialists. During May 8-11, 1973, Mr. Rogers organized a mini-Exhibition of Progress in Conservation on the occasion of the Annual Meeting of the Canadian Museums Association in Ottawa. His M.Sc. project at the University of Ottawa, supervised by Prof. K.J. Laidler was decided to be the study of the tarnishing of silver - a subject of great conservation interest for C.C.I. The necessary C.C.I. equipment had been transferred on loan to the University of Ottawa. Mr. Rogers worked on other research projects, e.g., the application of a mini-computer - Hewlett-Packard 9839A - to scientific data analysis and presentation. He has also developed expertise on the use of video-tape systems for use in C.C.I. training programs. Together with Mr. Bosshard, he carried out a consultation visit at the museum in Joliette, Quebec, advising on special environmental requirements for the new building.

Mr. Raymond Lafontaine, Chemist, spent the early part of the year on pyrolysis gas chromatography research. This study had been discontinued. At this time considerable time was devoted to researching equipment for purchase - much of the equipment requiring technical evaluation - particularly those items of possible use in museums by non-technical personnel. A study of the hysteresis effect of several relative humidity monitors was undertaken employing the specially designed controlled humidity chamber. Time was spent on methods for conditioning silica gel - particularly short-cut methods. Mr. Lafontaine also prepared talks for C.C.I. seminars to be given at a later date. He attended a three day course on the principles of colour technology held in Cleveland, Ohio.

Miss Erika Schaffer carried out studies, essentially literature surveys, on the deterioration of sinew - a subject of considerable importance in ethnology conservation. She has been accepted as a member of the working group on leather preservation, ICOM Committee for Conservation.

EXHIBITION CONSERVATION RESEARCH

Mr. Paul Marriner visited Toronto in August to consult with Mr. John Spence, the consulting architect for the new Art Gallery of Ontario on the subject of recent advances in environmental control incorporated in new museum design. In September the firm Convector Ltd. was visited in New York to facilitate further discussions on environmentally controlled cases for exhibition travel. Design work was done on the mobile conservation unit in consultation with C.C.I. conservators. Consultations have been given to the Canada Council Art Bank, to the firm Dixon, Moore, and Associates, and to the Ukrainian Arts and Crafts Museum, on a variety of case design, and packaging matters relating to exhibition conservation in transit.

Two cases borrowed from the National Gallery of Canada were especially fitted with shock and temperature recorders and were shipped by rail on a round trip to Vancouver. On return one of the cases was badly damaged in transit. The trip records, fully recorded, have been analyzed, a full report to be prepared.

Studies had commenced on the possible use of silica gel impregnated paper as a humidity controlling device for exhibition cases. A technical paper on packing and shipping of works of art had been started, and preparations made for C.C.I. Seminar lectures including that for the Canadian Museums Association seminar on Museum Architecture. Also since August 1973 Mr. Marriner has investigated a variety of equipment and instruments for purchase for the purpose of testing and research into shock, temperature, humidity and other environmental conditions experienced by works of art and museum objects during exhibitions and travel.

SCIENTIFIC DOCUMENTATION

Dr. Rosamond Harley, Chief of the Scientific Documentation Division joined the staff on May 23, 1973; Mr. Ian Wainwright, Conservator, Documentation Studies on April 1, 1973; Mr. Wilfred Bokman, Conservator, Graphic Studies on July 30, 1973; Miss Barbara Klempan, January 2, 1974; and Mrs. Geraldine Wallis, Librarian on February 18, 1974.

The initial period during 1973-74 has been spent largely in organization, and purchase of equipment. With the move to the Bankal Building, a certain amount of planning could take place, but very little direct service could be given, e.g., in photography owing to inadequate facilities. Mr. Bokman had to engage Mr. John Evans, photographer, for contract work, and to use the additional facilities of the Canadian Government Photo Centre.

The planning and setting up of a comprehensive documentation system for conservation, research, and related professional programs for C.C.I. was undertaken. Advice and consultation had been sought from staff specialists and via the Scientific Documentation Committee. A system has been set up for numbering reports in three groups: - special projects, conservation reports and reports on samples for analysis. Regional laboratories will number their conservation reports in separate groups. Dossiers have been organized for this purpose and photographic documentation is undertaken with the same numbers.

A system of documentation forms was developed and virtually completed in 1973-74, although professional design and printing has yet to take place. Most of the development work in this connection was undertaken by Mr. Wainwright. He had consultations with Mr. Homulos of National Museums Information Systems, as well as with Mr. Sled of the Public Archives.

Mr. Wainwright has contributed effectively to the Rock Art project (coordinated by Mr. Taylor) by making of cross-sections and initially examining them by microscopy. He has also been involved in evaluating and testing an impressive inventory of sophisticated microscope equipment acquired by C.C.I. in the past year. Further, in connection with documentation systems and information retrieval, Mr. Wainwright has investigated the various mechanical, electro-mechanical and electronic possibilities. A great deal of research was done in conservation terminology and standardization of language for examination and treatment records. Mr. Wainwright presented lectures on microscopy to C.C.I. conservators on March 18, 1974 and collaborated on the Rock Art Research report with Mr. Taylor and Mr. Myers.

Much of the earlier microscopy, in connection with C.C.I. projects, had been undertaken by Mrs. Kay Allan, until she had left C.C.I. (by transfer) in February 1974.

Mr. Bokman has been responsible for all photographic documentation, and where facilities did not permit, organizing external services. He has spent considerable time in setting up and testing photographic equipment ordered by C.C.I. as well as researching newer equipment for the Headquarters and the Regional Centres. He has provided records for the various C.C.I. Seminars, for Newsletter and other information uses. A few consultations were provided to other institutions regarding photographic and non-destructive techniques of examination. Significantly, advice was given (together with Mr. Graf), on archival photography processing and film storage to the celebrated photographer Mr. Y. Karsh. Mr. Bokman has conducted tests and made ready for operation the C.C.I. infrared television unit to be used for examining works of art. He had also prepared lecture and seminar material for use in the C.C.I. Conservator Training Program and for a variety of other seminars. Trips were made to Toronto, for evaluating slide storage systems, and to Moncton to help plan the photographic studio requirements there.

Book and journal purchases commenced during 1973-74, initially coordinated by Dr. Harley until the arrival of Mrs. Wallis, the Librarian, in February. She has made significant progress in the basic organization of the C.C.I. library, such as the cataloguing and borrowing systems. Early priority was given to purchase of books to support the training program.

Dr. Harley made significant progress in implementing the C.C.I. program of publications of which she is Editor. A professional designer, Mrs. Eiko Emori was engaged to provide design and a recognizable 'house style' for such publications as the Newsletter, Fact Sheets, Technical Bulletins, and the Training Brochure. Publication of the C.C.I. Newsletter as a quarterly journal is well underway, issues number 1 (October 1973) and 2 (January 1974) have already appeared and distributed widely to the museums field in Canada and abroad. A selective mailing list for the C.C.I. comprising 2,400 addresses was used for this purpose. This list will be broken down into particular categories for reaching more specialized portions of the museum field. The return response to the Newsletter has been overwhelming, confirming the value of this form of publication. Plans had been laid out for Newsletters 3 and 4, so far utilizing staff resources for articles, reports, and specific workshop notes. Dr. Harley has also travelled to Vancouver and Moncton to familiarize herself with the Regional Centre programs. She has participated in various C.C.I. committees to obtain a general comprehension of the diverse programs.

Prior to Miss Klempan's arrival in the Scientific Documentation Division in January, she had been extensively involved in a variety of design projects, primarily for the Progress in Conservation exhibition installations in different cities (coordinated by George Rogers). She has also provided useful design services for proposed plans for the C.C.I. in a number of buildings suggested for C.C.I. occupancy. In the latter part of the year Miss Klempan had commenced some microscopic work under the guidance of Mr. Wainwright.

OTHER PROGRAMS AT HEADQUARTERS

Mrs. Mary-Lou Florian had continued her contract during the year on 'biological influences on the conservation of museum collections'. She had completed a massive report on this subject with a very detailed annotated bibliography. She had also prepared a special report on the 'Woodworm Problem in Museums'. During the year she had offered consultations and identification services to conservators and scientists on a variety of biological problems. Also during the C.C.I. Seminars in Ottawa, Moncton, and Vancouver she gave very effective talks on the influence of biological factors on conservation of museum objects and works of art.

REGIONAL CONSERVATION CENTRES

During the year considerable progress had been made in establishing the Pacific and Atlantic Centres. The policy with regard to C.C.I. specified that there shall be a Headquarters and five Regional Centres. Plans for the remaining centres, Ontario, Quebec and the Prairies have entered the conceptual stage. A questionnaire pertaining to C.C.I. services has been broadly circulated (together with Newsletter No. 1) to all museum institutions in Canada. The response was most encouraging indicating the enormous need across the country for conservation surveys, conservation and restoration services, and related scientific examinations. Specific requests for such services by museums in the regions were: Pacific - 35; Prairies - 25; Ontario - 48; Quebec - 14; and Atlantic - 25; the total of such requests being 147.

Pacific Conservation Centre

Interim space was acquired for the Pacific Conservation Centre in Vancouver early in the year - located on the fourth floor of the Federal building at 325 Granville Street. Negotiations proceeded speedily with Pacific Region Public Works to renovate the space offered, in the vicinity of 4500 square feet, to meet the operating requirements for the Pacific Region Conservation Centre. This work, under contract, was completed in the fall of 1973, and the resulting space modifications considered quite satisfactory.

Mr. Ursus Dix, formerly Consultant Conservator, Fine Arts, was appointed Chief of the Pacific Region Conservation Centre effective by transfer to Vancouver in September 1973. Joining him as special assistant was Barry Byers, Conservator, Paper, on September 24, 1973. The third member of staff, appointed earlier on a temporary basis, was Miss Wanda Potrykus as secretarial and administrative assistant to the Chief. Considerable effort had been expended by Mr. Dix and Mr. Byers in organizing and equipping the Centre. At the end of March 1974, the Centre was at least operational for smaller projects in fine arts, and paper. Additional equipment and installations were being prepared to round out the entire program to include as well archaeology, and ethnology conservation.

The composition of the Regional Advisory Committee remained unchanged at 9 members. Meetings were held on June 22 in Vancouver, October 11-12 in Ottawa and January 25, 1974 in Vancouver. The meeting in Ottawa highlighted the presentation by C.C.I. to the Committee of the massive Pacific Region Conservation Survey Report. This report concerned the survey held June 21 - July 25, 1973 in which 7 C.C.I. conservation specialists and one person under contract surveyed 33 museums, art galleries, and sites in British Columbia. The report, presented over the two-day meeting in Ottawa, referred to a conservation program totalling 498 man-years for the most important objects - of those surveyed. The breakdown by categories is: paintings and sculptures 371 items - 124 man-years; prints, works of art on paper 3579 - 22; ethnology 1,747 - 55; archives 93,572 - 48; and rare books 19,710 - 249 man-years.

By the end of the year Mr. Dix had contacted a number of B.C. institutions cited in the Survey Report to compile a work program for the following fiscal years. At the end of March, he had carried out a detailed conservation examination on a Nootka Transformation Mask recently acquired by the National Museums of Canada. This work is likely to enter in the work program as well. Earlier on Mr. Dix had travelled to Courtenay, near Campbell River to examine the same mask 'in situ'. A few minor conservation treatments had been carried out on paintings submitted, e.g. one by Goodridge Roberts "Lilacs and Apples". Also the travelling exhibition of graphic works by James Ensor had been examined when at the Vancouver Art Gallery. Another conservation activity worth noting was a brief conservation survey carried out at the Anthropology Museum, University of B.C. at the request of Dr. Harry Hawthorn, Director. This was conducted by Dr. N. Stolow when he was in Vancouver at the end of March.

A number of requests have been directed to the Pacific Conservation Centre - on archives conservation by the Vancouver City Archives; by the B.C. Provincial Museum on the C.C.I. Training Program; by the Western Development Museum, Saskatoon on display techniques. Two queries were also received on the authenticity of a 17th century Venetian painting and a reputed painting by Corot.

Mr. Dix had prepared for publication a primer for small museums on the conservation of fine art collections.

Atlantic Conservation Centre

In the early Fall, Atlantic Public Works had leased for C.C.I. approximately 7,500 square feet of prime space at 236 St. George Street in Moncton, N.B. for use as an interim accommodation for the Atlantic Region Conservation Centre. In the intervening period temporary office facilities had been organized and arrangements made with Public Works to fit out the space so as to be functional for conservation services and for general activities of a regional centre. By the end of March 1974 detailed specifications had been drawn up with completion date set for the end of May. At various times C.C.I. officials including the Director had travelled to Moncton for planning and developing the Atlantic Centre. Of particular importance was the planning to use the centre, first for the Conservation Seminar held there in early January 1974 and for use starting June for a three-month conservation training program for the 10 official trainees.

The Atlantic Region Advisory Committee met with the Director as follows: June 11-12, 1973 in Ottawa to receive the Atlantic Conservation Survey Report; July 12-13 in Halifax and Moncton; October 22 in Fredericton; January 10, 1974 in Moncton; February 28 in Moncton. The composition of the Committee remained unchanged - at 7 members.

Of great importance was the presentation to the Committee of the Atlantic Conservation Survey Report. This was presented in Ottawa on June 11-12, 1973. This survey was carried out by 5 C.C.I. conservators during the period April 30 - May 11, 1973 during which 16 museums, art galleries, and related institutions were visited. Considering only objects of great importance it was estimated that 1,111 man-years are required for their conservation. This breaks down to 846 paintings and sculptures - 61 man-years; 1620 prints and drawings - 22; 3,251 ethnological objects - 56; 148,644 archival objects - 268; 25,010 rare books - 704 man-years.

Also during the year the Director met a number of times with the Recteur of the Université de Moncton and officials of Atlantic Region Public Works to negotiate space for a permanent building to house the C.C.I. Atlantic Region Conservation Centre on their campus.

Ontario Conservation Centre

No further progress had been made beyond the inaugural meeting held in Toronto January 31, 1973. A number of survey requests were submitted by Ontario institutions, and a significant number of institutions expressed an interest in location of the proposed Ontario Conservation Centre on or near their premises. A variety of activities, projects, requests centred in the Ontario region and conducted by C.C.I. from its Headquarters have been cited in previous sections of this report.

Prairies Conservation Centre, Quebec Conservation Centre

No action had been taken in a formal way to set up inaugural meetings for such Centres. As above a significant number of Headquarters projects had been carried out during the year in the Prairies and Quebec Regions. These have been detailed elsewhere in this report.

Visitors, Public Relations.

Among the special visitors to C.C.I. during 1973-74 were:

- Sgt. Det. R. Major, Montreal, regarding fake paintings.
- Mr. Glen Cummings, Hamilton Art Gallery, Hamilton, Ont. regarding environmental conditions and building plans.
- Mr. Jose Oracca, Eastman House, Rochester, New York, regarding photography conservation.
- Professor Verschingel, Sir George Williams University, Montreal, regarding possible courses on conservation training.
- Mr. L. Trakas, Quebec City, regarding identification of two old paintings.
- Drs. Waetzoldt, and Riederer, Berlin, Germany, regarding structure and policies of C.C.I.
- Drs. R. A. Sinclair, and S. T. Ting, 3M Company, St. Paul, Minn., U.S.A.
- Mr. S. Bersudsky, Toronto, regarding preservation of St. Paul's Church in Toronto, particularly the frescoes of Gustav Hahn.
- Professor Moskovits, Erindale College, University of Toronto, Toronto, regarding application of chemistry to conservation problems.
- Mr. H. B. Lecompte, Assistant Director, Visual Arts Board, Australian Council for the Arts, regarding C.C.I. programs and policies.
- Mr. John Pogzeba of the Gilcrease Institute of American History and Art, Tulsa, Oklahoma.
- Mr. David Ross, Manitoba Museum of Man, Winnipeg.
- Dr. Christopher Turnbull, Provincial Archaeologist, Fredericton, N.B.
- Mr. Andrew Aarons, Sir Sanford Fleming College, Peterborough, regarding conservation training.

- Dr. Don McLeod, Senior Archaeologist, Historic Sites Branch, Ministry of Natural Resources, Toronto, accompanied by fourteen provincial officials.
- Mr. Selwyn Dewdney, Consultant on Rock Art, London, Ontario, regarding rock art studies by C.C.I.
- The Hon. Jules Léger, Ambassador to Belgium, regarding C.C.I. activities.

The Director had appeared on television and radio in connection with C.C.I. activities in Toronto, Vancouver, Windsor, and Moncton on both English and French programs. Mr. Dix had appeared on television in Vancouver. A considerable amount of press coverage appeared in newspapers across Canada on C.C.I. activities and programs during the year.

Publications

- Dix, U. Conservation Surveys - A Personal View.
C.C.I. Newsletter No. 2, Jan. 1974, p. 2.
- Roche, R. Conservation Surveys - The Harsh Facts.
C.C.I. Newsletter No. 2, Jan. 1974, p. 3.
- Taylor, J. M. Rock Art Studies at the Canadian Conservation Institute.
C.C.I. Newsletter No. 2, Jan. 1974, pp. 5-6.
- Taylor, J. M.; Myers, R. M.; and Wainwright, I. N. M.
Scientific Studies of Indian Rock Art Paintings in Canada.
Bulletin of the American Institute for Conservation, 1974,
16 pp.
- Myers, R. M.; and Taylor, J. M.
An Investigation of Natural Deterioration of Aboriginal
Rock Paintings by Scanning Electron Microscopy and X-ray
Microanalysis. Proceedings of the Ninth Annual Conference
of the Microbeam Analysis Society, 1974, 3 pp.
- Florian, M. L. The Woodworm Problem Relating to Museums.
C.C.I. November 1973, 10 pp.
- Stolow, N.; Rogers, G. de W.
Gas Chromatography and Pyrolysis Techniques to Establish
Ageing Characteristics of Works of Art. In Applications
of Science and Examination of Works of Art. Boston
Seminar, 1970. Published 1973, Boston, Mass., pp. 213 - 228.
- Sebera, D. K. Scientific Services. C.C.I. Newsletter No. 1, October 1973.
p. 4.

STAFF ADDITIONS:

Taken on Strength by Canadian Conservation Institute between
1 April 1973 - 31 March 1974.

<u>NAME</u>	<u>DATE</u>
Bokman, Mr. W.	30-7-73
Bosshard, Mr. E.	17-5-73
Byers, Mr. B.	24-9-73
Chandler, Mr. P. J.	30-11-73
Crampton, Mrs. F.	1-10-73
Graf, Mr. R.	20-9-73
Guldbeck, Mr. P.	1-10-73
Harley, Dr. R. D.	23-5-73
Klempan, Miss B.	2-1-74
Levenson, Ms. R.	20-8-73
Macleod, Dr. K. J.	1-8-73
Marriner, Mr. P. C.	1-8-73
Meese, Mr. S. A.	2-5-73
Nash, Ms. S.	17-9-73
Schaffer, Miss E.	1-7-73
Sebera, Dr. D. K.	1-6-73
von Imhoff, Mr. H. C.	4-4-73
Wainwright, Mr. I.	1-4-73
Wallace, Mrs. B.	17-12-73
Wallis, Mrs. G.	18-2-74

STAFF DELETIONS:

Allan, Mrs. M. K.	22-2-74
Renshaw-Beauchamp, Mr. R.	3-8-73