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VRAB Volume 10, Issue 1, 1983 & Supplement

Abstract

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Keywords

conferences, bylaws, constitution, copywork photography, slides, vendors

Author Bio & Acknowledgements

In Volume 10, Issue 1:

Nancy DeLaurier - University of Missouri, Kansas City

Deborah Tinsley - Kansas City Art Institute

Bridget Kinally - Design Centre, London

Patrick Young - University of Michigan, Ann Arbor

Christine Sundt - University of Wisconsin, Madison

Paula Chiarmonte - State University of New York, Buffalo

Kathy Snyder - Colorado College, Colorado Springs

Christina Updike - James Madison University

Margaret Webster - Cornell University

Suzanne Babineau-Simenauer - New York University

Ruth Philbrick - National Gallery of Art

Carla Freeman - Alfred University, Alfred, NY

In Volume 10, Issue 1: Supplement:

Tim Quigley - University of Wisconsin, Madison

Jonathan Block - Parkland College, Champaign, IL

Suzanne Babineau-Simenauer

Nancy Schuller - University of Texas, Austin

Charles Chadwyck-Healey - Chadwyck-Healey, Ltd.

Ara Hourdajian - Microcolor International, Inc.

Felix Moore - Mindata, Ltd.

Edith Zuckerman - Temple University

Elizabeth D. Alley - University of Maryland

Shirley Gray - Rochester Institute of Technology

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Eileen Fry - Indiana University, Bloomington

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THE JOURNAL OF THE VISUAL RESOURCE ASSOCIATION

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VRA

International

BUSINESS MEETING: MINUTES

The first official business meeting of the Visual Resources Association was called to order by Christine Sundt, provisional president, on February 17, 1983 at 11:00 a.m. at the Franklin Plaza Hotel, Philadelphia, Pennsylvania. Nancy DeLaurier, provisional secretary, read the minutes of the meeting of the CAA-Visual Resources Group which met in New York, February 25, 1982. It was suggested that we add to the minutes that the Standards for Staffing were published by ARLIS, and now available for \$10.00. Edith Zuckerman moved that the minutes be approved as supplemented, and Patricia Toomey seconded the motion.

Christine Sundt announced the incorporation of the Visual Resources Association, read its purpose, and stated that VRA membership was one and the same as a subscription to the International Bulletin for Photographic Documentation of the Visual Arts, personal or institutional, one member and one vote per subscription.

Nancy Schuller, Chairman of the Constitution Committee, explained the Constitution as prepared by herself and Zelda Richardson. Suggestions were solicited. Christine Sundt explained that the suggested ratification procedure was to publish the Constitution in the Bulletin, with a request for any advice on changes from the membership to be mailed by April 15 to Nancy Schuller. Priscilla Farah moved to accept the ratification procedures; Jo Schaffer seconded the motion.

Ira Bartfield asked about the location of annual meetings; Ms. Sundt replied that it would be open for discussion after other matters had been settled.

Ms. Sundt read the slate of officers as nominated by the provisional executive committee, herself, Nancy Schuller and Nancy DeLaurier, as follows:

President: Christine Sundt

Vice-President (Program Chairman): Suzanne Babineau-Simenauer

President-elect: no nomination this year.

Secretary: Helen F. McGinnis

Treasurer: Nancy Schuller

Edith Zuckerman nominated Nancy DeLaurier to fill the office of Past-President. Eileen Fry moved to elect the slate as nominated; Ira Bartfield seconded the motion. Votes taken on all motions were unanimous.

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CONFERENCES

The two major international conferences involving visual resources in art will be held conveniently close in both time and distance this year, facilitating attendance at both. The IFLA (International Federation of Library Associations) meets in Munich August 18-27, with the Art Section's all-day program on Visual Resources on August 19. Two VRA members are scheduled to speak: Paula Chiaramonte on "Microfiche and Art Documentation", and Zelda Richardson on "Computer Applications to Slide Collections". Keynote papers will be given by Philip Pacey, Preston Polytechnic, UK (also a VRA member) and Sven Sandstrom on "The Universal Availability of Images". Speaking on "Image Access" will be Thomas Ohlgren, Michel Aubert and Pat Molholt.

The CIHA (Congress International d'Histoire d'Art) meets in Vienna September 4-10, with Visual Documentation sessions on the 5th, 6th, and 8th, and a business meeting on the 9th. Mr. A.D. Maxwell, National Art Slide Library, Victoria and Albert Museum, London, has organized the Visual Documentation program on the general subject of "Acquisitions":

M. Manuel, The Genesis Project Limited, London: "A definitive film record of the World's Art as practiced in the Western World, from the mid-13th century - A project description".

Doreen Dean, Librarian, Polytechnic of the South Bank, London: "Computerized Slides Index at the Polytechnic of the South Bank"

Nancy DeLaurier, Curator of Slides and Photographs, Department of Art and Art History, University of Missouri-Kansas City: "The Need for Film Quality Control".

Eleanor E. Fink, Chief, Office of Visual Resources National Museum of American Art, Smithsonian Institution, Washington, D.C.: "The Problems of Handling Historic Photograph Negatives on Cellulose Nitrate Film".

John Clark, Director, Scala Istituto Fotografico Editoriale, Florence: "New Developments in Slide and Photograph Reproduction".

Nancy Kirkpatrick, Head, Slide Department, Institute of Art, Chicago: "Unconventional Methods of Slide Acquisition".

Helene Roberts, Curator of Visual Collections, Fogg Art Museum, University of Harvard, Cambridge:

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VRA cont. from p. 1

The president said that next year we would have a nominating committee.

The Bulletin and Guide meetings were announced and attendance encouraged.

Nancy Kirkpatrick announced that the Picture Division of the Special Libraries Association is seeking other associations and may want to merge with the VRA, with the possibility of co-publishing Picturescope with the Bulletin. They meet in June in New Orleans and will discuss it further. The two major questions this raises for us are: Do we intend to remain exclusively art-oriented, and slide-focused?

Ira Bartfield moved that we aggressively promote a wide base for our organization to search out allied professionals, such as photo archivists, art photographers, rights and reproduction officials, etc. Eileen Fry seconded the motion. It was suggested that we send names of allied professional journals to the secretary for press releases and letters to the editors about the VRA. Jo Schaffer suggested that we wait until preliminary business matters were finalized, such as ratifying our constitution. J.A. Chewing, of the Art and Architecture Thesaurus, described the progress of this project and solicited our help and cooperation.

Nancy DeLaurier announced the IFLA and CIHA conferences in Munich and Vienna, and encouraged attendance.

The meeting was adjourned at 12:30 p.m.

Nancy DeLaurier
Provisional Secretary

NEW COLUMNS AND EDITORS

We are pleased to introduce the new Profiles column editor, Margaret Webster, College of Architecture, Art and Planning, Cornell University, Ithaca, New York. Margaret welcomes suggestions, and plans to keep a balance of various types of collections profiled.

Two new columns will begin in the Summer issue: 1) Collections in Art Schools and other non-traditional collections, by Carla Freeman, NY State College of Ceramics, Alfred; and 2) Photograph Collections, by Ruth Philbrick, Photograph Archivist, National Gallery of Art, Washington, D.C. Both Carla and Ruth will welcome contributions, questions, and suggestions for these new columns. Equipment information will be gathered into one column, although no special editor will be assigned to this subject. Contributions sent to the editor are most welcome.

The Bulletin improves noticeably as participation by members increases. So don't just read it -- be a part of it! Send in comments, ideas, etc., to these new column editors as well as the ones who have been at it for a while.

INTERNATIONAL BULLETIN FOR PHOTOGRAPHIC DOCUMENTATION OF THE VISUAL ARTS, the journal of the Visual Resources Association

Editor: Nancy DeLaurier, U.Mo.-K.C.
Assistant Editor: Deborah Tinsley, K.C. Art Institute
European Editor: Bridget Kinally, Design Centre, London

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News items and articles are welcome, and may be submitted to the editor up to 3 weeks prior to the first of the above-listed months of publication.

DEADLINE FOR SUMMER ISSUE: May 6, 1983

COLUMN EDITORS:

Ask the Photographer: Patrick Young, History of Art, U. of Michigan, Ann Arbor
Conservation: Christine Sundt, Dept. of Art History, U. of Wisconsin, Madison
Microforms: Paula Chiaromonte, Architecture Library, SUNY, Buffalo
Photographic Journals: Kathy Snyder, Art Dept., Colorado College, Colorado Springs
SECAC correspondent: Christina Updike, James Madison University, Harrisonburg, VA
Profiles: Margaret Webster, Architecture, Cornell University
Automation: Suzanne Babineau-Simenauer, NYU, IFA
Photograph Collections: Ruth Philbrick, Photo Archives, National Gallery, Washington, DC
Art Schools, etc.: Carla Freeman, NYS College of Ceramics, Alfred University

See Directory for addresses

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DIRECTORY

A preliminary Directory of Visual Resources Association Members (1983 Bulletin subscribers) will be published separately within a month. Supplements will be added throughout the year. Many subscribers did not send in the form with Directory information because they subscribed before the form was published, or for other reasons did not have the form. If no personal name was given on the subscription order, the membership will be listed in the Institutional section. If such a member wishes to be listed in the Personal section, please fill out and send just the Directory information part of the subscription blank to the editor.

International cont. from p. 1

"Art History and Visual Documentation: the Interplay of Two Evolutions".

Janice Sorkow, Slide Librarian, Museum of Fine Arts, Boston. "Experiences of putting a Museum Art Collection onto the Video Disc Market".

June Stewart, Curator, Department of Fine Arts, University of Melbourne, Australia: "Copyright: Relating the Australian Audio Visual Review to the International Rules".

John Sutherland, Librarian, Witt Collection, Courtauld Institute of Art, University of London. "The Computer as an Acquisition: Progress Report on Automatic Data Processing in Photographic Collections".

Anna Whitworth, University Colour Slide Scheme, Courtauld Collection, Institute of Art, University of London: "Acquisitions through the Looking Glass".

E. Vavra, Austria: CLIO, a Computer Program for the Exploitation of a Picture Archive".

To take full advantage of having so many Visual Resources Curators together, the emphasis will be upon the exchange of ideas and experiences. To this end, the papers are not expected to be lengthy ones, and there should therefore be plenty of time for full discussion of the questions raised.

Both conferences will sponsor tours to local areas of interest. For further information about the IFLA conference, contact Philip Pacey, Library, Preston Polytechnic, St. Peter's Square, Preston, PR1 7BB, UK. For preliminary CIHA registration blanks contact Nancy DeLaurier, or directly to CIHA, P.O. Box 9, A-1095 Wien, Austria. Please contact Nancy DeLaurier, CIHA Visual Documentation group chairman, if you plan to attend the conference. This will facilitate coordinating group activities.

ART AND ARCHITECTURE THESAURUS

As described by J.A. Chewning of the AAT staff, the architecture section is almost complete, with descriptive terminology for 19 hierarchies. The system will be tested at Rensselaer Polytechnic with NEH and Getty grants, supervised by Pat Molholt. Work will begin soon on the Decorative Arts phase of the project. Now financed by the J. Paul Getty Trust for the History of Art and Humanities, the AAT will move its headquarters to the Library of Bennington College, Vermont, co-directed by Toni Peterson, Bennington, and Pat Molholt, Rensselaer.

VRA Business Meeting, Feb. 17, 1983

Members attending:

Diane C. White, Univ. of New Hampshire
Nancy S. Schuller, Univ. of Texas, Austin
Jo Schaffer, SUNY at Cortland
Nan Cowick, Univ. of Houston
William Taylor, Univ. of Rochester, NY
Carla C. Freeman, New York State College of Ceramics, Alfred
Susan Filipiak, Univ. of Michigan
Joy Alexander, Univ. of Michigan
Patsy Dass, Temple U., Tyler School of Art
Edith Zuckerman, Temple U., Tyler School of Art
Marie Jordan, Art Center College of Design/Pasadena, CA
Evy White, Calif. Institute of the Arts
Nori Cashman, Brown University
Deborah Boothby, Wesleyan Univ, Middletown, CT
Trudy Buxton, Trinity College, Hartford, CT
Nancy Strowbridge, Los Angeles Co. Museum of Art
James M. Bower, J. Paul Getty Museum, Malibu
Pat Toomy, Rice University, Houston
Eileen Fry, Indiana University, Bloomington
Mindy Ostrow, SUNY, Oswego
Mark McGuire, Ohio State University, Columbus
Ruth Sheng, Art & Archeology, Princeton Univ.
Karin Lazarus, Bryn Mawr College
Mary Lampe, Amon Carter Museum, Fort Worth, TX
Dolores Fairbanks, Fine Arts Lib., Harvard
Susan G. Solomon, Sch. of Arch., Princeton U.
Fran McGinnis, Moore College of Art, Phila.
S. Babineau-Simenauer, Institute of Fine Arts New York University
Elizabeth Alley, Architecture, Univ. of MD
M. Elizabeth Scott, History of Art, Johns Hopkins Univ. Baltimore, MD
Nancy Kirkpatrick, Art Institute of Chicago
Priscilla Farah, The Metropolitan Museum of Art, NY
Helen Chillman, Art & Architecture Library, Yale University
Marian Fox, Fine Arts U. of FL, Gainesville
Ruth Philbrick, Photo Archives, National Gallery of Art
Ann von Rebhan, Slide Library, National Gallery of Art, Washington, D.C.
Ira Bartfield, Coordinator of Photography, National Gallery of Art, Washington, D.C.
Caroline H. Backlund, Library, National Gallery of Art,
Joan L. Muller, Virginia Commonwealth Univ., Richmond, VA
Christine Sundt, U. Wisconsin-Madison
Nancy DeLaurier, Univ. of Missouri-Kansas City

Mark Braunstein, Assistant Editor, Art Index, sends an answer for the last remaining nationality mystery in the Miniature Gallery's "Mechanised Image" set: Masanari Murai, (1905--) Japanese; from the 20th c. (from 1870--) supplement to Thieme-Becker, edited by Hans Vollmer: Vol. III, p. 449.

Now how about our still homeless waif from the MG Dada and Surrealism set: Sam Haile (1908-48)? (He's not in Vollmer.)

BUSINESS MEETING REPORTSBulletin

Attendants: Carla Freeman, Susan Filipiak, Joy Alexander, Priscilla Farah, Christine Sundt, Nancy Schuller

The meeting was conducted by Nancy DeLaurier, Editor. Content was discussed in terms of possible new columns. Christine Sundt suggested that all equipment news be gathered in one column. A photograph collections column was suggested. Carla Freeman volunteered to edit a column on VR collections in art schools and other non-traditional institutions. It was suggested that the editorial and circulation functions be separated to lessen the burden on the editor. Mailing the Bulletin without envelopes when possible was advised for economy and efficiency. A discussion took place concerning requirements for a new editor in terms of both personal capabilities and institutional facilities and cooperation.

Guides

Attendants: Christine Sundt, Nancy Schuller, Norine Cashman, Eileen Fry, Nancy Kirkpatrick, Nancy DeLaurier, Betsy Alley

The meeting was conducted by Christine Sundt. Zelda Richardson, General Editor of the Guides, sent a report, giving total numbers of each Guide sold and the number in stock. The future status of each Guide was discussed.

The Equipment Guide is being revised by Christine Sundt, and may be published by Libraries Unlimited which has solicited publication of three guides. Price and format will be carefully considered before a commitment is made. The Management Guide is in the initial stages of revision by its editor, Nancy Schuller. The Slide Buyers Guide is seeking a new editor, and it is hoped that revision will be underway by the end of the year. Patrick Young is considering undertaking revision of the Copy-Photography Guide, to include architectural model photography and slide duplication. The conservation section will be moved from this guide to the Equipment Guide. Zelda Richardson is revising the Guide to Automation. The Photograph Collections Guide will be dropped in view of the new publication Picture Librarianship by the Oryx Press. The Classification and Architecture Guides are being dropped for the present, as no progress has been made on them. The Collections without Curators guide should be revised under a different title, such as "A Guide for Small Collections".

VRA NEWS

NOTES FROM THE PRESIDENT

On behalf of the VRA, I would like to extend a sincere thank you to everyone who contributed time and energy in the 1983 VRA Program in Philadelphia. It was heartening to hear about and see so many eager volunteers before and during the Program. Your efforts were appreciated. We hope your experiences were pleasant and

APPLICATIONS INVITED FOR POST OF EDITOR OF THE
INTERNATIONAL BULLETIN

In view of the fact that Nancy DeLaurier, our very able Editor for the past nine years, has expressed her intention to "retire" from her responsibilities with the International Bulletin by the end of this year, the VRA Executive Committee will be accepting applications from anyone interested in filling this very important post. Applicants should submit the following: 1) an up-to-date copy of your Curriculum vitae; and 2) A brief essay on: a) What you perceive to be involved in being Editor of the International Bulletin; and b) What you see as the possible long-term goals and objectives in publishing the International Bulletin. The application deadline is April 15, 1983. As stated in the draft of our Constitution and By-Laws printed elsewhere in this issue, the Bulletin Editor will also be a member of the VRA Executive Committee. Applications should be sent to: VRA Executive Committee, c/o Christine L. Sundt, VRA President, Department of Art History, University of Wisconsin-Madison, 800 University Avenue, Madison, WI 53706.

NEW SLIDE BUYERS GUIDE EDITOR(S) SOUGHT

The Executive Committee is also soliciting applicants for the Editorship of the new Slide Buyers Guide. We will be considering the possibility of joint or co-editors to share the responsibilities in revising and later updating this very popular guide. Applicants should have a general knowledge of photography, especially gallery and on-site photography, and be capable of identifying and evaluating the various film products used in reproducing works of art. In addition, the applicants should be familiar with the major commercial slide producers' offerings and also be willing to seek out new sources.

Editorship of the Slide Buyers Guide necessitates a continuing commitment; the editor(s) will be responsible for quarterly slide market updates which will appear as the "Slide Market News" column in the International Bulletin. Application deadline: June 1, 1983. Please include a copy of your current C.v. Mail to the VRA Executive Committee, c/o Christine L. Sundt, VRA President (see address above).

VRA LOGO CONTEST

The VRA needs a logo. Do you have any ideas for logo designs? If so, please submit your designs as camera-ready copy to Fran McGinnis, VRA Secretary, Moore College of Art, 20th & Race Sts. Philadelphia, PA 19103. The prize? A one-year free subscription to the International Bulletin, of course!

RATIFICATION OF THE VRA CONSTITUTION

VRA members are asked to read the Constitution and send any objections or additions to Nancy Schuller, Constitution Committee chairman, by April 15. These suggestions will be considered first by the Constitution Committee, then passed by the Executive Committee. The approved versions then will be published in the Summer issue of the Bulletin, signalling ratification. Members who received copies of the draft submitted at the Philadelphia meeting will note a misnumbering of articles in the By-laws. This has been corrected in the version published as follows.

D R A F T

VISUAL RESOURCE ASSOCIATION CONSTITUTION

ARTICLE I: NAME AND PURPOSES

Section 1. The name of the organization shall be Visual Resource Association, hereinafter referred to as the Association.

Section 2. The purposes of this Association shall be to establish a continuing forum for communication of information and ideas; and for the advancement of matters of mutual interest to the membership. The Association is established to further research and education in the profession of visual resources administration and to promote a spirit of cooperation among the members of the profession.

Section 3. The Association is a not-for-profit corporation established and operated exclusively for charitable and educational purposes within the meaning of Section 501(c)3 of the Internal Revenue Code, as amended, in order to further the objectives set forth in Article I, Section 2, of this Constitution. No part of the property, assets, or net income of the Association shall inure to the benefit of any officer, member, or delegate of a member, or other private person except that the Association shall be authorized to make payments and distributions in furtherance of the purposes set forth in Article I, Section 2 of this Constitution. No substantial part of the activities of the Association shall be devoted to propaganda or to attempts to influence legislation. The Association shall not participate or intervene in any political campaign for public office, nor shall it carry on any activities not permitted to be carried on by a corporation exempt from federal income tax under Section 501(c)3 of the Internal Revenue Code (or corresponding provision of any future United States Internal Revenue Code),

ARTICLE II: MEMBERSHIP

Membership is open to any person or institution interested in the purposes of the Association upon payment of dues specified in the Bylaws. Only individual members shall have the right to vote.

ARTICLE III: OFFICES

Section 1. Officers. The officers shall consist of a President, a Vice-President, President-Elect, a Secretary and a Treasurer. Only individual members of the Association shall have the right to hold elected office.

Section 2. The officers shall be elected pursuant to Article IV of the Bylaws.

Section 3. The duties of the officers shall be provided for in Article VIII of the Bylaws.

ARTICLE IV: EXECUTIVE COMMITTEE

Section 1. The Executive Committee shall consist of the elected officers, the immediate Past President, the Editor of the Bulletin, and pertinent appointed committee chairpersons, as provided for in Article IX of the Bylaws, as deemed necessary by the Committee.

Section 2. The Executive Committee shall oversee the activities of the Association, provide for management of the Association's business and appoint members of the Association to committees as provided for in the Bylaws.

Section 3. A vacancy in the elected membership of the Executive Committee shall be filled by Executive Committee appointment, except that the Vice-President shall fill the vacancy of President. Members so appointed shall serve until the end of the term of the vacated office.

Section 4. A majority of the elected officers shall constitute a quorum of the Executive Committee.

ARTICLE V: MEETINGS

Section 1. There shall be an annual membership meeting of the Association, the time and place to be determined by the Executive Committee.

Section 2. Other meetings of the membership shall be held as provided for in the Bylaws.

ARTICLE VI: PUBLICATIONS

The Association is empowered to bring to effect any report, study, bibliography, or other publication as shall further the purposes of the Association. In addition, the Association shall issue a newsletter (the Bulletin) which shall be circulated as part of the dues paid by members of the Association. The Editor of the Bulletin shall be appointed by the Executive Committee.

ARTICLE VII: AFFILIATION WITH OTHER ORGANIZATIONS

Section 1. Affiliation or disaffiliation with other organizations shall be authorized by the Executive Committee as provided for in the Bylaws.

Section 2. Formal affiliation or merger with other organizations must be approved by a two-third majority of the personal members voting by a ballot conducted in accordance with Article IV Section 4 of the Bylaws.

ARTICLE VIII: AMENDMENTS

Amendments to this Constitution may be proposed by the Executive Committee or by a petition to the Executive Committee signed by 20 voting members. The Executive Committee shall determine whether such proposed amendments shall be considered by the Association. Proposed amendments shall become effective when approved by two-thirds of the members voting in a ballot to be conducted by mail as proposed by the Bylaws.

VISUAL RESOURCE ASSOCIATION BYLAWS

ARTICLE I: MEMBERSHIP

Section 1. Membership in the Association shall consist of the following classes:

- A. Individual,
- B. Institutional,
- C. Special honorary life membership awarded by the Executive Committee

Section 2. Membership dues shall be set by the Executive Committee and are payable in advance of January 15 each year to the Treasurer. The schedule shall be published at least annually in the Association's official newsletter. The membership year shall be January 15 through January 14. If renewals are not paid by April of each year, the membership shall be dropped and all privileges of membership shall cease. Memberships paid after October 15 shall apply to the next calendar year.

ARTICLE II: PRIVILEGES

All individual members of the Association shall have the right to vote and shall receive the Bulletin.

ARTICLE III: MEETINGS

Section 1. An annual meeting of the members shall be held at such a time and place as designated by the Executive Committee.

Section 2. Special meetings may be held at such times and places as the Executive Committee may elect, or the Association direct.

Section 3. A quorum for the business meeting of the Association shall consist of a majority of members registered at the meeting.

Section 4. Notice of meetings shall appear in the Bulletin or by separate mailing at least 30 days prior to the meetings.

ARTICLE IV: NOMINATIONS AND ELECTIONS

Section 1. The Executive Committee shall appoint a nominating committee to consist of three members no later than June 2. The chairperson of the committee shall be appointed by the Executive Committee.

Section 2. The Nominating Committee shall present not less than one candidate for each elected office: Vice-President, President-Elect, Secretary and Treasurer. Nominations may also be given to the Nominating Committee by any voting member in time to be submitted with its nominations.

Section 3. The names of all nominees shall be presented to the President by September 2 of each year. Each nomination must be accompanied by the nominee's statement of acceptance and biographical data.

Section 4. Ballots shall be sent to each voting member by November 1 of each year. A member of the Nominating Committee shall serve as teller to count the mail ballots and report the election results to the President. Ballots will specify the postmark deadline and teller's address. At least 30 days must be allowed for balloting.

Section 5. The candidate who receives the greatest number of valid votes cast shall be elected. In the event of a tie, a notary public will draw by lot the winner.

Section 6. Candidates shall be informed of the results in writing by the President. The names of the successful candidates shall be published in the Bulletin and announced at the annual meeting.

ARTICLE V : TERMS OF OFFICE

Section 1. The President-Elect shall serve the first year after election as President-Elect, and the second and third year as President, and the fourth year as Past President.

Section 2. The term of office of Vice-President shall be two years.

Section 3. The term of office of the Secretary shall be two years with the terms staggered so that one officer is elected each year.

Section 4. The term of office of the Treasurer shall be two years with the terms staggered so that one officer is elected each year.

Section 5. The terms of office expire immediately following the close of the official annual meeting of the Association.

ARTICLE VI: DUTIES OF OFFICERS

Section 1. The President shall be the chief executive officer of the Association and subject to the approval of the Executive Committee shall have control over the affairs of the Association.

Section 2. The President-Elect shall perform such duties as the President may assign.

Section 3. The Vice-President shall serve as Program Director for the Association's annual meeting and work closely with the local arrangements people where each meeting is held. In addition, the Vice-President shall act as teller for balloting for amendments to the Constitution and Bylaws.

Section 4. The Secretary shall be responsible for keeping the official minutes of the Association's annual meeting, keep the official minutes book of the Association, a procedures manual, send out press releases, distribute reports of the meetings and handle any correspondence required.

Section 5. The Treasurer shall be responsible for the financial accounts of the Association. At the annual business meeting, the Treasurer shall report to the members on the financial status of the Association.

ARTICLE VII: COMMITTEES AND REPRESENTATIVES

Section 1. The Executive Committee shall appoint an Advisory Board not to exceed six members. The purpose of this board is to advise the Executive Committee on policy matters at the request of the Executive Committee. These members shall serve staggered terms of three years, alternating every two years. The duties of the Advisory Board members are to meet with the Executive Committee at the annual meeting each year.

Section 2. The Executive Committee shall authorize either standing or special Advisory Committees as needed.

Section 3. The Executive Committee shall authorize the dissolution of a committee when in the opinion of the Committee its usefulness has ceased. This decision and the reasons for it shall be reported to the membership.

Section 4. Committee members shall be appointed by the Executive Committee from the voting membership of the Association. The chair of each committee shall be selected by the Executive Committee. The President of the Association is a non-voting ex-officio member of all committees of the Association.

Section 5. All committee member appointments shall be for one year beginning at the close of the annual conference. Each committee shall report annually in writing to the membership of the activities of the committee.

Section 6. The Executive Committee may appoint a member/members of the Association to serve as liaison to other organizations, provided the objectives of the organization are consistent with those of the Association and the activities of such organization are not in conflict with Article I, Section 3 of the Constitution.

Section 7. No committee member or representative shall incur expenses on behalf of the Association except as authorized by the Executive Committee.

ARTICLE VIII: PARLIMENTARY PROCEDURE

The rules contained in the current edition of Robert's Rules of Order Newly Revised shall govern the Association in all cases to which they are applicable and in which they are not inconsistent with these Bylaws and any special rules or order the Association may adopt.

ARTICLE IX: AMENDMENT TO THE BYLAWS

Amendments to these Bylaws may be proposed by the Executive Committee or by a petition to the Executive Committee signed by ten voting members. The Executive Committee shall determine whether such proposed amendments shall be considered by the Association. Proposed amendments shall become effective when approved by a majority of the members voting in a ballot to be conducted by mail.

ARTICLE X: EFFECTIVE DATE

These Bylaws shall become effective immediately upon approval by the membership, except that Article IV (Nominations and Elections) shall become effective on January 2 of the year following ratification.

MISSOURI-KANSAS VISUAL RESOURCES CONFERENCE

Missouri and Kansas people who are responsible for slides, photos or other visual resources will meet again for their annual spring conference, this time in Kansas City, April 21-23. The three Kansas City slide curators, Deborah Tinsley, Kansas City Art Institute, Janet McKenna, Nelson-Atkins Gallery of Art, and Nancy DeLaurier, University of Missouri-Kansas City, have planned a program that involves tours of the visual resources collections in these three representative types of institutions, an art school, a museum and a university, to see how each operation has developed to suit the needs of its patrons.

A "back to basics" program is planned: a hands-on workshop on slide processing, including the new conservation-oriented Sundt binding method; and a session on classification systems and problems. A curator-guided tour of the Nelson's loan exhibition of the Aga Khan collection of miniature paintings, and a tour of Kansas City architecture is also on the agenda.

Visual Resources people from neighboring states are also welcome. For further information, contact Nancy DeLaurier, 204 Fine Arts, University of Missouri-Kansas City, Kansas City, Missouri 64110. Phone 816-276-1501.

--Nancy DeLaurier

SECAC

CONFERENCE REPORT

The Southeastern College Art Conference 1982 Annual Meeting was held in Harrisonburg, Virginia on October 14-16, and the conference host was James Madison University. The Visual Resources Curators group sponsored two professional sessions which were attended by the fifteen curators registered at the conference. Thursday morning was open for curators to register, explore the campus, and attend art history and studio sessions.

The first VRC session, entitled "VRC Topics and Problems," was held Thursday afternoon in the Visual Resources room of the Art Department at James Madison University. Christina Updike, Art Slide Curator at J.M.U., greeted the attending curators and gave a brief explanation of her facilities. The agenda for the session had been previously established based upon correspondence with the curators. The following topics were covered:

1. Computerization: Diane E. Mallos, Slide Librarian, Research Support, National Museum of American Art, gave a presentation of her experiences with computerizing their slide collection (SELGEM). She gave all attendees sample pages of cataloging rules and computer indices illustrating her explanation.
2. Architecture Classification: Elizabeth Alley, Curator of Slides and Visual Aids, School of Architecture, University of Maryland, thoroughly described the classification system she developed. She had just recently published this system in a "Slide Classification Manual" and generously distributed copies to the attendees of the session.
3. Manuscript Classification: Ingeborg Wald, Curator, Department of Art History, Cornell University, presented the classification system she has developed for manuscripts based on the Library of Congress. She also gave an overview of her work with computerization of the slides at Cornell with reference to the article she wrote, "The Evolution of the Cornell Spires Slide Indexing System," published in Art Documentation, Volume 1, Number 1, February 1982.
4. Operations Policies: Christina Updike, Art Slide Curator, Art Department, James Madison University, presented the forms and information sheets she uses to inform the users of her Visual Resources facility of policies. Copies were made available to interested curators.

A question/answer period followed each presentation which caused the two-hour session to pass very quickly before the final two previously established topics (Cataloging Special Areas and In-House Slide Production) could be discussed. However, many curators stayed after the session to exchange information on these and other topics, and to sample the wine and cheese Mrs. Updike had provided. It was a most productive session.

The late afternoon panel discussion open to all SECAC participants was entitled "Methodologies in the Use of Color" with these distinguished panel members: Darby Bannard of Princeton, NJ; Alfred Leslie of South Amherst, MA; Victor Huggins of VPI & SU, VA; and Roy Johnston of Ulster Polytechnic, Ireland. That evening, many curators attended the SECAC picnic/buffet, the Opening of the SECAC Members Exhibition, and two fine evening art history sessions.

Friday morning was left open so that curators could attend sessions and workshops of their choice. The most popular being: Mixed Media Drawing, Restoration of Books and Manuscripts, Papermaking, and Nineteenth Century Genre and Landscape Painting. The Visual Resources room was also open all morning and many curators stopped by to continue discussions.

The second VRC session was a slide lecture entitled "The Collection of the National Palace Museum of Taipei, Taiwan, Republic of China" given by Dr. Bill R. Booth, Head of the Art Department at Morehead State University, Kentucky. Dr. Booth recently received an exhibition and publications grant of \$80,000 to establish the touring exhibition of "Masterpieces from the National Palace Museum." His visual resources presentation centered around his support grant from the Pacific Cultural Foundation for the purchase of slides and books on Chinese art. He explained how he wrote the grant and showed numerous examples of the books (with beautiful color plates) and slides that he had purchased for his institution. His slide presentation explained how the Museum interprets itself to the public through its research arm and publication of division. Dr. Booth brought catalogs of the traveling exhibition, posters, slide and book price lists, and grant applications, all free for the session attendees to take. Dr. Booth spoke with many of the curators after the lecture, answering questions and relating wonderful stories about his trips to China and Japan.

The Friday afternoon open SECAC session was a slide presentation on "Landscape Archeology at Monticello" given by William Kelson, chief archeologist of the Thomas Jefferson Memorial Foundation in Charlottesville, Virginia. The evening ended with the 40th Anniversary SECAC banquet.

The SECAC conference ended on Saturday at noon after the annual Business Meeting and a session on "Arts in Ireland" with two speakers from Ireland: Martyn Anglesea of the Ulster Museum, Belfast; and Roger Stalley of Trinity College, Dublin.

The Visual Resources Curators 1982 sessions were rewarding, exciting, professional exchanges. If you would like a copy of the mailing list of attending curators, or would like additional information about the topics covered at the VRC sessions, do not hesitate to write to Christina

Updike, chairperson of the VRC group of SECAC, at the address below. In 1983, the SECAC Annual Meeting will be held at the University of Tennessee in Chattanooga on October 27-29, 1983. I would like to provide sessions to accommodate the interests of the curators who are planning to attend. If you have any ideas for VRC sessions/speakers and/or would like to present a session, please write to:

Christina Updike, Art Slide Curator
Art Department
James Madison University
Harrisonburg, Virginia 22807

Many universities/colleges and businesses will provide funding for travel if a participant is ON the program. If you would like to be placed on the VRC SECAC mailing list for future conference information, send your name and address to Christina Updike.

and videodisc. The following problems were identified. Over the past several years, most art slide producers have responded positively to the slide quality standards set by the committee of ARLIS and CAA slide curators. Most producers have markedly improved the quality of their slides, in color stability as well as in photography and processing. This improvement has been costly and poorly rewarded by the current financial cutbacks in academia. Slide producers now want to remind the owners of their products that they should reciprocate by maintaining the ethical and legal standards of copyrighted materials. The producers maintain that duplication of these slides should be forbidden, for any reason, without prior arrangement with the copyright owners. In addition to their own copyright, slide producers have contractual agreements with museums that the slides they produce will not be duplicated by a third party. Violation of these contracts could jeopardize the producers' permission to photograph again in those museums, thus depriving the eventual users of access to slides of works in permanent or loan exhibitions in these museums, often including works not yet published.

Since most institutions re-mount their slides in glass, the copyright insignia on the suppliers original mount is removed, but the slide is nevertheless still copyrighted. Slide curators and slide users are still responsible for upholding the copyright. The producers pointed out that the copyright is valid also for reproduction of slides onto microfiche and video cassette or disk, again for any reason, educational, cultural, or commercial. The various slide producers have fee schedules for reproduction of slides onto these new visual forms as well as for straight duplication. Fee schedules vary for in-house educational purposes, non-profit cultural purposes, and for commercial purposes.

Discussions leaders: Joy Alexander, University of Michigan, Art History Slide Curator
Nancy DeLaurier, University of Missouri-Kansas City, Art/Art History Slide Curator

Additional Slide Curators present:
Paula Chiarmonite, SUNY Buffalo
Norine Cashman, Brown University
Mary Lampe, Amon Carter Museum
Anne von Rebhan, National Gallery, Washington, DC
Helen Chillman, Yale University

Slide Producers present:
Harold Sandak
Renate and Ron Wiedenhoeft, Saskia
Isabel Barrett Lowry, Dunlap Society
Ira Bartfield, photographer, National Gallery, Washington, D.C.
Ted Feder and Steve Vallilo, Scala
Wendy Holden, Asian Art Photographic Distribution
Alec and Marlene Hartill
Ed Teitelman
Video producer: Jean Pierre Isbouts, Advanced Image Technology

MACAA

The Mid-America College Art Conference meets this fall in St. Louis, with Washington University the host institution. The dates are October 26-28. Ursula Stammer, Visual Resources program chairman, is working on a lower-keyed program of "back to basics", as suggested by the VR group at the Iowa City Conference. More time will be allowed to take advantage of the rich art and architecture resources of the city, and to attend the conference art and art history sessions. Further program information will be available in the Summer issue. Information about attending the conference can be obtained from James Sterritt, Department of Fine Arts, Washington University, St. Louis, Missouri 63130.

SLIDE REPRODUCTION RIGHTS

During the February 1983 College Art Association Conference, the Visual Resources Association sponsored a meeting to discuss slide reproduction rights pertaining to slide duplication and reproduction of slides onto microfiche

Profile

THE NEW YORK STATE COLLEGE OF CERAMICS AT ALFRED UNIVERSITY

Scholes Library Slide Collection, Alfred, NY

The New York State College of Ceramics is a statutory unit of the State University of New York as well as one of the four constituent colleges of Alfred University, a private liberal arts institution which is the second oldest coeducational college in the nation. The University is situated in a rural setting 70 miles south of Rochester. The College of Ceramics presently enrolls 748 students in two divisions: The Division of Engineering and Science, which grants the B.S., M.S., and Ph.D. degrees; and the Division of Art and Design, granting the B.F.A. and M.F.A. degrees. The B.F.A. program has concentrations in ceramics, glass, painting, photography, printmaking, sculpture, electronic media, and art education; the M.F.A. program, in ceramics and sculpture. There are 19 studio faculty; two full-time art historians teach approximately 10 courses per year.

The slide collection originated about 20 years ago in the Division of Art and Design as a project of a former member of the art history faculty. Slides were added rapidly with the aid of student work-study help, but the overall organization of the collection left much to be desired. By the time that 70,000 slides had been acquired, the decision was made to move the collection into the library. Construction of a space to house the collection was begun in the new Scholes Library of Ceramics, which has book and periodical holdings in all aspects of fine arts, art history, and crafts, as well as extensive specialized holdings in ceramic art and science. The slide collection was moved into the new facility in 1979, and a full-time curator was hired to manage the collection under the supervision of the Art Reference Librarian. An additional 25 hours of help per week is provided by work-study students.

At present, the collection numbers approximately 88,000 slides. Copy photography has provided the bulk of the acquisitions, although in recent years the purchase of commercially produced slides has increased considerably. Most of the slides are housed in wooden Nega-File drawers, but these are gradually being replaced by metal Neumade cabinets. All new slides are bound in Gepe AN mounts. An air conditioner was installed last summer to maintain a constant temperature of 70 degrees F. or less; we are fortunate in that humidity is not a problem in our area and remains at a low level without the use of a dehumidifier. Plans are now being made for the construction of an in-house slide photography area, as the services of a campus photographer will no longer be available to us. In preparation for the new responsibilities, the librarian and curator have completed course work in basic photography and are researching various copy photography systems to determine which one will best suit the school's needs.

The collection is divided first by medium, and then by nationality; further subdivision varies from section to section. The major media categories are painting, sculpture, architecture, drawing, graphics, photography, glass, manuscripts, and ceramics. Our collection is probably unique in that we separate ceramic from non-ceramic sculpture; this has enabled us to focus our efforts on building a collection of some 15,000 slides documenting the full range of ceramic art history, and supporting intensive course work in this field. Our ceramic classification system has become increasingly sophisticated and the art reference librarian has prepared detailed ceramic chronologies to assist in classifying the main areas. Aside from the major media divisions, we have several minor categories which are rather loosely developed at present, including sections on Design and Performance/Film/Video.

Except for the use of medium rather than geographical area as the main class emphasis, our self-indexing classification system most closely resembles the one used by the University of Minnesota, as described by Betty Jo Irvine in the second edition of Slide Libraries. A column of up to four lines of capitalized abbreviations is typed at the left-hand side of the slide label, serving as a filing key and making it easy to file slides without having to read the entire label. The remainder of the label documents the slide as fully as possible; materials, dimensions, provenance, date, and present location of work are included in a set format. The system has proven to be widely adaptable to our needs; all new slides are cataloged under this system, and written guides to the classification of each section are prepared as needed. During the past year about 6000 new slides of African and Oceanic art were added in this manner, supporting new course work in these areas. Of course, large sections of the collection remain exactly as they were organized many years ago, under a variety of systems which may be described as idiosyncratic at best. However, we are converting these sections to a more consistent classification pattern as time permits, while still maintaining an annual growth rate of between 5,000 and 7,000 slides. We do not have a shelflist or catalog of the collection, but a batch accessioning system enables us to trace each slide back to its source for additional information if needed.

Slides in the collection circulate to faculty, graduate students, and undergraduates giving classroom presentations. Slides circulated to the art history faculty are simply counted upon return, and added into our circulation statistics; for all other users, slides are Xeroxed upon removal and returned within a 24-hour period. Use of the collection by faculty outside of the art department is permitted. Our annual circulation is about 20,000 slides, with perhaps another 5,000 used within the room and refilled. We maintain a large collection of

slides of student and faculty work; the originals are stored in archival-quality plastic sheets, and duplicates are bound in glass for study and circulation. This collection is heavily used by students as well as faculty.

Carla Conrad Freeman
Slide Curator

NOTE TO READERS:

Nancy DeLaurier and I have discussed the possibility of beginning a new column which would function as a forum for the exchange of information among curators of what might be described as "non-traditional" visual resource collections -- that is, those which support programs other than large academic art history departments. This group would include art school slide collections, historical photo-archives, and many others. Since Bulletin subscribers form a broad base of interests, we feel such a column would be helpful. The emphasis would be on exchanging helpful information and suggesting alternative ways of streamlining systems for curators of such collections, many of whom have very restricted equipment budgets, inadequate staffing, and little or no hope of access to computer technology.

In the next issue of the Bulletin, I will open this column with a brief discussion of several systems in use in the slide collection at the New York State College of Ceramics. The discussion will include the use of a batch accessioning system, a media cross-referencing system, and a simple approach to creating a subject index aimed at the non-art history user. I would very much like to hear from other readers who manage smaller, "non-traditional" visual resource collections of any kind, either with descriptions of methods and materials which you have found helpful in your own collection, or suggestions for topics you would like to have discussed in this column. The column will be shaped in response to your input. Since the Bulletin has a readership of between 400-500 visual resource organizations, you may safely assume that your interests and concerns are shared with others in the group! Please let us hear from you.

Carla C. Freeman
Slide Curator
Scholes Library of Ceramics
New York State College of Ceramics
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Alfred, New York 14802
(607) 871-2492

IMAGE ACCESS SOCIETY

Image Access Society has grown to almost 150 members and is requesting a membership fee of \$5.00 to cover costs. Kevin Roddy, Chairman sends this news, dated 12-20-82:

From Tom Ohlgren, Purdue: As a representative of the Image Access Society, I have been asked to deliver a paper, "Image Access in North America," in the Section of Art Libraries, International Federation of Library Associations and Institutions (IFLA), to be held in Munich in August 1983. The paper will basically update the previously-published reports in Visual Resources. To aid me in updating the various projects, I would greatly appreciate hearing from anyone involved in subject access to visual resources. Those specific projects to be highlighted include a) the List of Subject Headings for the Library of Congress Photographic Division; b) the Picture Division Thesaurus (Public Archives of Canada); 3) the Art and Architecture Thesaurus; d) the Detroit Iconographic Subjects in Early English Illuminated Manuscripts. I will of course be happy to include descriptions of other projects, providing that appropriate information is sent to me by about 1 March, 1983.

Under the Editorial direction of Tom Ohlgren (Purdue), the Index to Iconographic Subjects in Early English Manuscripts is well underway. This collaborative, inter-institutional, and interdisciplinary project seeks to produce an index to the pictorial contents or iconography of the entire corpus of manuscripts illuminated in the British Isles, circa 690 to 1190. The inventory of illuminated manuscripts and six indices, including an exhaustive index to iconographic subjects, will be a systematic, complete, and portable reference work. It will increase access to visual resources widely scattered among 71 libraries around the world. Also, since the Index will include a comprehensive photo-bibliography, researchers and teachers in a variety of humanistic disciplines with access to an academic library will be able to locate photographic reproductions of the illuminations in standard journals and books. An important product of the project is the creation of a standardized vocabulary for medieval iconography. The authority file for the project is the combined subject lists from the Index of Christian Art (Princeton) and the Warburg Institute (London). We propose also to use these lists as the source for the cross-reference system. The progress to date is very encouraging: a preliminary inventory, indices included, of the first 211 manuscripts has been completed and is now undergoing final editing. A full report on this project will be given by Tom Ohlgren at the 1983 International Congress of Medieval Studies in Kalamazoo, Michigan.

For membership or further information, contact Kevin Roddy, Rhetoric Department, U. California, Davis 95616.

Conservation

CONSERVATION: Questions and Answers

Questions from readers will be the focus of this quarter's column. Coincidentally, both questions, recently received, address the same issue energy — light and heat — and its effect on slide materials.

I am paraphrasing the first of these queries, from Nancy DeLaurier: If light causes more damage to slides than heat, why should we be concerned about maintaining cool temperatures in the slide room?

Light in the form of ultra-violet (UV) radiation is the factor responsible for most damage caused to slides during projection. In addition to being directly linked to image dye fading, light as energy rather than radiant heat is also the cause of most physical damage to the film in a projection situation. As explained in my article, "Mounting Slide Film Between Glass: For Preservation or Destruction?" (Visual Resources, Vol. II, Nos. 1, 2, 3, 37-62), light energy more so than radiant heat will be responsible for higher surface temperatures in the film (p.50). For example, a slide projected with a 1000 W lamp could register a lower surface temperature than a slide illuminated by a 300 W lamp because UV emission and light energy absorption are the significant factors here in producing these results. An important variable affecting the amount of light energy being absorbed is the density of the slide. If the slide image is predominantly color-dense (dark colors, large areas of black) rather than transparent (light colors, mostly white areas), then the film will be absorbing more light energy and it will, therefore, be hotter on the surface. Darks absorb; lights reflect.

High temperatures in storage situations must be avoided, however, because constant exposure of film materials to such conditions will accelerate cumulative dye fading, even without exposure to light. This is known as dark storage fading. Therefore, it is recommended that film materials be housed in low temperatures (the lower, the better is the general rule, as long as a low relative humidity [RH] level is also maintained) Eastman Kodak charts the rate of density loss in image dyes in its publication "Storage and Care of Kodak Color Materials," (Pamphlet No. E-30), with the following conclusions: assuming the norm to occur at 70 degrees F and 40% RH, density loss of 0.1 would be seen in only half the normal time when the temperature is 86 degrees F (40% RH), but it would take four times as long to reach 0.1 density loss at 55 degrees F (40% RH) and sixteen times longer at 39 degrees F (40% RH)! In other words, with cooler temperatures, dye fading occurs at a slower rate than it would under the same conditions with higher temperatures. Concerning ourselves with the problem of dark storage fading should be a-

<https://online.vraweb.org/vrab/vol10/iss1/1>

mong our priorities because most slides, even those in active (non-archival) collections, spend the greater part of their useful lives in storage.

Anita Peeters of Wichita (KS) State University asks a question about temperature in the slide room. Should the University be advised against turning off the heat in the art building (where the collection is housed) which would result in a temperature low of around 55 degrees F for about ten days? What damage can occur when the heat is turned on again and the temperature reaches 70 degrees F in a relatively short period of time?

Actually, subjecting the slides to lower temperatures for ten days could, possibly, be beneficial for them. Also, reheating the building to 70 degrees F should not affect the film materials too drastically since this will be a gradual warming compared to putting a slide housed at 70 degrees F into a projector that heats up to 145 degrees F in a matter of seconds.

However, one factor that must be considered very seriously before allowing such a heating shutdown to occur is the ambient moisture quotient. If the temperature is lowered, will the moisture level (RH) drop with it? If not, you will be faced with a condition where the percentage of RH will rise as the temperature drops. The benefits of the lower temperatures are then questionable.

Keeping track of the percentage of RH in the storage area under "normal" circumstances for a period of several months (spanning two or more seasons) is strongly recommended. This could provide more of an argument against the proposed University's budget/energy saving measures than the temperature factor alone.

Because you will want to have all the support you can muster up in trying to forestall such action by the University, try to get help from the heating and air conditioning engineers in your University's physical plant. Ask them if they can predict how these measures would affect your environment, especially with regard to relative humidity. If the engineers are able to reduce the moisture level or input in the slide storage area to an acceptable level (between 40% and 50% RH) when the temperature is lowered (which, unfortunately, is not always an energy efficient procedure), then by all means enjoy the cooler temperatures. If not, ask them to recommend how this can be accomplished and at what cost. The next step would be to submit a proposal to the University administration outlining your specific needs along with the appropriate documents to support such a request.

It is not unusual for administrators to sometimes lose sight of the actual monetary investment they have made over the years in establishing and maintaining a slide collection. You may be able to help realign their viewpoints if you can present them with hard facts and figures.

If the replacement cost of a slide is calculated (market value of an original slide + cost of binding [materials and labor] + cost of housing [slide cabinet, filing accessories, catalog card, and the like]) and then multiplied by the number of slides in the collection, the estimated replacement value is probably staggering. Add to this the fact that the collection probably contains irreplaceable, historical records (unique images) and, most importantly, provides a service without which the department would be unable to function, you may be able to gain administrative favor and support for the necessary environmental requirements for the proper storage of slide materials.

Another question often raised with regard to temperature is the typical "cycling" that occurs when film materials are subjected to changing environmental conditions. I am not aware of any specific documentation on this subject. However, one does find in Kodak's "Storage and Care..." the following statement relative to refrigeration used for long-term keeping: "...even if you assume occasional temporary rewarming for various periods as part of normal use, [virtually] no dye changes occur at this condition." The results of scientific testing to back up this statement are not available to my knowledge; this appears to be an area deserving further study.

Finally, to Nancy DeLaurier and Anita Peeters, I hope I have answered your questions adequately. Thank you for writing.

Christine L. Sundt
Slide Curator
Department of Art History
University of Wisconsin-Madison
800 University Avenue
Madison, WI 53706
(608) 263-2288

Ask the Photographer

A COMPARISON OF COLOR FILMS USED TO PHOTOGRAPH WORKS OF ART By Patrick Young

This article summarizes the talk and slide demonstration presented to the Visual Resources Group at the College Art Association meeting in Philadelphia, February 21.

Eight color films were tested as copy films under carefully controlled lighting conditions. The tests were conducted to demonstrate the different qualities of these films when used for the specific purpose of photographing works of art. The eight films tested were Kodachrome 25, 64 and 40; Ektachrome 50, 64 and 160; Fujichrome 100 and Agfachrome 64. These films were compared for color rendition (fidelity of color when compared to the original), contrast, grain structure, sharpness and ability to record fine detail.

My equipment for the tests included a Nikon F-2 camera with a 55mm. macro lens. Exposures were determined with a Minolta Auto Flash Meter which is capable of reading exposures from ambient as well as electronic flash lighting. Smith-Victor 710 focusing lights with 600 watt 3200 degrees K bulbs were used when testing tungsten balanced films, and a Minolta color temperature meter was used to check their exact color temperature. A.C. Popular electronic flash units provided the illumination for testing the daylight balanced films. In all tests, the lighting equipment was plugged into a variable voltage regulator to ensure a constant 110 voltage. (The color temperature of the tungsten lights actually measured 3100 degrees K for all tests. Common electrical current in the United States varies between 110 and 117 volts. The halogen quartz bulbs are rated at 120 volts and therefore produce slightly less than 3200 degrees K in actual use. A reduction of ten volts in electrical power will reduce the color temperature of the lights by approximately 100 degrees K, which is equal to a color correcting filtration adjustment of 2-1/2 units.)

It was impossible to make a valid comparison of the capability of different films to record accurate color without first color balancing each film. To determine the necessary filtration to balance the films, a test roll of each was shot. The color sensitivity of the dye layers was measured on a Speedmaster Densitometer, and the proper filtration determined. For those who do not have access to a densitometer, a visual determination of the necessary filtration can be performed. One shoots slides of a Macbeth Color Checker with a range of color compensating filters, then projects them while holding the actual color checker in the light of a similar projector. The slide closest to the original color checker was shot with the appropriate filtration to color correct that particular film. I have found this method of visual inspection of test slides to be very accurate. When using the MacBeth Color Checker for testing color balance, one must look at the neutral grey squares along the bottom, where a color cast will be most noticeable. It is virtually impossible to determine the direction and degree of color cast by simply comparing the color squares in the MacBeth Checker.

All eight types of film tested required filtration correction to eliminate a color cast and provide the proper color balance. The filtration needed to balance the different films in this test, as indicated by the color densitometer and visual inspection, were:

| Film type | Light source | Filtration necessary |
|-----------|------------------|----------------------|
| K-25 | Electronic flash | 10Y |
| K-64 | Electronic flash | 15Y 10C |
| K-40 | 3400° K Bulbs | 20Y 5M |
| K-40 | 3200° K Bulbs | 10Y 5C |
| EK-50 | 3200° K Bulbs | 7-1/2Y 7-1/2C |
| EK-160 | 3200° K Bulbs | 10Y 10C |
| EK-64 | Electronic Flash | 15Y 15M |
| Fuji 100 | Electronic Flash | 5C |
| Agfa 64 | Electronic Flash | 5Y 5M |

Of course, these filtrations are only valid for the conditions under which the tests were run, and should only be used for comparison. The exact filtration corrections for color balancing will depend on the camera and lighting used, the color lab processing the film, and the particular emulsion number of the film being used. Changes in the color balance of film due to variations in the manufacturing process are more pronounced with Ektachrome, Fujichrome and Agfachrome, than with Kodachrome films.

In order to reduce the amount of testing to determine the color balance of film, it is highly advisable to purchase large quantities at the same time and specify that all rolls have the same emulsion number. This ensures that all the film has been coated with the same mixture of color dyes and will therefore exhibit the same color sensitivity. A different emulsion number, on the other hand, will indicate a different dye lot mixture and in all probability will show a slightly different color sensitivity.

A quick and easy way to see if color film is properly balanced is to shoot black and white copy images, particularly ones with large neutral gray areas. I would suggest using black and white photographs rather than black and white reproductions from a book, as some book pages may be yellow from age, while newer ones may have fluorescent whiteners added to the paper that can cause a bluish cast. A comparison of slides of a black and white image shot without color correction and with color correction can be most revealing, as was demonstrated in Philadelphia.

Color images recorded on film may not show a cast or imbalance as readily as the black and white images. For this reason, I am sure many photographers are unaware that virtually all films require color balancing. I have found it necessary to color correct every emulsion number of every film I have used for the past several years.

When comparing the eight rolls of color corrected film it was quite evident that the different films still exhibited a varied response to particular colors. It was very difficult to pick one film as the most accurate in color rendition. In most instances, one film would record certain colors quite accurately while showing deficiencies in reproducing other colors. Color corrected daylight balanced KODACHROME 25 was certainly among the most accurate in reproducing the colors of the original copy image. In addition, it produced a virtually grainfree image of incredible sharpness, fine detail and excellent tonal range. Kodachrome 25 certainly rated the highest when comparing these characteristics to all the other tested films.

KODACHROME 64, also a daylight film, showed a slight tendency to over-respond to warm colors, a problem common to most films. A minimal increase in contrast was apparent while the grain structure, sharpness and resolution were otherwise virtually identical to Kodachrome 25.

The tungsten balanced KODACHROME 40 film produced a very warm color slide with a noticeably poor response to green colors. Kodachrome 40 was also very contrasty, with its very short tonal range when compared to other films (except Ektachrome 160, which exhibited an even shorter tonal range).

All of the Kodachrome films were sharper, finer-grained and capable of higher resolution than any of the Ektachrome, Fujichrome or Agfachrome films. To Kodachrome's disadvantage however, the complicated K-14 processing, done by Kodak, showed greater variations in color dye development than the comparatively simple E-6 processing showed a maximum variation of three color units. Four test rolls of Agfachrome 64 developed by the Paramus, New Jersey, color lab also showed a variation of approximately three color units. For this test, determining the color balance for Kodachrome films was more difficult because of the greater variations in the processing of each roll of film. Maintaining consistently color balanced Kodachrome is, of course, equally problematic.

Tungsten balanced EKTACHROME 50 and daylight balanced EKTACHROME 64 displayed virtually identical film characteristics. Both films showed a magenta bias when compared to the original. The Ektachrome films, although capable of producing excellent detail when photographing works of art, were definitely not as fine-grained, as sharp or as capable of producing the high resolution of the Kodachrome film.

Kodachrome's distinct advantage in image sharpness and grain structure is made possible by the unique chemical structure of the film. Ektachromes, Fujichromes and Agfachromes are known as "substantive" films that have color couplers incorporated in their emulsion layers. Kodachromes, on the other hand, are "non-substantive" and do not have color couplers in the film. Kodachrome films, as a result, have much thinner emulsion layers than the "substantive" films and are therefore capable of producing a sharper image. In contrast, the color couplers in the "substantive" films thicken the emulsion layers, causing a greater dispersion of light, and thus a grainier and softer image than the Kodachromes,

The EKTACHROME 160 slides exhibited the highest contrast, most grain and perhaps the softest image of all the tested films. Color rendition was not particularly accurate, with a tendency to over-respond to warm colors. Areas with green color in the original were reproduced with either blue or red contamination. Ektachrome 160 is a high-speed tungsten balanced film that I could recommend only when it is necessary to work under low available light conditions. There is no reason to use this high-speed film for copy or museum photography when photographic lights can be used for controlled illumination.

FUJICHROME 100 also did not compare particularly well to the Kodachrome 25 film when used to photograph works of art. Green colors appeared too brown while warm colors seemed to be contaminated with yellow. The Fujichrome slide showed a noticeable grain and soft image compared to the razor sharp Kodachrome 25. The low cost of this film is certainly the only advantage it has over the Kodachromes or Ektachrome 50 and 64. Fujichrome 100 in a 36 exposure roll is about \$2.00 less than the Kodak films.

AGFACHROME 64 is also cheaper than Kodachrome or Ektachrome although it must be purchased with processing included. Unless you live in Paramus, New Jersey, or Glendale, California, you must send the film through the mail, which can be painfully slow -- my test rolls of Agfachrome took between ten and twelve days to be returned from processing. Agfachrome has recently introduced a 200 ASA film that is processed with E-6 chemistry rather than the unique Process 41 of its other films. It is possible, although not confirmed, that Agfa may switch all of their films to E-6 processing types.

The Agfachrome 64 slide showed the typical "Agfa look", a very red reproduction of the warm colors and a slight red contamination in the cool and neutral colors as well. There was also strong evidence of blue contamination in areas that should have had a more saturated green hue. Another distinct quality of the film was the pronounced grain structure. Agfachrome 64 was designed with a high grain accuracy or edge sharpness. This edge sharpness in the grain increases the appearance of sharpness in the projected slide, even when compared to Kodachrome 25. The contrast of Agfachrome was also close to the tonal range of Kodachrome 25.

One should consider the different characteristics of grain structure, contrast, image sharpness and resolution when choosing a film to photograph works of art. Other factors, such as the use of tungsten or electronic flash lighting systems, and the speed and consistency of processing will undoubtedly be of greater concern. However, the most important consideration should be the accuracy of color reproduction when the film is used for copy photography. In this regard, it is essential that whatever film is selected, it must first be properly color balanced so that its true color rendition capabilities are fully realized.

The ability of Kodachrome, Ektachrome and Agfachrome to withstand repeated two minute projections totalling fifty, one hundred and two hundred minutes was also tested, and the results were presented in Philadelphia. This will be the subject of a future column.

IMPORTANT CORRECTION BY PATRICK YOUNG:

"I just received the International Bulletin today and was quite distressed with your comments about the Ektachrome 50 color correction that I recommend. Ektachrome 50 film is not too yellow -- it is too blue and needs a yellow filtration correction (generally 5 to 15 color compensating units). I was quite specific about this in my lectures, demonstrations and workshop time at Kansas City last summer.

You additionally mentioned that the Kansas City slides tended to be slightly yellowish. This judgement was based on your viewing the slides under the museum spot lights which have a color temperature of 2800 degree Kelvin. Slide projector illumination on the other hand, is approximately 3200 degrees Kelvin -- a 400 degree Kelvin cooler (bluer) color temperature. Since there is a color shift of 2 units per 100 degrees Kelvin, the slides viewed under museum spots should have looked about 8 color compensating units too yellow. When they are properly viewed under the cooler illumination of a projector, the slides will appear just about perfect."

Abject apologies by Nancy DeLaurier who came to a too hasty conclusion, and recognizes that Pat's calculations are invariably right!

CORRECTION: In the Winter '82 issue the typist mixed up two paragraphs in Pat's article on "Precautions when Photographing Works of Art". For the second paragraph under Item 4, substitute the following:

I use two different lighting systems when photographing in a museum depending upon conditions and types of paintings. When photographing Asian art such as hand scrolls, album leaves, folded screens or hanging scrolls, I use the Lowel Tota-lights bounced into an umbrella. The bulb never faces the painting, the heat is directed away from the artwork, and the umbrella acts as a shield if the bulb should ever explode.

A second lighting system is the Kodak Polarlight for photographing works under glass or western paintings with heavy varnish and thick impasto brushwork. The Polarlights with a polarizing filter on the camera lens prevent any glare or specular reflections from being recorded on the film. The polarizing filter over the lights also acts as a heat shield and reduces the amount of ultraviolet light. Using the Polarlights to photograph paintings will always bring a smile to the museum conservator's face.

Conference Reports

PRINCETON SESSION

POLAROID INSTANT 35mm SLIDE FILMS

Betsy Fitzgerald and Cal Pratt, Polaroid Corporation, As reported by Susan Filipiak

All of us at one point or another have felt the need to have film developed instantly, whether it be to check the light and focus while shooting in a gallery, or to satisfy the faculty member who wants an image now and not next week. In Princeton we were introduced to the amazing Instant 35mm slide films now being developed by Polaroid.

Three types of film will be available: a daylight balanced color slide film of 40 ASA in either 12 or 36 exposure rolls, a black & white continuous tone slide film of 125 ASA in 36 exposure rolls, and a black & white high contrast slide film of 400 ASA in 12 exposure rolls. All three films can be used in any 35mm camera. The film is loaded, exposed, and rewound just like any other conventional 35mm film. The only difference in loading is that the shiny base side of the film faces the lens, in other words, when shooting light passes through the film base to reach the emulsion layer on the other side. The color slide film forms images by an additive color silver diffusion transfer process (as opposed to the subtractive process used by all other conventional films). This process was specially developed by Polaroid for their instant color slide films. The film has a polyester base on which lies a fine-lined color screen. The screen is made up of a repeated color stripe pattern of the three primary colors - red, green, and blue. When exposed to light, the stripes function as color filters; light passes through the stripes and exposes silver halide grains.

After shooting and rewinding the film, the film is processed in a portable processor, a somewhat rectangular box (10.4 x 9.9 x 21.6 cm.; .6 kg.). Each roll of film comes with its own corresponding processing pack, a rectangular box that contains the processing chemicals (6 x 5.3 x 2.8 cm.). The roll of exposed film is fitted into the processor along with its processing pack. To load the processor, one takes the end of the strip sheet from the processing pack and attaches it to a mutual feed take-up spool, doing the same with the exposed film. A film retriever is supplied to get the end of the exposed film out of its canister. The processor is then closed, making it light-tight and allowing the developing process to take place anywhere (temperature limits of between 60 degrees and 80 degrees F. must be observed, however).

A lever is pushed down to open the processing pack and a roller squeezes the processing reagent onto the strip sheet. The crank is then turned, one turn per second, and processing fluid coats the strip sheet which is then brought into contact with the exposed film. After film and strip sheet have been wound onto the take-up reel, one waits 60 seconds developing time. The lever is pushed up to close the processing pack

and the film is then rewound into its original cartridge. At this time the strip sheet is rewound into the processing pack, removing some layers of the processed film, including the negative silver and any remaining processing fluid. The processed film is dry and ready to cut and mount. The processing pack can be disposed of. Processing time took about three minutes to load, develop and rewind.

The processed film can now be quickly mounted by an ingenious method using the slide cutter-mounter supplied by Polaroid (12 x 7.6 x 2.8 cm.; 70 gm.). The film cartridge is inserted on one side of the mounter and a plastic slide mount is placed on the opposite side. The film is advanced into the mount by a small thumb wheel and catches under a groove in the slide mount. One frame fits exactly into the mount and is cut from the roll by means of a small cutting blade. The mount is then removed and snapped shut. A twelve exposure roll was thus mounted and ready for projection in just a few short minutes.

We were then shown the slides taken of us as we entered the auditorium and developed on the spot, projected along with a variety of slides, including close-up work with flash, color slides with a large quantity of white, outdoor shots, night photography and copy photography of both color and black & white images. We were amazed at the good color saturation, fidelity, and resolution of the images. The slides were somewhat grainier than conventional films and the slides of the audience members had a slight magenta bias. On the whole, however, the results were very encouraging, especially the color slides and the black & white high contrast slides. Stability tests are now being done by Polaroid and the results are reported to be very good, comparable to conventional slide films on the market today. Accelerated aging tests are now being performed in Puerto Rico under four different environments (heat and humidity, heat and no humidity, etc.) and the Polaroid slide film is standing up well. The shelf life of the film before exposure is 9-12 months.

The Polaroid Instant 35mm Slide Films and processing system will be test marketed starting in late April in Boston, St. Louis, and Los Angeles. Cost of the film and processing pack (sold together in one package) should be comparable to the price of a 400 ASA slide film and processing - about \$11 - \$12. Cost of the processing system, which will include the processor, the cutter-mounter, a starter box of 100 plastic mounts and a film retriever will be under \$100. The possibility exists for smaller rolls of perhaps six exposures each as the market desires. Any questions may be directed to: Betsy Fitzgerald, Polaroid Corporation, Norwood, MA 02062, (617) 769-6800, ext. 5175.

ILFORD'S CIBACHROME HIGH RESOLUTION RECORDING FILM FT 245, Dr. Robert Nowak, Bryan Sammartino, Ilford, Inc., as reported by Susan Filipiak

Our increasing demands for higher levels of stability and preservation of color film have potentially been answered by the new Cibachrome High Resolution Recording Film FT 245. This film is essentially a color microfilm with high resolving power and excellent dark-storage and light-fading stability characteristics. The primary applications for FT 245 include microfilm of color reflection originals and microfiche of color documents. A second type of this film has a lower contrast ratio and could possibly be used for color slide duplication.*

Cibachrome FT 245 is a direct positive film based on the silver dye bleach technology. Its extremely fine grain yields high resolving power and its special dyes are chosen for color stability. The thinness of the dye layers - yellow, magenta and cyan - produces a high degree of sharpness. Cibachrome FT 245 is balanced for a color temperature of 3200 K, and should be used with tungsten halogen lamps. The film speed is a low 1 ASA.

FT 245 is processed in Cibachrome Process P-5. This is a relatively uncritical three-bath process of developer, bleach, and fix. The three-bath process uses equal time for each both with a 30 second rinse in between to avoid carry over of solutions. For manual hand processing, the baths are four minutes each at a temperature of 24 degrees C.; for machine processing the baths are two minutes each at a temperature of 30 degrees C. The P-5 process is similar to other Cibachrome processes except for the bleach step which is adapted for the special cyan dye. Care must be taken with the bleach bath since it contains sulfuric acid.

Cibachrome FT 245 shows excellent degrees of stability both in dark-storage and in light-fading tests. Dark-storage aging tests of 90 degrees C and 40% RH show less than measurable dye loss. Tests of 80 degrees C and 70% RH show some fading in the cyan and magenta layers. Thus, a dry storage area is important for optimal stability of this film. The ideal storage area

has temperatures less than 20 degrees C and humidity levels less than 50% RH, although temperature is less critical than relative humidity for archival storage of this film. Comparisons made with A & B Type chromogenic materials show that Cibachrome FT 245 has minimal dye loss during dark storage while type A & B show measurable fading. Light-fading tests were conducted with a typical set up for the projection of color microfilm using an 100 watt bulb. Once again, compared to types A & B chromogenic films, Cibachrome FT 245 shows an excellent degree of light-fading stability.

In summary, Cibachrome High Resolution Recording Film FT 245 exhibits high resolving power and outstanding dark-storage and light-fading stability, and has a processing method

based on simple and uncritical chemistry. Color slide film will be available in 35mm rolls of 30 meters with or without sprocket holes. The processing chemicals will be available in 20 liter packs. At present there is one location where Cibachrome High Resolution Color Recording Film products and processing services are available. Microcolor International, Inc., Midland Park, New Jersey, Attn. Mr. Ara Hourdajian (201) 445-3450. Any questions about this film may be directed to: Bryan Sammartino, Ilford, Inc., West 70 Century Road, Paramus, New Jersey 07652 (201) 265-6000.

*Patrick Young will try to acquire some FT 245 (Type II) and will report his test results in a future column in the Bulletin.

P.S. One of the color microfiche used for the demonstration was coated with the new 3-M Photogard technique, making it virtually indestructible. This technique was first reported to us at the MACAA Conference in Iowa City, October, 1982.

Photographic Journals

-Kathy Snyder

The Professional Photographer, Nov. 1982, "Dynamic Duping," by M. Bolognese, p. 54.

The private slide collections of professors offer college and university slide libraries the opportunity to expand their holdings in specialized areas. However, having slides commercially duplicated can be financially unfeasible. Various methods are available for in-house slide duplication, most needing some specialized equipment. Bolognese's article suggests a method of slide duplication that requires only a slide projector, camera and color correction filters. Using the tungsten light source of the projector he suggests shooting directly down the barrel of the slide projector lens and copying the slide. Because the light source is tungsten, a similarly balanced film must be used such as Ektachrome 50, tungsten film. Use of a variable neutral density filter is suggested to decrease the intensity of the light as well as to protect ones' eyes. The results obtained were not discussed except as being satisfactory.

Technical Photography, January 1983, "Kodak's Programmable Dissolve Control Unit," by D. Garbera, pp. 28-29..

Although many dissolve units are available to the "multi-image" and mixed media producer, most are more technically elaborate than what is required for a sophisticated two projector presentation. Kodak's new programmable dissolve control unit produces creative effects with a minimum of gadgetry. The units' capabilities include the production of "cuts, dissolves, flashes in various lengths and syncing with an audio track." The control panel contains the following features: dissolve rates ranging from one to eight seconds, a flash button used for 17

highlighting a particular slide, a reverse button, a reset button, on/off keys, in and out sync connectors for syncing a one or two track tape recorder. This unit in conjunction with the sync/track system can be programmed to advance to any slide in the tray. The dissolver also remembers where both trays are at all times.

The Kodak dissolve unit offers professionals in audio-visual production an imaginative alternative to the standard slide show. More detailed information can be obtained by contacting Eastman Kodak, Dept. A0215, Rochester, NY 14650.

Technical Photography, Dec. 1982, "Photography at the Smithsonian."

The entire December issue of Technical Photography is a profile of the photographic services performed by the staff photographers of the Smithsonian Institution. The types of photographic work required of the Smithsonian staff are as varied as the institution itself. Photographs for records, documentation of historical events of Washington, D.C., for publications, for research, slides for educational use and even the production of films are produced and maintained by the photo departments of the museums. Video discs are also being produced to ease image accessibility. This issue offers a glimpse of the diverse activities performed by an extremely small staff. It also discusses the high standards required by museum photographers and how they obtain and maintain them.

Modern Photography, December 1982, p. 53.

New films will be appearing shortly on the market. The most talked about is Kodacolor 1000, a print film of exceptional quality considering the four digit ASA. An Ektachrome 1000 is apparently being developed for release in the near future. Such a film will permit picture taking in low light with smaller apertures, higher shutter speeds and greater flash range. The new slide films are from Fuji and include a Fujichrome 100 with "superior sharpness and fine grain," Fujichrome 50 whose quality is purported to be the equivalent of Kodachrome, and three Fujichrome professional films, ASA 50, 100 and tungsten 64. The professional films like their Kodak counterparts will require refrigeration before and after use.

Next quarter Peter Dulan will be teaching "Photography for Art Historians, Archaeology and Museology" as part of our Museum Studies program in the School of Art. This involves many technical aspects as well as documentary and recording photography plus on-site photography for archaeology. This, of course, is in addition to his regular assignment of being the Slide Curator and teaching Slide Library Management at the University of Denver, Colorado.

<https://online.vraweb.org/vrab/vol10/iss1/1>

SUMMARY OF DEVELOPMENTS IN EASTMAN COLOR FILMS

AMERICAN CINEMATOGRAPHER, April 1982, published an article by John Warner, Kodak's Division of Motion Picture and AV Markets, on the history and developments of the Eastman color print films that proved so disastrous for the art slide market.

Eastman color print film #5381 was introduced in April 1950, with a lab processing "ECP" of 45 minute wet time at 70 degrees F. Improvements continued, but the major need in the 1960s was for faster processing of this now very popular film in a growing cinema market. This film had by the mid-50s been discovered by slide producers and was well established as the best and cheapest film for the burgeoning art slide market. In fact, judging from UMKC's 1968 purchase records, it could be assumed that this film was used by all major commercial art slide producers (except Blauel) in the 60s. These slides generally turned pink (lost their cyan, then their yellow dyes) within five years of production, hastened by the heat and humidity in most environmentally uncontrolled slide collections. As most movie film is chewed up by projectors within five years, slide consumers were more affected than movie-goers. But the art slide market has had minimal clout with Kodak, and even with the art slide producers, who blamed the fading on our careless handling, or occasional errors in processing, or denied its existence, or claimed that the maximum color stability for any slide was six years.

Meanwhile, Kodak developed and in 1974 marketed a more rapid processing for the #5381 (ECP-2) and a new film more compatible with the new processing, the ECP film #5383 or the 16 mm #7383. However, several producers continued to use the #5381 and merely speeded up the ECP processing, thus saving the cost of new equipment and chemicals. This may explain why some slides turned pink faster and pinker than others. Generally, the two films were alike in results, both in color and stability.

Movie producers by the mid-seventies were complaining about the non-archival quality of the film, so Kodak set about to improve its stability, and in 1978 introduced the first film designed for improved stability, the higher priced #LF 7378 for process ECP, and #LFSP 7379 for ECP-2. (LF = low fade) The 35mm equivalents, used for slides, was a special order item and considerably more expensive. Several slide producers, as reported in our "Slide Market New" column, changed to this film. Meanwhile, it should be noted, some slide producers switched to totally different films, not waiting for Kodak's progress on Eastman Color films. But the LF films were too expensive to become really popular in the movie industry, so Kodak continued to work on stability with lower cost.

The result is the new "5384/7384 which will now replace all previous Eastman color films, so producers will have no choice but to buy it.

--Nancy DeLaurier

The catch, however, is the processing. A new and greatly improved processing ECP-2A was developed and is recommended for the new film. Only when process ECP-2A is used will stability be assured. Producers can choose to continue using the old ECP or ECP-2.

This new film retains the fine grain and sharpness of the earlier films and increased color saturation, in addition to ten times the stability with no increase in cost. To quote Mr. Waner, "We believe that prints made on the new stock will be usable for generations before there is any detectable change in color, as long as film is processed under recommended conditions and not stored for long periods under extreme temperature and humidity conditions."

The new ECP-2A processing is an improvement 1) in reduction of sensitivity to process variations and 2) in ecological considerations, as well as stabilizing the dyes. Labs will also have considerable leeway for customizing contrast of the final print to match the needs of the producer. This will primarily be achieved by pre-and/or post-flashing the master positive, dupe negative, or print. Each of these procedures can reduce contrast by as much as 10 percent

After a reasonable period of time, the Bulletin will survey slide producers who use Eastman color film to see who is using the new #5384 (some will continue to use old stock until it is depleted), and the recommended ECP-2A process, and report the findings.

---Nancy DeLaurier
(with thanks to John Haeseler for sending a copy of the Waner article)

New Kodak hi-speed negative film, Kodacolor VR 1000, designed for daylight, will soon be available.

Professional News

POSITIONS OPEN:

UNIVERSITY OF CALGARY, Department of Art: Slide Curator capable of thoroughly rebuilding and administering a slide collection serving a department which comprises comprehensive teaching in the History of Art and Studio area. Experience in administration of a slide library is required. The applicant should be knowledgeable in the History of Art and the basic European languages (preferably German, French, Italian), and should have a M.L.S. degree, or equivalents thereof. Base salary \$23,000 or above depending on experience. Starting date July 1, 1983 or earlier. Closing date for applications is April 30, 1983. Interested applicants are requested to apply in writing, providing a complete personal resume to: Employee Relations Department, The University of Calgary, 2500 University Drive N.W., Calgary, Alberta, T2N 1N4.

MIAMI UNIVERSITY, Oxford, Ohio. Slide Curator for the School of Fine Arts' slide collections which serve the departments of Art and Architecture. A full time professional appointment with responsibilities for slide purchase and production, processing, classification, cataloging, indexing and filing. Duties include circulation control and supervision and training of student help. A twelve month position available July 1, 1983. Applicants available before this date should indicate this in their application. Salary commensurate with qualifications and responsibilities. Qualifications: A graduate degree in art history and an undergraduate concentration in the history of art and/or architecture. Appropriate professional training in an approved visual resources program and practical experience in an art or architecture slide collection. Reading knowledge of a foreign language preferred. Experience and additional foreign language competency. Application Deadline: March 1, 1983 (January 31 for possible CAA meeting interviews.) Submit letter of application, resume, academic transcripts and three letters of reference to: Joseph L. Cox III, Chair, Department of Art, 208 Hiestand Hall, Oxford, Ohio 45056.

METROPOLITAN MUSEUM OF ART, N.Y.: The Photograph and Slide Library has a professional position available on the associate level. Five to ten years of museum or university experience, including direct professional experience in an art history slide collection is required. A Master's degree in art history is required, with some Ph.D. courses preferred. Send resume. For further information contact Margaret Nolan, Head, Slide and Photograph Library. Address: Fifth Avenue at 82nd Street, New York, New York 10028.

MARK BRAUNSTEIN is now head of the Slide and Photo Collection at the Rhode Island School of Design, Providence. He was recently assistant editor of the Art Index, and formerly librarian for Rosenthal Art Slides.

BASIC TRAINING AGAIN AT UMKC

From June 19-25 the 8th Basic Training course for slide curators will again be offered at UMKC by Nancy DeLaurier and Nancy Schuller as team teachers. The course will combine lecture, demonstration, discussion, and hands-on practice in all aspects of slide curatorship. New developments will be incorporated, such as the Sundt binding method and other conservation practices. Both teachers offer semester-long credit courses in Visual Resources Management at their respective institutions, the University of Missouri-Kansas City, and the University of Texas-Austin.

For further information, contact Arts and Sciences Continuing Education, 417 Haag Hall Annex, UMKC, Kansas City, Missouri, 64110. 19

Equipment News

TYPEWRITER NEWS

- Mikki Carpenter
Rights & Reproductions
Museum of Modern Art, NY

RIVERS, Larry. 1 337 0562
The Last Civil War Veteran
1959. Oil on char., c. 6'10" x
64 1/8". MoMA, N.Y. Blanche
Rockefeller fund.

The slide labels at the left were typed on
CANON AP500 Electronic Typewriter, with a
Micron 15-pitch daisy wheel.

A HOMEMADE SLIDE BINDER FOR THE SUNDT METHOD

Having discovered that the Leitz Bindomat is entirely unsuitable for this method, and not being able to find more than one of the other two binders, I asked my inventive husband to see what he could do. He used as a model our Compco binder, with a photo of the Mansfield binder which Chris Sundt prefers, and our own slide binding experience for minor alterations. For the base, upright parts and holding arm, he used a piece of scrap walnut (any hard wood would do) and simple parts available in hardware stores: three 1/4" drill rods, a 45¢ spring, wing nuts, washers, and thin cork for padding the metal slide holders. One of our slide binders, Bradford Bray, made scale drawings of top and side views, which we hope may help any one else who wants to try it. Our student slide binders find that it works as well or better than the Compco. Chris Sundt is directing the production of a metal slide binder in Madison, about which we hope to hear more at a later date.

Nancy DeLaurier

NAUMAN, Bruce. 3 337 0232
Untitled. 1965. Fiberglass,
8 1/4 x 20 x 2 1/4" (25.4 x 50.3 x
5.3 cm). MoMA, N.Y. Gift
Joseph Heiman. 516.78

It can be programmed to type slide labels such
those at the left with a minimum of operator

PICASSO, P. 1 337 0104
Les Demoiselles d'Avignon.
(1907). o/c. 8'7" x 7'8" (245.9
x 233.7 cm). Acq'd thru P.S.
Bequest. MoMA, NY. 533.39

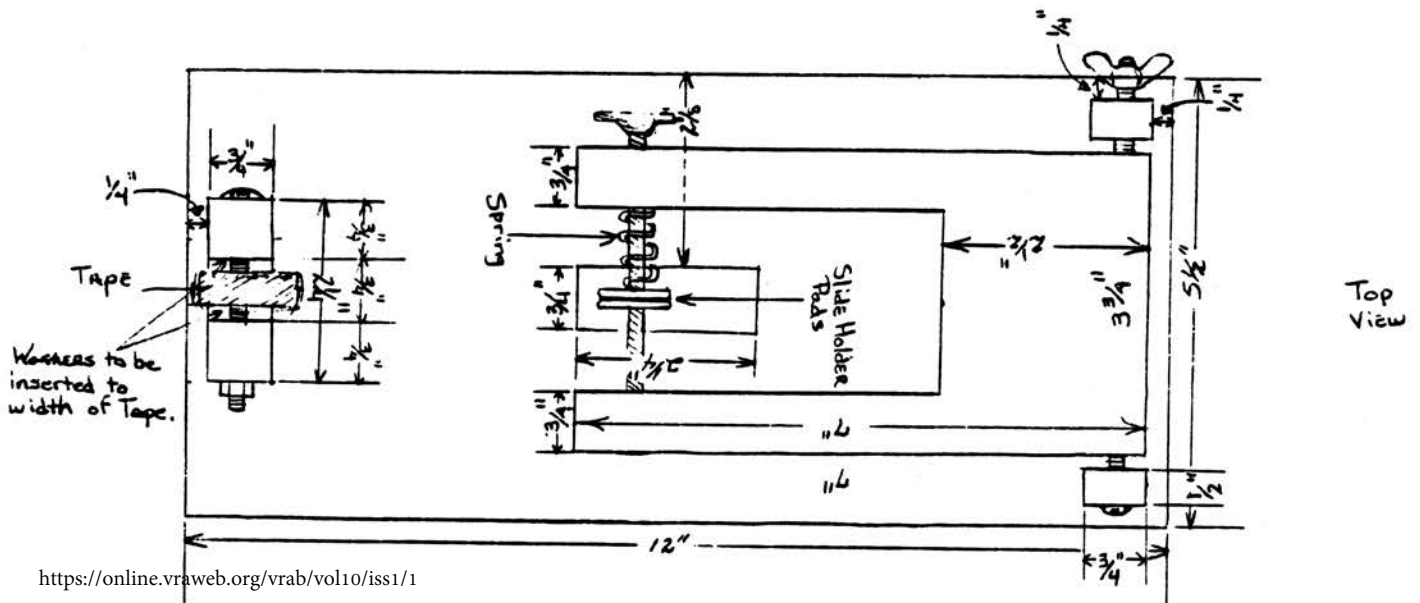
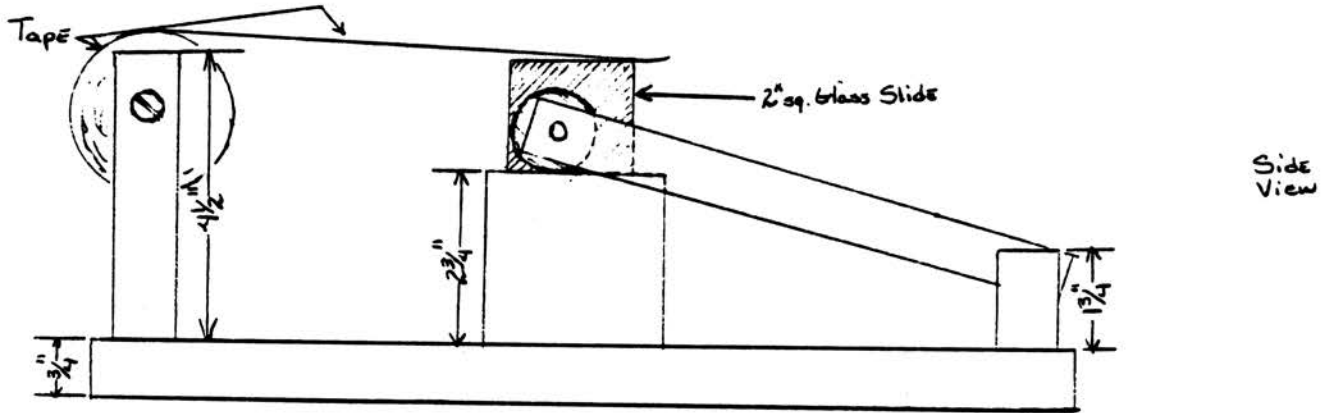
(Note: this type has been reduced

RODIN, Auguste. (1891-92) 85% for the Bulletin.)
Study for Naked Balzac.
Bronze, cast 711.33 574 x
19 x 11" at base. 19x11"
Mus. of Mod. Art, NY. 433.75

With this machine, it is possible to halve the
space between typed lines, so that five quite legible
lines of type can be printed.

The machine has a basic 2000-bit memory, which can
be increased to a maximum of 32K by 2K increments.

It uses interchangeable daisy wheels, so
that it can also be used for less specialized
typing functions.



Slide Market News

A running up-date on the 1980 Slide Buyer's Guide

-Nancy DeLaurier

U.S. COMMERCIAL

ART IN AMERICA terminated its original "Art in America On Slides" program in 1981, but have revived it in a condensed and more saleable form. The editors have specially selected 200 of the most important contemporary works featured in the 1982 issues of the magazine and combined them into a special offer. The 1982 Survey of Contemporary Art includes paintings, photography, and sculpture, and is available on an annual basis for just \$295, a cost of less than \$1.50 per slide. This condensed set will be available in February of 1983 and will be accompanied by an index for easy reference to the issues and pages on which the work appears. The slides are made on Ektachrome #5071 duplicating film. In an effort to maintain a standard of high quality, their editorial department has been carefully checking the original material before the duplicate slides are shot. The list of slides (index) is available with complete label info, for checking prior to ordering. Phone: (212) 593-2100.

ART NOW has published their 1983 catalog, which includes these new sets: a Rothko monograph, 40 slides; Folk Art, 51 slides; U.S. Social Art, 57 slides; & Architectural Sculpture, 144 slides. Slides in all sets are listed individually, with full info except owner. Available in sets only, @ an average price of \$1.50 per slide. The catalog includes an index of artists in the sets.

ELLIOTT FAYE, 4614 Prospect Avenue, Cleveland, OH 44103, has been photographing for photo-essays commissioned/published in the U.S., England and Israel since 1972, and lately for multi-media presentations. The photography is entirely his own with full professional equipment and methods. Original photography is on Kodachrome, Ektachrome and Agfachrome films; duplication is done by a local lab with close personal control over quality on Kodak slide duplicating film (usually #5071). Slides are produced on order with a two-week delivery. A comprehensive list is available for \$1.00 of approximately 2000 subjects arranged by region, period and media. Documentation is verified in library directories. Prices: \$3.50 per slide with quantity discounts; some 20-slide sets are available for \$35.00. Price includes postage; minimum order \$10.00. Subjects: Ancient sites, with architecture, landscape, artifacts, mosaics, etc., and early and medieval churches in Greek areas, Turkey & Israel, Italy, Germany and Spain. Also some icons and manuscripts.

HEATON-SESSIONS is also producing slides for the new VISUAL ARTS by Honour & Fleming. It includes 504 color slides, for all the color plates and many of the b/w plates.

ISLAMIC PERSPECTIVES supplies universities, museums and publishers with high quality photographic slides and prints of Islamic architecture, cities, villages and different aspects of daily life. While the current collection of 7000 images focuses on Iran, Turkey, India and Spain, it is continually expanding through trips to regions of current or one-time Islamic influence. Shooting itineraries can be designed to include requests for particular sites and orders will be taken for original slides and negatives. Slide duplicates are processed by Kodak and black and white and color prints are professionally printed. Sets are available for Iran, Turkey and Spain. Write for free catalogue to Islamic Perspectives, 76a Sparks Street, Cambridge, MA 02138. The telephone is 617/661-0205.

KAI-DIB is having an April sale: all sets 1/3 off (all on low-fade film), for orders post-marked before May 1. This includes requests for preview or approval shipments. After the sale, they will continue to send sets to DeLaurier and Cashman for review in the Bulletin.

MINI-AIDS is negotiating with the official church photographer of the Ghent Altarpiece to make 100 sets of the two full views (from photo-montages). The price is expected to be \$8. to \$15. per set (2 slides).

STEVE NICKLAS, Central Avenue, Avis, PA 17721 offers archaeological slide sets for Egypt, Biblical, Roman, Islamic Near East, ancient coins, Rome, Pompeii, and the Byzantine empire. Each slide is annotated, and each set contains a short description and history of the site. Set lists are available. Phone 717/769-6416.

ROSENTHAL ART SLIDES 1983 supplement, available for \$2.00, includes Canadian architecture, "Manifestations of Shiva", Dutch painting from the L.A. County Museum of Art, 19th c. painting (including 175 watercolors of Alfred Jacob Miller) from the Walters Art Gallery, and works from the Metropolitan Museum, Cleveland, Philadelphia, and Santa Barbara Museums of Art. A number of important works, unavailable from other standard sources, are included in these new listings. Reviewed at the Philadelphia conferences, these slides are highly recommended. Rosenthal prices will go up to \$2.00 each in 1984.

The Lorsch Quickpoint mounts used by Rosenthal have had amounts of glue needed by commercial and amateur customers who do not remount, but are now producing mounts especially for Rosenthal with the glue reduced to two small spots, for easy film removal. We saw a sample in Philadelphia.

SANDAK displayed at Philadelphia several beautiful new slide sets, and has their lists available on request.

SASKIA reports good results on their winter photography in Italy: in the Brera, Italian Renaissance to Baroque paintings, including the important Crivelli's, the Caravaggio and the Piero; in the Pitti, all the Raphaels, to further their goal of complete documentation of certain museums such as the Pitti, the Uffizi, and the Kunsthistorisches in Vienna. Saskia has produced two small sets, sold only as sets while they last: 1) the 12 Michelangelo drawings recently discovered under the Medici Chapel in San Lorenzo, for \$45.00; and 2) from their photography for the Vatican exhibition catalog, 28 slides of 9 objects + details, for \$95.00. A list of these objects is available.

Saskia is requiring a statement of copyright observance to be signed by individuals purchasing slides (not institutions).

SCALA displayed new slides at the CAA Conference in Philadelphia and had new lists available of slides on the Low Fade film. These include the 8-slide sets of the Great Churches of Europe series from Early Christian through 18th c. (55 sets), the 12-slide sets of the History of Italian painting from the 13th through the 20th c. (122 sets). New sets have been added to the 36-slide sets of artists, museums and exhibitions and monuments. New additions to the 80- and 96-slide books include Masaccio, and Michelangelo the architect, and all his sculpture. Also 61 sets from 6 to 48 slides each of works in museums, churches, palaces; or by Italian artists, or buildings, such as Raphael's Stanze, or Paestum. To complement the Vatican exhibition, 12 sets are featured on the buildings and works of art in the Vatican complex. In preparation: 360 slides of Italian architecture, ancient to current. Individual listings of all slides in sets are available. Slides come in sets only, average price @ 75¢ per slide. All U.S. and Canadian requests and orders must be addressed to the New York office. New address after April 15, 1983: 65 Bleeker Street, New York, New York 10012.

Due to low stock of single slides (on old film) and few orders from the single slide catalog, Scala has decided not to sell any more single slides. They hope to reprint all these slides in sets on the new film. They will honor orders for specially-duplicated single slides at prices ranging from \$6.60 for one copy to 72¢ for 25 copies. If others are interested in ordering multiple copies for survey courses, please contact Nancy DeLaurier for the possibility of group ordering.

U.S. Museums

THE ART INSTITUTE OF CHICAGO, under the direction and quality control of slide librarian, Nancy Kirkpatrick, is embarking on a new program of slide production. The slides will be duplicated from newly photographed, high quality, large format originals. The slides will be available by summer 1983, and will be priced @ \$1. to \$1.50 each. Sets planned for 1983/84 include works of European painting and decorative arts, prints and drawings, arms and armour, and textiles. These slides will be for sale in the museum shop. For further information, contact the Slide Department, AIC, Michigan Avenue at Adams, Chicago, Illinois 60603. Phone (312) 443-3600.

N.Y. Metropolitan Museum of Art has increased their single slide price from 85¢ to \$1.25.

U.S. Institutions

AMERICAN CRAFT COUNCIL (address change: 44 W. 53rd, NYC) offers several new slide sets, including ceramic sculpture, dye techniques, American glass, paper, wood-grained metal, and pattern. A new brochure is available listing their sets.

THE AMERICAN COMMITTEE FOR SOUTH ASIAN ART announces 5 new sets of painting, sculpture, and temples of India.

THE DUNLAP SOCIETY is replacing all sets of the second run of "American Impressionism" which turned out off-color.

UNIVERSITY OF MICHIGAN SLIDE DISTRIBUTION, in addition to their sets of Toledo Museum and Nelson Gallery (K.C.) slides, announce a set of Frank Stella prints, 1967-82 (50 slides) available now. Scheduled for photography soon, sets of approximately 200 slides each will be produced from the Seattle Art Museum and the Albright-Knox Art Gallery in Buffalo. The Kansas City, Toledo, and Stella sets were displayed and much admired at the CAA Conference in Philadelphia. The slides sell in sets only @ \$1.00 each, plus postage and handling. Contact Joy Alexander, 107 Tappan Hall, University of Michigan, Ann Arbor, Michigan 48109.

CANADA

THE JACK CHAMBERS MEMORIAL FOUNDATION has completed their pilot project of 20 sample slides, ready for distribution to purchasers of the complete 1000-slide set of contemporary Canadian art. The price is \$800. unmounted, or \$1100 mounted and labelled. The unmounted slides will be identified and accompanied by complete documentation in English and French. Contact Helen K. Wright, St. John's College, 400 Dysart Road, Winnipeg, Manitoba, Canada R3T 2M5.

HARTILL ART ASSOCIATES wants a note from the last issue clarified: their catalog price is \$6.00 + \$3.00 for postage, and is to be pre-paid. They announce, effective March 1, 1983, prices for duplicate slides will be increased to \$2.25 each (Canadian funds); prices for original slides remain @ \$3.50 each (Canadian funds). This increase is due to increased charges by the laboratory in processing, taxes and film. (In U.S. \$\$ this equals costs of \$1.80 & \$2.80 respectively.) Discounts remain at same rates as listed; please remember the extra 2% for prompt payment within 10 days of invoice date. The minimum order remains at 20 slides. All orders are now invoiced in Canadian funds which represents cost savings to all overseas/foreign clients. The slides come mounted, with catalogue number for identification purposes. New slide lists include European architecture and related arts from Roman to 20th c., with emphasis on the medieval. These slides were displayed and admired at the Philadelphia Conference.

MCINTYRE EDUCATIONAL MEDIA (Canada & U.S.) has a new 1983 Arts Catalog and also a special Art Slide program. They have a major new program: "Toward a National Image: Painting in Canada c. 1565-1900", over 200 slides, 6 audio-cassettes and a 48-page guide, for \$259 (Canadian \$).

England

MINIATURE GALLERY sent a message last fall that the catalogue for the POST-IMPRESSIONISM EXHIBITION has been re-issued and is available from the Royal Academy, London, for £9.95 plus postage.

WORLD MICROFILMS PUBLICATIONS, 62 Queen's Grove, London NW8 6ER, announces availability, from the Pidgeon A-V Library, of two slide-tape lectures on the works of Wren: 1) St. Paul's Cathedral, and 2) the Sheldonian Theater, Oxford and the Library of Trinity College, Cambridge. 38 slides in each with a one-half hour tape; both sets for 90 (\$180), slide lists are included.

France

SERVICE TECHNIQUE ET COMMERCIAUX DE LA REUNION DES MUSEES NATIONAUX sends lists of new slide sets: 6-slide sets on Cezanne, Degas, Gauguin, Monet (4), Pissarro (2), and Renoir (3); Seurat and Van Gogh; and 10-slide sets on Boucher, Corot, Courbet, Ingres, de la Tour, Manet, Millet, Poussin, Pissarro, Rembrandt, Watteau, an interesting set on the century of Charles V, and one on Celtic art in Gaul. These will be included in a new Dialouvre catalog, which should be available. According to previous information, these should all be on the LF film.

West Germany

VISTA POINT VERLAG, Gereonshof 30, D-5000 Kohn (Cologne) 1: a recently-discovered slide source. Dr. Horst Schmidt-Brummer, editor, filled in the Slide Buyers Guide questionnaire as follows: Sources: 60% photographed by himself or employee, 40% by someone else (not explained). Production: film - Kodachrome and Ektachrome. Slides can be re-stocked in 3 weeks, but about 250 of each title are kept in stock. They are sent to a commercial lab for duplication and processing. Frames are masked on painting slides. Some lists do not specify color, so may be b/w. Information: His catalog lists 6000 slides in German, with new lists issued as new slides become available. The catalog lists artists' full name, nationality, dates, title of work, medium, dimensions, and location; architecture lists all needed information. On the slides are artist's name and title, or location and title of building and architect. Catalogs are free. Slides are sold in sets of 12 or 24 only, @ an average of 93¢ per slide. Subjects: Romanesque Churches of Cologne, reconstruction of medieval churches; architecture, sculpture and painting of the Third Reich; murals in the U.S., Europe and Mexico; S.W. American Indian architecture. Contemporary art slide sets include Pop architecture, USA auto-culture, USA alternative architecture, graffiti, body art, woman's art, logos, and photography.

Trudy Buxton, Slide Curator, Trinity College, Hartford, explains the quality of the set of 23 Cole slides (Course of Empire) she has made available. She responded to the only complaint from 30 sets sold, that she photographed the five foot long paintings as the New York Historical Society required, with available light (5 uneven tungsten bulbs) and no tripod. She has had the lab color-correct, and in so doing they sometimes blur the focus. She acknowledges the slides are imperfect, but they are usable.

Microforms

(See Supplement for report on ARLIS Microform Sessions, which replaces the column for this issue.)

Microfilm Publications from England

EMMETT MICROFORM, Ltd, 57a Lion Lane, Haslemere, Surrey GU27 1JF. (U.S. agents: Chadwyck-Healey) Series on fashion and theater costume; textiles and wallpaper; jewelry and metalwork, Japanese netsuke in the V & A, and miniature paintings in the V & A.

WORLD MICROFILMS PUBLICATIONS: Royal Institute of British Architects: The Drawings Collection, Phase B: The Pugin Family, the Wyatt Family and J.B. Papworth, 16 reels, for \$1395.

Form for MACAA Guides

Guide to Management of Visual Resources Collections, edited by Nancy Schuller \$6

Guide to Equipment for Slide Maintenance and Viewing, edited by Gillian Scott \$10

Guide to Copy Photography for Visual Resource Collections by Rosemary Kuehn and Zelda Richardson \$ 6

Guide for Collections without Curators, edited by Eleanor Collins (PLEASE NOTE: This guide is included as a chapter in the revised edition of Schuller's Guide to Management of Visual Resource Collections.) \$2.50

Guide to Computer Programs for Visual Resource Collections, edited by Zelda Richardson and Sheila Hannah \$7

Guide for Photograph Collections \$3

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SUPPLEMENT

CAA-VRA Sessions

Philadelphia

COMPUTERS IN THE VISUAL ARTS

Tim Quigley, University of Wisconsin-Madison

Last month I participated in a show entitled "Movement and Participation", an exhibition of computer generated artworks at the University of Wisconsin. The show was breaking new ground since the museum there had rarely, if ever, shown video art, let alone anything as dubious as "computer art". While we were testing the equipment and putting the final touches on the installation, the Art History department's classical scholar walked in to see what was going on. He entered the gallery in one of his characteristically jovial moods, but as he became aware of the TV monitors and the computers, his demeanor was transformed from one of enthusiasm to a kind of disapproving silence. One of the curators, taking note of his increasing discomfort, said something to the effect that the portability of culture, as exemplified in the Athenian vase, has been placed in the hands of the portable microcomputer. Well, if the flashing colors and fleeting displays on the monitors weren't enough to raise serious questions about the introduction of impersonal machines into the sanctuaries of high-art, such an analogy between pots and computers was hitting a bit too close to home! Exit one very perplexed professor...

Of course, in most areas of Academia, the computer doesn't carry with it such a threatening presence, but is almost indiscriminantly embraced — a kind of symbol of progressive culture. I've heard it said that the total number of microcomputers sold during the next six months will exceed the number sold since 1975 when the home computer was commercially introduced. The Apple Corporation is currently negotiating a deal with the Federal Government that may enable them to donate a computer to every elementary and secondary school in the country. Schools in middle and upper middle class districts are already inundated with computing hardware, although they are seriously lacking educators with the necessary skills to teach their students who are both eager to experiment with these new "toys" and are intimidated by a device which is already an accepted element of their quotidian landscape. Considering the revolutionary advances of the last 30 years, most of us are equivalent to primitives in a technological society that gives us more information and experience than we can possibly assimilate or understand. The space age became the computer age in less than a generation, and the repercussions are as influential on the artist as they are on the scientist. Just as Tatlin and Rodchenko in Russia and Gropius, Mondrian and Leger in Europe had to reckon with the imposing changes coming out of the industrial age of the 19th century, so today's artist must find some way to gather in, understand and help make

sense out of the dramatic increase in the flow of information and technology inherent to the computer age.

With these introductory remarks in mind, I'd like to give you a brief representation of what we primitive artists have done so far, as well as a look into what may be some more sophisticated trends in the near future.

The use of computers in art can be divided into three broad categories: graphics (or "illustration"), visual research, and, for lack of a more descriptive term, installation works. Since the early interest and financial support has come from the engineering and entertainment fields, most of the work seen in journals and the Media has been directed toward the development of detailed and dramatic three dimensional color graphics. Computer generated, still-life images like those created by Doug Kay at Cornell look like what we are accustomed to seeing in paintings and photographs coming out of the western still-life tradition. A few years ago, computers were unable to generate images as naturalistic as these. Today, programmers are working on routines that will allow such an image to be incorporated into an animated film or commercial videotape. With very little effort, the artist can modify the image by moving elements around and changing any of the colors. In short, the artist's control is much the same as the draughtsman's, although changes in the computer image are generally easier to make.

Atmospheric and linear perspective can be utilized to render effects formerly the sole province of painters and draughtsmen. The mechanical and stilted images that typified computer drawings of the 60s and 70s are rapidly being replaced by a more convincing naturalism. Computer image quality need no longer take a back-seat to photography and painting. Not only can these images accurately represent what we see, but with what amounts to the touch of a button, the design, color or lighting can be varied over an unlimited range of possibilities.

At the New York Institute of Technology Computer Graphics Lab, Dick Lund and Lance Williams are working on a computer animated film called "The Works". As programmers continue collaborating with scientists and engineers, the sophistication and subtlety of the graphic images produced become compatible with the needs of the major networks and motion picture houses.

The application of computer graphics in the scientific community has been benefiting as well from artistic input. For example, synthetic landscapes have been used for visualizing theoretical terrains, allowing geographers to specify the conditions contained in a given

atmosphere, soil and land topology. The computer takes this information and uses it to paint a picture of the resulting landscape. Since the computer stores the information in algorithmic form, it can generate a view of the land from any desired altitude and looking from any direction.

Research has also been undertaken, with the help of the computer, in areas of Art Education and Art History. At the University of Wisconsin in Madison, Ted Pope has been using a computer to study the effects on aesthetic perception of modifications made to well-known paintings. The "Portrait of M. Matisse" (1905), one of Matisse's popular "fauvist" works, was photographed by Pope and converted into a digitized, color reproduction. The digitized image was, in this particular case, a translation of the original painting into an array of over 65000 picture elements, or pixels. Once the original image was converted into such an array, Pope was able to examine precisely the hue, saturation and value of each one of those picture elements. The upshot of this process is that it gives the design student or color theorist a description and range of analysis beyond what would be feasible by mechanical means. Not only is the user able to study the original form of the painting, but he can also modify any or all of those picture elements to whatever color or shape desired, thus permitting experimentation with new color combinations and new designs and observe how the composition is affected as a whole.

This kind of experimentation has been an important area of artistic pursuit since the early work of theorists like Goethe, Shopenhauer and Chevreul. Subsequent artistic work in perception and color relativity was done almost exclusively by the neo-impressionist painters at the turn of the century by artists like Itten, Albers and Klee at the Bauhaus. More recently, researchers in psychology and industry have brought new resources and expertise to bear on these problems. The motivation for the majority of artists undertaking such research into the relations between form and color is the need to test as wide a range of combinations and permutations as possible on a given theme. By looking carefully at a variety of examples, one can train the eye to see effects that would go unnoticed by the less experienced observer. This phenomenological approach to art education belies the primacy granted to the material aspects of artistic sensitivity. In this sense, seeing forms the greater part of knowing. As we shall see, the computer can push this learning process far beyond what was previously imagined.

With the help of a high speed, digital computer in the Cognitive Studies Lab set up by Leonard Uhr at Wisconsin, Donna Cox can produce elaborate video paintings structurally similar to traditional painted works by Vasarely and Anuszkiewicz. Unfortunately, the traditional technique of painting these works on canvas would require the artist to spend some

3 to 6 months to complete a single work. With such limitations, one might be restricted to testing 30 different variations on a given composition over a period of a decade. Cox, on the other hand, can test 30 combinations in less than an hour, thereby acquiring the experience in a year that other artists would work an entire lifetime and still never achieve.

With computers now a common tool in schools and universities throughout the world, a new and inexpensive resource has been put into the hands of people who were previously excluded from the discourse for economic reasons. Prints and photographs, originally intended as art for the common man, have in the last 20 years become so expensive that only collectors and museums can afford to own them. With the availability of new technological artworks in the form of video images, the TV set can become the museum and art gallery of the 1980s. In fact, I am told that a pilot program on the East Coast has introduced interactive TV receivers that allow the user to modify the programs sent over the commercial airwaves. Imagine the consternation of executives at NBC as they realize that they will no longer have the foggiest notion of what we're seeing!

This leads us directly into our final category, viz., the interactive and installational use of computers to raise issues in the art discourse. The history of Modernism is generally told (at least in the visual arts) in terms of 20th century painting and sculpture. However, the validity of this restriction has been under strong attack since the 60s. Artists suspicious of the dominant commercial and corporate interests began looking for ways to survive in the artworld without playing by its rules. To this end, the old, accepted media were attacked as irrelevant and ineffective.

Hans Haacke, who was to be, with Daniel Buren, an intelligent saboteur of the established system, began, in the late 60s, to utilize Communication and Systems Theory to attack the artworld from within. Daniel Buren, on the other hand, called into question the habitual nature of how we display and view artworks. Feminism, Conceptualism and Environmental Art, as well as numerous other less stereotyped approaches initiated an approach that seeks to engage the viewer both physically and intellectually. These artists were looking for a new kind of interaction with those of us who had been kept in the role of passive onlookers and appreciators. What better context could there be for what Douglas Davis has referred to as the artistic tool par excellence, the computer. If there is anything the computer has that no existing medium can exploit as powerfully, it's the ability to interact with a user in at least a pseudo intelligent way.

In a series of large drawings executed by a computer driven robot, Harold Cohen has raised serious questions about the importance of art as a product of the human mind. In an interview with Moira Roth in 1978, Cohen said that

"image making is a fundamental human activity. What people understand by art-making in the 20th century has moved very far away from that fundamental human activity..." (1) In one of his first major exhibits after having left traditional painting in 1968, Cohen set his drawing machine to work in full view of the public at the Stedelijk Museum in Amsterdam. The computer turned out drawings continuously as amazed and perplexed visitors looked on, eventually pulled in by what Cohen called the "anthropomorphizing instinct". In discussing the response with Roth, Cohen said "one of the things human beings find interesting about drawings in general is that they are made by other human beings, and here you are watching the image develop as if it is being developed by another human being...A large part of what we value in art is not the ability of the artist to communicate special meanings, but rather the ability of the artist to present the viewer with something that stimulates the viewer's own propensity to generate meaning. The propensity to invest events with significance may be one of the most fundamental attributes of the human mind, and I suspect that art draws much of its power directly from its reliance upon this attribute." (2)

It is a major part of Cohen's work to debunk the idea of the artist as a privileged genius and tastemaker. As a result of the work done in artificial intelligence and computer design, artists like Harold Cohen have found a tool that can be used to make art that will be both accessible and relevant to a world filled with information and mass communication systems. Welcome to the 20th century.

The so-called computer age has arrived. Perhaps it could be labeled more descriptively as the communication/information age. Developments growing out of the space and arms race of the 60s have left us with an irrevocable commitment to technological growth. This is a fact of life that, while we have every right to be cautious and thoughtful about, we must face. It is a world that the artist, along with everyone else, has inherited.

A frequent attack on the use of computers is that it fosters dehumanization. If we are going to guard ourselves against such a technocratic manipulation of human creativity, we will have to join in the process of understanding our machines, what they can do for us and how we can use them to further explore what it is that makes us human. The totalitarianism that built the pyramids would be unacceptable to us today. Slave labor is dehumanization of the worst sort. If we all approach the computer with the right degree of thoughtfulness and creativity, we may find that we can successfully avoid slavery to both an imposing technocracy and an impending ignorance.

It is with these thoughts in mind that our consideration of the value of artistic use of computers should begin, for if our human aesthetic sensibility is of any practical use at all, it should at least be able to show us the way to a human utilization of the technological world of the future.

1. Art in America, September-October, 1978. p. 107.
2. Ibid., p. 107.

MICROCOMPUTER APPLICATIONS FOR SCHOLARS IN THE ARTS, by Jonathan Block, sculptor, Parkland College, Champaign, Illinois

Like most of you I began hearing about "the wonders of microcomputers" sometime in the mid-seventies and decided that sooner or later I would have to own one. The bus was loading, and I didn't want to be left behind. Every several months I would stop into a computer store, and ask them to sell me one.

I would ask the salesman to show me something the computer could do which would make my daily life easier. I wasn't interested in playing games, nor was I interested in learning to write programs. I was looking for an application that would be useful. "Cost is no object," I said. As a sculptor I buy tools for their usefulness with little concern about whether or not they will pay for themselves. Unfortunately, I always left disappointed. While the computer could be used for many tasks, in almost every case it would be more work, rather than less.

The situation changed last spring when I began writing a book. I suddenly had real use for a computer - word processing. I used my advance from the publisher to purchase a microcomputer, selecting an Osborne, partially because it came with an outstanding word processing program.

I have been working actively with the computer for almost a year now, and each day become more aware of its powers and usefulness. Computer applications for scholars fall into four basic categories: Word Processing, Computation, Data Management, and Communications.

Most of you are already familiar with word processing, and the powers it provides. Besides using the computer in the preparation of my text, I also use it for correspondence, writing syllabi, and classroom problems. This allows me to make notes on my handouts at the time of presentation, and then easily revise the material. As I work on my text the index and table of contents are automatically updated. Footnotes are easily merged into the text, and spelling errors can be quickly spotted and corrected.

Another type of program with broad potential for applications is what is commonly referred to as a "spreadsheet." These programs basically create a grid of cells, each cell being identified by a pair of coordinates - not unlike a map. You may fill these cells with text, numbers, or formulas, and the formulas may refer to the contents of other cells. Whenever the data in any one of the cells is changed, the values of all of the other cells which refer to that cell automatically update themselves. I have found

this program to be of particular value in two areas - budgeting, and gradekeeping. When confronted with a requirement to reduce the budget by a net value of 5 per cent across the board the spread sheet allows you quickly to compare the relative savings of different options which may be available. Similarly if one has a very complicated grading formula (e.g. different weights for different scores, dropping out of the lowest grade, increasing grades for redone work by a certain percent, and penalizing late work at another rate - don't laugh, my office mate does all of this), a spreadsheet program allows you to enter only the specific numerical score of each quiz, and will do all of the averaging for you, both of the student's performance, and the performance of the class as a whole. These are truly powerful programs which seem to generate new applications as you use them. They could be usefully applied to anything from glaze calculations, to estimating maintenance and conservation costs for a library.

The third major area of applications for microcomputers is in the area of Data Base Management. A database may be thought of as a collection of records, like the card catalogue of a library. What a Database Management Program allows you to do is to search through this collection of records on a variety of keys, select the record or records you want, and then sort those records in ascending or descending order on any of those keys. Let us say for example that you had entered all of the slides in a library collection into a Database, and wanted to know how many images you had of paintings by Picasso. Further you decide that you only want paintings from that group in American museums, and that you want a list of those slides grouped by museums, in reverse order. A database is simply a collection of information gathered into records which are divided into fields. A good Database program allows you to create new records, edit old ones, merge existing databases, and to format the output.

To go back to the idea of a library, you might have different databases for different storage media (e.g. one for slides, one for videotapes, one for films, and another for tape recordings.) You could then create records for each object to include: the artist's name, nationality, sex, dates of birth and death, title of object, date of completion, current location, exhibition history, medium, content areas, style, major reviews, or whatever reference points might be of use to researchers attempting to use the library. Using a Database set up along these lines a lecturer could assemble a collection of slides customized to his or her specific needs. Similarly, a database program could be used to keep track of the current locations of materials, and their use.

Just as the three basic types of applications programs I have described vary in the complexity of what they will allow you to do, so do they vary in complexity of operation.

Most good word processing and spreadsheet programs can be learned adequately in several hours with a remarkable degree of proficiency achievable over a matter of a few days. Database programs, however, tend to be more complex. While they may be learned in a reasonable amount of time, a great deal more time is involved in entering and maintaining the information which the database manipulates. It is important to give careful thought to the types of information you will want to retrieve before you set up a database. The more effectively you design your records, the more useful they will be.

The final application I want to discuss is communications. Equipped with a modem (modulator/demodulator), a device which translates the computer's information into a form that can be transferred by telephone, most microcomputers can communicate with remote mainframe computers and other microcomputers over phone lines. Through my computer at home I access the CYBER at the University of Illinois, the international PLATO network, numerous "private" computer bulletin board and software exchange systems, and DIALOG, the database clearinghouse maintained by the Lockheed Corporation.

Communications applications require, in addition to the basic computer, a modem and software which will allow your computer to behave like a terminal. It is these applications that are in many ways most exciting and also most daunting. Once you become aware of the power which the modem allows you to access it is easy to begin to think all of your problems are solved. Suddenly the quality of your printer is unimportant. You can transmit your text to the University's letter quality printer and have it do your printing for you. Research is a snap, you have access to an almost unlimited number of databases and records. Your learning problems are solved too - the local bulletin board seems to always be able to come up with the answer to your technical questions. You're saving lots of money by acquiring outstanding public domain software which does everything that commercial programs do, (often better) - and they're free.

All of this is true ... but...when you are using your computer as a terminal you have to respond to the host computer's way of doing things. You have to learn its language, and you have to pay your phone bill. The University will probably charge you or your department for connect time to the mainframe, and also probably for the printing (which you won't be able to proofread until the next day when you discover that you forgot to specify the correct margins.) The remote databases are also an incredible source of information, but they too charge. If any of you have had any on-line searching performed through your library you may have some idea of the cost. The most powerful of the Database clearinghouses, at least in terms of quantity of information available, is DIALOG.

Average connect time for DIALOG is about \$1 per minute, but ranges as high as \$3 per minute. You can do a very extensive search in five to ten minutes - one that might take over a day in the library - but you should plan out well in advance what it is you want to find and how you intend to look for it.

Christine Sundt, the organizer of this panel, mentioned that the VRA group was looking for information on Macanari Murai, an artist who had participated in a show called "The Mechanized Image" held in London some time ago. I performed a quick search of Art Bibliographies Modern and found no references to Murai in particular, but three reviews of the show, one of which referred to a longer piece commissioned by the British Arts Council, which sponsored the exhibition. Another check of The Newspaper and magazine indexes showed me that none of Murai's work had been reviewed recently in any popular magazines or the New York Times, L.A. Times, Washington Post, Christian Science Monitor, or Wall Street Journal. Another quick search of the Biography Index indicated that Murai is probably either Japanese or of Japanese descent, for while there were no references to Macanari Murai, all of the Murais save one were Japanese. I performed this entire search somewhat leisurely, not trying to hold down expense, and it cost about \$30. Had I attempted to be as efficient as possible I'm sure I could have halved the cost. The initial search of Art Bibliographies Modern - the only search which yielded results - only cost about \$8, and a good bit of that was consumed by my having all of the information printed online.

OK...it's a wonderful world of applications. I really do need a micro. It will help to replace my cut back secretarial support. I can start to keep the kind of record I've always meant to of my course projects and correspondence. It will make preparing papers for publication much easier. It will help me plan next year's budget. It will let me do a lot of my library research from my office and home. Today's paper advertised a Vic-20 for \$139 at K-Mart, and I know where I can pick up a Timex for \$89.95. What should I buy?

I am afraid that you will be unable to find a microcomputer system which will fill serious application needs for less than \$1500, and are likely to have to spend between \$2500 and \$5000. You are going to have to do some shopping.

The first decision to make is exactly what applications you are interested in. If all you want to do is communicate with other machines, you might consider buying just a terminal. A terminal is basically a keyboard and screen which can be connected to a remote computer via a modem and a good one can be purchased for around \$600.

If, however, you want the full capabilities of a microcomputer, there are several factors you should consider before making a purchase.

First and foremost is to determine your application needs and find a software package which will meet those needs. If at all possible try to spend some time with someone who is using the software, and ask them about limitations they may have encountered. While salespeople should be able to tell you all of the things a software package can do, they may not be aware of the things it can not do. Look at the documentation for the software and try to get a feeling for what will be involved in learning how to operate it. One caution here. I have seen software packages that are very easy to learn - they lead you through the program step by step, but after you have learned them, they still force you to go through a lot of now unnecessary prompting to get the job done. A good software package should allow the experienced user to get right to work without the distraction of "helps" and "menus".

Another thing to look for in software is the publisher's policy on updates and upgrades. Even the best programs are being improved, and as a licensed user you should be able to update your package at a reasonable cost.

Finally I would discourage you from buying any program which will not allow you to make a "backup" copy. Disks can go bad, and it is unreasonable for you to have to wait a week for the publisher to send you a new copy of your program disk if it fails. This is not a problem with any CP/M software that I know of but can be a major frustration for owners of Apples.

Having located suitable software, you are now able to proceed in your search for a computer. You should keep in mind that a computer is made up of several components: the CPU, or central processing unit; the input device, usually a keyboard; the output device, usually a video monitor; MASS STORAGE, usually floppy disk drives; and finally peripherals such as printers and modems. These items can be purchased as components or as complete or partial systems.

The basic capabilities of your computer will be determined by its "operating system." This is a piece of software which allows the various components of your system to communicate with one another, and through which your programs will communicate with the computer.

Powerful applications programs such as we are discussing will require a minimum of 48K of memory, and most should have at least 64K to take full advantage of their capabilities. It does no good to have a wonderful database management program which occupies so much of your available memory that there's no room to manipulate the data.

In almost every application your life will be easier if you have two disk drives. This will allow you to keep your programs or instructions in one drive and your data in the other, and will allow you to backup your data directly by copying from disk to disk.

Again for most applications I would recommend against a hard disk drive. Their mass storage capacities are truly impressive, but they must be backed up rigorously. Just as they store more data in less space, so much more data can be destroyed if you have a "disk crash." You might think of it as having a fortune in pennies or in diamonds. Pennies are hard to carry around, and awkward, but you aren't risking much if you lose one. A diamond would be a much more efficient way to store that wealth but if you'd want to have it heavily insured.

I want to end the talk shortly so that I can demonstrate the DIALOG program to those of you who are interested, so let me summarize briefly.

The major areas of application for microcomputers today are in the areas of word-processing, computation, database management, and communications.

Minimum hardware requirements for an effective microcomputer are 64K of Random Access Memory, two disk drives, and a well supported operating system under which your applications software will run.

PROGRESS REPORT ON THE USE OF THE TRS-80 MICROCOMPUTER IN THE VISUAL RESOURCES SLIDE COLLECTION by Suzanne Babineau-Simenauer

When I began using the microcomputer a couple of years ago with a friend who suggested the potential usefulness of these marvelous machines, I was impressed and very enthusiastic about the possibilities that existed in making some sense of my large and uncatalogued slide photograph collection. Two years down the road, with a lot of work done on my own time and hundreds of hours spent on the computer, I realized two important points which I want to pass along to you.

A successful computerized system requires:

- 1) the commitment of your administration or department to the task of automating; and 2) the precise articulation of your needs and goals before you even begin.

Once you have obtained the support of your administration or department to automate, the time comes to decide on how to begin. You have a scheme already set up for the classification of your collection. How do you transfer that scheme which is on paper and on the slide labels to the computer?

Contrary to what you may think or what you may have heard from other amateur computer people, choosing a computer (the hardware) is not as important as carefully selecting the right software (application system or programs) for your particular needs. Software is the most vital part of your success in automating your collections. For the most part, all the well-known

computer manufacturers make a good product, with the most important things to consider being the servicing of the equipment and its replacement when your own is down (out of service).

Basically, there are three possibilities when considering which software to use:

- 1) Design software from scratch (yourself, university, or outside consultant).
- 2) Explore what exists in packaged software (spin, spires, etc.).
- 3) Use-originated software development like (Data Base Management systems).

The third is especially oriented toward microprocessors and has as its advantages, independence and relatively low cost. The disadvantages are: ignorance of systems development (you work by trial and error) and your administration loses the element of control.

Getting back to your collection and its classification or filing system, fast and efficient handling of data is the whole point of automating in the first place. The microcomputer receives, stores, manipulates and communicates information by breaking down a task into logical operations and handling hundreds of thousands of these operations each second.

The data base management systems are simply super electronic general file systems which can be individualized to meet specific needs, such as a slide collection. For the catalogue-less slide or photo collection, data base systems are a powerful tool in cataloguing, label production, inventory, circulation control and handling a multitude of other tasks involving not only the specifics of a collection itself but also other administrative tasks.

Taking label production as one activity of a collection, for example, the mechanical problems of labelling can be greatly simplified. Using a 15-pitch element, the computer's printer can type 6 lines of 26 characters per line on a label which is 1 3/4" long by 1/2" wide. Presently, the best that a typewriter can do is 4 lines with irregular spacing between lines because the machine must be manually manipulated. Besides the mechanical ease of handling such small labels, label text could be prepared ahead of time and stored and printed later, enabling proofreading and other final checking of information to be done, doing away with corrections on labels, which is tricky and messy. Additionally multiple labels are possible at any time. It is important to remember that label generation is only one of many uses in which the computer can be utilized. Data entered once can then be manipulated to produce labels, write reports, generate lists by any of the parameters you desire within the search fields which you have pre-determined. The accession number which you normally assign each slide or photograph coming into the collection can be utilized for circulation control as an OCR code (optical character recognition) like the ones found on your personal bank checks. For collections with extensive outside or interdepartmental circula-

tion this can be very helpful in tracking down images and returning them to the collection.

Because I want to demonstrate what the computer can do, at this time I would like to divert your attention to the equipment at the foot of the stage and invite you to come up and participate. I will elaborate during the demonstration and I will be happy to answer any questions you may have.

THE ROLE OF STATISTICS IN STAFFING VISUAL RESOURCE COLLECTIONS

Nancy Schuller, U. of Texas, Austin

The desire for information; the need for facts about other visual resource collections and "how they do things" is the primary reason that visual resource curators began congregating in the later 1960s. The visual resource profession, in its relatively short history, has experienced numerous surveys designed to collect various kinds of information. However, the results from these surveys have often been less than satisfactory because of the lack of a standard practice for record-keeping in most visual resource collections. Consistent methods for the gathering and interpretation of information in order to accurately report functions, to make valid comparisons with other collections, and in order to plan for our own collections need to be developed.

Most visual resource collections record circulation figures and, although these figures are a convenient measure of a collection's use, they represent only a small portion of what actually goes on. There is much, much more to tell.

We agree that each collection is unique in many of its functions, however, most collections do have a common set of functions, purposes, and resources which are not affected by the various administrative units and sizes. The 1980 "Standard for Staffing Fine Arts Slide Collections" did establish types of collections based on type of institutional or administrative affiliation and size. (I.e., types: (1) academic (art schools and universities), (2) museum, and (3) public library.)

A widely known fact about book librarians is their penchant for the collection, interpretation, and publication on statistics. There is an ANSI Standard (Z39.7) for library statistics. We share with librarians their need for statistical information, but we differ on how and what to collect.

With the establishment of the Visual Resources Association this year, one issue we may wish to address is the development of consistent standards for the collection and reporting of statistics-- what should be reported and how. The annual publication of such information might be valuable in many ways.

The "Standard for Staffing" document made a first attempt at establishing a standard for describing types of collections, their func-

tions, and their, more or less, standard needs in terms of staffing. The major criticism of this document (from outside of our profession) was that the standards we set were too high-- too ideal. We might have more accurately defended this judgment if adequate statistics, collected from a representative group of collections over a sufficiently long period of time to be representative, had been available.

As a meagre beginning in the general area of statistics, I would like to discuss the subject of statistics and staffing.

In our collection at the University of Texas at Austin, we first began collecting statistics of staff activities when I worked on the "Standards for Staffing" document. The information we collected turned out to be interesting, and for our own use, we began to expand on what we collected and to refine our methods. Later, when I needed to justify my requests for wage money for part-time help, I found this data useful in reporting our activities and justifying our needs. A by-product of this information turned out to be an increased level of administrative recognition of our contribution to the overall activities of the department.

This information, collected and tabulated on a weekly basis is reported to the department chairman each month, summarized at the end of each semester, and each year. In addition to drawing the attention of the administration to our activities (the chairman passes all this onto the dean of the college), we find that our staff members also enjoy seeing what they have accomplished; thus, another benefit: that of employee satisfaction and morale.

Each semester, as we begin to establish our work priorities (i.e., that which can realistically be accomplished in a given time by a set number of hours of work), we are guided by the records from past semesters.

In summary, statistics on staff activities serve to: (1) report on collection activities; (2) aid in planning; (3) provide self-evaluation and satisfaction.

It has been our goal to create a numeric record of as many of the staff activities as possible. We find that some activities lend themselves better to quantitative reporting than others. To start with, identify the services performed by your staff and devise a short reporting form that collects a numeric record of what each job accomplishes.

We began with the obvious: circulation. The re-filing of slides is a time-consuming activity. Clerical assistants are given weekly reporting sheets which are collected and tallied weekly and monthly. There is also a form which records circulation for each semester. These weekly figures coupled with the number of hours worked by the filers give us an average of slides filed per hour.

Another easy job to record is that of acquisitions. This form is kept in the Accessions Log Book. It is easy enough to calculate the number of new slides accessioned on a monthly basis. What is more difficult to record with regard to acquisitions is the amount of time required for the process. It is obvious that some slides require more research for labeling information than others.

Slide mounting is recorded on a weekly form. As you can see, the number of hours worked is also recorded, giving a quick average for individual binder, or an overall average per hour per month. It must be understood that this type of figure is not absolute. Some transparencies require a great deal more masking than others. Also, we mount our Saskia slides by the "Sundt" method, which is slower. Another type of mounting we don't distinguish in our records, but that is slow, is that of removing old mounts, cleaning the transparency, and remounting. Even though this data is general, it provides very useful information in reporting and planning.

Similar records are kept for the typing of shelf cards and slide labels. Incidentally, even if you are a one-person operation and must perform all these jobs yourself, keeping such records will help to see where you spend your time and might help you to get some assistance.

The photographic services we offer have grown, and account for a sizable amount of our annual expense. A record is kept of each slide or photo request that is given to the photographer. This can record a monthly total of the number of individual requests, types of requests (i.e., slide duplication, original photography, or copy-work), and numbers of slides to be produced. Then the photographer records kinds and amounts of film expended. Since the photographer works full-time, we keep no hourly records, but this could be included on the form very easily. A large number of copystand users, on-site photo assignments, or the like, would cut into the number of rolls of film he could shoot in a week. There are other factors which influence the amount of photography that can be achieved: confusing or illegible photo requests, misplaced or otherwise unavailable books (as in copyphotography), duplicating slides which require corrections, or oversized or delicate items which require special handling.

The management of the department's A-V equipment, the monitoring of all equipment in lecture halls and seminar rooms, and the tending to special or guest lectures is the responsibility of our A-V Slide Librarian. To justify the assignment of one person full-time to this activity (which in reality does require a great deal of attention), we began keeping a record of equipment circulation, etc. I am not entirely satisfied with our method for collecting and reporting, but it is a start.

Anyone familiar with slide collection work knows at this point that there is still a very important activity that is quite time consuming

which I have not mentioned. That is the cataloging of slides. Finally this year we have begun to record what we catalog on a monthly basis. This is definitely an in-progress method, which will change. For now, we are at least getting a picture of what we are doing each month.

Monthly, when these activities are tabulated, a report is sent to our chairman. He can see immediately what we are doing with the wage money. A check of several previous monthly reports can tell us what kind of fluctuation has occurred in the various activities. Also, when planning for future semesters, the reports from those same months in previous years will indicate what we were able to do in the past.

Basically, our aim in collecting this data is to provide a means of matching our staff size with the service we must provide. So far we have raised the administration's awareness of this need. We have also brought attention to the services (many of which remained behind the scenes) we provide to the department, to the college, and the rest of the campus by our "unit." For our own information we are establishing the productivity levels of our staff, the variability in use and production patterns, and a starting place for planning for projected work loads in the future.

In the use of statistics, there are several considerations which are very important. Consistency is of utmost importance. The terms used on recording sheets and in reports must be well defined. A method for reporting functions which pass through several hands in processing, (i.e., what is just a step and what should be considered a separate activity) must be considered. There should be continuity in order to establish trends, statistics are needed for about three years straight. The limitations of statistics must be understood too—some might be more wisely left unreported! They must be used with restraint and when done so, can be very useful guideposts.

In closing, statistics provide a basis for informed decision-making. Such information is needed to: promote funding to the unit, provide information about a collection, plan for future needs and improvements, plan for resource sharing and networking, measure performance, and promote the collection's service.

The Visual Resources Association needs to develop a means to measure collections' performance and resources. We should devise ways to collect information which adequately describe these services and functions, because, in addition to their local interest, they would promote our activities on a national level.

ARLIS

ARLIS/VISUAL RESOURCES SESSIONS, Franklin Plaza Hotel, Philadelphia, February 14 & 15: abstracts distributed at the conference, with some added notes.

MICROFORM TECHNOLOGY

Moderator: Paula Chiaromonte, SUNY, Buffalo
This was a Monday morning session, and due to the weekend snow storm, three speakers were unable to reach Philadelphia. The three who spoke are reported.

The Future for Microforms in an Electronic Age
Charles Chadwyck-Healey, Chadwyck-Healey Limited

The paper expands the following questions and answers: Will the development of electronic data storage and transmission, in particular videodisc technology eclipse microforms? Yes, in that the latter will occupy the center of the stage while the former will remain very much on the sidelines.

Microforms have always been a minority format, they have never fulfilled the optimistic forecasts of their future growth and now clearly never will but this acceptance of the limitation of microforms by users and producers alike is a healthy sign that they have become a mature format just at the time that the format appears to be most threatened.

The paper discusses the central advantages of microforms and their hardware over the videodisc and itemizes the types of material likely to continue to be microfilmed in preference to other processes, with reasons why. It goes on to identify areas where video will take over from microforms when the technology is sufficiently developed; with details of what these developments are.

Finally, the possibilities of combination between or conversion of microform images with video are explained showing that microform has a part to play in the preparation of material for reproduction on video.

Developments in Color Micrographics
Ara Hourdajian, Microcolor International Incorporated

The fairly restricted application of color microfiche to date has been due in large part to the deficiencies of available color photographic films. Inadequate resolution and poor image stability have been particular handicaps. These two limitations have been overcome to a major extent by the new Cibachrome High Resolution film introduced last year which has very high resolving power and very stable image dyes. This film is being used already for the micro-reproduction of maps, catalogues, original slides for micropublishing, training manuals, etc. An improved version of this film is expected in 1983 which will have better resolution capabilities and improved color reproduction. This material will allow reductions to

48x and, thereby, greatly expand the useful domain of color microfiche.

The properties of the Cibachrome HR films and of the simple process will be reviewed and samples shown to illustrate the quality of results obtainable at different reduction scales and from different originals. The dark and light stability of the image will be reviewed and compared to that of other available materials.

Editor's note: Mr. Hourdajian is on the Standards Committee of the National Micrographics Association, which interestingly is establishing microfiche standards for resolution, format, input, density and stability.

The speaker also listed six directions for the future of micrographics: microfiche publishing and republishing, slide generating, videodisc with microfiche as an intermediary form, electronic image systems as the one by SONY, Kodak's new photographic disk system with 15 images in a circle, better and faster instant color prints systems in addition to Polaroid's and Kodak's.

Publishing Major Art Collections - The Logic of the Microform Approach, Felix Moore, Mindata Limited

For the art historian and researcher consulting a reproduction of a work of art, picture quality is the crucial factor: the ability to see the brush strokes on a painting or the texture of a ceramic surface. The microform image allows this, and even makes possible the massive enlargement of a detail by simply changing the viewer lens. This is the quality taken for granted with the photographic process. The video image, however, broken up into the line pattern of the TV screen, cannot offer anything like this clarity of detail - even less so when captions or text are to be reproduced.

The low-key, low-technology of the microform recording process is also relevant when working with venerable institutions where major art collections are usually housed. There would be no question, at the British Museum or the Royal Library at Windsor, where we have recently been microfilming prints and drawings, of allowing priceless works to be removed, and microfilm equipment can create the necessary record efficiently and unobtrusively.

For the independent publisher an important consideration is cost: the relatively simple process of recording and duplicating microform images makes possible the publication of large or specialized collections which may have limited sales potential. The much higher initial cost of creating a video master would restrict such projects to those with wide sales appeal, and probably less scholarly interest.

Perhaps the greatest problem - and risk - for the publisher of such material is that facing any

pioneer: while the possibilities and potential of the new electronic media are exciting, there is still no uniform industry standard, or general availability of compatible viewing equipment. Microform formats, however, are well established, and the widespread access to relatively simple and inexpensive readers must make this the preferred medium for the publisher seeking a world-wide market.

ARCHITECTURE Classification & Cataloguing
Moderator: Edith Zuckerman

Problems Involved in Recataloguing An Existing Collection, Edith Zuckerman, Temple University - Tyler School of Art

In dealing with the topic of "Recataloguing an Existing Collection", the obvious first question is "Why?". In the Temple University - Tyler School of Art Slide Collection, the cataloguing system, in most instances, lends itself easily to expansion without radical changes. But the basic system had, for architecture, an inherent flaw. Those buildings which required several centuries for completion had to be located in many different areas and under different categories. As a service organization, I attempted to devise a system that would result in more efficient retrievability. I went from a system of cataloguing slides by century-country-artist, to one of city-monument-century. In doing this I was faced with creating other problems, some of which are still unresolved.

In the past five years since the beginning of the conversion, we completed about two-thirds of the architectural slides. The purpose of this paper is to detail the advantages and disadvantages of the new system, and hopefully to get from others a sharing of their solutions to similar problems.

Architecture Classification: an Overview
Elizabeth D. Alley, School of Architecture,
University of Maryland

The classification of architecture slides often seems to present a problem to the slide curator, yet it should be the most easily classified of all art forms. The issue seems to have arisen from the chronological classification schemes commonly used by departments of art history in which parallel systems must be used for all media.

The development of slide collections for schools of architecture has necessitated an approach to architecture classification representing the needs of both historians and studio faculty. The curator of such a collection must identify a basic system which is simple for both user and curatorial staff, and then must augment that basic system to meet the special needs of the curriculum of the institution.

By describing the classification system developed for the University of Maryland School of Architecture and relating it to other approaches, I hope to demonstrate a clear, concise

and direct approach which can be used in collections of any size. Examples of topical curriculum-based files will be shown to provoke discussion of how various schemes would classify the material.

CHANGES IN VISUAL RESOURCES CURATORSHIP
Moderator: Shirley Gray

A Plugged In Librarian--Hi Tech and I, Shirley M. Gray, Rochester Institute of Technology

Taking place in October at R.I.T.: NEW TECHNOLOGY STATE OF THE ART SYMPOSIA

Objectives: Sessions will provide RIT faculty with an overview of future technological developments, in order to:

- anticipate probably technical developments and breakthroughs
- become aware of the implications of technological change for the workplace
- assess possible impacts on curriculum and instruction.

This is where it is at. I, as visual resources center supervisor and faculty member, must participate and must change as times change. This paper will explore what that change has meant; where it is taking me; and what suggestions for career development may be offered to help insure a future as a visual resources specialist.

Putting Together a Small Architectural Slide Collection; Classification; Computers; Coexistence, Susan G. Solomon, Princeton University, School of Architecture

A new slide collection can be a place for great experimentation in technique and technology. Unencumbered by any pre-existing system, the slide curator is free to develop a classification system designed specifically for the needs of potential users. In the case of Princeton's School of Architecture Slide Collection, it was necessary to determine what types of images would be collected; how those could best be accessed; and in what way this new collection could complement a superb art history collection located two buildings away. The resulting solutions will be discussed here in detail with particular emphasis on the use of computers for cross indexing and labeling.

Organizing it: A Slide of Life, Ingeborg Wald, Cornell University

The Department of the History of Art and Archaeology is part of the College of Arts and Sciences at Cornell University. Its slide collection has grown from meager beginnings, in the late 50s and private collections of one or two professors, to its present size of 175,000 slides. These are housed in the "slide library" 22 x 24 feet in size in a basement room below the office of the slide curator and the other offices of the department. A visit to the slide library involves a real excursion for anyone attempting to use it. Often I have to leave my office unattended when I must serve the needs

of researchers. The College is now involved in a renovation project of the building in which the slide library is located and it became apparent at this point that the slide library, connected offices, work and study areas should be the next project. This paper will discuss how the administration, faculty and slide curator approached the subject. Later on the 'dialog' involved an architect as well in "new areas" (for innovative teaching, viewing, and reviewing slides). At this point all four parties are still involved in discussion. It appears that the facilities will be enlarged to 2,200 square feet.

There is a chance that the project will begin in February or March 1983. All aspects, preliminary research, preparation, planning and finances, will be discussed. I will also cover presently used and 'new' equipment.

Changing Scene: New Images, Developments of Slide Curatorship..., Luraine Tansey, Mills College, Oakland, California

From the time in 1966 when slide curators first organized they have grown in developing professional ideas and efficient slide management procedures. With the computer available as a tool, exploration of broader handling of resources has been emphasized. Now in the recession of the economy, caution must be exercised in the use of the computerization itself, but fuller use of the automated systems that have brought forth greater flexibility, is quite possible, even desirable.

With Silicon Valley, the area of computer hardware and software manufacturing located near Stanford, the ability to produce unimpaired perfect computer parts is not assured. Nor is the need to produce high income products, new to the market conducive to a stable slide management program. Hence caution is advisable. But the knowledge we have gained in learning about automation can be used to great advantage in our standard procedures: applying principles such as mutual exclusiveness of terms, and consistency in the classification of slides, as well as logical arrangements can expedite our work both in processing and in our providing information as well. With developments new to the market, we lose some of the basic needs which we have, in some cases. Criteria for the use of automation principles is the subject of this paper.

New Images of Ourselves-The Impact of Hi Tech on Professionalism, Eileen Fry, Indiana University

One of the proofs that Hi Tech is making its way into the formerly somewhat isolated world of visual resources is that this abstract was written, edited, and printed on my home computer. The significance of this is that while many of us were waiting for technology to filter down to us through academic and museum bureaucracies it is entering our private lives, and those of our patrons and colleagues at a much faster rate. In addition to changing cocktail-

party chatter from books and movies to baud rates and software packages, Hi Tech is affecting our standards of job performance, our professional relationships with each other and those we serve, and the futures of our collections and our careers. This presentation will deal with the implications of high technology on four aspects of professionalism: Training and Continuing Education, Specialized Conferences and Workshops, Organizational Affiliations, Professional Stature, not Status.

Editor's note: Ms. Fry added that the need for subject education has not diminished with these needs for technical training.

Dreams and Schemes to Keep the "Garbage" out of the System, Jennifer Hehman, Ohio State University

The worlds of computers and new technologies are becoming inextricably linked with the worlds of art history and the arts. This paper will discuss four separate projects involving the computer and visual resources. Each project is on a different level of specificity and impact on the daily operation of a VR collection.

1. The largest is the revision of standards for bibliographic descriptions for IFLA - known as the ISBD-(NBM) non book materials.
2. Second is membership on one of several university committees having management and promotion of the testing, operation, and utilization of a set of "friendly" terminals which have graphic and word processing capabilities.
3. The third major project is planning a new Visual Arts Center for the campus which will incorporate "state of the art" technology for the creation of computer age art works as well as recognition of traditional art forms.
4. The smallest involvement at present is to explore the possibility for computer applications in the Ohio State Visual Resource Collection as it now exists. This may at some point include video-disc.

This personal survey of projects seems to be a valid reflection of a variety of on-going activities that many of us will be involved in with our profession. So for an effective operation, plan to keep the "garbage out" and your "disc up" and ease your faculty into the world of "TRON".

CONFERENCE PAPERS

The Supplement of complete MACAA Conference Visual Resources papers published with the Winter 1982 Bulletin proved to be worth the additional cost and effort, so we again add a supplement with papers given at the CAA/VRA sessions in Philadelphia this past February. Included also are abstracts of papers given at the ARLIS/VR sessions, taken from their abstract publications.

We plan also to offer a supplement of papers from the CIHA Conference in Vienna, in the fall or winter issue.

--Nancy DeLaurier