VRA Bulletin

Volume 09 | Issue 4 Article 1

12-1-1982

VRAB Volume 9, Issue 4, 1982 & Supplement

VRAB Volume 9, Issue 4, 1982 & Supplement

Abstract
In Volume 9, Issue 4:

- Conferences to Come: VRA
- Conference Reports: MACAA
- Obituary for H.W. Janson
- Guides:
    - Visual Resource Guides: Past, Present, and Future
    - Directory
    - Philadelphia: ARLIS/VR Sessions

- Ask the Photographer:
    - Precautions when Photographing Works of Art

- SECAC
- Conservation:
    - Report on the "International Symposium: The Stability and Preservation of Photographic Images"

- Microforms:
    - The Videodisc as an Information Storage Medium

- Profile:
    - The Rotherhithe Picture Research Library, London
    - Workshop on Photographing Architectural Models
    - Comparative Aging of Identical Slides in Various Collections

- Photographic Journals
- Professional News:
    - Basic Training Workshop

- Reviews:
    - Image Information
    - Freudenthal/Lyders Article
    - Photographing Works of Art
    - Picture Retrieval in the Time, Inc. Picture Collection

- Polaroid Slide Printer
- Slide Market News:
    - U.S. Commercial
    - U.S. Institutions
    - Canada
    - England

In Volume 9, Issue 4: Supplement:

- The Osborne-I Micro-Computer: Feasibility for Use in Organizing and Classifying Slides
- Color Microfiche Production and Reproduction
- Aspects of Color Film Preservation
- Photogard Technology
- Fungus in Glass-Mounted Slides: Recent Findings
- Slide Collections Outside North America
- Acquisition and Classification of Native American Art Slides

Keywords
conferences, copywork, H.W. Janson, conservation, slides, videodisc

Author Bio & Acknowledgements
In Volume 9, Issue 4:

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 - University of Nevada, Las Vegas

Kathy Snyder - Colorado College, Colorado Springs

Christina Updike - James Madison University

Cynthia Clark - Princeton University

In Volume 9, Issue 4: Supplement:

Eileen Fry - Indiana University, Bloomington

Charles Cahdwyck-Healey - Chadwyck-Healey Ltd.

Henry Wilhelm - Preservation Publishing Company

A.K. Mehta - 3-M Company

Christine Sundt - University of Wisconsin, Madison

Nancy DeLaurier - University of Missouri, Kansas City

INTERNATIONAL BULLETIN
for PHOTOGRAPHIC DOCUMENTATION
of the VISUAL ARTS

WINTER 1982

volume 9 number 4 december 1982

Conferences to Come

VRA

VISUAL RESOURCES PROGRAM
(with the College Art Association Conference, Philadelphia)

Thursday - 17 February, 1983

9:00 am VRA Executive Board meeting

11:00 am VRA Business Meeting (open), Franklin Plaza Hotel, 17th & Race Streets, Phila

1:30 VRA Bulletin meeting (open)

3:30 VRA Guides meeting (open)

Locations of above meetings to be announced later

6-8 pm CAA receptions at the University of Pennsylvania's ICA (Institute of Contemporary Art) & the University Museum

(daytime) Moore College of Art, Slide Collection (20th & Race Sts.) open house

Friday - 18 February 1983

Morning CAA-VRA Session, Federal Reserve Bank Auditorium, 6th & Arch Sts., Phila.
"The Artist, The Scholar, & The Computer":
TIMOTHY QUIGLEY, Elvehjem Museum of Art, University of Wisconsin-Madison,
Paper & demonstration: "Micro-Comput-

Continued on p.2

Conference Reports

MACAA

IOWA CITY, U. OF IOWA
October 21-23, 1982

Papers presented at conferences contain so much valuable information that we have decided to print them in toto. The papers from this conference appear as a supplement in this issue of the Bulletin. Reports of the tours and the business meeting follow here.

The about-35 VR conferees found Iowa City quite delightful with a pleasant large campus, laid out along a beautifully landscaped river. Janet Miller's "Dining & Swining Guide" was appreciatively followed, with 3 or 4 VR groups turning up the first evening at the excellent 4-star Chinese restaurant. Christine Sundt's rich program attracted many teachers as well as VR people, so several sessions were packed with "standing room only."

1983 Subscriptions Due!!

THIS IS YOUR SUBSCRIPTION RENEWAL NOTICE!!

You will not be sent a separate notice.

Please use the subscription form on the last page.

1983 SUBSCRIPTIONS ARE DUE BY JAN. 31 to be assured of receiving the Spring issue on time.

DO IT NOW

Don't put it off and then wonder why your Bulletins aren't coming!

SUMMARY OF VISUAL RESOURCES TOURS
Saturday, October 23, Conducted by Julie Hausman, Curator of Visual Materials, University of Iowa

Office of Visual Materials, University of Iowa

The collections of the Office of Visual Materials are under the auspices of the School of Art and Art History and are primarily teaching collections consisting of 230,000 2x2 slides, a Bartsch print collection, a photographic ar-

Continued on p.3

VRA continued from p. 1

er Generated 3-D Color Graphics: Artificial Intelligence & Contemporary Painting"
JONATHAN BLOCK, Parkland College, Champaign, IL, paper & demonstration: "Micro-Computer Capabilities for Artists and Scholars: What to look for, What to avoid in selecting a machine"
SUZANNE BABINEAU-SIMENAUR, Institute of Fine Arts, New York, paper & demonstration: "Progress Report on the Use of the TRS-80 Micro-Computer in the Visual Resources Slide Room"

Afternoon CAA-VRA Session, Federal Reserve Bank Auditorium, 6th & Arch Sts., Phila.
"Visual Resources Methods--Considered & Reconsidered"
PATRICK YOUNG, University of Michigan, AAPD, Paper & demonstration: "Comparison and Evaluation of Slide Films Used in Photographing Works of Art"
NANCY SCHULLER, University of Texas at Austin, Paper: "Statistics and their Role in the Staffing of Visual Resources Collections"
MARYLY SNOW, University of California-Berkeley, Paper: "Results of the 'Slide Production Management Systems' Survey"

6-8 pm CAA Reception at the Philadelphia Museum of Art

8-? pm VR Dinner (at a restaurant yet to be determined)

(daytime) Moore College of Art, Slide Collection (20th & Race Sts.) open house

Saturday - 19 February 1983

10-12 noon Tour of the Barnes Foundation, Philadelphia (see below)

Afternoon Tour of the Princeton University Slide and Photograph Collection (Cynthia Clark, Curator) (Princeton is about 1 1/4 to 1 1/2 hours from Philadelphia; mode of transportation is yet to be determined, depending upon number of participants' responses)

c.4:30 pm Leave Princeton for Philadelphia

5:45-6 pm Arrive Philadelphia

EXTRA PROGRAM BEING PLANNED FOR PRINCETON

We are currently negotiating with Polaroid and Ciba-Geigy to send representatives to Princeton to demonstrate their new products: Polaroid's INSTANT Slide Film and Ciba-Geigy's Color Slide

Continued on p.4

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

Published quarterly in March, June, September, and December

Subscription rate $6.00 per year
The subscription period follows the calendar year. All subscriptions renewable by January 31 each year. See subscription form at end of this issue.

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 SPRING ISSUE: Feb. 4, 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 Chiarmonte, Architecture Library, SUNY, Buffalo
Photographic Journals: Kathy Snyder, Art Dept., Colorado College, Colorado Springs
SECAC correspondent: Christina Updike, James Madison University, Harrisonburg, VA
Profiles: Cynthia Clark, Art and Archaeology, Princeton U.

ISSN #1097-8020 OCLC 6125705

Circulation: 415

Visual Resources Association temporary officers:
Christine Sundt
Nancy Schuller
Nancy DeLaurier

VISUAL RESOURCES ASSOCIATION

Thursday, Feb. 17, will be devoted to business meetings to launch the new VRA. The major meeting at 11:00 a.m. will serve to elect officers, approve the constitution, approve decisions made at previous meetings, and other items of business. All members (subscribers to the Bulletin) are welcome to participate.

The Bulletin meeting at 1:30 p.m. will serve to establish an Editorial Board, and discuss any new directions in Bulletin policies, content, format, etc. The Guide meeting at 3:30 will serve to discuss and determine policies and procedures on current and new Guides. Members interested in participating in the Bulletin and the Guides are invited to attend these meetings.

MACAA continued from p. 1

chives of The National Palace Museum Treasures, Taiwan, and a 50,000 study card collection. The staff consists of 1 full time curator, 2 1/2 time audiovisual clerks, 6 1/4 time research assistants and 13 work/study students (5 at 15 hours per week). Acquisitions are 8,000-10,000 per year with 75% made in house. Slides are circulated to art and art history faculty and teaching assistants, and as a courtesy to faculty and teaching assistants in other departments of the university.

Weeg Computer Center, Computer Assisted Instruction Laboratory

Dr. Joan M. Sustik, Research Scientist, discussed vidio disc technology and its potential applications to education and instruction. She demonstrated the art history videodisc retrieval project done in 1980, where a portion of the Office of Visual Material's Bartsch Collection was put on a videodisc and used with a computerized retrieval program for locating the images on the disc. She also described the current videodisc project to put the Office of Visual Material's Core slide collection on videodisc with a computerized indexing and retrieval program.

Iowa City Public Library

This all new facility which opened in 1981 features a totally computerized catalogue and circulation system. Public access terminals located throughout the library feature touch activated screens, on which any item in the library may be accessed in under 30 seconds. In addition the library has extensive audiovisual materials and facilities including a production lab which is open to the public, public meeting rooms, study rooms, accessibility for the handicapped, and a large children's section including audiovisual facilities, games and activities area, and a small stage.

TOUR REPORT: IOWA STATE U.

-Marilyn Kerner

On Sunday morning, after the informative and exhausting meeting in Iowa City, five very game visual resource people travelled 138 miles to Ames, Iowa to view the Visual Resource facilities at the College of Design of Iowa State University.

Following a brief tour of the striking four year old College of Design building, the group listened to the curator of visual resources, Marilyn Kerner, discuss SPIRES--the computerization system used for cataloguing and searching the slide collection at Iowa State University. Marilyn also contrasted the advantages and disadvantages of using a large, sophisticated, and relatively expensive university-based computer with the small-capacity, inexpensive, portable Osborn micro-computer that had been discussed so cogently by Eileen Fry the previous day.

During lunch the group discussed computer use, specific problems encountered in VR collections, the MA-CAA meeting just attended, and ideas for future meetings. The general exchange of information was extremely useful and exemplified "networking" at its best.

Ames tour participants:

Judy Cohen, Texas Christian University
Peter Dulan, The University of Denver
Derelle Haney, Louisiana State University
Julie Hausman, The University of Iowa
Honor Weston, The Canadian Inventory of Historic Buildings, Ottawa
Anna Gardner, Asst. Host, Iowa State University

In the Supplement will be found these papers:

Christine Sundt: Fungus in Glass-mounted Slides--Recent Findings
Henry Wilhelm (Bibliography)
Zelde Richardson: Acquisition and Classification of Native American Art
Eileen Fry: The Osborne I Micro-Computer: Feasibility for Use in Classifying Slides
Charles Chadwyck-Healey: Colour Microfiche: Production & Reproduction
A.K. Mehta (3-M Co.): Photogard Technology (Abstract & report)
Judy Gardner: Slide Collections for Public Use: The UW-Madison Undergraduate Circulating Slide Collection
Nancy DeLaurier: Slide Collections Outside North America

MACAA-VR GROUP
REPORT OF THE BUSINESS MEETING - OCTOBER 23

In the absence of chairperson Nancy Follis, Nancy DeLaurier was asked to conduct the Business Meeting which was held in the Art Building on the campus of the University of Iowa.

Mrs. DeLaurier began by thanking Christine Sundt, 1982 program chairperson, for the tremendous program she had planned for this conference. She also announced that the 1983 MACAA meeting will be held in St. Louis and that Columbus, Ohio will be the site of the 1984 meeting.

The acting executive of the new Visual Resources Association agreed that the VRA should assume sponsorship of the Bulletin and the Guide series. This move, however, raised the question of the MACAA-VR group's financial relations to the MACAA Board. In order to expand on this question a representative of the MACAA Board, Clinton Adams from the University of New Mexico, spoke. He explained that in past years the MACAA Board had subsidized the Guide series which, only in recent years, had become self-supporting. The MACAA Board, therefore, would

continued p. 5

VRA Bulletin, Vol. 09 [2018], Iss. 4, Art. 1

VRA continued from p. 2

Film. If we are able to make these arrangements, the representatives will be on hand following our Tour of the Slide and Photograph Collection.

Program Coordinator: Christine Sundt, University of Wisconsin-Madison

Philadelphia Coordinator: Helen F. McGinnis, Moore College of Art, assisted by Leslie Mitchell, Debbie Alterman, and Sophia Hewryk, Moore College of Art

The Barnes Foundation Tour

We have arranged for 25 participants to tour the Barnes Foundation, a collection noted for its outstanding French Impressionist and Post-Impressionist holdings. Because the Barnes requires pre-registration, we have already submitted a list including names of persons who attended the Computer Workshop at the Institute of Fine Arts last summer and the MACAA Meeting in Iowa City in October. If you would like to visit the Barnes but have not been able to sign up, contact Fran McGinnis at the Moore College of Art, 20th & Race Streets, Philadelphia, PA, 19103 (phone 215-LO-8-4515, ext. 1207) who will be compiling a waiting list in the event that a vacancy occurs between now and February. The Barnes Foundation will also take individual reservations, up to 100 per day on Fridays and Saturdays. If you wish to make an individual reservation, call 215-MO-7-9290 or write The Barnes Foundation, North Latch's Lane & Lapsley Road, Merion Station, PA, 19066. Admission fee is $1.00, payable at the door. The Barnes Foundation has notified us of the following "Visitors' Restrictions": Smoking is not permitted; Visitors may not talk loudly or lecture while in the galleries; No photographs may be taken either within the building or on the grounds; Coats, handbags, cameras, packages, umbrellas MUST BE CHECKED before entering exhibition rooms; Spike heels are not permitted. In spite of these restrictions, the collection is described as "magnificent." For a review of the collection, see Connoisseur, September 1982, pp. 15-17.

Conference Accommodations in Philadelphia

The CAA meeting will take place at the Franklin Plaza Hotel, located at Two Franklin Plaza (17th & Race Streets), Philadelphia, PA, 19103. For reservations there is a toll free number: 800-828-7447; in New York State: 800-462-7472; in Canada: 800-268-9411; Quebec & Ontario: 800-268-9420. Conference rates have not yet been published by the CAA. See the CAA Conference Preliminary Program when it is available for further information. Also in the vicinity are the Philadelphia Centre (formerly The Sheraton) and the Penn Center Inn. Bed-and-Breakfast accommodations are also available in Philadelphia. For a directory of B&Bs, send a stamped self-addressed envelope to: Bed-and-Breakfast of Philadelphia, P.O. Box 101, Oreland, PA, 19075. The 1982 B&B rates are as follows: 1 person: $15-$25; 2 persons: $22-$35. Roommate coordination service will be provided by Fran McGinnis and other staff members of the Moore College of Art. If you would like to share a room and save $, please fill out and return the INFORMATION REQUEST FORM provided in this issue.

Bus service between the Philadelphia Airport and downtown is operated by the Yellow Limosine Co. The trip takes approximately 35 minutes and costs about $5.00.

REPRODUCTION RIGHTS: SLIDES ONTO MICROFICHE AND VIDEODISC

With the increasing interest in reproducing slides on microfiche and videodisc added to the already unsettled status of slide duplication, slide producers' concerns about reproduction rights are growing. To express these concerns and possibly develop group policies, those involved are being invited to meet during the CAA conference in Philadelphia. The time is set at Thursday, Feb. 17 at 6:00, but the location is not yet determined.

Major slide producers are invited, as well as microfiche and videodisc producers. Concerned slide curators are also welcome. The meeting is sponsored by the Visual Resources Association, and information will be available at the VRA table in the registration area.

Joy Alexander, U. of Michigan, will assist Nancy DeLaurier in conducting the meeting.

H.W. JANSON
1913-Sept. 30, 1982

Visual Resource Curators must add their own to the flow of eulogies from the entire art historical world, for Prof. Janson supported our profession at significant stages in its development. As CAA president, he authorized $100 per year to publish our first CAA Slides and Photographs Newsletter, from 1971 to 1974. He authorized $100 for publication of the first Slide Buyers Guide in 1972, and on receiving a copy of it, hand-typed a congratulatory note to the editor, saying "Never has $100 been better spent."

Six years later, as U.S. representative on the International Art History Committee, he was the intermediary in arranging contact for our excellent facilities and other amenities at the 1979 CIHA congress in Bologna, where Visual Resources established its international organization.

These simple acts may well be lost in the large realm of his public life, but they were vital turning-points in our profession, and we are grateful.

MACAA continued from p. 3

like the VR group to return the "seed" money that was advanced to it in past years. It is believed to total approximately $1,500.

Mrs. DeLaurier read the treasurer's statement, reporting a balance of $4,640.65, so that even if MACAA is repaid as requested, a balance would still be left to carry over into a new publications program of the VRA. The group voted to repay the amount requested, not to exceed $1750.

The next major item of discussion was the MACAA-VR group's first conference relations with MACAA in light of the formation of the VRA. The executive committee had recommended that the VRA should concentrate on one major meeting per year and that it should rotate meetings among various other organizations (e.g. meeting one year with CAA and the next with MACAA or another group). For the 1983 MACAA meetings the executive had envisioned a less-formal program, perhaps a workshop or basic level meeting geared toward the needs of newer visual resources people.

When asked what they thought of the 1982 program, the newer VR group members said they felt that it had not been too advanced and that the preservation presentations, in particular, could have been expanded. The idea of leaving a long discussion period after each presentation was especially popular. Participants liked the wide variety of topics from which to choose and especially advocated the idea of offering more "meat and potatoes" type sessions in the future. Most people felt that it was necessary to pack a lot of information into the program in order to make it worthwhile for people to come to the meeting. It was felt that the 1983 MACAA-VR conference should be considered more regional and have a scaled-down program. People liked the idea of providing more opportunities for visual resources people to attend non-VR art and art history sessions and to take part in other social and conference events.

Ursula Stammler, U. of Kansas School of Architecture was elected program chairperson for the 1983 meeting in St. Louis.

-Nancy Kirkpatrick, Secretary
MACAA/VR Group

CONFERENCE PAPER PUBLICATION

This is the first time we've published complete papers from conferences. It adds considerably to the cost of the Bulletin, but we believe it is important. We could probably not continue to do this without increasing the price. There is an alternative: to charge separately for the papers, either all at once with the subscription, or separately. Either of the latter would involve a great deal of extra clerical work, which is not always available. A decision will be made in the Bulletin meeting at the Philadelphia conference. Your opinions are welcome.

MACAA, VRA, THE BULLETIN & GUIDES

With deep gratitude to the MACAA Board for its generous support of our publications as well as honorariums for certain of our conference speakers over a ten year period, we now formally sever our financial relationship. For better or worse, the Visual Resources Association is now on its own, taking with it both the responsibility for these publications, and the treasury balance resulting from their sales. We hope it will carry us into the program of publications and projects that we envision. We intend at this point to keep the Bulletin visually low-key, letting it ride on its content, rather than a costly slick format. We hope the membership agrees.

We intend of course to maintain our friendly conference relationship with MACAA, but as of Jan. 1, 1983, following our repayment of $1500, disclaim any further financial or publication relationship.

BULLETIN EDITORIAL BOARD

One of the priority items on the agenda for the new VRA officers in Philadelphia is the selection of an Editorial Board for the Bulletin. Nominations or applications are most welcome and may be sent to the editor.

A new Profiles column editor is being sought. The job involves selection of and correspondence with prospective "profilees," receiving and editing profiles received, and sending a profile to the editor for each issue. Will interested persons please contact the editor.

BULLETIN INNOVATIONS - COMPUTER COLUMN

Beginning with the Spring 1983 issue of the Bulletin, Suzanne Babineau-Simenaur (NYU-IFA) will edit a column on computerization of art and architecture collections. She will welcome suggestions and contributions. We also need a "Reviews" editor. Suggestions for these or any other columns or features are welcome.

MORE PAPERS

Two U.S. papers on Visual Resources are scheduled to appear in the Fall Art Libraries Journal, the ARLIS/UK publication. The paper prepared for the Art Section of the IFLA Conference by Nancy DeLaurier, and another by Nancy Kirkpatrick, Slide Library, Art Institute of Chicago. Both papers are on the subject of "Visual Resources: the State of the Art," but each presents a different aspect of the subject.

Guides

VISUAL RESOURCE GUIDES: PAST, PRESENT AND FUTURE

Nancy DeLaurier deserves the credit for being the originator of the visual resource publications which had their beginnings with the CAA Slides & Photographs Newsletter and the Slide Buyer's Guide in 1972. The genesis of the MACAA guides began with a stated need for the dissemination of information of interest to slide curators. At the 1972 Mid-America College Art Association meeting in Albuquerque, it was decided that specific topics needed to be covered in informative papers, and the "kit" project was developed. Slide curators volunteered time to write short papers on various topics such as reference materials for slide curators, circulation policies, equipment for slide libraries, copy photography and budgets. These original kits were each a few pages long, mimeographed and sent out at cost.

In 1978 the first attempt to expand and create more professional publications was begun with Nancy Schuller's Guide to the Management of Visual Resource Collections. Between 1978 and 1981 a total of six separate publications was produced, including the fourth edition of the Slide Buyer's Guide. During these years the guides have been largely in-house productions. MACAA originally supported the publication of the guides with a great deal of moral encouragement and some seed money for printing and publicity. The editors and authors of the guides contributed their time and effort to realize the completion of the various booklets. Volunteers did typing, proofreading, and editing. Nancy DeLaurier and myself undertook to oversee the printing of the guides at the University of Missouri/Kansas City and the University of New Mexico. Distribution of the guides has again been a volunteer job by Nancy and myself. Because our main aim was the dissemination of material, the MACAA Visual Resources executive board tried to keep the prices down to a minimum, with just enough of a profit margin to allow us to keep copies of the guides in stock.

With the formation of the new Visual Resources Association, the question of the future of the guides has presented itself. The increased volume of guide sales makes it necessary to move it out of the offices of Nancy DeLaurier and myself. Publishers have expressed interest in taking over the publication and distribution of the guides, updated, expanded and adhering to more formal and regularized publication standards. This will necessitate a good deal of work on the part of those slide library directors who wish to work on revised editions of present guides and future publications. Formal contracts with publishers will be discussed and voted upon at the Philadelphia meeting in February.

Because we will be making decisions at the Philadelphia meeting, I would like to have input from slide librarians who have used the MACAA publications. Specific concerns which you think valuable to be addressed in the guides as well as general comments on format, subject, and usability are all welcome. In the past the guide publications have been overseen by a rather small group of persons, not due to any wish to be exclusive, but due to the number of people who were willing to put in a good deal of time and effort to see through to the end of the completion of various guide projects. Feedback on the guides is needed to make them more valuable for the professionals and more profitable for any publisher who undertakes their printing and distribution. Please write or phone with constructive criticism and suggestions on the guides. There will be a meeting in Philadelphia to discuss the guides. More specific details as to the future distribution of the guides will be given after this meeting.

The general status of the guides is as follows:

Slide Buyers Guide, 1980 edition. A new editor is being sought for a possible 1984 updated edition.

Guide for Management of Visual Resources Collections, 1979 edition. Nancy Schuller is working on an updated revision of her guide.

Guide to Equipment for Slide Maintenance and Viewing, 1978 edition. Chris Sundt is completing the revision of Gillian Scott's original guide. Projected publication date of 1983.

Guide for Photograph Collections, 1978 edition. Still available. One suggestion has been that although the guide is adequate for persons dealing with small study-photograph collections, its usefulness could be enhanced by the addition of a bibliography. Volunteers for compiling such a bibliography would be appreciated.

Guide to Copy Photography for Visual Resource Collections, 1980 edition. Any guide dealing with film and processing will of course need updating nearly every year. I have at present approached one possible new editor to take over the job of revising this edition.

Introduction to Visual Resource Library Automation, 1980 edition. Sheila Hannah and I very pointedly did not call this publication a "guide," because it is in no sense a "how-to" publication. The advances in visual resource automation, particularly in the use of microprocessors deserves to be documented, and soon. A revised edition of this publication, along with a companion work on the use of the microprocessor is needed, but no definite publication date projected.

Collections without Curators, no current plans for update.

Several other guides have been proposed, but not completed: Publications on general classifica-

tion systems currently used by slide libraries; one dealing with the unique problems which are found in architecture visual resource collections; and one dealing with non-western art classification. Jan Meneley and Pamela Edwards at the University of Texas at Arlington have volunteered their efforts in working with the classification guide.

The publications are for the benefit of the profession, therefore, your comments and criticisms are appreciated.

A. Zelda Richardson
General Editor
VRA Guides

DIRECTORY

The question of who to include in a Directory of visual resources people has easily been resolved by the formation of the Visual Resources Association. The Directory will list members, whose membership now coincides with their Bulletin subscription. However, most subscriptions are paid by institutions and the slide/photo curator's name often is not on the order. Also, many subscriptions go to libraries, where no individual VR curator may be involved. To solve this new dilemma, we are requesting subscribers to fill in special Directory information on the subscription form, and send it separately if it is not included in their institutional order. A 1983 Directory of VRA members then will be issued later--probably during the Summer. The 1982 Directory consists of all 1982 subscribers, from a print-out of address labels.

PHILADELPHIA: ARLIS/VR SESSIONS

The ARLIS/VR Sessions are planned as follows:

Feb. 14 (Monday morning): Archecture: Slide Classification and Cataloging, An Update.
Monday afternoon: VR business meeting
Monday evening: VR business meeting continued

Feb. 15 Tuesday morning: Changes in Visual Resources Curatorship

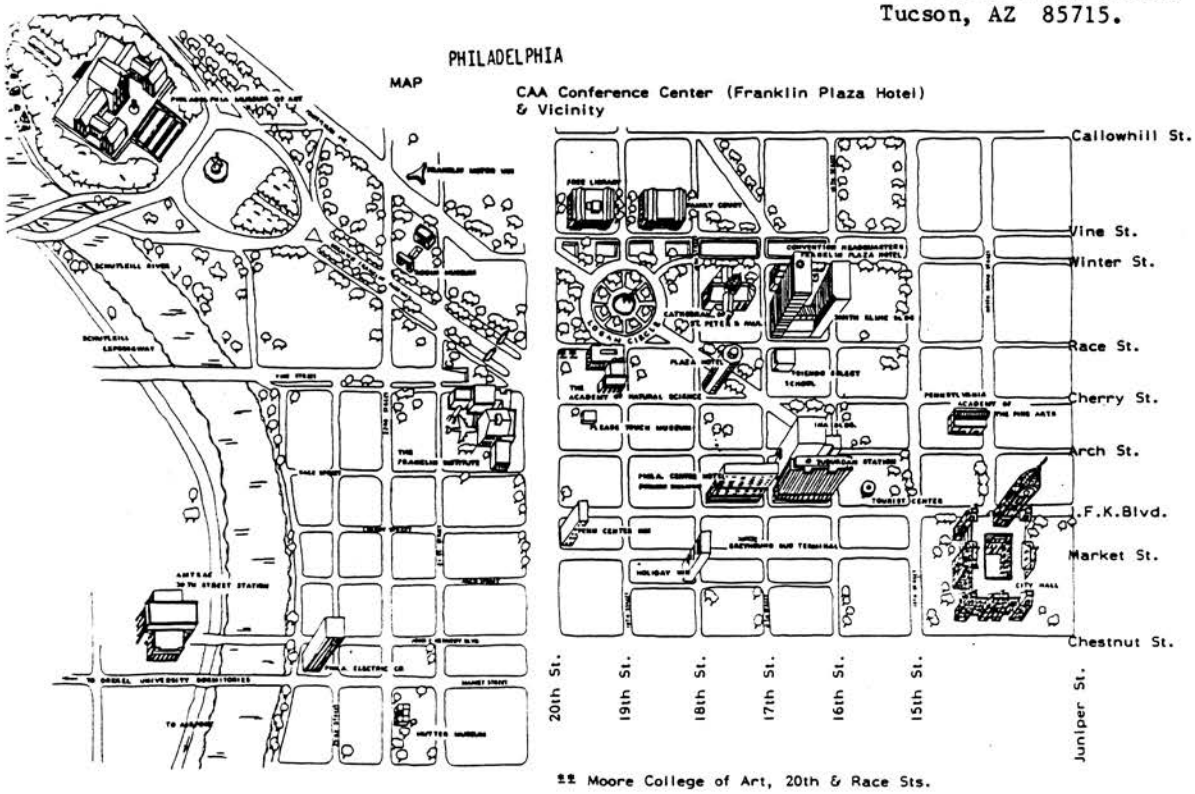
Feb. 16 Wednesday Evening: 6:00 Meeting together for informal dinner
7:30 Photography Workshop (see following

Photographing Works of Art: A Workshop will be sponsored by the ARLIS/NA Visual Resources SIG on Wednesday evening, Feb. 16, 1983 from 7:30-10:30 P.M. at the Franklin Plaza Hotel in Philadelphia. Edward E. Mullen, President of Color Marketing Concepts (the largest promotional company in the art industry) and a professional art and architectural photographer will discuss and demonstrate the photography of painting and sculpture. Studio and museum conditions will be discussed and topics include film types, lighting, lenses and filters. Preregistration is required. The workshop fee is $15.00. Checks should be made payable (in U.S. funds) to ARLIS/NA and should be mailed by December 31 (if possible) with your name, institution and home address to:

Visual Resources Workshop Registration
c/o Pamela Parry
3775 Bear Creek Circle
Tucson, AZ 85715.

Preregistered participants may forward problems of particular interest for inclusion to:
Trudy Buxton
Trinity College
Austin Arts Center
Hartford, CT 06106

PHILADELPHIA
MAP
CAA Conference Center (Franklin Plaza Hotel) & Vicinity



** Moore College of Art, 20th & Race Sts.

VRA Bulletin, Vol. 09 [2018], Iss. 4, Art. 1

Ask the Photographer

PRECAUTIONS WHEN PHOTOGRAPHING WORKS OF ART

-Patrick Young

The high levels of illumination used when photographing paintings, as well as the effects of heat and ultraviolet light, may be detrimental to the works of art. The Chief Conservator at the Nelson-Atkins Gallery in Kansas City has consequently prepared a list of restrictions on photographing paintings in order to minimize the potential for damage to their collection. I would like to share his recommendations and then elaborate on the individual points.

1. The total amount of light used to illuminate a painting should never exceed one hundred foot candles.

2. The surface temperature of a painting should not be allowed to increase more than 5^{o} F.

3. Quartz lamps must be kept at least nine feet away from all paintings.

4. Heat absorbing filters should be attached to the front of quartz lights.

5. Electronic flash systems should not exceed a total energy output of 1400 watt seconds, and there should be no more than one flash exposure per minute.

1. A maximum one hundred foot candle illumination level is perfectly adequate for 35mm photography. Converting a one hundred foot candle meter reading to a photographic light meter reading will give you an exposure of f8-1/2 at a 1/4 second using ASA 50 film. I try to set my lights to a meter reading of f8 at 1/4 second so that I am confident of working under one hundred foot candles illumination.

It goes without saying that a sturdy tripod and a cable release are required for museum photography when using a slow shutter speed. I would also recommend locking up the camera reflex mirror for additional assurance that your images will be sharp and not affected by camera movement or vibration.

2. When using a light level of one hundred foot candles, it takes approximately nine minutes to raise the surface temperature of an object five degrees Fahrenheit. There certainly is no need to have lights on a painting at full power for more than half this amount of time. Photographic lights should be kept off or at least dimmed when composing and focusing. In a darkened room I generally use only one light when setting up my shot and then turn on both lights to determine the meter reading and make the actual exposure. One light is again turned off or both lights are dimmed while the camera is reset and refocused to shoot details.

3. Halogen quartz bulbs generate an incredible amount of heat and should always be kept a minimum of nine feet away from a painting. This may actually be easier said than done when photographing a museum installation. The problem arises when shooting paintings near the corner of two walls. The lights may be a safe nine feet away from the painting that is being photographed but at the same time be dangerously close to a painting on the adjacent wall. I recommend holding a double weight black illustration board between the light and the painting as a protective measure. The black board will absorb the heat and not reflect additional light onto the painting that is being photographed. A photographer's assistant is obviously necessary when shooting under these conditions.

4. Heat absorbing filters should be used when quartz lamps are pointed directly at a painting. The heavy glass also acts as a shield if the bulb should ever explode during use. The chances of a bulb exploding are quite remote although a warning does appear on the box for a Sylvania FCM bulb used in the Lowel Tota-light: "Caution--This bulb operates under pressure and may shatter. Use appropriate screening techniques."

I use two different lighting systems when photographing works under glass or western paintings with heavy varnish and thick impasto brush-work. The Pola-lights 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 Pola-lights to photograph paintings will always bring a smile to the museum conservator's face.

5. If you are using a studio flash unit to illuminate paintings, you will find that 1400 watt seconds bounced into an umbrella will require an aperture setting of approximately f/22. A smaller power pack or one with a variable output under 1400 watt seconds should be used in order to work with a preferred aperture of f/8 or f/11.

A final word of caution: electronic flash lighting produces the highest amount of ultraviolet light which is primarily the cause of color fading. Flash tubes should always have an ultraviolet coating to absorb wavelengths shorter than 380 nanometers. A U-V filter should otherwise be placed over the flash head.

SECAC

The Southeast College Art Conference will be reported in the Spring 1983 Bulletin.

et al.: VRAB Volume 9, Issue 4, 1982 & Supplement

Conservation

Christine Sundt

REPORT ON THE "INTERNATIONAL SYMPOSIUM: THE STABILITY AND PRESERVATION OF PHOTOGRAPHIC IMAGES"

The Society of Photographic Scientists and Engineers (SPSE) International Symposium on The Stability and Preservation of Photographic Images that took place at the Public Archives of Canada, August 29-September 1, 1982, brought together experts from around the globe to present and share valuable information relative to the important task of preserving and restoring both historical and contemporary photographic materials. Thirty-one papers were delivered to an audience of well over 200 participants representing corporations, educational institutions, museums, archives, and private businesses.

The following is an attempt to summarize the information from the Symposium which has been deemed vital and practical (by this writer) for those engaged in the management and maintenance of visual resources collections. Special emphasis will be placed on data presented about color products and problems, specifically as related to our primary involvement, color slide films.

Peter Z. Adelstein of Eastman Kodak in his presentation, "Status of Permanence Standards," reported that among the various groups currently working on specifications and guidelines for photographic materials for the American National Standards Institute (ANSI), a group known as Task Force "D" has been charged with the responsibility for providing standards for color films. The job of this group is to establish criteria for color change and to standardize testing procedures for both light and dark stability. Until now, no such standards are in effect; this means that different criteria are now being used for both testing film and presenting information abut its physical condition. Some information relative to the storage of color materials is available in the ANSI standard PHI.45-1981, "Practice for Storage of Processed Safety Photographic Film." (A copy of the ANSI standards catalog may be purchased by writing to ANSI, 1430 Broadway, New York, NY, 10018. Copies of individual standards are also available; prices are given in the catalog.)

Diane Hopkins of the Public Archives of Canada (PAC) read a paper entitled "A Proposed Classification Scheme for the Literature on Photographic Conservation." Ms. Hopkins, with the assistance of Dr. Klaus B. Hendriks of the PAC in preparing this paper, described the Archives' efforts to create "a bibliographic standard for the world's literature on photographic conservation." The scheme is based on the Universal Decimal Classification (U.D.C.) Schedule 77 for Photography which was found to be the most accommodating existing structure for the field's current and projected breadth and most akin to the Archives' goals. However, in order to accommodate the highly specialized nature of this rapidly developing subject area, certain modifications to the existing schedule were necessitated and have been made. These are still pending final approval by the Federation Internationale de Documentation (F.I.D.). Comments and criticisms of the proposed scheme are being sought. More information about the project may be obtained by writing to Ms. Hopkins at the PAC, 395 Wellington Street, Ottawa, Ontario K1A 0N3, Canada.

"The Application of Environmental Control Technology to Archival Storage Requirements" is the title of the paper delivered by Bruce Bonner, Jr., of Harris Environmental Systems, Inc., Andover, Massachusetts. By maintaining a controlled environment, Mr. Bonner explained that chemical changes that affect dye stability in color materials can be slowed or even arrested. Control equipment is available to do this job at whatever level is necessary for the type of collection under consideration--from long-term storage at 0 degrees F. (-2 degrees C.) and 30 per cent relative humidity (RH) to active files where somewhat higher temperatures and RH are tolerable. Systems can be designed to meet individual requirements, though the cost for such a facility is high and perhaps outside the budgetary boundaries of most collections.

The question of what is the best procedure to follow in the event of a disaster in which a photographic facility is flooded was answered by Brian Lesser of the PAC in a paper co-authored by Klaus B. Hendriks, entitled "Emergency Procedures for Photographs." The safest method to follow in such an emergency, according to Messrs. Lesser and Hendriks, is gradual air drying or freezing-thawing-air drying because in doing so, the least amount of damage is likely to occur to a wide range of photographic materials. Vacuum and freeze drying were shown to be detrimental to certain types of film materials and therefore should be avoided. The advantage to conventional freezing after materials have been soaked is that restoration can be accomplished gradually, as permitted by time and space, rather than trying to deal with an entire collection all at once. Based on the conclusions he reached in testing and studying photographic prints and glass plate negatives, Mr. Lesser suggested using this same procedure for treating water soaked glass mounted slides, although he admitted that glass bound slides in their myriad manifestations were not included in his study.

"A Proposal for an Apprenticeship Program for the Training of Conservators of Photographic Records" was outlined and described by Fred Toll of the PAC who read a paper co-authored by Klaus B. Hendriks and Greg Hill of the PAC. According to the authors, the PAC for the past five years has been preparing a manual for use in such a training program for its students in which conservation literature is presented and laboratory experiments are described covering seven

VRA Bulletin, Vol. 09 [2018], Iss. 4, Art. 1

major areas or topics. This is used in conjunction with an orientation program in which fundamental information about the field and its needs are presented. In view of the fact that a comprehensive training program for photographic conservators does not already exist, the PAC's proposed program seems to be filling an important void. The PAC hopes to develop its program further according to how the field of conservation expands and/or its needs are more fully identified.

Peter Krause, a private consultant, who until his retirement was part of the Ciba-Geigy Company, presented information on "The Preservation of Autochrome Plates in The Collection of The National Geographic Society." Important from this presentation is the fact that in trying to determine the best methods and materials for restoring and repairing the precious late nineteenth- and early twentieth-century autochromes, tests are now being conducted on metalized polyester self-adhesive tapes to determine what effects they may have on the stability of these early color images. These findings will be significant to curators of visual resources collections as well because such tapes are commonly used for binding and/or masking glass mounted slides.

3M's new Photogard may have important and significant benefits when used on films and prints, including slides, microfiche, and motion picture films, according to information presented by Mr. A. K. Mehta of the Photographic Products Division of the 3M Company. Photogard is a thin 2.5 micron coating that is applied to photographic products. It is further described as "a polymerized silane, 100 per cent solids formulation that is cured by ultraviolet radiation." This application renders the photographic product scratch and abrasion proof, antistatic, chemically resistant, and anti-bacterial. It was shown to offer some protection against dye fading due to ultraviolet radiation while even having a rejuvenative effect on films and slides when the coating entered and filled in minor surface scratches or abrasions. Photogard is a relatively new product for 3M. This treatment must be applied at 3M or by using special machinery which can be leased from 3M. The tests that were used to illustrate this product's effectiveness in shielding ultraviolet radiation were conducted using color print materials. As yet, this test has not been carried out on slide films. Long-term aging test results on slides were also not illustrated. However, the product seems to hold considerable promise for protecting all types of photographic materials that are subjected to excessive handling or heavy use.

A number of papers addressed the problem of atmospheric contaminants and residual chemicals and their damaging effects on films and prints. Rather than outline each specific presentation, the information from these[1] has been summarized in the following.

In addition to influencing dye loss and causing discolorations of a generalized nature (stains) or spots (blemishes), residual chemicals were also shown to affect the pH level of the emulsion. Chemical activity is enhanced by temperature, humidity, light, oxygen, and other gases and all of these activators become even more detrimental if recommended processing procedures are not followed (for whatever the reason) or if unsafe or questionable post-processing treatments (cleaners, toners, lacquers, etc.) are applied to the photographic material. There is no substitute for strict controls on chemical quality (developers, fixers, etc., including water). Equally important is proper washing to eliminate residual chemicals, especially hypo (fixer). In this regard it was suggested (by Eastman Kodak) that the use of Kodak's Hypo Clearing Agent may not contribute as much benefit as suggested by its name when used with materials intended for long-term storage. Furthermore, for "archival" films and prints, a new experimental fixer is now being tested for use in current processing and for previously processed Kodak SO-015 Professional Direct Duplicating Films. Information about this new fixer and revised processing procedures for SO-015 film may be obtained by contacting Dr. William E. Lee, Photo Technology Division, Building 69, Kodak Park, Rochester, NY, 14650.

The SPSE has published the paper summaries for the Symposium. Copies may still be available (Conference price was US $15). Inquiries should be addressed to the SPSE, 7003 Kilworth Lane, Springfield, VA, 22151. The complete proceedings of the Symposium are being prepared for publication under the auspices of the SPSE by Dr. Klaus B. Hendriks of the PAC.

---

[1] T. Miyagawa (Tokyo Institute of Polytechnics), et al., "Fading Reaction of p-Diethylamiophenyl Naphtoquinonimine Dye with Thiosulfate"; S. Koboshi & M. Kurematsu (Konishiroku Photo Ind. Co., Ltd.), "Influence of Residual Chemicals in Color Prints on Dye Image Stability"; Dr. Gunter Renner (Agfa-Gevaert AG), "Light Fading of Magenta Azomethine Dyes"; S. Sawada (Fuji Photo Film Co., Ltd.) et al., "Effects of Phenol Derivatives and Metal Complexes on Light Fading of a Pyrazolone Azomethine Dye"; Henry Wilhelm (Preservation Publishing Company), "Tungsten Light Fading of Reflection Color Prints"; Etsuo Fujii (National Chemical Laboratory for Industry) et al., "Specifications of Color Difference of Faded Color Photographic Images According to CIELAB System: Fading of the Images of Color Reversal Films by Dark Fading Test"; C.C. Bard & P.N. Ness, "The Effects of Post Processing Handling on the Image Stability of Kodak Ektacolor Prints"; and F.J. Drago & W.E. Lee (Eastman Kodak Company), "Stability and Restoration of Images on Kodak Professional Direct Duplicating Film SO-015 (Estar Thick Base)."

Microforms

--Paula Chiarmonte

THE VIDEODISC AS AN INFORMATION STORAGE MEDIUM

The principal concern of the information manager regarding optimal use of videodiscs is the information storage capacity. The videodisc has a much higher information storage capacity than either microfiche or ultrafiche, however, the amount of text that can be contained in a single frame in the different media and remain legible is not the same. The amount of text that can be legibly displayed on a television screen is limited due to the line structure of the vaster scan that forms the image.[1] Videodiscs can either be television-compatible or computer-compatible. If videodiscs are used principally for storage a computer-compatible coding system must be employed. Although this means that such discs cannot be played on consumer players use of a binary information coding system (used universally in computer storage and transmission) leads to a greatly increased storage capacity for the disc.[2] The future of videodiscs as mass memories lies with systems providing very high information packing densities. The development of optimum coding schemes is being developed in order to exploit the bit-packing density of videodiscs to the full.[3]

An additional concern to the librarian or manager is information storage costs. Any figure for information storage costs in respect of videodiscs depends on the number of copies made of the master disc. A cost bit (U.S.) of 10^{-5} cents per bit stored on videodisc was quoted for the Discovision disc in 1976.[4]

One other concern involved in evaluating the usefulness of videodiscs in information storage and retrieval is rapid random access. Just access to an individual frame of a microfiche is faster than to a single frame on a roll of microfiche, so access to an individual track on a videodisc can be faster than to a selected part of a videotape. Rapid random access is, therefore, an important advantage of the videodisc as an information storage medium. A random access time of 2 seconds is claimed for the Thomson-CSF player. While these times match those achieved with information storage systems employing microforms they are long compared with the access times (measured in micro seconds) commonly encountered in computer storage.

REFERENCES

1. I. Turner. "The Use of Video communications systems in Information Retrieval," Reprographics Quarterly 7 (2) 1974, pp. 48-54.

2. G.C. Kenney. "Special-purpose applications of the Optical Videodisc System," IEEE Transactions on Consumer Electronics" CE-22 (4), 1976, 37-8.

3. G.J. Ammon, et al. "Optical disc systems emerge," Systems International, June 1978, pp. 32-3.

4. G.C. Kenney, "Special-purpose applications of the Optical Videodisc System," IEEE Transactions on Consumer Electronics, CE-22 (4), 1976, 37-8.

MICROFORMS PANEL DISCUSSION
Monday, 14 February, 2:30-4:30 p.m.
ARLIS/NA Annual Conference
"Art Microforms Technology"
-Paula Chiarmonte, moderator

1. Charles Chadwyck-Healey of Chadwyck-Healey Ltd.
   "The Future for Microforms in an Electronic Age"

2. Rus Gant of Vision Machine Research, Inc.
   "Applications of the Videodisc to Micrographics"

3. ARA Hourdajian of Microcolor International, Inc.
   "Developments in Color Micrographics"

4. Felix Moore of Mindata Ltd.
   "Publishing Major Art Collections--The Logic of the Microform Approach"

5. Tom Clark of Seidel, Farris, Clark Inc.
   "Microslide Technology and Its Compatibility with the Videodisc"

6. William Treese of University of California at Santa Barbara
   "Rephotographing of Microforms: Translation of Microfiche and Microfilm into Slides and Photographic Prints"

MINDATA sends a list of its 14 micropublications on the arts, 12 on fiche and 2 on microfilm; also illustrated brochures on new ones; including "British War Art of the 20th c.," "Fine Art & Design in the V & A," and "British Vogue 1916-39"; also two sample b/w fiche from these. Certainly a rich resource.

The **Fototeca Unione, American Academy in Rome**, has completed putting their entire archive on microfiche. The archive contains photographs of Ancient Roman Architecture. The microfiche, according to the editor's calculations, contains 36,000 images. The archive was profiled in the Spring 1980 Bulletin.

Did anyone ever find a nationality for Macanari Murai in the "Mechanised Image" set from Miniature Gallery? If so, please inform the editor.

VRA Bulletin, Vol. 09 [2018], Iss. 4, Art. 1

Profile

THE ROTHERHITHE PICTURE RESEARCH LIBRARY, LONDON

This unique Picture Library was begun by five people in January 1977, as a Job Creation Scheme, and has now reached the stage where it has been opened for the use of the public. Schools, designers and picture researchers, as well as the individual, are all invited to come to the library and to explore this extraordinary collection.

The Library is basically a giant range of scrapbooks into which are pasted all kinds of visual material. There are over 1400 volumes and the total collection numbers over 120,000 items. The system used by the Library enables any member of the public (including children) who do not have an expert knowledge of indexing and cataloguing to use the volumes. None of the material is in itself very valuable although it is anticipated that in years to come the pictures will grow in usefulness.

There are 18 main headings in the Library: a rapidly growing Costume section; a Nature section that has a huge variety of animals and plants, as well as rivers, mountains and other geographical scenes; a section on Architecture where you might find a picture of your own area or even your own house; a Domestic Utensils section; a Furniture section that combined with the Society section offers some fascinating material for History projects; a Trades and Occupations section for everything from Anarchists to Zoologists, and a Sports and Pastimes section with everything from Athletics to Yachting. Our Disasters section and our War section have some fairly nasty pictures that should appeal to even the most bloodthirsty of imaginations, while anyone interested in Railways or Ships will find a lot of interesting material in Transport.

The Rotherhithe Picture Research Library has tried to provide as comprehensive a range of pictures as possible whilst trying to keep the accessibility as straightforward as it can. There is a Wall Index with the shelf numbers of the subjects so it ought to be possible for people to find the picture they want without too much help from the staff.

Due to the unique status of the Library as a private trust a facility is offered to the public that not only fills a much felt gap but also provides an entirely new method for reference and research. Most picture libraries separate the reader from direct contact with the collection by only issuing items required after a search in the catalogue. Rotherhithe Picture Research Library would allow the reader to find his or her own material, thus promoting discovery besides allowing for quick and easy reference. It is believed that once this educational source is regularly used teachers will find, in particular, that this source as a teaching aid presents an exciting chance for the child to explore the volumes for his own projects.

The Library also mounts photographic exhibitions that have been researched in local and national archives. Last year 'Rotherhithe In Picture' was shown for six months, much to the delight of the local people, who would come to reminisce on the old streets and community of the area, now changed by the closure of the docks and the extensive rebuilding following the war-time raids. Rotherhithe was changed for ever from crowded yet closely knit communities into council housing and estates. The exhibition also documented the hop-picking ('Hoping') Rotherhithe people did during the summer months on Kent farms. This was the summer holiday for the family often photographed over the years and now in the Library's collection. Staff from the Library traced the farms and photographed the sheds and living quarters now falling into disuse as the hop industry has replaced the pickers with machinery.

Since February of this year the exhibition 'The Working Dock', which was researched at The Museum of London, has been on view. The old Surrey Docks have disappeared and are being replaced with housing and commercial building having become the most important inner city development area in Europe. The exhibition documents the Dock Trades, the Commodities and the Dock Views in the Museum's collection.

Both 'Rotherhithe In Picture' and 'The Working Dock' will go into the library files once the exhibitions are taken down. In this way the Library is able to gather selections of photographs on subjects that are likely to have considerable local interest and so attract local people into the library, encouraging them to use the resources for their own research.

If reference is needed to be taken outside the library, photocopies are available of the pictures, and the library charges a small fee to cover the costs of this service. This facility is provided with the understanding that none of the pictures will be reproduced in any way, since we are not able to grant copyright on the bulk of the material.

The Rotherhithe Picture Research Library was inspired by the Picture Library in the Museum of Decorative Arts in the Louvre, Paris. This library was begun in the 19th century and has grown into a massive visual Index, much used by French designers. It is hoped that RPRL will perform a similar role as it grows. The French library is available to the general public, it is very simply indexed, and photocopies are used as take away reference. It numbers in the millions, and RPRL is catching up fast!

The Picture Library is at 82 St. Marychurch St., is open Monday to Friday 10:30 to 4:30, and class visits should be arranged with the staff by phoning 01 237 0480.

-Prepared by the Rotherhithe Picture Research Library, and sent by Bertie Maxwell, Victoria & Albert Museum, London, England

WORKSHOP ON PHOTOGRAPHING ARCHITECTURAL MODELS October, University of North Carolina-Charlotte, College of Architecture.

Dennis Nodine, a professional photographer in Charlotte, who has done extensive photographing of architectural models, led the session in a combined lecture and demonstration. His presentation was directed to students and non-professionals who need to know how to take good slides using a 35mm camera. The information was basic, straight forward with limited discussion on technicalities. He brought his 4x5 view camera which he uses extensively in his work so students could see how it works and how it compares to 35mm cameras.

Dennis said that the very basic equipment needed is:

1. 35mm camera
2. 55 micro lens
3. 28mm PC lens (if possible)
4. Tripod
5. Light meter
6. Lights (3200 K) with reflector, lamp, diffused safety glass and barn doors
7. Film: Ektachrome Tungsten 50 for interior photographing; Kodachrome Daylight 64 for outside photographing

In his presentation he used models as well as slides to bring out several aspects a photographer needs to consider when photographing architectural models:

1. Make sure all fluorescent overhead lights are turned off; use only one tungsten light on the subject. Fluorescent lights will affect the color in the slides.
2. If the light is being used as "sun light" be careful to illuminate the model correctly taking into account the north, south, east and west directions of the model and lighting conditions.
3. In doing night shots put small lights inside the model and regulate the intensity of the flood light to make it look as if it were dark outside.
4. Observe the model in all its possibilities; present it as if it were a real building. Take time to compose it, experiment with aerial, frontal and three-quarter views. The view can influence the client's perception of how he expects the real building to look on the site.
5. Use landscape and accessories (people, automobiles) to accentuate the building. Make sure they are in proper scale to its dimensions.
6. To get entire model in focus, control the depth of field by setting the camera's f/stop no less than 16 and possibly as much as 32.
7. Use a wide angle PC lens if you want to emphasize corner views of a building and exaggerate the perspective and vanishing point.

-Luz Maria Aveleyra
Slide Curator
UNC-C College of Architecture

COMPARATIVE AGING OF IDENTICAL SLIDES IN VARIOUS COLLECTIONS

-Eileen Fry

At the request of Christine Sundt, more than six slide curators either brought or sent slides from their collections which were from an offering made by Saskia Cultural Documentation in 1972. At the conference in Iowa City these slides from different parts of the country were laid out on a light table along with the same Saskia slides which Renate Wiedenhoeft had brought with her. This kind of comparison is possible only with slides produced from the same film stock, such as these Saskia originals. This has never happened before, and was quite an eye-opener, though not for the reasons anyone could have anticipated.

Although it was apparent that some of the slides from this 1972 batch had turned very red, most of the others compared very favorably with the unused Saskia's.

What was truly significant about this first venture in comparative aging, was that in every case, I think, of those slides which had badly turned, Chris Sundt's slides from the Univ. of Wisconsin had turned far less than anyone else's. In one example, Courbet's Funeral at Ornans, which was obviously a heavily used slide in all the collections, only the Wisconsin slide retained a full range of colors. It had faded, but much, much less than six copies of the slide present. The explanation for this is readily apparent. For years, Chris has been binding her slides in virtually air-tight binders. I think if we had had time to really study the slides assembled at the conference, we could have worked up some interesting correlations on type of binder and relative condition of the film.

Although this was a first attempt, I think it should be developed as a regular event at our conferences, but with different parameters. I can think of other examples that would be interesting to study, all involving particular sets of slides, as this is, of course, the prerequisite. We can't do this kind of comparison on slides that are produced at different times from master slides. But we should be able to do it with other sets that were offered only for a limited time, such as the Miniature Gallery sets on major shows, UCSS Sets, AAPD Sets, Rosenthal's initial offering of Chicago Art Institute slides, etc. I personally would like to see National Gallery (DC) slides from before 1970, to see if they have developed the cloudy film on the emulsion side that my old NG slides have. In summary, I think this project was an interesting prototype for studying the aging process in various collections, and with slides having varying histories of projection.

Error: Kathleen Perry, Slide Librarian at Concordia U. in Montreal, corrects the report that they ignore nationalities in their 20th c. classification.

VRA Bulletin, Vol. 09 [2018], Iss. 4, Art. 1

Photographic Journals

-Kathy Snyder

Popular Photography, Sept. 1982, "Traveler's Camera: Ready to Show your Slides to an Audience? Here are Tips on Techniques & Equipment," p. 18.

Although most of the tips offered in Carl Purcell's article are intended for a more commercial audience his evaluation of Kodak's new carousel and Ektagraphic projectors are noteworthy. While the redesigned Kodak Carousel 4000, 5000, and Ektagraphic III models feature numerous improvements (see Winter, 1981, International Bulletin, p. 14), Purcell points out several important changes. The lamp house in these projectors can be completely removed from the unit to replace a burned-out bulb. Separate lamp houses can be purchased so that a spare is available for rapid replacement of a bulb. Slide trays can be removed from these projectors without the power being on thus eliminating a minor annoyance of the old models. Improved center to corner illumination is also a feature of the Carousel and Ektagraphic III projectors. Finally, a new accessory which will be extremely useful for art history professors is the Kodak EC Digital Remote Control. This new remote unit permits the operator to call up any slide in his carousel tray at will by number.

Technical Photography, Oct. 1982, "Polaroid's Quick Access 35mm Slides," p. 8.

Polaroid Corporation will be marketing in March 1983 their new rapid access slide system. The "Polaroid Autoprocess 35mm system" provides instant processing and viewing of 35mm color and black & white slides. The system consists of a color film, Polachrome and two black & white films, Polograph and Polapan. The grain features of the Polachrome are similar to those of Ektachrome 400 while both black & white films have a much finer grain. After being exposed the film is processed by running it through a small hand processor with its processing pack. The processing pack is included in the price of the film. After one minute the film is rewound into its cassette and can be pulled out for mounting and viewing. The color slides produced were judged to be adequate while the black & white slides exhibited good resolution and fine grain.

Although this type of slide production would not appear to meet the standards of fine grain and correct color rendition required for art history courses, students and professors from other departments might find Polaroid's new system adequate, less expensive and less time consuming.

The Professional Photographer, October 1982, "Videodiscs Show Future," p. 35-36.

Many of us have heard about or perhaps seen demonstrations of videodiscs but are still unfamiliar with their make-up and use possibilities. "Videodiscs Show Future" explains lucidly current videodisc technology and how it has been applied to the commercial market. Current videodisc players use three different systems which are incompatible with one another. The LV system (laser vision) is the only one that has the capability of interacting with the user and consequently has become the most frequently used system. Briefly, this type of videodisc is produced by transferring film, videotape, still images and sound onto a metallic disc which looks similar to a phonograph record. This transferrence of sound and images creates microscopic bumps on the disc's surface which is then sealed with a plastic coating. The LV system "combines three new technologies: the laser beam, computer chip, and ultra-high density storage of information. The disc can hold up to 54,000 tracks on a side, each track representing one picture frame with corresponding sound and computer instructions. A low power laser beam picks up the information on the tracks and converts it to visual images and sound. The computer chip permits "interactive programming" which means that the disc's programming will respond differently to different people.

The LV system videodisc is being used by companies for training purposes because it requires little supervision and allows the trainee to learn at his own rate. Videodisc catalogs are also being produced and tested around the country. Sears put its 1981 summer catalog on videodisc, showing products being used followed by stills of the items. Since random access and freeze frame are both features of videodisc, users could examine and compare catalog products in detail.

The advantages of videodisc are cheaper production when produced in mass quantities, lower postage rates, and the users' tendency to view more of the catalog. However, there are drawbacks to videodisc production. The incompatibility of one videodisc player with another makes it difficult to market a disc which can be viewed by a limited number of people. Reproduction of images onto a television screen does not equal the quality of print reproductions. Color separation is not good and images tend to become distorted at the edges of a screen. The future of videodisc, however, is an exciting one. Numerous possibilities exist for its use in documenting collections from museums for reference and research, art catalogs, and for general study. The Boston Museum of Fine Arts is currently producing a videodisc of their collection. This is just one example of how new technology can make information available to a vast audience.

Exposure: 20:3, "Notes on the Stability of Color Materials," by Stephen R. Milanowski, p. 38-51.

Many articles have appeared over the past few years which discuss the relative stability or instability of color materials. The majority of these have as their focus the current statistics or results of tests that list the most

stable color films and the reasons for their stability. At the center of this research is the work of Henry Wilhelm who continues to monitor the color stability of films, print materials, and motion picture films. Wilhelm's findings are well known to those of us concerned with the correct care and choice of color films for slides. However, what makes Milanowski's article "Notes on the Stability of Color Materials" so important is his discussion of these concerns in relation to the historical development of color film. The problem of color instability dates back to the appearance of Kodak color films and print materials on the market in the 1940's. Designed to capture the color film/print market, Kodacolor suffered from various technical failings which were not immediately apparent to the consumer. Non-reacted couplers caused the early Kodacolor prints to stain, virtually eliminating the original color of the print. Also, these prints were found to have poor dark keeping and light fading stability. Since the 1940's Kodak has reinvented color-couplers but has been unable to produce anything that can survive an eight year period without noticeable color shift.

Milanowski points out in his article that Kodak, by issuing information that was misleading or wrong (their ad read "pictures will last forever") is being held responsible by professional photographers for the hundreds of returned images that faded, cracked or experienced radical color shift. Such allegations form the basis of several lawsuits filed against Kodak. In the 1960's many slide producers (Sandak, for example) and institutions used a very inexpensive Eastman motion picture film for slides. Kodak remained silent about the very unstable nature of the film allowing these institutions and companies to unknowingly produce slides which faded, became pink and generally unusable within several years. The list of Kodak color problems goes on to include the period from 1969-71 known as the cyan years, 1972 was the yellow year, and 1973, 1974, and 1975 were the purple years.

The concern about color instability has grown as more problems surface. Proper conservation methods can slow down the deterioration of color materials, however they cannot stop it completely. Several collecting institutions no longer accept chromogenic/Ektacolor prints and advise prospective submitters to reprint the original in dye transfer. Ultimately the answer to achieving color stability is new research in the production of high quality, stable films and papers. The future of color photography remains obscured for now by the inherent problems of the medium.

(Milanowski's selected bibliography on color stability is extremely useful to anyone interested in the subject.)

Professional News

The University of Michigan: Assistant Librarian—Architecture & Art Library

Salary: Appointment salary based on experience, but minimum $14,500

Starting Date: Mid-February

Serves as Assistant to the Head of Architecture & Art Library. Provides reference services, assists head in personnel supervision, collection development, and general administration. Maintains two public card catalogs. Supervises all activities of the Image Bank (35,000 slides and thousands of blueprints, photos, drawings, etc.) including hiring, training and supervision of student assistants, acquisition of non-print materials, cataloging of slides and related materials and reference service.
MLS from accredited library school; undergraduate or grad work in Art, Art History of Architecture desirable; working knowledge of photography desirable; working knowledge of German or Japanese helpful. Two years of reference experience in similar library and knowledge of visual resources collection desirable.

Apply to: Sheila Creth
Head, Personnel Services
University of Michigan Library
404 Graduate Library
Ann Arbor, MI 48109

Situation Wanted: Well-qualified young woman with Masters in Art History and 2 years as an assistant slide curator. Please contact the editor for further info or copy of resume.

BASIC TRAINING WORKSHOP

The established workshop in basic training for beginning slide curators will again be held at the University of Missouri-Kansas City June 19-25. The instructors again will be Nancy DeLaurier (UMKC) and Nancy Schuller (U. Texas-Austin). The class size will be strictly limited to 24. Preference will be given to already employed art slide curators, but graduate students and others will be admitted, space permitting, if they have a BA or MA in art history and at least one year's experience working in a slide room.

The instructors will cover in lecture and demonstration all aspects of art slide curatorship, and hands-on experience will be included for slide processing, photography and cataloguing. Open discussion, private conference time and group social activity are also provided in this densely-packed week.

For further information and registration forms, write to Arts & Sciences Continuing Education, 417 Haag Hall Annex, UMKC, Kansas City, MO, 64110.

VRA Bulletin, Vol. 09 [2018], Iss. 4, Art. 1

Reviews

-Nancy DeLaurier

IMAGE INFORMATION

The Summer 1982 Art Libraries Journal (ARLIS/UK) was devoted to the proceedings of the International Seminar on Information Problems in Art History, held at Oxford March 20-22, 1982. This important seminar served to rally the work to date on automated systems for image access and art history information; and, more significantly, to give it some perspective, evaluation, and recommendations.

Of particular interest to visual resource curators is the article by John Sunderland, keeper of the Witt photograph collection, Courtauld Institute, U. of London, on "Image Collections: librarians, users and their needs," summarized as follows:*

"There seems no reason why, with goodwill and co-operation, systems of classification for image collections should not be compatible. Most thesauri are structured on similar lines and the use of different or partially different terminology should not be a barrier to understanding. Standardisation may perhaps come, but it is too early at present for that. Collections of images vary in so many ways it would be inappropriate to suggest it. The important question, after all, is not whether a collection should be computerised or not, but whether the information in it is accessible or not. If this can best be done by a computerised system of indexing then it must be sensible to do it in this way. The question can only be asked and answered by reference to the nature of the collection and by taking into account the advances in computer techniques for entry, retrieval and storage, and by considering this in relation to the costs involved."

Also important is the report of the image collection discussion group, reprinted here in its entirety:

Chairman: Robin Cormack
Rapporteur: Helene Roberts [Harvard U. Slide Curator]

Discussion report

1. The nature of image-collections was discussed first of all, including the present state of documentation, types of retrieval and of users.

2. A discussion of standardisation followed, and Iconclass in particular was considered. In its favour were the fact that it is in use at Marburg, and its ready-made solutions for many problems of hierarchy: it can be used to index main or secondary themes (i.e., it is flexible). It lends itself to computer applications by virtue of its notational code: it can easily be made more specific, more systematic, and more sophisticated.

   Against Iconclass it may be said that it is too complex: that its numerical codes are a drawback; that there is no United States user; and that no current systems are likely to change it.

   It was concluded that the aim should be not for standardisation, but for compatibility between systems.

3. It was felt that evaluation of various systems now in use was a difficult task. No agreed procedure exists for this, and so far the Image Access Society has not tackled the problem. However, Nancy Englander (J. Paul Getty Museum) is involved in evaluating six systems currently in use. The work will be completed in 4 to 6 months, and the report will be made publicly available.

4. Co-operation on soft-ware programmes was discussed.

   It seems likely that microfiche will for the present remain the main medium for micro-records: this would not be incompatible with later transfer to videodiscs, although there might be practical problems in using videodiscs with micro-computers.

   It might be possible to divide the subject-indexing of European art among several centres (e.g. Yale might catalogue the British School holdings of the Witt Library).

5. The problems of subject indexes for non-European or for European twentieth-century art were mentioned. Different kinds of classification might be explored, but it must be remembered that classification is different from art-historical interpretation or attribution.

6. A system should allow for 'browsing'. This is quite possible with computerised systems, and is not a problem.

7. It should be recognised that the work of art is the basis for classification, and not the photograph (unless the work of art is a photograph).

8. The possible range of indexing was discussed. Limited description was more practical than fuller art-historical documentation.

9. Usable solutions from existing indexing systems should be published, it might then be possible to work towards more co-ordination.

Recommendations

a) A user study, co-ordinated by John Sunderland, should be initiated, to discover questions asked by users, as an aid to assessing the value of individual indexing systems. This study could be the basis for a future seminar.

b) We accept the present diversity of the different image collections, and their different strengths. We should not wish at this time to draw up a minimum list of data to be recorded for each photograph, but we think most collections agree on the minimum to be recorded.

c) We agree that keywords should be in controlled vocabulary and not free text (this implies an authority-list).

d) We need some medium for publication of papers discussing issues and results in image collection indexing.

*Sections from the Art Libraries Journal reprinted with the kind permission of Beth Houghton, editor.

FREUDENTHAL/LYDERS ARTICLE

Juan Freudenthal sent an article written by himself and Josette Lyders for Vol. 4, No. 1 of Collection Building, titled "Photography as Historical Evidence and Art: Steps in Collection Building."

This article seems, to my limited knowledge of the subject, an excellent bibliography and short history of photography as art, and secondarily as historical documentation. I had some double-takes, however, when I saw Stanley Hess' Directory of Visual Resources Collections listed with histories of photography, and our International Bulletin...listed with photographic periodicals. The Hess Directory lists predominantly teaching slide collections, and our Bulletin is primarily about managing collections of photographs (slides) of art. It is not about photography, albeit without photography, our profession would not exist. Our concern about photography is only a part of our professional scope.

Their intention is clear, for their list of collections includes only collections of photographs per se, not as reference to something else, in which case they would have had to list the Frick Reference Collection, Epstein Archives, etc. Their sporadic inclusions of photography as reproductions of art are irrelevant, confusing, and inadequate.

I believe that neither Stanley Hess nor I would have had an attack of paranoia if our publications had been omitted from this otherwise valuable article.

PHOTOGRAPHING WORKS OF ART

by William H. Titus, 1981, Watson-Guptill, N.Y., $20.95.

A quick-through look at headings and illustrations gives me an impression of an excellent and valuable book for the beginning art photographer. At least 1/3 is devoted to photography basics, geared to art photography. The special problems of art photography, lighting, color verity, contrast control, and space problems appear to be handled solidly, with profuse and excellent illustrations of varying choices, and much how-to-do-it. It is geared to artists photographing their own works, so I found no discussion of museum situations, but still find it highly recommendable. I would like Pat Young's opinion, and any other experienced art photographer.

PICTURE RETRIEVAL IN THE TIME, INC. PICTURE COLLECTION, Betsy Young in Picturescope, Summer 1982

This article is a concise, clear and logically developed description of "the largest fully-catalogued picture library in the world." The author describes not only the collection and its cataloguing system, but the peculiar problems which needed solving, and the logic behind the solutions, as well as their two major remaining unsolved problems. This thought process should be useful to anyone faced with developing subject headings or other retrieval systems in new or problem areas. She discusses the pros and cons of videodisc usage.

Ms. Young's discussion of automation repeats advice we've heard before: "No matter what computer system you have, you are still going to need a good cataloguing system."

POLAROID SLIDE PRINTER

Polaroid representatives at Iowa City demonstrated at the VR meeting a prototype of their new 8x10" "instant" slide printer, scheduled to appear on the market this March or April. It produces a paper photo in one minute, or a transparency in 4 minutes. It will accept any kind of slide, unmounted or mounted in any standard glass and plastic or metal mount, and an additional filter pack if needed for color correction. The prints are archival in stability, expected to last for 25 years--dark storage.

Several prints were made on the spot from the Saskia slide display, and curators found them to be quite acceptable as reference photos, although the colors tended to pink and higher contrast, and the resolution was fuzzy. A color Xerox print made later from one of the same slides had better color fidelity, but much higher contrast and graininess. The Polaroid printer has no contrast control capability. Its cost per print is only slightly higher than the color Xerox.

VRA Bulletin, Vol. 09 [2018], Iss. 4, Art. 1

Slide Market News

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

U.S. COMMERCIAL

HAESELER ART PUBLISHERS, after some absence, has returned to activity in slide production, now working on a new catalog with about 4000 b/w small illustrations of the color slides offered. Customers have found this useful for selection of views in the primarily European architecture and sculpture slides which Haeseler offers. His catalog should be out early in 1983, and will include a new address for orders. The slide production center has moved to Iowa, and the editorial office to a new address in Santa Monica.

KAI-DIB has four new offerings: the first three are made from originals in Dr. Block's slide offerings, which have been assumed by Kai-Dib: Art of Africa, Art of the Plains & Eastern Indians of N.A., and Santos, (Southwestern) Religious Folk Art. Dr. Block's slides did not always come up to good slide standards (SUSBG), but Kai-Dib has assured us that he has weeded the Block Collection. The fourth offering is History of French Architecture, from pre-Romanesque to the 1970's, 150 slides. All these slides are produced by Kai-Dib on the new Eastman Color Low-Fade film, and guaranteed for ten years.

Evaluation of "Greece & the Aegean" set, by Cashman & DeLaurier

3	Photography
1.5	Information
2.75	Subject selection & grouping
2.75	Production

Overall rating 2.5 stars, 1/4 stars above the last set. Some slides are excellent, generally a wide range of quality, and the same general comments apply as for "Rome & the Etruscans." The main problem is their substitution of "lecture notes" for simple documentation. Linda Bien notes that she evaluated Kai-Dib as "straight middle-of-the-road," which would not change our 2 1/2 stars.

ELLIOTT FAYE MEDIA, 4614 Prospect Ave., Cleveland, Ohio, 44103, 216-431-0549, has an archive of slides from his photographing to illustrate his books. He describes it as follows: "well documented and cover ancient sites and artifacts in Turkey, Crete, Cyprus, Israel, Greece, Malta. Many of the sites have been destroyed, in part by natural disasters or by military actions. Many of the areas I photographed were not areas where tourists normally tend to go. I have been told that my archives may be of interest to others."

ROSENTHAL ART SLIDES had a gala open house on Dec. 2 for area customers and friends to see the new slide offerings and new equipment.

MINI-AIDS has enormously expanded their offerings to include European-produced slides of a great many hard-to-get works, such as altarpieces in situ. The information supplied is translated into English, and of course ordering domestically is much easier. The film is in most cases the old Eastman Color, as most European producers have not started to use the 2F film. Many sets are from the DiaLouvre catalog (should be LF film). The Ghent Altarpiece slides (I asked) still are only details, as photography of the whole piece is impossible. A great deal of architecture is included.

PICTURES OF RECORD, in addition to the archaeological slide sets already noted, is now distributing two animated films on Southwest Indian subjects, available for purchase or rental, and also in videocassette format. The films are of ethnographic and archaeological significance.

MICHEL STUDIO: Architectural history professor Lou Michel lectured and demonstrated in his presentation to the ARLIS chapter meeting at the U. of Kansas, Lawrence, on Nov. 19, his teaching approach to slides: the camera can lie and distort architectural forms and space, especially with wide-angle lenses. Telephoto lenses are useful for details and for some perspective-correction, but can also distort space by condensing it. His standard lens is the 35mm, with a PC lens when needed.

U.S. Institutions

THE AMERICAN COMMITTEE FOR SOUTH ASIAN ART recent Newsletter lists 37 sets of 100 original slides each of works photographed in India with an NEA grant and under the technical direction of Patrick Young, U. of Michigan, @ $125 per set. The Newsletter also lists 5 other sources of South Asian Art Slides: Cathy Glynn, 9354 Readcrest Drive, Beverly Hills, CA, 90210; Rosenthal Art Slides; South Asia Art Archive, U. Pennsylvania, Van Pelt Library, 34th & Walnut, Phila., PA, 19104; South Asia Outreach Resource Center, U. Chicago, 1130 E. 59th St., Chicago, IL, 60637; and Carol Stratton, 1237 W. 7th Ave., Vancouver, B.C.

A microfiche archive is also being compiled by Susan Huntington, History of Art, Ohio State U., Columbus, OH, 43210. Elizabeth Horton has replaced Wendy Holden as ACSAA Color Slide Project Coordinator at the U. of Michigan.

DUNLAP SOCIETY: the 2 initial volumes of microfiche in the Visual Archive of American Art, "Architecture of Washington, D.C." and "County Courthouses of America" are now being published in Association with Princeton U. Press. There is a 10% discount on orders received before Dec. 31, 1982. Address to: Princeton U. Press, Box DS, 3175 Princeton Pike, Lawrenceville, NJ, 08628.

EDUCATIONAL RESOURCES CENTER has a large slide and negative collection of the culture of India, and can produce slides or b/w glossies of "any reasonable topic," and can also supervise shooting of same on either still or movie film. Slides from their collection @ $1.00. Write: The University of the State of New York, Center for International Programs and Comparative Studies, Cultural Education Center, Albany, New York, 12230

CANADA

HARTILL ART ASSOCIATES announces 1) a new Canadian supplement available on request; 2) new slides photographed in N. Italy and France covering all periods; 3) they will honor all US orders in equivalent Canadian $, and 4) their catalog is available for $9.00, and includes all future supplements.

ENGLAND

COMMONWEALTH ASSOCIATION OF ARCHITECTS PROJECTS UNIT, The Building Centre, 26 Stone St., London WCIE 7BT, has 3 tape-slide lectures by RWA Dallas, BSC, Institute of Advanced Architectural Studies, U. of York: Architectural Photogrammetry G20+p&h), & Rectified Photography, (L25+p&h). All have 24 slides and a 20 min. cassette. Also 3 tape-slide lectures "Building & Garden Design" by Dr. John Byrom, Director of Landscape Studies, U. of Edinburgh, 24 slides and 20 min. cassette, L20+p&h.

MINIATURE GALLERY currently offers, in its Art-Slide News #55, "Women's Art Show, 1550-1970" from a Nottingham exhibition in 1982, all from British collections, $82 for 83 slides and the exhibition catalog; and the "Chain Soutine" 1982 exhibition, 40 slides for $37.25. Also photography has been completed for about 100 slides from the exhibition "French Sculpture 1850-1914," and the exhibition "Painting in Naples 1606-1705" (described by the Sunday Times as the Old Master exhibition of the decade), over 100 slides; and also 24 slides of the "Philip Guston Paintings 1969-80" exhibition.

Mr. Carver questions Patrick Young's recommendation of Ektachrome 50 film for tungsten work as being too yellow. And indeed, Pat's Nelson Gallery slides tended to be slightly yellowish. However, Pat's reason is that the Ektachrome 160 is less dependable for color, and slightly higher contrast. Mr. Carver uses the 50 with blue correction, which should make it about right.

PIDGEON AUDIO-VISUAL has printed a 1-page classified guide to subjects and speakers for its current 51 slide lectures. The main topics are: Art, Design theory, Design education, Historical periods, Planning (architectural), Urban design, Landscape design, Building for Hot Climates, Countries from which designs are shown, Building categories/types, and materials.

WOODMANSTERNE slides of works in museums, galleries and libraries are now available in the US from Gould Media, 44 Parkway West, Mount Vernon, NY, 10552. Prices range from singles @ $2 to sets of 36 for $50 (@ $1.39 per slide), postage paid. Orders under $50, $5 service charge. Write Gould for list.

Subscription Form
INTERNATIONAL BULLETIN FOR PHOTOGRAPHIC DOCUMENTATION OF THE VISUAL ARTS

Mailing name and address for Bulletin: (please type)

_____

_____

_____

_____

_____

1983 Subscription _____ $6.00 ___
New _____ or Renewal _____

Back issues 1982 _____ $6.00 ___
1981 _____ $6.00 ___
1980 _____ $4.00 ___
1977-79 _____ @ $3.00 per year ___
1974-76 _____ @ $1.00 per year ___
Index 1974-1979 _____ $1.00 ___

Surface postage outside U.S. _____ $2.20 ___
Air mail postage outside North America $5.50 ___

TOTAL AMOUNT _____
Payment enclosed _____ Sent separately _____

PLEASE PRE-PAY
Checks are payable to UMKC (University of Missouri-Kansas City)
Send to:
Nancy DeLaurier
204 Fine Arts
UMKC
Kansas City, Missouri 64110
U.S.A.

Directory Information for Visual Resources Association Membership (please type)

Name _____

Position Title _____

Department _____

Institution _____

Street Address (if needed) _____

_____

City _____ State/Province _____

Zip/Postal Code _____ Country _____

Telephone: Office: ( )
Home: ( )

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 ____

Please add $1.50 for postage and handling to all orders. $1.50___

TOTAL AMOUNT ENCLOSED _____

Make check payable to: University of New Mexico
Send to: Zelda Richardson, Slide Librarian
Fine Arts Slide Library, FAC 2010
University of New Mexico
Albuquerque, New Mexico 87131, USA

Name_____

Address_____

_____

_____

City State Zip

PREPAYMENT IS REQUIRED FOR ALL GUIDE ORDERS.

Slide Buyers Guide, 4th edition, edited by Nancy DeLaurier. Order from Nancy DeLaurier, check payable UMKC. $8 ____

INFORMATION REQUEST FORM

VISUAL RESOURCES PROGRAM

COLLEGE ART ASSOCIATION OF AMERICA

Philadelphia - February 17-19, 1983

If you are planning to attend the CAA-VR Program, please complete this form and return it to Fran McGinnis (address below) **no later than February 10, 1983.**

| | Please put me on the waiting list for the Barnes Foundation tour (Sat., 10 AM - 12 noon)

| | I would like to go to Princeton for the program and tour (Sat., 12:30 - 6:00 PM)

| | I can provide transportation for ____ between Philadelphia and Princeton on Saturday

| | I am interested in going to a VR group dinner

| | I am looking for a roommate to help share expenses

| | I would like to coordinate ___ / help out at ___ the VR Information Table during the CAA Program at the Franklin Plaza Hotel (If helping, time/date preferred: _________)

fold ______ here

| | I would like to help:
- | | set up equipment on Friday morning
- | | make posters or signs for the program

Name: ______________________________

Address: ______________________________

____

____

Any suggestions?

fold ______ here

SUPPLEMENT

THE OSBORNE-I MICRO-COMPUTER: FEASABILITY FOR USE IN ORGANIZING AND CLASSIFYING SLIDES

Eileen Fry

The title of this presentation was decided upon a short time after I became the owner of an Osborne I personal computer, and is only partially descriptive. It might be more accurate to say that I will be presenting some factual data about one of the many small personal computers now on the market and that I will be discussing the feasibility of using dBASE II in the Slide Library.

The Osborne I is a small, fully functioning microcomputer. It is portable, very comparable in size to a portable sewing machine, and can be run off battery power. It can be taken on yachts, airplanes, and even into classrooms. Although its compactness is an attractive feature for many potential users of personal computers, the reason for the Osborne's growing popularity among academics is that it provides an impressive package of hardware and software for a relatively modest price ($1785). For those who are interested in specifics, the Osborne I has a Z80 processor, dual 5 1/4" floppy disks, 64K of active RAM, and uses a CP/M operating system. It has a built-in 5" monitor, which is much smaller than those offered by most other microcomputers. This, and the fact that only 52 characters per line and only 24 lines show on the screen at any one time are its major drawbacks. Access to the 128 characters and 32 lines that are actively in the memory is achieved by using cursor controls. The Osborne is also limited in that it currently uses single density disks with 92K of usable space. Most users purchase an inexpensive monitor to prevent having to strain to see the 5" screen, or use a portable enlarging sheet. The other disadvantages mentioned will be alleviated by modifications due within the year which will allow for full 80 character viewing and use of double density disks.

The software package that comes as part of the purchase price of the Osborne I is truly impressive. In addition to the CP/M operating system, Wordstar/Mailmerge, SuperCalc, MBasic, and CBasic are provided. These all come adapted for use on the Osborne, and their combined price is well over half the total cost of the computer. A recent special also included in the purchase price is the dBase II software, which I will discuss later. Wordstar, which is considered by many to be the industry standard for word processing programs, is undoubtedly the reason for much of the Osborne's popularity.

One item which is not included with the Osborne I is a printer, and this can be an expensive item depending on the features and the type quality desired. Even less-expensive dot matrix printers run around $600.00. Although their print quality is much less than that of daisy-wheel printers, dot matrix printers have the advantage of providing multiple typefaces and high speed.

I did not purchase my Osborne I specifically for use in my slide collection, but I did intend to use it at home for slide library-related problems. When I explained what I wanted to do the computer specialists I was dealing with informed me that I would need a relational data base program such as dBASE II. Although I am still a novice in its use, I think it has tremendous potential for use in slide collections. Unlike many data management programs, dBASE II is capable of operations involving Boolean logic as well as standard file manipulation. It's a very sophisticated piece of software produced by Ashton-Tate. It's leased by Osborne for use on its computer, but it's also available for many other systems.

The beauty of dBASE is that it can so easily be tailored for specific needs. As I am currently using my Osborne at home, I chose to experiment with two projects which did not necessitate that I actually be looking at slides in order to do them, as in both cases the museum location and accession number has been our main filing element. I don't think I will be able to work on areas where title is the main filing element until I have a computer in the slide library itself, as titles (as we all know) are too imprecise. The projects I chose involve our manuscript slide holdings and our slides of small-scale Greek sculpture in bronze, wood, ivory, and terracotta.

Our manuscript slides are divided into large stylistic groupings, i.e. Byzantine, Anglo-Saxon, French 14th c., and are then filed by city, museum, and number. I wanted to be able to retrieve information on authors, titles, personal names, and place names, and to be able to get complete listings for our holdings in particular museums. Using simple dBASE commands, I designed files with fields for author, artist, proper names, title, and each of the identifying elements we record. With dBASE I can retrieve listings, such as "all Byzantine mss" by author, in alphabetical order; or I can query for something very specific, such as the proper name "Basil II." If I want to add, in the future, fields for those items which are slide specific, such as folio number, subject matter, and source, this can be appended at any time, and again can be tailored to my specific needs.

Small scale Greek sculpture I am handling in much the same way, except that I designed different fields. In addition to medium, which was my primary interest, I can retrieve by style, substyle, type of object, name or title, and, most interesting for some of my users, site of origin, as well as by identifying factors such as museum number.

At present I am using only about ten of the 100+ commands used to manipulate dBASE, but I'm getting very useful results. If anyone is interested in receiving the handouts I prepared on dBASE II, or in finding out more about the Osborne I, please contact me. I have had letters from other people who are also using Osbornes, and we have a mini-network starting, but I very much need to find out if anyone else is using dBASE for slide or picture access yet. Please write:

Eileen Fry
Slide Librarian
Fine Arts Slide Library
Indiana University
Bloomington, IN 47405

COLOUR MICROFICHE PRODUCTION AND REPRODUCTION

-Charles Chadwyck-Healey,
Chadwyck-Healey Ltd.

The title of my paper, "Colour microfiche production and reproduction," gives me the opportunity to talk about making color microfiche, a subject which interests me and about which I could talk at length, but it occurred to me that such information would be of very limited interest to you since it is unlikely that any of you will ever want to actually make color microfiche yourselves.

Surely, what interests you, as art historians and slide librarians, are the characteristics of color microfiche themselves, their ability to reproduce colors, their ability to reproduce detail, their limitations, their advantages, and their cost. In exploring these things I will inevitably go into the methods by which they are made, but this will be very much in passing.

First, then, dimensions: the color microfiche is the same size as every other microfiche, 105 mm deep by 148 mm wide, which means they can be used in standard microfiche readers, but I will say more about readers in a minute. The color microfiche should be viewed at an enlargement of not more than the standard 24x and 18x or 20x may in fact be preferable, again for reasons I will go into shortly.

There are several formats, that is the number of frames on the microfiche used for color microfiche.

Here is a 98 frame microfiche, this is the standard monochrome microfiche format. In fact this microfiche is unusual in that it shows two formats--98 frame, that is 14 images in each from rows D and G and 49 frame rows A to C. 49 frame and 98 frame are normally thought of as variations of the same format since 49 frame is simply two single page frames run together so that an open book or other landscape shaped original can be accommodated.

The problem with 98 frame is that it can only accommodate an original of 8"x11" if you want same size reproduction at a magnification of 24x and as I've explained 20x or even 18x are preferable. In other words if you are to use these relatively low magnifications you want an original as large as possible--which is what the next two formats try to achieve. Before I go on to them I'd like to say something about these two Russian Futurist Manifestoes. For a start it demonstrates that color microfiche can be used to faithfully reproduce the most outlandish originals. The top title Nagoy sredi, "The Naked one among the Clad," has pages of coloured wallpapers and has wallpaper covers and is by Kamensky and Kravtsov. Markov describes them as cliche ridden poems with most erotic themes with some self-consciously daring avant garde imagery. The second title Zaumnaya Gniga by Kruchenykh and Alyagrov is much more important. Most distinctive is the large red heart with a white button mounted on it. The engravings are of playing card figures by Rozanova and you can see that there is deliberate disorder with pages of different sizes, colors and texture. Some pages upside down, written by hand, stamped or even blank.

Now books such as these are art objects in themselves. Does a color microfiche reproduction really give a true feel of what an object like this is really like? Well, it's debatable but it so happened that these books were sold to the British Library shortly after they were microfilmed. 44 books which, I believe, cost the British Library some $80,000. They have since been disbound, each leaf being separately mounted. In my view it is now impossible to visualize what this book was originally like even if you are able to see the original leaves. This microfiche then is the only record of what these books originally looked like.

This is a 60 frame microfiche. Now this is the old European COSATI format which at one time was standard for all microfiche monochrome and color but which now has all but been abandoned in favor of the more economical 98 frame format. You will see that it contains 5 rows of 12 images. What is interesting is that the width of each row is 16 mm which immediately gives away the origins of this microfiche format. Somebody at sometime had the bright idea of cutting up 16 mm microfilm into strips and making up those strips into a card or fiche.

My company has probably done as much as any to reintroduce the 60 frame format since we used it for the Index of American Design color microfiche edition comprising almost 300 color microfiche, still the largest color microfiche publication yet issued, and we are still using it for monochrome microfiche publications of photographs. Why for monochrome? Because we have used Panatomic X for reproducing photographs since its tonal range, that is, its range of shades of grey from maximum density or black to clear film or white matches that of the photo-

VRA Bulletin, Vol. 09 [2018], Iss. 4, Art. 1

graphs. But like color film it cannot really be enlarged more than 24 times without its lack of sharpness becoming apparent. 18x or 20x were also the standard COSATI enlargements. So what has happened over the last five years is that publishers such as ourselves using colour films and non-standard monochrome film have put the technological clock back some fifteen years in that we are using films which have the same kind of limitations that standard microfilm had before the introduction of the high contrast very high resolution of the films that are used now.

Returning to this format. The upright rectangular frame has good proportions which suit many different types of visual material but it has one great disadvantage--how do you handle horizontals? You can either put them with the long side across the frame width but this will mean increasing the reduction of the image in order to fit into the frame and there is also a waste of space above and below the image or you can turn it on its side. The problem is that few microfiche readers--unlike microfilm readers--have image rotation so it is impossible to turn the image on the screen and equally impossible and decidely uncomfortable to turn your head through 90 degrees to try to view the image the right way up.

We were faced with this problem in the Index of American Design where most microfiche contain a mixture of verticals and horizontals, and where the originals we were microfilming tended to be large so that we needed to use the entire frame area where possible.

This was our solution. We printed these instructions on each microfiche envelope. They tell the user to put the microfiche in endways on to view horizontals which have turned on their side, the right way. However the platen or microfiche holder on each microfiche reader is not deep enough to accommodate the whole microfiche so that as you can see here a portion of the microfiche is left sticking out. This means that you have to put the left half of the microfiche and the right hand end of the microfiche in first to view the horizontals in the right half of the microfiche. This created complications for us since our camera operators had to remember to film horizontals in the first five frames facing one way and in the second five frames of each row facing the other way--as has been done here. Otherwise some of the horizontals would appear upside down.

Now, I am neither going to defend or apologize for this rather cumbersome compromise. If you are spending over $4,000 buying such a microfiche collection you could invest another 3 or 400 dollars to get a good quality microfiche reader with an image rotation facility which enables you to turn the image any way you want. But otherwise to get by you can adopt this method.

So now we come to the third format: It was introduced by Chicago University Press when they launched their series of textfiche publications in 1977. It is 84 frames, a compromise if you like between 60 and 98, there being seven rows of twelve frames. But the real significance is that the frame is square which means it accommodates verticals and horizontals equally well--albeit with considerable wasted space, and it was just this wasted space that I felt we could not afford on the Index of American Design because we were dealing with large originals and we wanted the maximum image area we could squeeze from the microfiche. Of course if you have square originals they will fill the frame nicely.

This microfiche from Emmett Microform for whom we distribute in the US is a good example of the 84 frame format neatly accommodating both vertical and horizontal images.

There are other formats that can be used: this is the 30 frame format--two frames from the 60 frame format merged into one to accommodate extra large landscape originals. One problem with this format is that a normal size reader screen will only accommodate part of the image though there are readers on the market with extra large screens.

People sometimes comment on the lack of aesthetic appeal of microforms compared to books. It's true they don't look much, they are a closed medium. The material they record is not immediately visible. But look at the next two color microfiche. Does this not have a certain elegance, the grid format with its seried ranks of images? Or look at the even more abstract patterns of these branding irons.

Chicago University Press did micropublishing a real service by both publicising colour microfiche and by taking great trouble in the planning of their colour microfiche publications. Thus when they in conjunction with Kodak devised the 84 frame format they also made sure there was a reader with a square screen to accommodate their new format. This is the Bell & Howell reader shown here. The original model had an opening at the back through which the image could be projected but on this model the front screen is removed if the image is to be projected onto a larger screen. So here is a good reader at a reasonable price: $250-300, but a little on the flimsy side; we find ours get easily damaged when they are shipped to exhibits. Many libraries will choose other types of readers. The important points to look for are: First, lens magnification--don't think as many libraries do that you can economize by simply borrowing a COM microfiche reader from the Cataloguing Department. I have seen a very large West Coast library do just that--spend thousands of dollars on our art exhibition catalogue collection and then try to read them on the readers with landscape shaped screens--disastrous for vertical formats. Screens that were of the reflectance type, that is a flat white opaque surface but having a hole in the middle through which the lens projected. Can you imagine looking at a picture with a 2"

square cut out of its centre? Finally then COM readers have 42x or 48x lenses enlarging the image to more than twice the required size. Such decisions are often due to lack of follow-through or coordination between acquisitions and equipment supply in libraries but it saddens me that the expectations of library users of microfiche are so low that they apparently accept such situations or simply vote with their feet and consciously or unconsciously refuse to use microfiche again.

So, to summarize you need a lens magnification of 18x, 20x or 24x. Many readers will accept lenses of different magnifications. It gives you that much more flexibility if you can switch between 18x and 24x.

The next important thing is the screen. The majority of microfiche reader screens are blue or green. This needless to say is not good for color microfiche. If you want a neutral gray screen you must specifically order it and make sure you get it. If that model can't be supplied with a gray screen don't buy that model. Another aspect that you should certainly be aware of is the color temperature of the light source. Many reader lamps are quartz iodine projector bulbs with a color temperature of 3000° K. We print the correct color temperature for the Index of American Design fiche on the envelope--that is 3200° K. Unfortunately I don't think that any reader manufacturers specify the color temperature of their lamps and it certainly isn't in any published standards for readers, but if it is something you want to follow up you could borrow a color temperature meter from a professional photographer. If you take a reading directly off the light source and another through the screen it will tell you what bias, if any, towards red or blue the screen is giving.

Now a microfiche reader is clearly designed for personal use--for private study, but so often visual material needs to be displayed to a group--like today, or a lecture, or a seminar. Microfiche readers can be adapted but they are not very effective. As I've mentioned many readers such as the Bell & Howell can be used as projection by removing the screen and projecting the image onto a normal projector screen some distance away. The maximum image size is about six feet square; beyond that the image becomes too dim, and this is really the problem; the light source in a microfiche reader cannot produce enough light to illuminate to a sufficient degree of brightness an image which has been enlarged from such a tiny original.

Therefore by all means use a microfiche reader for projection if there are a dozen of you and you can crowd round the screen but in a larger and more formal setting the image will not be large enough or bright enough.

The need for a microfiche projector has been perceived by manufacturers but unfortunately the size of the market has never been sufficient to properly support the development such a product requires. The Realist Company in Minneapolis was one of the first companies to produce a projector, but they passed on its manufacture to another small company who made some improvements, such as increasing the light source, but then rights reverted to Realist. Since then I have had no information about availability in the last few months.

There is a much praised German projector made by Kindermann which are now available in the US and, when we have had a chance to evaluate one we will probably be recommending to our customers. Incidentally we do more than just recommend readers and projectors--we frequently give them away--free with a particular set of microfiche. This is attractive to the library who may have no money in the equipment budget but extra funds in the book or our budget; it is also of course a form of discount or price reduction, but it is good for us too because it means that we know that the microfiche that we do take a lot of time and trouble making will be looked at on a machine that will do them justice.

There is another way that images on color microfiche can be shown to an audience or be made available for private study and that is on videotape. For a paper I gave at last year's ACRL conference at Minneapolis we made a short videotape of images taken direct from the Index of American Design color microfiche. Since then Eileen Fry has borrowed this tape and perhaps she may have some comments on its potential value. My argument is this. When lecturers put together slide sets they are generally constrained by the number of slides available to them in their slide library on any one subject or by the cost and time of specially made slides from books etc., so selection does not take too long, is not too laborious; but these microfiche collections create a completely different solution, the Index of American Design has 15,000 images; our monochrome collection, America 1935-1946, the Farm Security Administration photographs, contains 87,000 photographs. To make a carefully researched selection of images from such huge visual databanks requires a lot of work; once such a selection has been made it deserves to be captured permanently on videotape so that repeated use can justify the original effort. In throwing this out as an idea I should stress that the reproduction technique is very simple. We just projected the microfiche images on to a screen using a Realist projector and photographed the image on the screen with a studio quality video camera. What took the time was synchronizing the commentary which was of course dubbed on after each image had been recorded.

But before we stray too far into the fascinating area of the potential interaction between microform and electronic image storage, whether it be on disc or tape, I would like to return to the characteristics of the color microfiche. Discussing format and methods of presentation without discussing the characteris-

tics of the film the material the microfiche is made of is rather like describing a cake by its shape and size and how it is presented on the plate and how it is eaten, without mentioning its texture, color or taste. Furthermore I want to first say something about how color fiche are made--how the cake is baked--before ending on the most fundamental characteristics of all, the properties of the color microfiche film.

There are two ways in which color microfiche can be made--either by microfilming the original material directly or by making color microfiche from slides. In theory the first way should be more straightforward, less expensive and produce better quality since it cuts out one generation of copying. In practice it is extremely difficult and little used. Kodak has dominated the color microfiche market and if they are to microfilm the material directly it has to be sent to them in Rochester. This is clearly impossible in the case of many art collections. But if you make the color microfiche master negative yourself Kodak will not make copies from negatives they haven't made themselves. So, a total 'impasse.' Fortunately when Kodak set up a color microfiche bureau in the Netherlands they adopted a more relaxed attitude and will make copies from other people's negatives. But to produce such negatives is technically quite complicated. The standard negative color films that can be used in a conventional microfilm camera--that are fast enough to suit the fixed shutter speed and standard illumination levels--are simply not sharp enough or have enough color density to produce a satisfactory negative. Sharpness in films is not just a component of grain or lack of grain. Film has a characteristic called modulation transfer response. Imagine two white blobs barely separated on a black background. A film with a low modulation transfer response will respond chemically to the white blobs by fixing the silver nitrate, but that fixing will overflow into the black area thereby causing the two blobs to appear to merge together. This depends on two things, the gap between the blobs and the chemical and physical structure of the film. The higher the modulation transfer response or MTF in percentage terms the sharper the film is. Kodak's sharpest film of all is a very slow internegative film used for duplicating cinefilm; this is Eastman color internegative film 5271. It has a 100% response to a pattern of up to 12 black and white blobs per millimeter (by the way, this is a totally unscientific and I'm sure frowned-upon way of describing the MTF). By the time you get up to a pattern of 150 black and white blobs per millimetre the MTF is only 20%; in other words the film is only partially able to respond to the very closely backed black and white (or red and green) pattern.

The speed of the film is less than 1 ASA. To use it we had to modify our camera to produce an adjustable time exposure of up to 5 seconds and we had to illuminate the object with 3,000 watts of quartz iodine TV floodlights, just 3 feet away from the subject.

We used this method for microfilming the Index of American Design. It just was not feasible to first shoot 15,000 slides and then to work with Kodak in making up the negatives. So we shot the originals on a modified camera in the National Gallery of Art, had the film processed in a lab within walking distance of the National Gallery. It was then shipped to England, checked and made up into the microfiche format--we make up microfiche from cut-down strips of 35 mm film--then shipped to Holland to have the copies made, the copies are shipped back to the UK and dispatched from there to fulfill UK orders.

The other method is to use existing slides or make slides and send them to Kodak. Slides do give enormous flexibility since a slide can have on it anything from the facade of a 500' building to a 3" miniature while a microfilm camera can only accommodate originals small enough to be laid on the camera table. Kodak's service is sophisticated--they can add an alpha numeric code to each frame for indexing; they can color balance individual images; they can even mix slides and originals. But they are expensive, and there is one great drawback for the publisher--they insist that the negatives that they make are their property; for the publisher who may have made a major investment in these masters this is clearly unsatisfactory and I believe this may be a reason why some micropublishers have not used color microfiche for their publications.

But this is all now changing; a new color film was introduced earlier this year by CIBA Geigy, the Swiss firm. It is in fact the first in a new generation of color films which are very much sharper than earlier films and which have a longer archival life.

There really is great excitement about this film. It was being talked about in February by the Boston Museum of Fine Arts and the Geography and Maps Division of the Library of Congress who are using it for a large map preservation project. The present version which uses the silver dry bleach process resolves 340 lines per millimetre; this is probably twice as sharp as current films. the next generation CIBA film which is in development at present will be even sharper since they have gone a long way to solving the problem of light scatter at the edge of each of the color layer which is one of the things that reduces the MTF.

These new films are also less prone to fading and may even have usable lives approaching that of monochrome film. Current films do fade, they fade at the same rate as slides though this is in itself dependent on the extent to which they are exposed to light. Negatives and positives can have their life extended to 50 years if they are kept in a fridge and indefinitely if they are kept in a freezer, but this is impractical for copies that are in regular use.

So I think this CIBA film is going to revolutionize the use and production of color microfiche. Now all we need is for you to advise us on fresh subjects and collections that could lend themselves to production on color microfiche--I look forward to your suggestions and to answering your questions.

ASPECTS OF COLOR FILM PRESERVATION

-Henry Wilhelm

As Mr. Wilhelm's presentation was essentially a summary of past presentations, already reported in Bulletins, for further reference and reading, Christine Sundt has compiled the following **Select Bibliography** of Mr. Wilhelm's articles and contributions to other publications:

"Problems with Long-Term Stability of Kodak Professional Direct Duplicating Film," Picturescope, Vol. 30, No. 1 (Spring 1982), 24-33.

Contributed to: Schwalberg, Bob, "Color Preservation Update," Popular Photography, Vol. 89, No. 1 (January 1982), 81-85, 131.

"Monitoring the Fading and Staining of Color Photographic Prints," Journal of the American Institute for Conservation, Vol. 21, No. 1 (Fall, 1981), 49-64.

Contributed to: Milanowski, Stephen R., "Notes on the Stability of Color Materials," Exposure, Vol. 21, No. 3 (Fall, 1982), 38-51.

"Relative Stability for Common Color Films [Tables]," International Bulletin for Photographic Documentation of the Visual Arts, Vol. 8, No. 3 (September, 1981), 6.

[To be published]: "Dark Keeping and Projector-Caused Fading Characteristics of Color Slide Films" and "Small-Scale and Institutional-Size Cold Storage Facilities for Color Films," papers presented at the University of Texas at Austin Symposium, Production and Preservation of Color Slides and Transparencies, March 27-28, 1981.

Contributed to: Fisher-Taylor, Gail, "Interview: Henry Wilhelm," Photo Communique, Vol. 3, No. 1 (Spring, 1981), 2-21.

Contributed to: Moore, Peter, "How to Preserve Your Color Pictures," Modern Photography, Vol. 45, No. 1 (January 1981), 76ff.

Contributed to: Short, J. Michael, "Preservation of Color Materials," Technical Bulletin No. 2 (Washington Archaeological Collections Repository of Washington State University, Pullman, WA), December 1980, 2-11.

Contributed to: Nadler, Bob, "Where Have All the Pictures Gone? [An Interview]," Darkroom Photography, Vol. 2, No. 6 (October, 1980), 18-23.

"Storing Color Materials--Frost-Free Refrigerators Offer a Low-Cost Solution," Industrial Photography, Vol. 27, No. 10 (October, 1978), 32ff.

Contributed to: Kach, David, "Photographic Dilemma: Stability and Storage of Color Materials," Industrial Photography, Vol. 27, No. 8 (August, 1978), 28ff.

[To be published]: The History and Preservation of Contemporary Photographic Materials.

Henry Wilhelm
Preservation Publishing Company
Box 567
Grinnell, IA 50112-0567
(515) 236-5575

PHOTOGARD TECHNOLOGY

Abstract of paper by A.K. Mehta, 3-M Company

There are many factors that can contribute to the degradation or destruction of images in photographic prints, slides, and films. These include scratching or abrasion that occurs during normal usage; scratching or abrasion that occurs from cleaning necessitated by dust accumulation, fingerprints, oils, etc.; bacteria; and dye fade caused by ultraviolet radiation. 3M has developed a technology that provides significant protection against these factors.

Photogard is a thin 2.5 micron coating that is applied to processed photographic materials (color print paper, negatives, slides, microfilm, motion picture films, etc.). It may be described as a polymerized silane, 100% solids formulation that is cured by ultraviolet radiation in a few seconds. The coating is optically clear, colorless, and flexible.

Based on the Taber Abraser and Gardner sand abraser measurements, the Photogard coating gives at least a ten times improvement in abrasion resistance. The antistatic improvement with the coating is the result of a volume resistivity of 10^{10} ohm cm. The electric charge half-life at 50% R.H. is 0.1 sec.

Due to its chemical resistance, oils, dust, fingerprints, and other types of contamination can be wiped away easily using a variety of solvents without marking or smudging the coated surface or without disrupting the photographic image.

From a standard fungus resistance test, the Photogard protected emulsion showed no degradation after 24 hours, whereas the uncoated control emulsion was totally destroyed.

For color prints under direct sunlight illumination or in a fadeometer that simulated direct sunlight illumination, a six times improvement in cyan dye stability is achieved by the incorporation of UV absorbers in the Photogard coating.

VRA Bulletin, Vol. 09 [2018], Iss. 4, Art. 1

Additional notes by editor:

The properties of Photogard are listed as:

1. Abrasive resistance
2. Anti-static
3. Resistance to chemicals, bacteria and fungus
4. U-V stability: renders the cyan dye 5 to 6 times more resistant to fading
5. Removes scratches by filling them.

However, its super-resistance also includes adhesion, so even slide masking-tapes will not stick to Photogard-coated film. Its present applications are for coating motion picture films, duplicate slides, film strips, microfilm (both rolls and fiche), and color negatives. The present cost is 4¢ per foot on movie film. The application is very complex and can be done only professionally, so its use will be limited to the large photo processing labs.

In accelerated tests it has shown no discoloration or other detrimental effects of aging.

FUNGUS IN GLASS-MOUNTED SLIDES: RECENT FINDINGS

Christine L. Sundt

I wish to acknowledge and thank Dr. Harold Burdsall of the Forest Products Laboratory in Madison, Wisconsin, for his help in identifying and recording the fungus I have described in this paper.

That fungi are responsible for many forms of damage to slides is a widely held tenet. The claim seems to be a logical one when certain critical factors associated with fungus growth are noted: Film materials readily absorb moisture, and as we all know, moisture can be easily trapped between the glass. Fungi spores are everywhere in the environment, and as far as a nutrient source for fungi, this is quite conveniently provided in the gelatin of the film's emulsion. Add to these a warm environment, and you have what seems to be something close to laboratory conditions for fungus growth.

Furthermore, the literature on the preservation of film materials appropriately includes warnings about fungus. Our awareness and fear of this menace are further enhanced by colorful descriptions and sometimes even photographs illustrating affected images. Fungus-consciousness is further sharpened if some form of growth activity has been found among treasured slide materials. Based on what has been presented in the descriptions and illustrations in the literature, we are led to believe that a fungus is probably involved.

The fear of fungus, while undoubtedly and, at the same time fortunately, the major catalyst for bringing about better and safer environmental controls into film storage areas, is perhaps also being a bit overplayed as a threat to most collections. The purpose of this paper is to attempt to dispel the growing myth that fungus is the primary perpetrator of damage among glass-mounted slides by showing that what many have been calling fungal growth is actually a chemical reaction, usually encouraged by contaminants within the mount.

I am not here to deny or downplay the fact that fungus can and will attack film materials. Indeed, fungi and film products in tropical environments are anything but incompatible, but, then again, little is safe from fungi in such a climate. One of the problems I found in using the information presented in the literature is that when fungus is discussed, this is usually with regard to how it affects photographic prints and plates or slide film in open frame mounts. The glass-mounted slide seems to be somewhat of an anomaly in the commercial world of photography because in common practice, most slides are left in their original paper or plastic frames. Confusion enters the picture when the descriptions of fungus on photographic emulsions and unprotected film are indiscriminately used in deciphering reactions within glass-mounted slides. Blotches, spots, and branching patterns inside the glass may look like an attack of fungus, or fungus in its early stages of development, but when this substance is scientifically analyzed, the conclusion is quite different. In fact, in most cases observed, the outward signs (blotches, branching patterns, and the like) were confined to the glass alone; once the glass was removed, there was no evidence of any residue or formation on the film proper. In the case of spots, usually yellow-orange to red in color, a contaminant was usually noted directly above or in close proximity to the spot. A contaminant can be a particle of glass, a fiber, or a dust speck to name but a few.

Because the question of fungus was the major reason for my conducting the research which has brought me to these conclusions, I think it fitting to include a description of what fungus actually looks like. I will use an example which was discovered during the course of this study. In fact, this was the only fungus specimen that could be identified from among approximately 100 examples.

Fungi is a blanket term covering a wide variety of unusual and diverse organisms. Consequently, a simple definition is almost impossible. J. W. Deacon in his INTRODUCTION TO MODERN MYCOLOGY (which is Vol. 7 in the series, BASIC MICROBIOLOGY), suggests that considering the main features of fungi may provide a better understanding of what they are.

Fungi are characteristically filamentous, or thread-like. Individual threads are known as hyphae (sing. hypha) and these threads are capable of branching and even fusing profusely with each other. A mycelium is the term for a mass of such branches. Typical of fungi is the presence of a rigid cell wall that surrounds the

individual hypha. Fungi grow from the tips of their branches and in scientific terms this is known as apical growth. This growth pattern, according to Deacon, is a feature which marks fungi as distinctive from almost all other organisms. Energy is obtained by fungi from pre-formed organic compounds. Not all nutrients can be taken up intact through the cell walls--the usual means of ingestion; in fact, most compounds must be degraded into simpler substances before they can be absorbed and used. Co-existence with other living structures that can help in breaking down these compounds is almost as vital as the nutrients themselves. Spores are the end-products of fungi reproduction.

Fungi are known to thrive in both high and low temperatures, but not all fungi will tolerate this range. Similarly, fungi will grow in wet and relatively dry conditions, but again, probably not with equal success in both.

Identifying the specific class of the fungus found on the slide studied has, so far, not been possible because all we have had to work with are fungal cells. These have been identified as such through a standard laboratory technique involving the application of a 2 percent solution of potassium hydroxide. This substance is dropped onto an area suspected of containing a fungal structure. It is then covered with a glass plate and then examined under a microscope. In this process, most substances with which a fungus may be confused will be converted by potassium hydroxide. If a structure remains and its features include branching with identifiable hyphae having rigid cell walls and septa, which are cross-walls, then the specimen is a fungus. If the structure dissolves, leaving only a residue which may contain oil droplets, fibers, or other debris, the formation is not a fungus but a chemical cluster. Further identification of the specific class and species of the fungus will depend on being able to cultivate it under laboratory conditions in order to observe its full life cycle (morphology). Our specimen has yet to show any signs of growth or life in the time that has elapsed since it was prepared for cultivation. When the culture medium or augur (agar) which is comprised of gelatin and malt extract--is no longer viable, recultivation will be attempted. It is hoped that additional bonafide specimens will be found to be included in this study. Identification of the fungus class and species is desirable in order to determine if a single type of fungus affects film materials or if the possibilities are numerous. This knowledge may help in trying to control the growth and spread of fungus on film materials.

Because certain temperatures, a moisture quotient, and oxygen availability are significant ingredients in the life cycle of fungi, controlling these organisms may be possible by the mere manipulation of their requirements for survival. Most fungi have a maximum heat tolerance of no greater than 58 degrees C. (roughly 137 degrees F.). Consequently, projection of a slide just before binding in a normal projector where the at-gate temperature will range between 145 and 170 degrees F., may be all that is necessary to kill whatever organisms could be present on the film. This method would also simultaneously eliminate the moisture factor needed for survival and growth of typical fungi. 70 percent RH is probably the lowest limit for most. This would also insure that the film is free of excessive moisture before being bound. The possibility of damage during projection due to enclosed moisture would thus also be averted (unless the slide were stored in an extremely humid area and no provisions were made in the binding technique to restrict moisture intake).

The oxygen needed for fungi development could be restricted significantly if the air inhibiting binding system would be used. I should mention here that the fungus was found on a slide bound in a GePe mount. While I have not yet found materials on the market that would enable me to achieve a completely airtight system, I have been able to demonstrate in a previous paper that a near-airtight system is possible. (I have brought samples along for anyone interested in seeing this.) This has been shown to be significantly safer for film materials than the popular, commercial, snap-together or "breathable" glass frames even if the slides are stored in an extremely moist environment and then projected at abnormally high temperatures.

Another control measure could be sterilization. While it may not be possible to actually sterilize the slide film, sterilization of the mounting glass is conceivable.

These suggestions for controlling fungi are based on general characteristics of the organism. Specific recommendations would be possible only if the fungus or fungi affecting film materials could be identified.

Having now explained in very general terms a fungus--what it looks like, what it requires for nourishment, and what conditions it can or cannot tolerate, I would like to use the remaining time to explain more fully my findings with regard to chemical activity within slide mounts.

It is not surprising that we have consistently called what we have been observing within glass mounts a fungus. Outwardly, the chemical reaction bears a close resemblance to the text book illustration of fungi. It is probably not incorrect to say that most of us have seen filamentous structures within mounts, film damage in the form of emulsion displacement and dye loss, while also noting the presence of droplets that look like moisture beads inside the glass. Furthermore, we very likely have

found more than one example of such afflictions in our collections, suggesting that the problem is widespread or perhaps contagious.

What has often struck me as curious, however, is the fact that the so-called fungus growth seems to affect the collection selectively. Seldom, if ever, have all the slides in the same filing group been infected. Indeed, the problem seems to be related to origin--either slides from the same commercial source or film produced and mounted at the same time. As I explained earlier in this paper, in the potassium hydroxide test for fungi, substances other than fungus cells will be broken down and converted with the application of this solution. As a result, filamentous structures of a crystalline nature will disappear, leaving only droplets and assorted debris behind. I will try to anticipate your next question. What comprises this residue that looks so much like a fungal structure before the potassium hydroxide test? For this I do not have a firm answer yet. The next step in my research will be to locate an expert in the area of physical chemistry who would be willing to work with me in determining the composition of these residues. For now, all I have to offer are some suggestions based on conditions observed in the glass mounted slide samples used in this study. For the most part, I will be discussing deposits inside the glass, most of these having no effect on the film inside.

The droplets found within the mounts that are so often mistaken for moisture beads are of an oily nature and may be actually a plasticizer used in the manufacture of the film base. Plasticizers are necessary to render the base flexible. Another possibility is that the droplets may be a residue on the glass from the cutting process not properly removed before the film was introduced. Incidentally, these droplets showed up microscopically even when no apparent beading pattern could be observed in the sample viewed outside magnification.

The debris within the mount is just what the word suggests. Dust, paper fibers, lint, hair, glass particles, adhesive residues, and maybe even crumbs from someone's lunch. The best solution to this problem is quite obvious: stricter and more sanitary binding practices. A cleaner work space may be ultimately more satisfying to the workers as well as beneficial to the materials they handle.

Residues from products bound inside the mount with the film as masks, positioners, identification labels, etc., are not only common especially in older slides, but also horrifying in what seems to have happened over the years within the glass enclosures because of them.

I am sure we all have samples in our collections of film masked with electrical or cloth tapes. Over the years, the adhesives have degraded into a sticky mess both inside and outside the mount. Furthermore, it is not uncommon to find that underneath the tape, the film shows a color shift. Whether or not the shift has been brought about because of a chemical reaction from the covering materials or if it is simply evidence of how much fading has taken place in the areas not covered by the tapes, is difficult to determine without proper scientific analysis. However, in most samples that I have seen, the areas underneath the tape show a distinctive greenish cast; I am hesitant to accept this as representative of color in a protected or controlled area and hence closer to the original color balance of the image prior to light fading. In any case, the film would have also undergone dark storage fading too, perhaps contributing to this shift towards green.

If at all possible, tapes and adhesives should be kept as far away from the film as feasible. I advocate masking on the outside of the glass for several reasons which include the fact that there is no information currently available from either tape manufacturers or independent researchers about the safety or hazards of the tapes we are now using. I understand research is underway by a film producer and in the private sector to determine the safety and effectiveness of polyester-film tapes when used with photographic emulsions. I look forward with great anticipation to the results of these studies.

The papers used in the manufacture of masks, tapes, and labels may also be linked to chemical residues inside glass mounts. It is not unusual to find an outline of the paper product inside the glass and in at least one example, to see that printing ink was also reactive. The high acidity of most paper products used for masking and binding should be reason enough to warrant their removal and abandonment. Along the same lines, one can also question the safety of the paper mounts which most film manufacturers have been using in the processing of slide film for the commercial market. The safer alternative would seem to be the plastic open-frame mounts, popular with many local or custom labs, for the reasons that the plastic product is chemically inert and it will not absorb or retain moisture.

In trying to determine the source of the residue found so often inside the slide mount, one cannot discount the possibility that substances other than plasticizers may be exuded from the film itself. Chemicals left behind from improper washing as well as from products applied to the film after processing to control static or to remove fingerprints, water spots, and the like, may be contributing factors in the formation of internal residues. Chemicals should always be used with extreme caution for lack of basic information about what their long term effects on the film may be. It should also be remembered that many products on the commercial market recommended for use on slide film are probably intended for film in open-frame mounts only. Keep in mind that in the commercial circuit, glass binding is the exception to the rule.

Don't be fooled by slide glass that may look clean in the package. Unless you have the manufacturer's assurances in writing that the product is "precleaned," assume that it is not. Manufacturers today, hard pressed because of rising production and labor costs, have been forced to eliminate this step. What you will probably find on the glass is a film which is a fine greasy residue from the machinery used to cut the glass. This substance will not be removed by merely polishing; a solvent such as denatured alcohol is recommended for its removal.

The final point I would like to cover today is the chemical reaction which results in patterns of dye loss on the film. In the examples I am now showing, we see at least two different causes for the damage. The slide on the left showing the green reversed "C" shape, recently analyzed by Eastman Kodak, shows a color shift and some emulsion loss brought about by what Kodak calls "A residue analyzed to be an organic fatty acid salt, similar to ingredients commonly found in detergents."

The slide with red-orange spots and/or localized cyan dye loss, shows emulsion deterioration probably due to a reaction from glass dust not properly removed during the binding process. This identification of the contaminant as "aldaline glass fragments" was also provided by Eastman Kodak. The slides showing these effects due to contaminants are Sandak slides. I strongly recommend that if slides are purchased from this company, they be bought unbound or in paper frames only.

At the recent SPSE international symposium on the Preservation of Film Materials held in Ottawa, I learned about what seems to be a rather common problem of colored spots on other types of photographic products, including black-and-white microfilm, spectroscopic plates, and even Lumiere Autochromes. When this phenomenon was discussed, it was often described as a redox blemish--the effect of reduction/oxidation in which the silver in the photographic product is chemically altered to produce an orange or red spot. Because most of the film materials mentioned as exhibiting similar spots seem to be such that are stored without permanent surface protection, I am wondering if debris such as we have seen lodged inside glass mounts above or close to these spots may be responsible for bringing about the so-called redox blemish and other such spots. It is likely that if contaminants are involved in producing the color changes in the other films, they are probably lost as evidence once the material is handled. It would be interesting to find out if any contaminants have been found inside the Autochromes, on the glass, for instance, or when the spots appear near the edges of the image, if the reaction can be linked to paper binding materials or glues that were used to seal the emulsion plate between another piece of glass. These are only theories at this time--verbal speculation that must still be properly researched and analyzed.

In conclusion, the threat of fungus may not be as imminent as we have been led to believe. In fact, if glass binding can inhibit the flow of oxygen and restrict the amount of moisture around the film, the chances are slim that a fungal spore, if present within the mount, can germinate. Furthermore, projecting the slide, while not in aid of dye integrity, could be a useful mechanism for destroying fungal cells. Further research will be necessary to determine the effectiveness of such a technique. More rigid standards with regard to binding methods could eliminate many of the problems that have been illustrated today. Contaminants have been shown to be the most prevalent cause of damage to the slides in my study, while also contributing to unsightly residues on the glass inside the mount. Although it may seem that whenever something can go wrong, it will probably happen to a Sandak slide, Ed Wiitala of Eastman Kodak informed me in a recent letter that "current EASTMAN Color Print Films, Kodak EKTACHROME, and KODACHROME Films are believed to be much less susceptible to adverse effects of alkaline glass dust particles." Maybe there's hope for Sandak, if indeed Kodak is correct in this statement.

SLIDE COLLECTIONS OUTSIDE NORTH AMERICA

Nancy DeLaurier, UMKC

I had visited six slide collections in Europe between January 1976 and August 1979, but when asked to make this presentation, realized that my visual memories and sketchy notes from those visits were too flimsy to make public. Even my original general conclusions proved quite erroneous after the current survey results came in.

This summer I sent 98 questionnaires to academic slide collections in most countries of Europe, to Australia, and a few others scattered over the rest of the world. 29 of these were returned, over 1/2 from the British Isles, and the rest from Australia, central Europe and Scandinavia. This represents an almost 1/3 return, still too small a sample for sweeping generalizations, but I did learn much from those 29 responses and I have developed a much better picture of slide life outside North America. The one broad generalization I will venture is that slide collections are surprisingly alike the world around, and that slide curators' problems are the same all over. It at once expands our world and then brings it all in closer knowing that our colleagues over there are also our soul mates in the same satisfactions and adversities of our work.

I will describe the collections according to the seven categories I used on the questionnaire, first with general summaries, then I will cite some specific ones.

I. Storage systems form one of the major differences in our collections. Vertical hanging plastic envelopes are used by 2/3 of the respondents: all the Scandinavians, all but one of the Australians, 1/2 the British, and 1/3 of the continent. These hold 24 slides and have a metal bar at the top for hanging in a standard 4-drawer-high metal cabinet. The other 1/3 who file horizontally in drawers use wood cabinets much like those used here. None have humidity control, and only Australia had air conditioning (probably because its climate is most like the U.S.). [These facilities were illustrated by slides of the University of Warwick at Coventry, the University of Kent at Canterbury, the University of Sussex at Brighton, the Edinburgh College of Art, the South Australian College of Advanced Education at Underdale, the University of Vienna, and the University of Bergen, Norway.]

Three large lending collections should be described separately: the University of London files slides on library shelves in 12 1/2" x 13 3/4" wooden frames which hold 25 slides in five rows; the Victoria and Albert Museum National Art Slide Library stores slides in six Eurot-Vistamatic rotating powered filing machines, each unit having 24 trays of slides; and the Centre Pompidou (Paris) stores slides in the carousel trays for check-out and use intact.

II. Collections

A. Size: My prior conception of small collections was certainly changed here, as I found that Central European collections ranged from 120,000 to 165,000, Stockholm has 200,000, and three in Britain are over 100,000. Other British and Scandinavian collections ranged from 30,000 to 75,000 (in the small to medium range of N.A. collections). Australia collections are also in the lower ranges, except for the University of Melbourne at 100,000. The three large lending collections again considered separately: University of London: 450,000; V & A, 600,000; and the Pompidou at 150,000 in 1977, must now be well in line with the British sizes.

B. Scope: After compiling numerous statistics and charts, the conclusion is that there is general similarity among these collections and ours in percentages devoted to the various art forms, major periods and geographical regions.

C. Binding: Most (19) use plastic mounts, including all the Scandinavians and Australians; four use metal mounts (including the U. of Zurich); and two bound slides in glass and paper.

III. Circulation of slides is much the same as ours: to the art history faculty, which numbers from three to twelve in Europe, except for Stockholm at 25; to students at upper levels for seminars; and to other faculty within the institution. Two or three allowed outsiders to use slides. Of the large lending collections, the V & A (National Art Slide Library) lends to any citizen of the U.K. The U. of London serves primarily the art history faculty of its three other colleges, Birkbeck (the night school), University College, and the Slade Art School, as well as outside borrowers, a total of about 355 regular users. The Centre Pompidou is also open to the public for use in the library; slides may not be removed from the room.

IV. Classification and Cataloguing: Again, not much difference from ours. Sixteen collections use numerical or alpha-numerical cataloguing, and the rest do not. Most of the coded systems were based on the Dewey Decimal system. The classification divisions, geography, chronology or art form, were used in about the same variations as ours are.

V. Jurisdiction of the collections was surprisingly similar to ours, as I had expected more library affiliations. Of fifteen universities, twelve slide collections were under the art history faculty, and only three under the library. Of these, two were in the UK and one in Australia; no other European collection, except the University of Florence was under the art history library. However, as in North America, the reverse is true in art schools. Of the seven reporting, only one was in art history, and six were under the library. All reporting Australian collections were in the library.

VI. Staffing brings out the other major difference between us and our overseas colleagues. Generally they are not yet as professionalized as we are. The term "professional" is often subject to interpretation, but three in the UK listed themselves as professional; and 2 in Scandinavia were listed as full-time, but ranked as faculty. Three others with faculty rank teach as well as care for slides. Three have clerical rank; seven are librarians, and two are students. Fourteen are full-time, and eleven are part-time. As for longevity, Peter Slater has nurtured the slides at the U. of London for 21 years, as long as I have been at UMKC; Walter Krause, also assistant professor, has been slide curator at the University of Vienna for 18 years, and others in the UK have served 12, 15, and 16 years. Other lengths of service range from ten months to two years, the younger positions being in Australia.

There is no specialized visual resources training, but all the Scandinavians, Central Europeans and eight British were well-grounded in art history, most with advanced degrees. Six in the UK and all the Australians have library training.

Generally they have fewer assistants than we do (our federal work-study program is of course responsible for most of our advantage here). Most collections have zero to four assistants, and almost all part-time, being mostly students or clerical rank. The lending libraries fare better: the University of London has two full-time professionals, and Bertie Maxwell at the V & A has four professionals and four clerical workers.

VII. Acquisitions: I was surprised to find that as much copy-photographing was done overseas as at home. The ratio seems about the same. Fifteen collections acquired over half their slides by purchase, and nine collections acquired over half from copywork. Faculty and staff supplied 25% and under in twelve collections, and gift slides provide about 5% of several collections annual increment. Museums seem to be the major purchasing source, especially for European collections, with the UK and Australian curators purchasing also heavily from British slide suppliers, and Australia from American suppliers.

Additional notes: A professor of art history in Budapest (I can not read the name of the institution) writes that the lecturers each have their own slide collection. Stella deSaRego, assistant at the University of Texas in Austin, who has contacts in Brazil, did some research and could not find any organized slide collection in South America.

Several personal notes and letters were sent along with the returned questionnaires, which expressed interest in the project and in comparative collections. Most of the respondents are subscribers to the Bulletin, so are already somewhat familiar with our professional way of life. I will close with the first paragraph of a letter from Synnove Malmstrom, assistant slide curator at the Institute of History of Art at the University of Helsinki in Finland: "It was very nice to hear from you, especially for me living up here in peripheral Europe where I can count my finnish colleagues on my one hand's fingers. There's no activity among us. To read the 'International Bulletin...' is therefore the only 'vitamins' I get in this job."

Those who responded to the survey:
The Open University, Milton Keynes, UK
University of Kent, Canterbury, UK
University of Warwick, Coventry, UK
University of Manchester, UK
University of Sussex, Brighton, UK
University of Oxford, UK
University of London, Warburg Institute, UK
University of London Library, UK
Leicester Polytechnic, UK
Chelsea School of Art, UK
Preston Polytechnic, UK
National Art Slide Library, V & A, London, UK
Edinburgh College of Art, UK
University of Edinburgh, UK
Architecture Library, University College, Dublin, Ireland
Newcastle College of Advanced Education, Waratah, Australia
S. Australian College of Advanced Education, Underdale, Australia
Sydney College of the Arts, Glebe, Australia
Victoria University, Wellington, New Zealand
Alexander Turnbull Library, Wellington, New Zealand
University of Oslo , Norway
University of Bergen, Norway
University of Stockholm, Sweden
Icelandic College of Arts and Crafts, Reykjavic
University of Helsinki, Finland
University of Vienna, Austria
University of Salzburg, Austria
University of Zurich, Switzerland
University of Bonn, W. Germany
University of (?) Budapest, Hungary

Collections visited:
Courtauld Institute, University of London
Library, University of London
School of Oriental and African Studies, U. of London
National Art Slide Library, V & A, London
Iconographie, Bibliotheque, Centre Pompidou, Paris
University of Florence

Too late to include in survey:

Universidad Iberoamericana, Mexico City, Mexico
U. of Basle, Switzerland

ACQUISITION AND CLASSIFICATION OF NATIVE AMERICAN ART SLIDES

-Zelda Richardson

The University of New Mexico currently offers a doctoral program in Native American art. Because of the University's location near important sites of the Anasazi, Hohokam, Mogollon, Pueblo and Navajo cultures, the art department endeavors to offer a comprehensive program with an emphasis on Native American arts of the southwest. Although the program itself has been slow in its development, a slide collection has been gradually accumulated to support this degree trail.

I have elected today to address two difficulties which are often present in developing slide collections concerned with North American Indian art: the initial acquisition of materials for such a collection, and the organization of those materials to make the collection usable.

Most of the slide examples I will be showing today will be of southwest Native American art. Not because our collection does not include examples from other tribal regions, but because the UNM slide library is strongest in the area of the art of the southwest. The searching out of sources of original visual materials can be the most frustrating and the most rewarding of tasks; one which can allow your collection to have a unique archive of materials not readily available elsewhere.

The SBG in its index lists 26 companies which offer slides concerning North American Indian art; an additional ten sources of commercial slides have been used by UNM to build its collection: Arizona Highways, ArtsCanada slide program, slide archives of the Archeological Institute of America, Cahokia Mounds Museum,

Ethnic Amer. Slide Library, KAI-DIB, Smithsonian, Tipi Shop, Visual Education Center, and A.H. Publishing. In general, most slide companies offering slides of tribal art will have available only the most common examples of artifacts, or slides of very well known sites, emphasizing general views. Of course, as in most slide libraries, UNM relies heavily on photocopying to build our collection, but the number of books and journals with decent photographs is limited, and often the photographs found in archeological and anthropological journals are poor reproductions which make poorer slides.

Because of this limitation of commercial sources and photocopying, we employ several other methods of obtaining good quality slides, some which take both time and searching. One alternative we employ is to search out individuals with particularly good collections of native American art. Requests are made to take slides of their artifacts, and often private owners are not adverse to this. Make sure, however, that you have in writing their authorization for you to do so. Often such private collections will request that for security reasons their name not appear on any slide labels, and although acquisition records should note source, such requests should always be scrupulously honored.

More fruitful for us has been the soliciting of slides from larger research collections. The School of American Research and the Museum of Anthropology in Santa Fe, as well as the Maxwell Museum of Anthropology and the Chaco Center, both on the UNM campus, have provided us with slides of articles in their collections. In some instances the museums will already have slides and/or photographs in their collection and will allow them to be duplicated for educational purposes. In other instances, if slides of particular items are desired, the museum will often allow us to come in and do the photography, usually with the understanding that we will provide slides or negatives for their own files. Research in Native American arts often provides a good basis for obtaining grant funding to do this kind of photography, particularly at state level.

A third source of original slides which can prove to be extremely valuable is the donation (or duplication) of personal slide collections. Often anthropologists and archeologists will have taken their own slides of work done at Indian sites, but don't realize the teaching potential of such slides. Actively seeking out such people may result in donated or willed collections in toto. Many of you may remember Maryly Snow's talk on donated collections; and the fact that they are not an unmixed blessing--quality and subject content importance can vary greatly within any one collection. This won't present a problem if the donor allows the slide librarian to weed out material not suited for the collection; but may become a difficulty if the donor stipulates that the collection must be kept together rather than integrated in the regular circulating library.

I have for several years toyed with the idea that if various slide libraries would build up specialized collections in the Native American arts of their locales, an exchange program might be initiated, and when copyright did not interfere, original visual materials might be duplicated and exchanged when needed. A collection could then, for minimal expense, acquire a broad and fairly complete representation of American Indian art.

Having managed to acquire slides, the question then comes: Now that I've got them, what do I do with them? When our program was first begun and slides were acquired to support classes, only one professor was using the collection which concerned itself with Native American art. Jerome Brody, now director of Maxwell Museum on UNM campus remarked, "The world is made up of lumpers and splitters; the splitters are the librarians and the lumpers are the faculty; they never seem to see eye to eye." At that time there was no official slide librarian, curator or director, so the students working in the slide library took the advice of Dr. Brody and the system became a lumper system, as far as was allowed when using an adaptation of the three-line Fogg classification system.

I would like to present some of the difficulties we have had with that system, some of the successes, some of the attempts to alter the system. The problems of accessibility of slides to non-experts as well as specialists in the field is one that makes the simplification of a classification system particularly necessary.

As in any collection, whether the slides are of Renaissance painting, Greek sculpture, or Scythian jewelry, the organization of those slides will probably be found to be unsatisfactory by at least a handful of patrons who would like the collection organized specifically with their needs or their mind-bents considered as first priority. UNM has gone through several faculty members teaching Native American art in the past five years, and nearly every one found the collection lacking the particular organization he or she thought to be best, although the collection was small enough (c16,000) that the method of organization used made it possible to work with the slides even though the Nirvana of perfect classification had not been achieved.

A few years ago it was decided to do a major revamping of our system, based on the organization schemes used at other universities, particularly those offering graduate programs in Native American art. Dutifully I sent out my letters of enquiry to those institutions and began to wait until the classification systems came pouring in, whereupon I needed only to choose the best system theory, adapt it to our specific needs, and everyone would be happy.

Not so. Even the most often used systems of the Met, the Fogg and the Santa Cruz did not present detailed classification schemes for Native American art slides. Other schools sent back replies stating that the slides used for teaching courses were the private property of faculty members and no classification scheme had been developed. Writing to anthropology and archeology departments might have proved more fruitful, since the discipline of Native American studies seems to be more frequently in the baillywick of those two departments than in art history.

Since so little was discovered to have been done at the art departments of other colleges and universities, we decided that at least for the present time we would remain with the original cataloguing system and modify it as necessary, either when new scholarship was reviewed, or when a faculty member brought with him or her new expertise in the field which warranted changes in our slide organization. A copy of the Native American section of UNM's classification manual has been included in the handout; this system is presently in use, with all its flaws and somewhat antiquated scholarship basis. It will, however, serve as a basis for the discussion of the theory of our slide organization, and it is in that capacity that the decision was made to distribute this classification scheme.

As the Fogg system organizes non-western tribal arts, there is first a general geographic division: Northwest, Southeast, Arctic, Plains, etc., and within those greater geographical divisions art and artifacts are listed either by tribe or by site alphabetically.

The general organization method is noted in the handout, and follows basically the Fogg three-line method. The first line notes the fact that this is prehistoric (American Indian of the North American continent) art, and the specific geographical region to which the culture belongs. The second line is the cutterized tribal name, and the third line indicates the function of the artifact depicted.

In general, the theory behind the cataloguing works as well for tribal Native American arts as it does for Ruben's paintings. The difficulties for the cataloguer will come mainly from a lack of familiarity with the subject matter, the importance of the slide and its use in teaching, and the state of the art of current scholarship. It is not an area always taught in art history departments, and a person having a background in art history, even at the graduate study level, may never have attended a class in American Indian art. This certainly was one of the difficulties which we found to be true in working with the area. Therefore, I have handed out a general reference bibliography compiled by Sheila Hannah, as a tool which you can use in your own researches, and would like to talk for a moment about how the reference tools can make the cataloguing of Native American art more easy. Again, I am going to concentrate on Southwest American Indian art, mainly because I know the references in that area best, and because if you develop specialized collections you will no doubt be working with cultural areas which are geographically close to you.

One problem in classification which presents itself is the inclusion of new site and/or tribal names into the collection, particularly when dealing with little known sites. In order to find out enough information about the site to catalogue slides of it, there are several major references which I have found to be particularly helpful. The first is an unauthoritative, but quick and easy to use listing of major tribes which is found in The Report of the Research Committee on Special Classification Systems for Visual Materials of the Third World Peoples (1976). The listing is one which lists tribal name, geographical area (both general and state of origin) of 450 of the better known or at least more-documented tribal cultures. If the site which is being researched is less well known, the best reference I have found is the Smithsonian publication in several volumes, The Handbook of North American Indians. For instance, this slide of a Kiva at Cuyamunque was donated from the field archives to our slide collection. Our cataloguing guide did not list the Cuyamunque and neither did the Report of the Research Committee. However, the Smithsonian publication listed Cuyamunque as an historic Tewa pueblo, abandoned in the Pueblo revolt of 1696. Having that background information we were able to place the slide correctly as Pueblo IV, and catalogue it accordingly. We were, however, unsure as to the importance of the site, and if the slides would be more readily found and used if simply placed under general Pueblo IV information, rather than placed in the alphabetical listing Pueblo IV-Cuyamunque. A synthesis of research scholarship combined with faculty suggestions on slide usage provided the final cataloguing location in the collection for this as well as many other of our slides.

Finding out information on the slide can help you place it in the best section of the collection, but further division of slides can sometimes bear out the truth of Dr. Brody's initial worry about the "splitters" in classification. Our system does provide (for all slides other than SW architecture) a further division in the third line of "function" of artifact. The original system, as devised by Dr. Brody is an alphabetic system. (UMKC has developed a numerical third line which we may at some future date adopt; this is included in the handout.)

The difficulty we have found in this division is that, as in many other projects concerning the organization of visual works, the terminology of function of artifact is not standardized, and we have not had the time to work out a major key-word list of definitions. Our greatest headache has originated in the fact that a slide is classified according to a cataloguer's point of view, which is not necessarily

VRA Bulletin, Vol. 09 [2018], Iss. 4, Art. 1

consistent or logical. For instance, this slide of a skull, pierced by an arrow head was catalogued under "W" for weapons, although most Indian points in the collection are catalogued under "T" for tools, and most skulls and mummies under "Ae" for archeology.

After our former library technician who had been working with the Native American slides left, the new assistant was amazed at the choices which had been made of how to classify the slides by function. Any persons, expert or not in the field, might find it difficult to locate all slides of any particular artifact: Is a chief's blanket a "textile," a "weaving" or a "costume"; is a katchina doll a "sculpture" or a "religious item"; where do the mummies go? The revision of the third line with very specific cataloguing instructions is most certainly needed.

As long as your collection is small, this kind of problem may be annoying but not insurmountable. In the event, however, that you have 600 slides merely on Navajo weaving, this variable classification naming of items can become a distinct disadvantage. The expansion of any particular area of the collection may cause a necessity for very detailed descriptive divisions.

In Susan Gunther's section on "Southwest Indian Art Slide Divisions" from The Report of the Research Committee, an extremely detailed breakdown for Hopi ceramics was provided. No fewer than 20 types of ceramic pottery are listed. Although we didn't need this kind of division for our collection, we did (or rather currently are) adopting the listing which provided 10 major divisions for Navajo blankets and rugs. The detail in the divisions of each collection should be determined by need.

This need for expansion accounts for the unique classification of our Southwest Indian architecture slides. With all tribes other than those of the Southwest, architecture (teepees, mounds, site views, etc.) is included in the section with the art and artifacts of that particular tribe. However, since UNM offers courses specifically dealing with Southwest Indian architecture, this section of the collection has been developed extensively. A listing in the handout shows which sites we have represented in the collection and how we catalogue them. Our breakdown of pueblos into Pueblos I-V is an example of somewhat antiquated scholarship. When the system was created 12 years ago, the 5-division breakdown was widely accepted; today, however, it is not and a more standardized prehistoric (Puebloes I-III) and historic (Puebloes IV-V) would be a more desirable one. Cross referencing by use of site cards helps the patron to find the site he or she needs, but eventually this classification scheme will need to be revised.

We have also come up against problems in handling the classification of slides concerned with Native American art and history, but not necessarily slides of the actual artifacts or site themselves: such comparative materials as Edward Curtis photographs, Vroman photographs, John White drawings, and paintings by such artists as Catlin and Bodmer may prove a valuable resource to anyone teaching Native American art. At UNM these slides are catalogued in their own media, by artist, and unless the Native Americanist has a good western art background, he or she may not find this material.

Without automation, or at least automated-indexing, the difficulties of manually cross-referencing all the materials are almost insurmountable. Other varied materials can prove to be extremely helpful: cartouches of maps of the 17th century can be full of interesting costuming detail for Native American art; illustrations from books can provide historical and sociological detail for the background of the study. There is no easy solution to making this kind of material available without automated subject indexes. At this point I do maintain a file of certain answers to questions I know are often asked such as, "What photographers were working in the Southwest photographing Indian portraits in the 19th-early 20th c., etc.?" But it is a poor substitute for complete indexing. Some comparative material is simply catalogued with the slide of the artifact itself, when that seems the only logical usage for the slide. As mentioned before, usage of the slide should determine its place in the collection; dual usage simply means cross referencing as much as necessary or as much as possible.

One final problem we have found occurs when trying to classify works of modern Indian artists. Often contemporary Indian artists do not follow traditional methods or aesthetics when doing their work. Our classification of the works of these artists is rather arbitrary and somewhat inconsistent at the present time. The general logic is that slides of works done by artists working in the traditional methods are interfiled with the tribal arts section. Potters and jewelers are usually found classified in this manner.

However if an artist does not work in traditional methods or aesthetics but is a modern artist who happens to be a native American, the slides are classified in the general western painting section of the collection, catalogued immediately after the American painting section as "native American painting." The artists are listed alphabetically as is done with no attempt to designate tribe. I'm not sure this is wise or logical, and that they perhaps should not be simply integrated into the American painting section, but the current method of cataloguing has been based on the kind of requests received for this material. Again, usage is our basis without reason. Consistency, however, has not been achieved. Fritz Scholder is classified with the American painting section, while R.C. Gorman is designated an American Indian. Users who cannot immediately find a particular artist must check our authority card file to note location of slide.

et al.: VRAB Volume 9, Issue 4, 1982 & Supplement

In conclusion I have found no published slide classification system for Native American arts which is available as a basic model, covering all areas of art and architecture thoroughly. Generally, the regional divisions, further subdivided by tribe seems to be the most used basis for slide organization, and seems to be the one with which art historians are familiar and can use effectively.

Until a slide collection expands to a great size, overclassification and meaningless divisions should be avoided, both because scholarly resources often do not agree on culture and historic information and also because too often the divisions themselves are unneeded. If a program grows into a doctoral degree program and large numbers of slides of fairly esoteric artifacts are included in the visual resource collection, there will be time to consult the authoritative sources and catalogue accordingly. Otherwise, keeping to the basic geographic theory of organization, keeping in mind the patrons of the collection, their expertise in the subject, etc., will enable you to design a system in accordance with the collection and the patron needs.

The 4-page Bibliography of Native American Information Resources, compiled by Sheila Hannah, mentioned in Zelda Richardson's paper, will not be printed in the Bulletin, but should be available from Ms. Richardson at 2010 FAC, UNM, Albuquerque, NM 87131. It is excellently annotated and highly recommended.