1999

An archive collection of Charley (Clayton) Howe photographs, 1947-1972

Rosalind A. Srivastava
San Jose State University

Follow this and additional works at: https://scholarworks.sjsu.edu/etd_theses

Recommended Citation

Srivastava, Rosalind A., "An archive collection of Charley (Clayton) Howe photographs, 1947-1972" (1999).
Master's Theses. 1955.
DOI: <https://doi.org/10.31979/etd.zbj9-pn2q>
https://scholarworks.sjsu.edu/etd_theses/1955

This Thesis is brought to you for free and open access by the Master's Theses and Graduate Research at SJSU ScholarWorks. It has been accepted for inclusion in Master's Theses by an authorized administrator of SJSU ScholarWorks. For more information, please contact scholarworks@sjsu.edu.

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

Bell & Howell Information and Learning
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA

UMI[®]
800-521-0600

AN ARCHIVE COLLECTION OF
CHARLEY (CLAYTON) HOWE PHOTOGRAPHS, 1947-1972

A Project

Presented to

The Faculty of the School of Library and Information Science

San Jose State University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Library and Information Science

by

Rosalind A. Srivastava

December 1999

UMI Number: 1397753

UMI Microform 1397753

Copyright 2000 by Bell & Howell Information and Learning Company.

All rights reserved. This microform edition is protected against
unauthorized copying under Title 17, United States Code.

Bell & Howell Information and Learning Company
300 North Zeeb Road
P.O. Box 1346
Ann Arbor, MI 48106-1346

© 1999

Rosalind Ann Srivastava

ALL RIGHTS RESERVED

APPROVED FOR THE SCHOOL OF LIBRARY AND INFORMATION SCIENCE

Dr. Debra L. Hansen, Associate Professor

Dr. Linda Main, Professor

Dr. Donn R. Grenda, Director, California Office
Statistical Research, Inc., Redlands, California 92373

APPROVED FOR THE UNIVERSITY

ABSTRACT

AN ARCHIVE COLLECTION OF CHARLEY (CLAYTON) HOWE PHOTOGRAPHS, 1947-1972

by Rosalind A. Srivastava

This project preserved and created access to 1,610 black-and-white negatives taken by Charley (Clayton) Howe (1897-1989), a serious amateur photographer and avid avocational archaeologist. Howe belonged to the Archaeological Survey Association of Southern California, Inc. ("ASA"), founded in 1947 to survey southern California in anticipation of destruction of archaeological sites by urbanization or vandalism. The negatives document Howe's travels and ASA's work during 155 trips to 84 locations in southern California and Mexico between 1947 and 1972. The collection includes hundreds of photographs of petroglyphs and pictographs as well as many archaeological sites and rock art that no longer exist. The negatives, which contain comprehensive and some unique documentation for archaeologists and historians, are arranged by subject in 96 series and chronological sub-series. They are described in a finding aid format that allows easy access to the image content and the application of encoded archival description (EAD) for web dissemination.

ACKNOWLEDGMENTS

Discussions with Dr. Debra Hansen, project chairperson, were most helpful. Her enthusiasm and suggestions enabled me to conceptualize and finalize this project. I thank project committee members, Dr. Linda Main and Dr. Donn Grenda, for constructive suggestions for improvement of the project. Thanks are due to Edward Marks for support in this project during his tenure as President (1998) and past-President of ASA. Dr. Satish K. Srivastava's patience in discussing this project from its inception and in reading the drafts was invaluable. Thanks are due to the Archaeological Survey Association of Southern California, Inc., for permission to process Charley Howe's negatives as an archival collection and for permission to use the ASA logo and selected photographs in the finding aid and project.

Table of Contents

Introduction.....	1
ASA Photograph Archives.....	2
Project Goals	6
Literature Review and Current Practice	7
Introduction to Photograph Archives	7
Preservation of Photograph Archives.....	9
Arrangement and Description of Photograph Archives.....	10
Access to Photograph Archives	14
Web-based Description of Archival Collections.....	15
Existing standards: MARC, APPM, and HTML.....	16
Development of a new archival standard: EAD.....	20
Web Access to Images	24
EAD Implementation Sites.....	27
Method	39
Scope.....	39
Preliminary Review and Inventory of ASA Photograph Archives.....	39
Appraisal of Howe's Collection of Negatives.....	40
Copyright, Provenance, and Identification of the Collection.....	45
Background Research on the Collection.....	46
Preservation of the Collection	51
Arrangement and Description of the Collection	53
Subject Access.....	70
Digitization of Selected Images	74
Dissemination.....	75
Assessment	77
Conclusion	77
References	80
Appendix A.....	94
Appendix B	95
Appendix C.....	96

Introduction

Archaeological treasures are lost constantly worldwide due to rapid urbanization, industrialization and vandalism (Agnew, 1998, p. 16; Soleilhavoup, 1998). Even ignorance was the culprit in Arcy, France, when 28,000-year-old cave art was destroyed by unwitting use of acid to clean soot from cave walls (Balter, 1999, p. 1835). Sites in southern California are no exception to destruction. Tragically, the state of rock art in two beautiful Mojave Desert canyons, Black and Inscription, is a typical example of the extensive damage by people that is common at archaeological sites in southern California. The destruction includes graffiti, bullet holes, red paint stains from attempted rubbings, and artwork destroyed by people trying to chisel it off the rocks (Exploring Barstow, 1998).

In 1947, archaeologists at the Southwest Museum in Los Angeles worried about the destruction of archaeological sites by rapid post-World-War-II urbanization. They anticipated a dearth of materials for understanding the prehistory of man in southern California. On January 4, 1947, Mark Harrington of Southwest Museum addressed a letter to archaeologists at universities and museums requesting their participation in a cooperative project to survey southern California archaeological sites before it was too late (Steele, 1982, p. 2). The response was positive and four Southwest Museum archaeologists Harrington, Edwin Francis Walker, Frederick Webb Hodge, and Howard Arden Edwards worked on plans for an association (Steele, 1982, p. 1).

Within a few weeks the Archaeological Survey Association of Southern California (ASA) was founded.

ASA's goal was to survey southern California from San Diego to Bakersfield to document archaeological sites. The membership of the professional-amateur association grew from the initial 50 to 200 in five months. Amateurs from many walks of life worked with professional archaeologists from universities (including University of Southern California, University of California, Los Angeles, University of California, Riverside, University of California, Santa Barbara, University of Redlands, and Long Beach State College) and museums (including Southwest, San Diego Museum of Man, and Los Angeles County Museum of Natural History) (Steele, 1982, p. 3-4).

For the next 26 years, ASA documented the archaeology of over 120 sites including those discovered during the Coastline Survey and the Dry Lakes Project. In the former project, teams of ASA members walked the entire southern California coastline from San Diego to Ventura during the period from 1955 to 1960. In the latter project, they explored the dry lakes in the desert regions between 1955 and 1965 (Steele, 1982, p. 31, 42). ASA members examined and analyzed artifacts, prepared site reports, and deposited some artifacts and reports in various member institutions (Steele, 1982, p. 181-188).

ASA Photograph Archives

The association's "archives" is 12 large boxes of miscellaneous materials including loose photographs, albums, negatives, cassette tapes, drawings, documents,

and publications spanning 1947 through the mid-1990s. The materials had not been organized except for a recent index of publications by ASA President, Dr. Donn Grenda, and some assemblages of materials for the 30th and 40th anniversaries of the association.

Six of the 12 archives boxes, the “photograph archives,” contain loose photographs, negatives, films, slides, and albums including 1,610 black-and-white negatives, mostly 4x5-inch, taken by ASA member Charley (Clayton) Howe between 1947 and 1972 and donated to ASA in 1975. The negatives document 26 years of Howe’s travels in California and Mexico and a 25-year span of ASA’s active survey work in southern California beginning a year after the association was founded. These negatives document more than 155 trips by Howe to more than 84 locations. The association envisioned the negatives as the initial collection of an extensive archive of photographs on California archaeology that would be open for reference by scholars (“Photographic Archives Established,” 1975).

Howe was born in Spottsville, Kentucky, in 1897, joined the year-old ASA in 1948, served as Field Chairman for seven years, was elected ASA President in 1970, and was known as “Mr. ASA” (Steele, 1982, p. 177). He loved the Mojave Desert, about which he had heard fantastic tales during his youth in Missouri (McCown, 1989). Howe was an avid avocational archaeologist who led many ASA field trips, participated in archaeological excavations, and photographed many sites during digs and on dozens of solitary trips into the California desert. A serious amateur

photographer, Howe conducted ASA classes in techniques of artifact photography (Steele, 1982, p. 110). He died a few months before his ninety-second birthday in Inglewood, California, after a life as a bowyer, fletcher, and archery store owner. ASA members remember him as “a real friend” (McCown, 1989).

Howe photographed archaeological sites and preserved the negatives. Some photographs are the only complete records of destroyed treasures such as a petroglyph that originally had ten sheep traversing a cliff face in Black Canyon (Blast from the past no. 4, 1989). Only one and a half sheep remained of this petroglyph when illustrated in Whitley’s 1996 publication. On the basis of his illustration, Whitley (1996, p. 60) interprets that one of the sheep, with a newborn still attached by the umbilical cord, may be a conflation of man and sheep as seen by a shaman during a trance. Howe’s photograph of the complete art work may aid scientists in their interpretations. The negatives contain comprehensive and some unique documentation that is valuable for archaeologists and historians.

There are beautiful black-and-white images of difficult-to-photograph petroglyphs and pictographs from California locations including Black Canyon, China Lake, Burro Flats, and Painted Cave; ASA’s Barranca del Cobre Expedition (Mexico) in 1960; trips to the Baja peninsula in Mexico beginning in 1956, long before the paved highway opened up Baja in 1973; ASA members excavating, staking, laughing, resting, and digging again; campsites rigged around ordinary cars that somehow made it out into the desert; Tarahumara Indians in Barranca del Cobre, a Pauite friend in Bishop,

and a Mexican family at El Arco in Baja; a Paiute in a magnificent headdress; artifacts, intaglios, and cairns; tarantulas and lots of snakes; giant cacti and flowering yuccas out in the desert; the dedication of ASA's Early Man Research Center; and many other subjects. The negatives contain hundreds of images of petroglyphs and pictographs in California and some images of the exquisite and faithful rock art reproductions prepared by Charles LaMonk, a professional artist and ASA member. LaMonk pursued enthusiastically the goal of recording and preserving Indian rock art (Charles LaMonk: ASA artist, 1983/1976) and donated 111 of his reproductions to the ASA.

Unfortunately, the state of the collection until January 1999 precluded access. It needed to be preserved, arranged as the photographer intended, and described to facilitate access to specific topics and sites. In this project, the collection is described to allow the application of emerging technology in the archival field so that the collection will be accessible to professional and amateur archaeologists alike. Web dissemination will be used eventually to enable access consistent with ASA's goal of increasing public awareness of preservation of archaeological sites.

The Howe collection needed to be the first processed from among the six photograph archives boxes for the following reasons. It is the most complete series of photographs of archaeological sites surveyed by ASA and has substantial identifying data that make it possible to create meaningful subject access. The photographs cover a 26 year span of ASA's active survey work beginning just after the association was

founded. This project attempted to halt further deterioration of the collection and enable intellectual access to the contents.

Project Goals

In this project, the following items have been completed:

- Charley Howe's collection of 1,610 black-and-white negatives, mostly 4x5-inch, that document many archaeological sites in southern California from 1947 to 1972 have been preserved to halt further deterioration as much as possible.
- The collection has been arranged and described. Current documentation and communication in archaeology and archives are focused on web access. The archival community is exploring cutting edge technology of encoded archival description, a Standard Generalized Markup Language (SGML) document type definition, for dissemination of archival finding aids on the web. The collection has been described in a finding aid format that would ultimately allow the application of encoded archival description (EAD).
- Selected digital images have been prepared for linking to the finding aid after it is encoded with EAD for mounting on ASA's web site. The images relate to a significant theme of the collection, the petroglyphs and pictographs of southern California (for example, Appendix B, Plates 1-20).

Literature Review and Current Practice

In order to understand available options for processing and enabling access to Howe's negatives, the literature and current practices are reviewed here. First, traditional methods of processing photograph collections, particularly with respect to preservation, arrangement, description, and access are considered. Then, the development of a standard to enable dissemination of archival finding aids over the web and the ability of the standard to link text and other objects such as photographs are reviewed. To complement and further understand the literature on the subject, the web sites that have implemented the EAD standard were accessed, and the key features of the sites analyzed.

Introduction to Photograph Archives

Archives collect unique "papers of organic entities and individuals" (Bradsher, 1988, p. 8) that are unpublished, inactive records (Pugh, 1992, p. 3). The related files in a group of records in an archive comprise a unique "organic unity" (Miller, 1990, p. 4) and are valuable in relation to each other and to items outside the collection. Archival theory has two fundamental principles, provenance and original order, that govern how records are handled (O'Toole, 1990, p. 55). Based on these principles, records created or gathered by an individual or organization are kept together in their original order and never intermingled with records from another source. While respecting these principles, an archivist arranges a collection into various control levels such as record groups or series that are the basis for description of the collection.

Item-level description is uncommon because archival materials are valuable as a group in relation to other materials.

From the beginning of photography, photographers were enthusiastic and diligent in creating images as historical records of people, events, and places (Long, 1984b, p. 15-23). Photographs that provide evidence of events or objects are considered documentary photographs (Long, 1984b, p. 15) and many branches of science, including archaeology, use photographs as a documentation tool in research (Long, 1984b, p. 25). During the initial development of photography, photographs were considered literal records but it soon became obvious that the photographer could produce an image with a calculated impact (Long, 1984b, p. 15). This led to the realization that “key contextual attributes” (Craig, 1998, p. 122-123) need to be attached to images because information about origin and purpose are critical for authentication (Parinet, 1996, p. 485).

Neither the abundance of images of people, places, and events nor early observations about the value of the photographs as historical documents (Gower, Jast & Topley, 1916, p. 2-3) persuaded archivists to view the ignored photographs as records (Rundell, 1978, p. 373; Taylor, 1979, p. 419). However, Taylor (1979, p. 419) reported that, at last, archivists “now preserve the sanctity of the photographic collection” as one of several formats of archival documents (O’Donnell, 1994, p. 106; Ham, 1993, p. 60). Currently, digitization of images is a critical application for photograph archives because it allows remote access to the actual image and selection

of images from visual data (for example, thumbnail images) rather than only through textual information.

Preservation of Photograph Archives

Weinstein and Booth are of the opinion (1977, p. 104) that physical preservation should focus on slowing further deterioration by protecting images from abrasion, light, fungi, and dust, and creating a safe environment within sleeves, envelopes and boxes. Unless warranted by their unique and valuable nature, Ritzenthaler (1984c, p. 94) suggests not concentrating on possibly expensive restoration of a few images but on preserving images in the entire collection.

Any negative made before 1950 could be nitrate-based and an acrid odor is one indication of a cellulose nitrate component to the negatives (Eastman Kodak, 1979, p. 33; Schrock, 1981, p. 89). The odor is particularly strong when negatives are stored in a closed container. Cellulose nitrate films were replaced during 1948-1951 with cellulose triacetate (Rempel, 1987, p. 9). However, even in pre-1950 acetate-based films, the negative base may separate if the emulsion and base shrink at different rates (Robl, 1986, p. 86). These safety-based films deteriorate slowly as the cellulose nitrate adhesive layer makes tiny bubbles between the emulsion and base (Weinstein & Booth, 1977, p. 193-194). Deteriorating negatives need to be recopied to a more stable medium (Robl, 1986, p. 86). If this is not possible, the National Archives and Records Administration recommends non-buffered storage envelopes that will allow the film to off-gas (NARA, 1996).

New materials have allowed better preservation of photographs and negatives in recent years. Glassine envelopes must be removed as they stain images (Public Records Office, 1998; Schrock, 1981, p. 110). Clear sleeves enable viewing without handling the film surface (Albright, 1983, p. 95; NARA, 1996). Wilhelm (1993, p. 485) recommends sleeves of uncoated transparent Mylar, preferably with top-flaps that prevent possible abrasion in sliding a negative into a closed sleeve. Negatives stored vertically in boxes must have adequate support to prevent warping (Albright, 1983, p. 95).

If funds allow, archives usually provide print copies so that fragile originals are saved from further deterioration through handling (Ritzenthaler, 1984b, p. 141). Also, such reference prints provide access to negatives that should not be handled because they are valuable originals (Schrock, 1981, p. 113; Long, 1984a, p. 65). Reference prints should be numbered at the point of creation with a number cross-referenced to the negative (Gowan & Friant, 1999, p. 14-15). According to Eaton (1970, p. 85), permanence of a photograph depends on the stability of the base, processing, and storage. Optimal storage for black-and-white images is 68°F at 30-40 percent humidity (Gowan & Friant, 1999, p. 15).

Arrangement and Description of Photograph Archives

All standard archival principles apply to photographs including provenance, original order, levels of control (including record group, series, and sub-series), creation of titles for some units, and arrangement of units into meaningful and useful

relationships (Munoff, 1984, p. 71). Miller (1990, p. 25) emphasizes that provenance is the “fundamental principle of modern archival practice” whereby all records produced or accumulated by one creator are not mingled with records from another creator (O’Toole, 1990, p. 55; Hensen, 1997, p. 287). The context of records is established by using the principle of provenance together with the second archival principle, original order (O’Toole, 1990, p. 57). Thus, the documents of a provenance should be kept in the arrangement used by the creator so that “relationships and evidential significance” are maintained (Bellardo & Bellardo, 1992, p. 30). As far as possible, the “photographer’s order based on his records” should be maintained (Taylor, 1979, p. 419). If there is no original order, or it has been disturbed, some order must be imposed so the records are accessible and useful (Desnoyers, 1988, p. 87; Miller, 1990, p. 25; O’Toole, 1990, p. 57).

Archivists recognize several interrelated, hierarchical levels of control as a way to implement provenance and original order (Miller, 1990, p. 27) and gain physical and intellectual control over the records (O’Toole, 1990, p. 65). Such control is accomplished by bringing together and relating records that share a common factor, for example, source, file structure, type, or character (Miller, 1990, p. 57, 61). The series, a frequently used level of control, has a common creator and frequently a common format, function, or subject (Bellardo & Bellardo, 1992, p. 32; Miller, 1990, p. 61, 64; Thibodeau, 1988, p. 68). A series title must be specific and distinctive (Miller, 1990, p. 74; Thibodeau, 1988, p. 70) because it is the initial point of access to

the photographs. A sub-series may be used if the series have “significant and logical divisions” (Miller, 1990, p. 66). After grouping files into units, they are ordered in relation to each other (following original order as far as possible) to “maximize the evidentiary value of the whole corpus of records” (Miller, 1990, p. 72, 74).

Photographs are arranged frequently by subject with hierarchical levels of control, such as series, sub-series, folder, or item. For example, a series on transportation may have sub-series on trolleys or sleds (Munoff, 1984, p. 83). Sometimes photographs are arranged numerically although this gives no intellectual access (Leary, 1988, p. 112). However, negatives that have reference prints may be organized numerically for ready access to the negative using the corresponding print number (Leary, 1988, p. 112). Negatives are given special consideration in preservation and arrangement because they are the master records of the images (Schrock, 1981, p. 113).

After arranging collections, archivists describe them using finding aids that are “unique intellectual documents providing windows into collections” (Pitti, 1995). Sometimes a finding aid is used as the basis for the content of a database record of the collection in Machine Readable Catalog Records Archival and Manuscript Control (MARC AMC) format or Archives, Personal Papers, and Manuscripts (APPM) format that can be incorporated into a searchable catalog (Miller, 1990, p. 109-111). Although photographs may be best described at item level (Bartlett, 1996, p. 493), this depends on collection size and funding.

Textual descriptions can be used to create access to photographs. The key to textual description of images is using access points in the description based on probable user queries. Collins's study of user queries for photographic images confirms the importance of full subject access to images. In particular, users' queries focused on proper names, time, and place as preferred access points (1998, p. 51-53). However, access to photographs should be through both informational (time, place, and names) and contextual values (Schwartz, 1995, p. 58). Information about the origin of the image and relation between creator and image can enhance the use of an image as an archival document (Schwartz, 1995, p. 43). At an ASIS 1997 technical session, Grove recommended using both image content and context as subject access for images (Turner, Jorgensen, Goodrum, Grove & Blase, 1997/1998). To enhance access, he includes previous, subsequent, or obsolete place names in his thesaurus (Turner et al., 1997/1998).

Photographs need a vocabulary that describes all aspects including creation and transfer (Bartlett, 1996, p. 492). Leary (1988, p. 112) suggests keeping subject headings general and limited in number and dividing by subheadings only as necessary. In subject access practice in the cataloging field, it is recognized that a controlled vocabulary (one-term, one-concept) reduces ambiguity and enhances search accuracy. The Library of Congress Graphics Thesaurus (Library of Congress, 1995a, 1995b, 1996, 1998b) is a useful tool to create subject access for images. This may be supplemented by local terms used by the image creator or with subject-specific terms.

Access to Photograph Archives

Traditionally, dissemination was not a major part of archives practice. MARC catalog records of collections have been published by the National Union Catalog of Manuscript Collections (NUCMC) since 1959 (online since 1986). The Research Libraries Group (RLG) incorporates finding aids in its fee-based services (Van Camp, 1999). But traditionally, a researcher could view an archival collection and finding aid only in the repository and, in some cases, only if the researcher met eligibility requirements for repository use. In the late 1980s, computers were often viewed solely as database tools. For example, Ketelaar (1988) mulled over whether the relatively little information supplied through provenance-based tools is the best information retrieval method and predicted that archivists would use computers for a combination of provenance-based and content-based retrieval (p. 71, 79). As recently as 1993, Moir did not see access to Toronto Harbor Commission images on optical discs “by the general public in a straightforward way” for some time (p. 83). A computer-based tool to search an entire finding aid was beyond the imagination.

Today it is possible to locate, view, and search finding aids for some archival collections over the web. Some even have digitized images of the archival items linked to the finding aid. While archival preservation and arrangement practices have been modified relatively little by the availability of new materials (for example, Mylar sleeves) and technology (for example, databases that can track collection arrangement),

description and dissemination have been impacted dramatically by the Internet and World Wide Web.

Web-based Description of Archival Collections

The availability of web access to archival collections is driving the need to change the practice of archival description. Cultural resource information is disseminated over the web by museums, government agencies, historical and archaeological societies, and it is reaching “diverse and new constituencies” (Facca, 1998; Besser & Trant, 1995). The National Initiative for a Networked Cultural Heritage (NINCH) is an enthusiastic advocacy group pursuing a vision of global access to cultural heritage through digital technology (Green, 1999, p. 35). Such enthusiasm for new technology is tempered by widespread and continuing concern about stability and preservation of electronic data (Conway, 1996; Hazen, Horrell & Merrill-Oldham, 1998; Hedstrom & Montgomery, 1998). For example, archaeologists are concerned that formats remain current so their data can be integrated with that of other specialists (Eiteljorg, 1998). Any electronic record needs information attached to it (codes or metadata) so that provenance and evidential significance are not lost (Bearman, 1995, p. 407; Heald, 1996, p. 100). Thomas (1998) even suggests that provenance and continuous custody will give archives “a unique quality seal” in the malleable Internet environment.

The archival community has addressed the issue of developing a platform-independent standardized medium to mount archival finding aids on the web. In 1993,

Daniel Pitti, then Librarian for Advanced Technologies Project at the University of California, Berkeley, presented a paper at the annual meeting of the Society of American Archivists in New Orleans. His subject was the Berkeley Finding Aids Project (BFAP), a two-year project that had just begun its task to demonstrate the “desirability and feasibility of an encoding standard for finding aids” by creating a prototype (Pitti, 1995). Archival finding aids can serve generations of researchers (Kiesling, 1997, p. 347) so Pitti’s concern is valid that finding aids created with proprietary software “are in danger of being digitally stranded . . . in time” (1995, p. 74). Believing that standards are the “foundation upon which individuals sharing common interests . . . cooperatively build shared and enduring works” (Pitti, 1997, p. 273), Pitti sought to develop a standard independent of developments in hardware and software that does not become “hostage to the vagaries of the computer industry” (1995, p. 74). Ultimately, EAD was developed as a platform-independent standard for sophisticated information retrieval (Fox, 1997, p. 331; European Commission DGXIII/E, 1998). Pitti, now Project Director at the Institute for Advanced Technology in the Humanities, University of Virginia, continues to be active in the development of the EAD standard (Pitti, 1997; EAD Working Group, 1999).

Existing standards: MARC, APPM, and HTML. The archival community has used the Machine Readable Catalog Records Archival and Manuscript Control format (MARC AMC) to some extent as a standard in archival description (Hensen, 1989). This format was refined through the Archives, Personal Papers, and Manuscripts

format (APPM), a provenance- and collection-based archival standard (Hensen, 1993, p. 67). In considering alternatives for an archival standard, Pitti (1995) evaluated MARC AMC and APPM but ultimately decided against any MARC-based format. The three-step route to get to a collection is too circuitous: 1. check finding aid availability noted in MARC 555 field; 2. locate and view finding aid; and 3. locate and view collection (Pitti, 1997, p. 273). Pitti had other reasons for rejecting the MARC model. First, the records are limited to only 100,000 characters which is too small for many finding aids. Second, MARC's flat structure does not handle hierarchical information well. Third, MARC's limited market does not position it well for good funding (Pitti, 1997, p. 275-276). Pitti also rejected hypertext markup language (HTML), an SGML DTD (*infra*) that uses simple procedural encoding (Hockey, 1997). The procedural focus cannot represent the complex intellectual content and structure of finding aids to allow sophisticated search, navigation, and display (Pitti, 1997, p. 277; Hockey, 1997). Pitti's group believed that the web would have to outgrow HTML to become "robust," and they took a risk that HTML's successor would be SGML-based (Pitti, 1997, p. 279).

Some in the archival community do not share Pitti's goal of standardization and sophisticated searching in a platform-independent environment. Turnbaugh, Oregon State Archivist, is enamored of the web and HTML documents. He sees them as a way of "leap-frogging technological change by making pre-electronic finding aids suddenly available to a global user base without significantly more work than putting them

through a word processor” thus eliminating the need for standard format or subscription to bibliographic utilities like RLIN and OCLC (1997, p. 189). However, after reading Turnbaugh’s opinions, it was disappointing that the Oregon State Archives page would not load links during several of my trials. Despite Turnbaugh’s enthusiasm for the web, neither he nor his site give a good argument or documentation for proceeding without standardization. The National Archives of Canada is also focused on using HTML for multi-institutional linking of archival materials in database format that only allows linkages at the upper hierarchical levels (Piché, 1998, p. 113). Piché considers that Encoded Archival Description or EAD, the standard developed by Pitti and colleagues, is not feasible for the Archives at present due to the wide variety of pre-existing finding aids (1998, p. 113).

Although Pitti rejected HTML markup language as a vehicle for a new encoding standard, he recognized that markup at some level would be critical for a standard because it gives the computer explicit instructions about how to process information (DeRose, 1997, p. 301). Procedural markup defines what the computer must do with the content (for example, make the text italic). In contrast, descriptive markup deals with actual content and identifies document components that software can process so each component can be indexed, searched, displayed and navigated (Pitti, 1997, p. 277; DeRose, 1997, p. 299). Structural descriptive markup identifies such items as title, paragraphs, etc. while nominal descriptive markup identifies names, topics, and finding aid items such as scope and content (Pitti, 1997, p. 277).

A standard (ISO 8879) for constructing markup languages is Standard Generalized Markup Language (SGML) that uses descriptive rather than procedural markup and supports referential markup that allows linking to digital text and images (Pitti, 1997, p. 276-277). To simplify the use of SGML on the web, the World Wide Web Consortium (W3C) developed a subset called XML in 1996 (Pitti, 1997, p. 288). XML retains SGML's power in a simplified way (DeRose, 1997, p. 309). Cover (1999) maintains a comprehensive current online database of tools and news about XML and SGML. By 1995, SGML already had a large and diverse group of users including government agencies such as the Departments of Defense and Department of Energy, and airline and automobile manufacturers (Pitti, 1995). SGML has several advantages that made it feasible for an encoding standard. It is in the public domain, is independent of any hardware or software manufacturers, accommodates hierarchically interrelated information, has no size restrictions, and has a large marketplace (Pitti, 1997, p. 276-277). DeRose predicts that SGML is a "safe long-term vessel" for important data (1997, p. 309).

Specific markup languages written in compliance with SGML requirements are known as Document Type Definitions or DTDs (Pitti, 1997, p. 276). A DTD is used to define all elements of a type of document and to assign a unique identifier (an alphanumeric tag) to each (Ruth, 1997, p. 311). Higgins (1997, p. 4) suggests that it is helpful to think of an element as somewhat like a database field (because it contains information) but with more flexibility as it "can contain, and be contained by, other

elements.” The DTD can specify in what sequence the elements can be used, for example, a title element may be used within a paragraph element (Ruth, 1997, p. 312). The elements can be given SGML attributes, for example, dates could be birthdate or deathdate, so that each type of date can be searched (Ruth, 1997, p. 312).

Development of a new archival standard: EAD. Encoded Archival Description was developed as the standard to address the problem of intellectual access to geographically dispersed primary source materials (Pitti, 1997, p. 269). It does this through encoding archival finding aids that are the “textual analytic guides that control and describe archival collections” (Pitti, 1997, p. 269).

Pitti, the “principal architect” of EAD (Dooley, 1997, p. 264), is gracious in crediting others for laying the intellectual foundation upon which EAD was built (Pitti, 1997). In his comprehensive review and analysis of the development of EAD, Pitti traces this intellectual development from Charles C. Jewett’s 1853 plan for a universal catalog and from the library community’s efforts at the beginning of this century to create access to published materials using union catalogs (1997, p. 269-270). He deftly weaves together the historical desire and vision of many in the library and archives communities for standards and universal access to materials and analyzes the various standards of MARC, MARC AMC, and APPM (Pitti, 1997, p. 271-276). During the late 1960s and 1970s, attempts at standardization progressed through SPINDEX II and NISTF (National Information Systems Task Force) (Kiesling, 1997, p. 345). MARC AMC and APPM showed archivists the benefits of standardization in communicating

information (Hensen, 1997, p. 290). In 1985, the Bureau of Canadian Archivists published a report that led to the Rules for Archival Description (RAD) that was first published in 1990 (Kiesling, 1997, p. 345). Ultimately, Pitti (1997) rejected all existing standards in the library and archives arenas as unsuitable for encoding. He selected SGML and, in 1993, Pitti and staff at the University of California, Berkeley, established the Berkeley Finding Aid Project (BFAP) to demonstrate that an SGML-based archival encoding standard was feasible and desirable (Pitti, 1997, p. 279).

Once the theoretical underpinnings had been elucidated, the development of a standard progressed rapidly. During 1995 and 1996, BFAP developed a model DTD, renamed "BFAP" as "EAD," released the alpha version of EAD in February 1996 and the beta in September 1996, and made the beta public in December of the same year (Pitti, 1997, p. 280-281). In developing EAD, Pitti involved the archival community at each step (Pitti, 1997, p. 279). Principal participants during the alpha EAD testing stage were UCB, Duke University, Library of Congress National Digital Library, Yale, Harvard, UC San Diego, Solinet, and the Dance Heritage Coalition. During the beta stage, this diverse group was joined by several British universities (Oxford, Liverpool, Durham, Glasgow) and the U.K. Public Records Office (Pitti, 1997, p. 281). Also during this stage, UCB began the California Heritage Digital Image Access Project and four universities (UCB, Duke, Virginia, and Stanford) began to collaborate on the American Heritage Virtual Archive Project (Pitti, 1997, p. 281).

Version 1.0 of EAD SGML/XML DTD was released in September 1998, and is available for downloading at the Library of Congress EAD site (Network Development, 1998). The EAD Tag Library is the natural-language translation of the EAD DTD and the EAD Guidelines outline ways to use and apply EAD (Encoded Archival Description Working Group, 1998, p. vii; 1999).

As with any SGML document, an EAD finding aid requires three modules: a marked up document, a style sheet to define display format, and a browser for document display (Dow, 1997, p. 450). The first module, the marked-up document, is created by encoding a finding aid document that has been prepared using Word, WordPerfect, OCR, or database records (EAD Roundtable, 1999). The document is encoded with EAD tags into a hierarchy or “series of unfolding layers of information using the same basic elements for each layer” (Kiesling, 1999, p. 28). The EAD DTD has three parts, the header, the front-matter, and the archival description. The header contains information about the document and its history that is vital in an electronic medium (Higgins, 1997, p. 6). The header was based on TEI (Text Encoding Initiative) to contribute to a consistent standard for metadata within different document types (Ruth, 1997, p. 318-326). The front-matter is an optional part that is used to encode such items as title page, preface, or information about access to the collection. The archival description part contains information about the actual collection (Encoded Archival Description Working Group, 1998).

The second module for use with an EAD finding aid is a style sheet that defines the display format. Once a document has been structured in EAD, styles can be applied to any part of the structure, for example, styles for different fonts, spacing, etc. These instructions are the style sheet (Higgins, 1997, p. 7).

The third EAD module is the browser that allows display and navigation of the encoded finding aid. Unfortunately, the development of browsers that support SGML/XML has not been as rapid as EAD developers had hoped. Despite this, one may search the rich SGML tags (Lacy & Mitchell, 1997, p. 434). Thus the search function of EAD is supported at present while the display is not. The lack of SGML compatible browsers has led to three interim ways to view EAD finding aids. First, DynaWeb and other software can be used to convert EAD to HTML on-the-fly (Dow, 1997, p. 450). Second, EAD finding aids can be tagged and viewed as a separate document in HTML. The third option is to use the Panorama application to view an EAD document in SGML. However, the University of Virginia developed an EAD to HTML conversion filter just to avoid using the problem-ridden Panorama.

Although Czech (1998, p. 438-440) confirms that full-text searching of finding aids can yield more comprehensive search results than searching a MARC record of a finding aid, he notes that studies are needed to establish the precision and recall of both types of searches. Hutchinson (1997, p. 78-86) studied and searched EAD finding aids prepared by UCB and UC San Diego. He found that as the length of text increases the recall increases but precision decreases. Although he recognizes problems with the

study (particularly that it used pre-Version 1.0 EAD finding aids), Hutchinson concludes that the findings reaffirm the value of a field-delineated markup such as EAD for more precise search results (1997, p. 87).

Web Access to Images

Digital image collections are blossoming on the web. For example, Harvard's Peabody Museum is digitizing images from its half-million photographs, and the American Memory Historical Collections, part of the Library of Congress National Digital Library Program, has scores of digital images from the library's Americana collections. There are several reasons why archives and museums are interested in putting photographs on the web. An important reason is to give researchers access to primary material without regard for a user's geographic location or travel constraints. Access to primary material is important because a textual description of a photograph cannot substitute for an actual image. The primary source of information is the image, not someone else's subjective impression of the image. For example, a photograph of a child riding a bicycle on a sunny day may have different meanings — innocence, color and light, model of bicycle, the nature of a child's play activities, clothing, or location — depending on the viewer. Thus, if photographs are put on the web, a user can view and interpret the primary material rather than relying on someone else's interpretation rendered in text. Then, if necessary, the user may visit the repository to view the original.

Another reason to put photographs on the web is to allow the virtual display of any objects that are not on display in the museum or archive itself (Photograph Archives of the Peabody Museum, n.d.). Also, digitization of photographs can create access to fragile objects (Sally, 1999, p. 49) and lessen the handling of heavily-used collections. Preservation is not yet a reason for putting photographs on the web. Smith (1999, p. 5) observes that digital resources are most useful at present for information access not as a means of preservation. Indeed, preservation by high resolution scanning is a volatile issue (Soete, 1997; Hedstrom & Montgomery, 1998) and outside the scope of this project.

Despite all these reasons for putting photographs on the web, creating a useful digital resource of an image is complex. Bruce (1994, p. 19; 1996, p. 14) warns against taking visual information or digital images out of context and “employing the pure sizzle of interactive multimedia to secure visitors” to a web page without delivering valuable content. Ostrow (1998, p. 21) agrees that information must be available along with the images and states unequivocally that “each and every image must be linked to an access record.” Thus, a system that can link digital textual information and images is invaluable for remote access information retrieval.

EAD is an excellent system for linking text to objects such as photographic images because the EAD DTD supports referential markup that allows linking to digital text and images (Pitti, 1997, p. 276-277). The Library of Congress Prints and Photographs Division’s NAACP finding aid links an eight-image sampler from the

document to the individual GIF files although, due to copyright restrictions, the public cannot view the images online yet (Lacy & Mitchell, 1997, p. 426). Nevertheless, the site's creators found EAD useful and flexible enough to accommodate photograph collections (Lacy & Mitchell, 1997, p. 431).

Images can be presented on the web in different resolutions. Ostrow (1998, p. 14) recommends that users' needs drive the decision on optimum resolution. Higher resolution is not necessarily better. For example, if a user still would need to view the original then high resolution does not accomplish anything more than lower, faster-loading resolution (Ostrow, 1998, p. 14). Reilly & Frey (1996, p. 16) note that low resolution is fine for digital images for visual reference rather than reproduction or preservation. Low to medium resolution images are fine for web access as evidenced by many projects including the Confederate States Ship Alabama page that used 300 dpi images (JPEG condensed files, average file size 36K) for faster web access rather than 600 dpi preservation images that load slowly (Watson, 1998, p. 131, 133). However, the use of high resolution images will become more practical as advances in technology increase download speed.

Although several image formats are in development (Tennant, 1999, p. 111), current browsers support mainly GIF and JPEG. The former has a 256-color maximum while the latter has millions of colors and files too large to serve to modem users over the web (Tennant, 1999, p. 111). JPEG can be compressed for faster load time. A new format, PNG, is currently supported by browsers. PNG has small file

sizes but does not lose image information when compressed (Tennant, 1999, p. 111).

Rinehart (1998) suggests creating a large JPEG image and a small JPEG thumbnail for viewing on the web.

EAD Implementation Sites

Many websites were visited to evaluate models of state-of-the-art archival description and dissemination including cooperatives such as UCB SunSite and American Heritage Virtual Archive Project. Many sites have decontextualized images rendering them useless for this project because an image without textual context can yield very limited information to researchers. Thus, efforts were concentrated on archive sites with EAD finding aids. Some have images linked to the text of the finding aid. Some of the information about websites here is from the EAD Roundtable (1999) and Library of Congress (1998a), though confirmed by viewing and using each site multiple times.

The cooperatives work together to develop EAD, share technical information and experience, provide resources for EAD implementation, and mount their finding aids on common sites. The University of California, Berkeley, where EAD began, hosts the centralized Berkeley Digital Library SunSite that is comprised of a searchable or browseable database of finding aids from 13 institutions within four collaborative projects:

- American Heritage Virtual Archive Project
- California Heritage Digital Image Access Project

- Museums and the Online Archive of California
- Online Archive of California

The EAD finding aids, originally encoded from word-processed documents or database records, are searchable in SGML and converted to HTML on-the-fly using Inso's DynaWeb. Display is in an easy-to-use navigable frames format.

The American Heritage Virtual Archive Project is a collaboration between:

- Duke University
- Stanford University
- University of California, Berkeley
- University of Virginia

The goal is to explore the intellectual, political, technical, and economic factors of a shared union database of EAD finding aids and linked digital images.

The California Heritage Collection is a digital archive of items in Bancroft Library collections assembled as a result of the California Heritage Digital Image Access Project (DIAP). Over 28,000 digital representations of primary source materials link to EAD finding aids. This prototype system allows searches in UCB's online catalog where retrieval of the finding aid is through a clickable URL link. Thumbnail images are clickable to full size.

Museums and the Online Archive of California Project (MOAC, under the auspices of the California Digital Library's Online Archive of California) aims to

develop a prototype virtual museum archive of finding aids for California museum and library special collections.

The Online Archive of California (OAC), formerly the University of California EAD Project, is a pilot project to develop a University of California-wide prototype union database of EAD archival finding aids as a foundation for a digital archives for the entire UC system and Scripps Institution of Oceanography. OAC aims to facilitate encoding of finding aids and offers an online tool kit (Online Archive of California: SGML tools overview, 1998).

Research Libraries Group (RLG), an established fee-based cooperative, has added archival resources services for location of finding aids on the web. It allows simple or advanced searches using OpenText Live Link. Participants' SGML finding aids are on local servers outside RLG, and RLG's search engine converts them to HTML for display.

A well-designed and user-friendly site is the University of Virginia Library, Special Collections Department ("UVa"), a participant in American Heritage Virtual Archive Project. UVa has developed three tools for use at EAD finding aids sites. One displays search results with the keyword in context in the finding aid (Seaman, 1997, p. 439). Another tool, the table of contents generator, allows the HTML version of an aid to be viewed in sections or full text (Seaman, 1997, p. 440). The third tool is an EAD to HTML on-the-fly filter that permits searches in SGML then converts the EAD tags to HTML tags (Seaman, 1997, p. 440-441).

There are three sites that are not part of cooperatives but that are superb and, in addition, offer their experience, tools and knowledge to other users online. The first, the University of California, San Diego, Mandeville Special Collections Library, was an early implementor of EAD. Over 400 EAD-encoded finding aids (including Scripps Institution of Oceanography archives) are now loaded. Over half are for individual items and small collections. The sophisticated web page is very user friendly. The initial screen tells clearly that this is the finding aids collection, gives the option to select any letter of the alphabet to browse, gives a box to conduct a simple or Boolean search, and informs the user that all the finding aids are being searched at one time. Surprisingly few sites give this elementary information and the user feels lost without it. A refreshing and welcome touch is that information about the development and technology of the site appears after the option to browse or search. This is one of few sites that recognizes that a user may like to find an item rather than read the site history first. Users can search with Verity Query Language or browse an alphabetical list of titles. Each finding aid is linked to its MARC AMC bibliographic record in the UCSD online library catalog. The search result can be viewed in “[EAD] [HTML] [CATALOG RECORD].” The display is full screen with hypertext links to each section of the finding aid.

The second site, the Library of Congress Finding Aids Project, has been active in developing and testing all versions of the EAD DTD. There are more than 25 EAD finding aids in SGML and HTML. The first screen is user friendly because it

delineates clearly the options to search (Boolean using InQuery) or to browse by subject, name, title, or date. LC is the source of Library of Congress Subject Headings so, not surprisingly, the site has excellent subject access. Further, all finding aids are linked to catalog records. The full screen display has hypertext links only at the beginning of the finding aid so one must take time to back up to select another link. The NAACP EAD finding aid (LC Prints and Photographs Division) was encoded with minimal tagging to save time and cost by not tagging seldom searched elements (Lacy & Mitchell, 1997, p. 425).

The third site, the University of Michigan, Bentley Historical Library (over 100 finding aids), gives the option to view and navigate search results in context, outline, or full text. The online library catalog has searchable links to the finding aids. The full screen display has a very useful feature of hypertext links at beginning of the document and again after the portion being reviewed so the user can keep moving through the document without backing up to select a link to another section.

The Digital Finding Aids Project (DFAP) of Harvard University/Radcliffe College was established in 1995 and has over 65 EAD finding aids. Nine institutions participate and six have EAD finding aids online. The library online catalog has collection-level MARC records for finding aids (Morris, 1997, p. 391). Harvard Business School's Baker Library anticipates reaching a more varied audience with access such as the EAD finding aids linked to the online library catalog (Linard & Sverdloff, 1997, p. 98). The display is full screen with the convenient option to toggle

between outline view and full view of the finding aid. Tagging is at minimal level that will produce a useful electronic document (Morris, 1997, p. 393).

A few sites have great digital images linked to finding aids. Columbia University, Rare Book and Manuscript Library, has over 50 finding aids in EAD. The site has good instructions about viewing finding aids and images. Display of the search results in context by including several words around the keyword is a very useful feature. Finding aids can be retrieved also through Columbia's web site using Excite search engine.

Although the Confederate States Ship Alabama web page has no EAD finding aids, it has great images and is an exemplary and imaginative site that shows how linked images and text can be used to great advantage in disseminating collections. The site uses clickable dots on a map to link to thumbnail images (clickable to full size) and text documenting the travels of the Confederate raider ship.

The University of Liverpool Special Collections is another small but impressive site. The introductory portions to the two finding aids, the Glasier and Rathbone papers, are models for creating fascinating finding aid access especially for a non-researcher. There are some images embedded within the preliminary portions of the aids.

Like the University of Liverpool site, the Minnesota Historical Society site is friendly to the general public although it is difficult for researchers to locate finding aids. It turns out that the aids are located via the library catalog on the web page.

MHS reengineered their finding aids to facilitate EAD (Meissner, 1997, p. 375-381) and enable embedding of contextual information (Kiesling, 1997, p. 352). Encoding was on Word documents using templates (Meissner, 1997, p. 386). MHS has a large photograph database but few digitized images and none are part of, or linked to, finding aids.

Designed for both the general public and researchers, New York Public Library has 29 EAD finding aids from the Manuscripts and Archives Division, several from the Library for the Performing Arts, and 50 from the Dance Heritage Coalition project. The interface is easy to use and the aids can be searched in NYPL's online catalog or through NYPL's Digital Library Collection. The library catalog links to the finding aid and displays it on a full screen. However, hypertext links are only at the beginning of the aid so one has to keep backing up for additional links.

For the remaining sites, unusual or interesting features only are noted rather than repeating those already mentioned in other sites. The first screen of the University of North Carolina at Chapel Hill, Manuscripts Department, has a great interface to select any letter of the alphabet and then browse by title. However, a bolder statement telling the user that the online catalog can be searched would be very useful. The site at Duke University, Rare Book, Manuscript, and Special Collections Library (165 EAD finding aids), allows Boolean searches along with a useful pull-down menu to restrict the search by category (for example, personal or corporate name). Stanford University Library, Department of Special Collections (over 110

EAD finding aids), has finding aids available only from Stanford's server as SGML files or via the UCB site as HTML. Berkeley Art Museum and Pacific Film Archive, University of California, uses EAD for museum collection finding aids.

The first screen of the University of Sydney Libraries (SETIS) (three EAD finding aids) is a well-designed interface because it informs the user about what is being searched and how to search by keyword or name. The University of Vermont Special Collections finding aids project (50 aids using American Heritage guidelines) taught the site creator how important it is to put the box number with every folder number so the information does not get lost from screen to screen (Dow, 1997, p. 452). Several repositories have contributed over 500 finding aids to Yale University Library. The aids are cross-indexed (Bouché, 1997, p. 409) and linked to Yale's OPAC. Durham University Library and Public Records Office have navigable frames display and use DynaWeb to convert SGML to HTML on-the-fly. Durham has yet to standardize its finding aids structure. Louisiana State University Libraries (50 finding aids) and the American Institute of Physics, Neils Bohr Library (one SGML finding aid, several in HTML) are keyword searchable and can be browsed by title or subject.

Three sites without search engines are Brandeis University Libraries, Iowa Women's Archives at University of Iowa Libraries (over 100 aids), and Johns Hopkins Medical Institutions, Chesney Medical Archives (130 aids). However, one may use the browser's search function (for example, Netscape's "Find" tool in the "Edit" pull-down menu) to locate words or phrases within a finding aid.

The American Memory Historical Collections, part of the Library of Congress National Digital Library Program, has thumbnail to full size images with some textual information from the Library's Americana collections. Oregon State Archives' Historic Photograph Database does not have finding aids but apparently has images. The site was disappointing as only a few of the "10,000 viewable photos" would download and they had only brief records about the photographer and subject.

Multiple attempts were unsuccessful to access Rutgers University Center for Electronic Texts in the Humanities (CETH), Syracuse University Library, and University of Warwick, Modern Records Centre.

Thus, despite the fact that EAD is a standard, there are multiple options for using it as a search, display and navigation tool. Each site has its own character and some are more attractive and useful than others. The cooperatives have standardized some display formats that presuppose the use of a standardized descriptive format. It was difficult or even impossible to get into finding aids and information at some sites. At others, such as the University of Liverpool and Minnesota Historical Society sites, the appealing presentation and substantial content made the site visit worthwhile.

Most sites had search engines and some supported Boolean searches. Only one of the sites without a search engine mentioned that the browser's "Find" function (e.g., "Find" tool that is on the Netscape browser's "Edit" pull-down menu) could be used to locate words within finding aids. Keyword in context displays of search results were helpful for selecting relevant results as were the options to toggle between context,

outline or full screen. Several sites linked the finding aid to MARC bibliographic records in an online catalog which is a useful way to integrate primary source materials with published items.

Entering a site cold makes the browse screen more important than the search function at first because it is difficult to search without knowledge of subjects used in the site. The Library of Congress site has excellent subject access but, even so, without knowledge of the subject matter of a particular finding aid, one may rely heavily on the browse function before structuring search requests.

The frames display is user friendly because an active table of contents in the left-hand navigator panel show one's place in the document and clickable text links to the document in the right-hand text column. Only one site noted that the frames can be sized. Full screen displays with links at the top of the document necessitate backing up to the top to select another link. Bentley Historical Library solved this by setting the linked text between the linked list so that prior links appear at the top of the section being viewed and other links follow the section. This allows one to proceed through the document more easily.

Some sites were found to be confusing due to layout. This evaluation agreed with those of participants in a screen display study (Duff & Stoyanova, 1998, p. 50, 62-63) who found that readability was improved by formatting such as bold, lists, labels, white space, and justification, but not by abbreviations, repetition, and excessive information. Some sites were easy to enter because they had bold and clear

instructions about what was being searched and how to browse or search. Many sites clutter the front page with site history rather than allowing the user to select from search, browse, or other items.

Images that appeared on the screen with, or linked to, meaningful text conveyed information but isolated images leave one with unanswered questions. Rundell, in reviewing archival use of photographs over 20 years ago, commented liberally on this fact. As he observed, photographs can be treated as part of the evidence and thus “carry the argument or reinforce text” (Rundell, 1978, p. 375). He suggests that a photograph and its caption are like a paragraph “where sentences combine to present a complete thought. . . . the movement of ideas from image to image should be as clear and logical as the sequence of well-constructed paragraphs” (Rundell, 1978, p. 375). Such movement is used in the Confederate States Ship Alabama page that links a map, images, and documents into a virtual journey (Watson, 1998, p. 124). The thumbnail images allow one to decide what to view before loading a full size image (Watson, 1998, p. 128). Some sites give the option of medium or high resolution and some use JPEG or GIF format. In general, low to medium resolution was adequate for viewing.

The use of web access to archival finding aids and digital images is proceeding at an amazingly rapid rate. This is reflected in the additional finding aids and sites that appear each time one accesses the web to locate such archival materials. Traditional barriers in accessing the intellectual content of archival materials — such as having to travel to the repository and gain permission to consult the materials — are nonexistent

over the web. Further, except for RLG, no site has fees for access as yet. Review of both literature and current practice as exhibited on the web sites indicates that, currently, encoded archival description is the preferred method of creating web access to archival materials. In addition, the literature indicates that the theoretical basis of EAD and its value as an SGML-based standard is solid. As the web sites show, the archival community continues to test and refine EAD.

In this project, Howe's negatives were preserved, described, and made accessible. The tool chosen for description of the negatives was a finding aid structured to conform with Encoded Archival Description standards. After the conclusion of this project, the finding aid will be encoded using EAD. Selected digital images on a significant theme were prepared for linking to the finding aid. Based on the review of the literature and web sites, it is appropriate to enable web access to the intellectual content of Howe's collection of negatives using a finding aid encoded in EAD. This dissemination over the web, through ASA's web site, will allow a more diverse audience to discover the collection's intellectual content and availability, and will build on the practical experiences of implementers as documented in the literature and on web sites.

Method

Scope

Until the initiation of this project, Howe's negative collection of photographs of southern California archaeological sites was not accessible for research. The negatives were deteriorating, and there was no descriptive tool to enable access. Thus, the goals of this project were fourfold. First, process the collection to halt further deterioration, as far as possible. Second, arrange the collection as intended by its creator, Howe. Third, describe the collection in a format that would allow the application of encoded archival description to the finding aid to enable ready access for archaeologists and other researchers. Fourth, select and digitize images from the collection that would ultimately be linked to the encoded finding aid.

Preliminary Review and Inventory of ASA Photograph Archives

During January 1999, the entire 12 box "archives" was reviewed at its storage location in Redlands. From these boxes, six "photograph archives" boxes were removed from storage and a preliminary inventory of the contents was conducted. The boxes contained a miscellaneous assortment of loose photographic prints of many sizes in black-and-white and color, negatives, negative rolls, color slides, films, documents, handwritten and typed notes, drawings, maps, cassette tapes, and photograph albums. Most items were deteriorating due to improper storage and lacked any identifying information. However, it appeared that the creation dates spanned approximately 1947

through the mid-1990s. Some attempts at organization had been made in the past, such as arranging some of the loose photographs and notes by subject in an expanding A-Z manila file. However, the unprotected mix of these materials and their unsupported vertical storage had damaged and warped most items.

Approximately 2,200 loose and boxed negatives that appeared to share a common numbering system were scattered in four of the six boxes. Many negative enclosures had some identifying information although multiple negatives in some enclosures cast doubt on the information. A photocopy of an unfinished handwritten list and a typed transcription of the list matched some of the numbering sequence and subjects. The list was identified as Charley Howe's photographs and indicated that he numbered his negatives sequentially and began to reorganize them by subject in this cross-referenced list. Many negatives were severely degraded. Attempts had been made to capture the images through photographic prints and to preserve a few negatives. However, that was more than ten years ago (Miller, 1988) and storage conditions had not halted further deterioration. Some negatives that had been re-sleeved in plastic had since deteriorated, or continued to deteriorate, and stuck to the plastic.

Appraisal of Howe's Collection of Negatives

From the preliminary inventory, it seemed that the Howe collection would justify processing and that priority should be given over the other materials in the

“photograph archives.” Thus, following archival practice, the appraisal of the collection was completed.

This record group contained approximately 2,200 negatives documenting archaeological sites in southern California during a 26 year period from 1947 to 1972. The collection may be the only such documentation of this active survey period in ASA’s history. The creator was a serious amateur photographer who made a concerted effort to track and identify his work. The negatives were numbered sequentially and arranged roughly into subject groups by the photographer. Some were in reasonably good condition but many needed preservation. They contained no confidential materials to restrict access. It was estimated that, after processing, the negatives could be stored in six archival photograph boxes.

To decide whether the collection should be processed, the value was appraised based on several factors and, thus, the appropriate disposition could be determined (Bellardo & Bellardo, 1992, p. 2). The appraisal was based on current archival appraisal theory and methods “within the context of the goals, resources, and policies” of the archive (Daniels, 1988, p. 56). ASA has no permanent archives but strives to document the association’s activities and be “part of the wider network of educational and cultural institutions that seek to educate and to remind societies of their heritage” (Kepley, 1988, p. 161). The scope of ASA’s archival collections should be limited by rejecting duplicates or items that exist elsewhere (Ham, 1993, p. 18). Against these factors, ASA should consider the value of a document group in relation to the entire

archival collection, the loss if the documents are not retained, the researchers' needs, and resources available for preservation, storage and use (Ham, 1993, p. 16-18).

After considering how the documents fulfill ASA's aims, the second level of appraisal was considered. This "process to evaluate how well specific records contribute to policy objectives" has five tools or standards (Ham, 1993, p. 8-9, 51). The first, functional analysis, examines the creator of the documents and his purpose in order to understand the significance of the records based on their relationship to the functions of the creating institution (Daniels, 1988, p. 62; Ham, 1993, p. 8-9, 51). Photography is an important tool used by archaeologists, including ASA members, to document survey work and archaeological digs. The creator of the negatives, Charley Howe, was an early and respected ASA member and a serious amateur photographer who was listed as leader and/or photographer on many survey trips. He took many of the photographs for ASA to document their primary activity, survey work. These two factors (creator and purpose) led to a conclusion that the negatives were significant.

The second tool, content analysis (Ham, 1993, p. 8-9, 51), was used to evaluate the significance of the content of the items. Howe's negatives were a relatively complete, detailed record of his participation in ASA's survey work. Analysis of survey documentation continues for many years in the archaeological community, especially since the work to prepare and analyze artifacts is time-consuming and subject to availability of funding. Photographs and notes of survey work can be used in conjunction with artifacts to understand the prehistory of a site.

Such analysis is an ongoing activity of ASA so the subjects of Howe's negatives are significant. The time span was important because it began just a year after ASA was founded and continued for 26 years of ASA's most active survey period.

The collection was compared with other available information using the third tool, context analysis (Ham, 1993, p. 51, 54). Records that duplicate those in other institutions or that exist in more than one format should not be selected for retention by a repository. Howe's negatives were unique as were the subjects and time covered. The negatives documented ASA's survey work and the archaeological sites. Further, many of the photographed sites and artifacts have been destroyed. The negatives may become the only source of information for other parts of the (as yet unprocessed) ASA archives. For example, Cowper (1975) mentioned a shaman's forked guardian stick or spirit witch discovered by Howe that was, amazingly, still in place at a cave entrance. Howe's negatives include a photograph of a similar stick.

Use analysis, the fourth appraisal tool, considers future users of the processed collection and the potential usefulness of the records (Ham, 1993, p. 57). The "actual constituency" (Kurtz, 1988, p. 250) that supported establishing an ASA archives was the ASA membership. Other users of an ASA archives would be other archaeologists and researchers. Investigation and processing of archaeological collections often continue for years so the negatives would be useful for such site analysis and research. The condition of the negatives would impose barriers to use (Daniels, 1988, p. 62) if sufficient funds were unavailable to make reference prints.

The fifth tool used was a cost-benefit analysis weighing the cost of preservation and storage against the value of the documents (Ham, 1993, p. 51). The ASA allocated sufficient funds to purchase materials for preservation to a level to prevent further deterioration and no funds were used for labor. The benefits of retaining this unique documentation of ASA's survey work and archaeological sites outweigh the costs.

The negatives have secondary value as they are important for archaeologists and historians other than the photographer who created them (Ham, 1993, p. 8). There are two types of secondary values: evidential that are important for "documentation for institutional accountability and history" and informational that are important for documentation of a wider community (Ham, 1993, p. 8; Daniels, 1988, p. 60). The negatives have evidential, informational, and intrinsic value as a unique record of ASA's history. They illustrate matters that the archaeological community considers important, and they can be consulted for further understanding of archaeological sites and artifacts, many of which have been destroyed.

In completing the analysis, Ham's (1993, p. 60) recommendation to use a non-standard appraisal criterion, the intrinsic value of a record, was followed in order to analyze whether any unique aspect (for example, age, content, usage) existed to justify retention of the document in its original physical form (Ham, 1993, p. 60). The aesthetic and artistic quality of the photographs gave them an intrinsic value as meaningful documentation of a form of photography from the middle of this century.

Thus, considering all the above factors, it was determined to process this collection and to assign a higher priority to it than to the other components of the archives that do not possess to the same degree the attributes as analyzed above (breadth, scope and completeness of record, identification, time span, integrated series, and relevance).

Copyright, Provenance, and Identification of the Collection

Ownership of an original work has three distinct facets: physical possession of the item, ownership of the item, and ownership of copyright (the legal right of an author, heirs or assignees, to publish or reproduce a document or to authorize publication or reproduction; Bellardo & Bellardo, 1992, p. 9). Physical possession is not necessarily synonymous with ownership, and the owner and copyright holder may be different entities (Ritzenthaler, 1984a, p. 131). A photographer owns the photograph and the copyright unless the work is for hire. An original photograph is copyright protected from the moment of exposure which is the time that the image becomes a tangible object (Ritzenthaler, 1984a, p. 131, 137). Thus, for an archives to publish or reproduce a photograph, it must own the copyright, be authorized by the copyright holder to do so, or be within the parameters of the fair use provisions of copyright law. Only the owner of a work can transfer ownership and only the copyright owner can transfer copyright. A deed of gift may transfer physical possession and ownership from the owner to the repository and may include copyright or reproduction rights also (Ritzenthaler, 1984a, p. 132; Desnoyers, 1988, p. 83).

In the case of Charley Howe's photographs, Howe was the photographer, did not work for hire, and took the photographs to document his travels and ASA's archaeological work and discoveries. As the photographer of original and tangible works, he owned both the photographs and the copyright. Howe donated the collection of negatives of his photographs to the ASA in 1975 (Photographic archives, 1975). Since the donation, ASA has had physical possession of the negatives and established a fund for preservation of the negatives (Photographic archives, 1975). No formal document transferring ownership and copyright to ASA was located during this project but an announcement of the donation was published in ASA Newsletter (Photographic archives, 1975). Howe contributed regularly to this publication between at least 1960 and 1984. The association envisioned the negatives as the initial collection of an extensive archive of photographs on California archaeology that would be open for reference by scholars (Photographic archives, 1975).

The finding aid completed for this project includes a statement of publication rights and copyright information noting that the images in the collection are copyrighted and may be displayed, copied, or used for personal study only. A form is included at the end of the finding aid to make it simple for users to request written permission from ASA to reproduce an image for electronic or print publication.

Background Research on the Collection

A preliminary review was conducted of all the negatives to become familiar with the subject matter. Negatives were viewed on a light-table and handled with

archive-quality white gloves to prevent soiling. As the negatives were reviewed, notes were taken regarding some items, particularly questions about Howe's negative numbers or lack of numbers, the order in which the negatives were filed, and items that were not understood in the photographs. For example, at the initial stage the photographs of intaglios looked like insignificant small rocks, hearths looked like groups of larger rocks, and cave entrances could not be distinguished in the hillsides.

Authentication of the origin and purpose of the photographs (Parinet, 1996) and provision of informational and contextual information (Craig, 1998) were important components of this project for, as Rundell (1978) notes, images with textual information can convey information to the viewer more effectively than isolated ones. The photographic medium is best described at item level (Bartlett, 1996). However, due to the large number of negatives and the limited project time, identification was primarily for groups of negatives (series and sub-series). Potentially significant or key negatives were identified at item level, for example, the destroyed marching sheep petroglyph in Black Canyon for which no other complete image exists. Four sources were used to identify the photographs: 1. Howe's list and his notations on negative envelopes; 2. written materials and publications; 3. the unprocessed materials in ASA archives boxes; and 4. recollections of ASA members. ASA publications (ASA Bulletin, ASA Newsletter, ASA Journal, and ASA Occasional Papers) were particularly helpful. Howe's contributions to these publications between 1960 and 1984 included A Prehistory of Black Canyon (1980), an occasional column entitled

Here's Howe (in the ASA Newsletter) and various articles and reminiscences. Between 1988 and 1991, ASA published several photographs (mostly taken by Howe) entitled Blast from the Past (in the ASA Bulletin) and a request for ASA members to supply information about people and places in the photographs.

A preliminary list of site names and corresponding Howe negative numbers was prepared during the preliminary review. Howe had written site names on many enclosures — for example, “Grapevine Canyon” — but there was no identification by county or state. Very few enclosures had explanatory phrases or notes that could be used to understand where the photograph was taken. For example, there are many Grapevine Canyons in the United States alone. Without specific contextual site location information, the photographs would remain obscure and access to the information in the photographs would be severely limited.

In an effort to understand the scope of the negatives and glean any informational or contextual background, Howe's handwritten list of some negatives was reviewed along with the typed transcription of the list. Copies of both lists had been found in the ASA archive boxes. A brief review of portions of both lists determined that the transcription contained inaccuracies and probably was a draft. Thus, the transcription was proofed against the original handwritten list and corrections made on a copy of the transcription. This procedure was simpler than referring to the handwritten list during the project. Further review of the handwritten list revealed that it was a draft or work-in-progress that Howe intended to update. The list contained details of some negatives

taken between 1947 and mid-1960. Howe numbered most of this group of negatives with numbers from 1 through 10400. Negatives taken after October 1960 are not on the list. Howe did not number negatives of photographs taken after 1961 but this fact became known only later in the project as sites, dates and numbers were analyzed.

Howe's list gave some informational or contextual background to a few negatives. For example, Aguanga is identified as near Bergman's Museum. Still, the negatives had inadequate information to make them even marginally useful to anyone. A search of each of Howe's place names was conducted using two online gazetteers (Thesaurus of Geographic Names, 1997; United States Geological Survey, 1999). This yielded useful results by pin-pointing possible state, county, and latitude/longitude information for some place names. This information was checked against a map of sites by ASA member, B. E. McCowan (Steele, 1982). McCowan was an engineer known for his meticulous work so it is assumed that his map reference points are accurate. In addition, the information was checked using two current and detailed atlases of California and Arizona (Arizona Road, 1998; California Road, 1998). These cross-checks yielded informational and contextual background for several place names. For example, Black Star Canyon was identified in Orange County and Black Canyon in San Bernardino County. The information was confirmed or rejected after further consultation of archaeological literature, particularly Steele's (1982) list of sites worked by the ASA.

During the extended search for context, it was necessary to review the negatives several times in order to piece together information and decide if possible locations could be applied correctly to Howe's place names. For example, "El Toro" turned out not to be in Orange County (California) or anywhere else. It was the name of a jeep.

All information about place names, such as county and state information, was added to the preliminary list started during the initial review of the negatives. A chronology of sites photographed between 1947-1972 was prepared in an effort to understand the scope and content of the negatives. It was found that this group of photographs represents about 155 trips to 84 locations in 26 years. Most locations are in California. A few are in Nevada, Utah, Colorado, Arizona, and Mexico (Baja and Barranca del Cobre).

As understanding of the subject matter increased, clues could be pieced together to yield useful contextual information for all except one place name. No firm and logical connection could be made for "Oak Creek."

Throughout the project, an investigation was conducted on ASA's history and survey work, photographer Charley Howe, and archaeology in southern California, particularly petroglyphs and intaglios. This research increased understanding of the subject matter and enabled the creation of meaningful access to the collection. Sources consulted are listed in the finding aid bibliography.

Preservation of the Collection

Concurrent with the search for contextual information about the negatives, the physical condition and preservation needs of the negatives was evaluated. The negatives had a definite acrid odor, and some were brittle with a slight amber color in the deteriorating portions. Although these characteristics may indicate cellulose nitrate decomposition (Eastman Kodak, 1979), notations on most of the film edges were sufficient to conclude that the negatives were cellulose acetate. Some negatives exhibited channeling (Appendix B, Plates 19 and 20) that was characteristic of aging early cellulose acetate negatives (Ritzenthaler, 1984c).

The degree of preservation of any collection depends on available funds. As suggested by Weinstein and Booth (1977) and Ritzenthaler (1984c), focus was on preservation of the entire collection at a level to halt further deterioration. The \$283.00 cost to re-house the negatives in new archival enclosures and boxes to halt further deterioration was within the budget.

Preservation of the negatives required two steps. First, multiple negatives stored in a single envelope had to be separated into individual enclosure envelopes to protect each image. Second, all enclosures except the glassine ones were deteriorating and had to be replaced. Although the glassine sleeves were not deteriorating, they were replaced because the material has been found to accelerate deterioration of negatives (Public Records Office, 1998; Schrock, 1981).

Research was conducted to determine appropriate new storage material for the negatives. Currently available materials were identified through a review of catalogs from the major archival materials vendors. Although the catalogs touted buffered paper enclosures and transparent Mylar plastic sleeves, the professional literature on their use was inconclusive. Moreover, during the review of the negatives it had been noted that some plastic sleeves (from the mid-1980s) had stuck to some of the deteriorating negatives. Archivists were contacted at the Huntington Library, the Getty Conservation Institute, the University of California, Riverside, and the George Eastman House for their opinions on current practice in housing black-and-white early cellulose acetate negatives. Everyone agreed that a conservative approach would be the safest for the negatives. Non-buffered archival quality enclosures were selected as housing material since there were concerns that buffered paper or Mylar may have as yet unknown effects on negatives over time. The advantage that Mylar would have in allowing the negatives to be handled during reference work by repository patrons was sacrificed for the more important goal of preserving the negatives in the best possible way. Handling of negatives unprotected by Mylar could be monitored by the repository staff or reference prints could be made.

Archival supplies (enclosures, boxes, and another pair of white gloves for handling negatives) were ordered from Gaylord. Another major vendor, Light Impressions, offered enclosures also but a comment on the Society of American Archivists' listserv had mentioned the unfortunate experience of watermarks from

several Light Impressions enclosures transferring to negatives during a brief storage period. The Gaylord enclosures that were selected had side seams, rather than a center seam, to lessen the possibility of transfer of any adhesive residue to the images. ASA reimbursed the cost of supplies (\$283.00).

Howe's handwritten notations were transcribed verbatim from the original enclosures to the new ones. Graphite pencil was used as it will last longer than ink and will not seep into the materials. If the original enclosure was unnumbered or undated, "[no number]" or "[undated]" was written on the new enclosure. Multiple negatives stored in a single enclosure were separated into individual new enclosures marked [A], [B], [C], to indicate that the negatives belonged to a group that Howe had stored together. The negatives were transferred to the new, labeled enclosures with the image facing away from the seams of the enclosure to minimize the possibility of adhesive residue harming the image during storage. As the negatives were transferred, notes were made on their condition so that they could be segregated (after numbering, *infra*) to prevent any auto-catalytic effect of deterioration on the good negatives. The original enclosures were stored in two archival boxes that were subsequently numbered 7 and 8.

Arrangement and Description of the Collection

Collections of photographs are arranged using similar archival principles as for documents (Munoff, 1984, p. 71). Thus, first consideration was given to provenance, the fundamental archival principle that gives context to a collection (Miller, 1990; O'Toole, 1990; Hensen, 1997). During review of the negatives, it was realized that

about 500 to 650 negatives were taken by another photographer. This group was removed from Howe's negatives and replaced in one of ASA's photographic archive boxes. Charley Howe created the remaining 1,610 negatives so they belong to the same provenance (i.e. created by Howe) and were kept together in the arrangement conducted during this project. Any future organization of the negatives should not intermingle them with documents from any other provenance.

As far as possible, the creator's original order was maintained because it works with provenance to establish context (O'Toole, 1990; Bellardo & Bellardo, 1992). Reviews of the negatives showed that, with the exception of some misplaced negatives and some groups of negatives that appeared to have not been filed in any particular way, the collection had an original order. Where such order did not exist, order was created using features appropriate for this collection, for example, site (location) or subject, and date (Desnoyers, 1988; Miller, 1990; O'Toole, 1990; Thibodeau, 1988).

Series level was used for the arrangement. Therefore, Howe's original order of site location or, occasionally, subject, was used for the series structure. Howe's list gave valuable information about how he intended the negatives to be arranged with the "dominant classification . . . by site name" (Howe, n.d.). Series titles were comprised of place name (or subject) including state and county, plus the date(s) that the photographs were taken. If photographs in a series were taken on different dates, sub-series were used to reflect these "significant and logical divisions" (Miller, 1990). As with series, each sub-series was given a title that included the place name (or subject)

and date of photographs. Repetition of some of the series title information in the sub-series was considered appropriate so that the user would not have to scroll back and forth through screens to locate the information in the series description. Where appropriate, the term “bulk dates” was used at the end of a series or sub-series title to indicate the time period when the majority of the series or sub-series photographs were taken.

After the files were grouped into units (series and sub-series), they were ordered in relation to each other following Howe’s original order as far as possible to maximize the evidentiary value of the whole collection (Miller, 1990; Taylor, 1979). Howe numbered some negatives from some sites in sequence, reserved many blank number ranges, and allocated ranges for some specific locations, for example, 1000 et seq. for Black Canyon and 4000 et seq. for China Lake. Howe may have numbered the negatives some years after the photographs were taken. For example, numbers assigned to images taken in 1955 precede some from 1952. He numbered the negatives within sites in approximately chronological order. However, the order in which each site appears in the numeric sequence is arbitrary. The negatives of images taken after October 1960 (and a few from before 1960) are unnumbered and not listed on the draft index (Howe, n.d.) although some were found placed at the end of a numbered sequence for the same location. For example, unnumbered negatives of images taken in the Rodman Mountains in the mid-1960s follow the numbered Rodman negatives in chronological order but precede China Lake negatives taken in 1956. There are

exceptions. For example, Howe numbered images of Yuma as 1-3 and 1689-1690. This project did not disturb Howe's numbering sequence. Thus, some locations appear in more than one place in the collection.

Many negatives were out of order, perhaps due to the project being unfinished by Howe, or due to reorganization, use, or misfiling by others. Rearrangement of these negatives followed Howe's intent. They were arranged by site and, within site, in chronological order. Most of the unnumbered negatives were found filed after Howe's last number used (10400, now ASA001-1322) and grouped by site.

After confirming that the arrangement was accurate, ASA001 was selected as the prefix to denote that this is ASA's first processed archival collection. The collection number was zero-filled to three digits to give room for future processed collections. For control purposes, the negatives were re-numbered in a continuous sequence from 1 through 1610. The collection number was used as a prefix (ASA001-1 through ASA001-1610) to prevent any confusion with Howe's original numbers, 1 through 10400. A cross-reference list of these accession numbers and the photographer's numbers was prepared and included in the finding aid. All negative enclosures bear the Howe number (or if unnumbered, the notation "[no number]") in the upper left-hand corner and the ASA number in the upper right-hand corner. The photographer's numbers were not used as accession numbers because they had many gaps and several hundred negatives were unnumbered.

Approximately one sixth of the negatives was deteriorated, including two crumbled ones that were discarded. The products of deterioration can deteriorate good negatives stored nearby. To halt this auto-catalytic process as much as possible, the deteriorated negatives were separated from the rest of the collection and stored in archival box number 6. The letter "D" was written on each enclosure (on the right-hand side below the ASA accession number) to denote deteriorated negatives and prevent their re-filing among non-deteriorated negatives. To maintain the integrity of the collection, the deteriorated negatives were segregated only after numbering the entire group of negatives from ASA001-1 through ASA001-1610. This ensured that the deteriorated negatives were not taken out of their original order.

The rest of the collection of non-deteriorated negatives was placed in archival box numbers 1 through 5. The quantity of negatives and enclosures in each box was such that there was sufficient room for each but also sufficient support to prevent warping (Albright, 1983). It is desirable that the repository should store the collection at 68°F and 30-40 percent relative humidity, the optimal conditions for enhancing the life expectancy of black-and-white images (Gowan & Friant, 1999, p. 15).

As noted in some item descriptions in the finding aid, Chicago Albumen Works, a Massachusetts firm, will salvage several of the unique but deteriorated negatives. The photographic emulsion will be chemically removed from the negative's base and placed in a solution that will allow the folds and furrows in the emulsion to relax. The flattened pellicle (the removed emulsion) will be duplicated (Chicago Albumen Works,

n.d.: D. Munson, Chicago Albumen Works, personal communication, January 21, 1999). Due to climatic limitations, the firm does this work only from December through May so arrangements were made to duplicate negatives in January 2000 after completion of this project. The ASA Board agreed at their July 1999 meeting to fund the cost to copy several key images (\$50.90 per image). After copying, the new negatives will be stored in new enclosures labeled with transcriptions of Howe's notations from the original enclosures. A notation will be added to the enclosures to indicate that the negatives are new copies dated January 2000 and the negatives will be stored in the appropriate boxes (nos. 1-5). A notation will be added to the enclosures of the old, deteriorated negatives stating that the negatives were copied in January 2000. The old negatives will be stored in archival box number 6.

As the negatives were re-housed and arranged, they were reviewed again to add information to the descriptions started with the initial review of the negatives. As familiarity with the subject matter of the negatives grew, the pictures became more meaningful so that more information could be added to the description. After completion of the arrangement of negatives with regard to provenance, original order, levels of control, specific and descriptive titles, and logical ordering among the hierarchies, the next phase of processing, description, was started.

Creating access to the collection is a paramount concern so the selection of a format for description was a key decision of this project. A finding aid for the collection is more useful if it is accessible on the web rather than in a repository

because it will be available to a more diverse audience. An EAD encoded finding aid is the tool of choice because it is platform independent, backed by solid theoretical reasoning, and allows sophisticated information retrieval. The development of EAD indicates that cooperatives, institutions, and archivists are committed to EAD's continuing development as the archival standard. EAD is considered to be ideal for the Howe collection as it supports links to images.

Creating a finding aid and abstracting its content to a MARC AMC or APPM record would create only the ability to search the abstract not the entire finding aid as with EAD. Such a MARC record is useful to integrate resources when a searchable catalog already exists which is not the case here. The ASA does not meet repository requirements for integration of the collection record into the Library of Congress NUCMC catalog (Library of Congress, 1998c). Moreover, the submission process for inclusion in a traditional cooperative catalog is outside the scope of this project.

After studying the method of encoding with EAD (particularly through attending in June 1999 the Society of American Archivists' EAD workshop in Flagstaff, Arizona), decisions were made about how to write a finding aid that would ultimately be encoded in EAD.

Thus, the collection was described from the original items and the description put into the form of a finding aid that can be encoded in EAD (outside the scope of this project). The preparation of an EAD-compliant finding aid for the Howe negatives (Appendix A) is discussed in detail here. Where alternatives were available in the

EAD standards, the format of the Online Archive of California (OAC) was used with the goal of submitting the encoded finding aid to OAC (outside the scope of this project). Appendix C illustrates the major EAD tags for the Howe finding aid. EAD tag names are shown within angle brackets, for example, <ead>. For ease of reference in this discussion, the document in Appendix C was divided into sections.

The three major sections of a completed online EAD finding aid are the EAD Header, Frontmatter, and Archival Description. The EAD Header is a required section in EAD finding aids but does not appear in paper versions because it is created only at the time of encoding. It contains documentation or “metadata” about the finding aid (for example, author, language) not about the archival materials (EAD Working Group, 1998, p. 125; 1999, p. 278).

Appendix C, Section 1 is the encoded EAD Header for the Howe finding aid. A required element, <eadheader>, was used to wrap all the Header information. Like many EAD tags, this wrapper was given attributes to modify the tag’s meaning. Three attributes were used: <eadheader audience=“internal” findaid status=“edited-full-draft” langencoding=“ISO 639-2”> where “audience” governed display, “findaid status” indicated the completeness of the finding aid, and “langencoding” indicated the language of the finding aid. Most attributes are optional in EAD. Although attributes were used frequently in tags for the Howe finding aid, the principle of their application was the same as for <eadheader> so they were shown in Appendix C only where necessary for clarity in this discussion.

The EAD Header has two required subelements. The first, `<eadid>`, was used to code a unique identification number for the EAD finding aid document. The second, `<filedesc>`, encoded the title. The optional but recommended `<profiledesc>` subelement was used to code information about the person who did markup and the date. The three elements were put in the required order (Appendix C, Section 1).

The second section of an EAD finding aid, the Frontmatter, is optional because the display that is generated from `<frontmatter>` can also be generated online from elements in the required EAD Header (EAD Working Group, 1999, p. 121). The Frontmatter is text about the finding aid, for example, information about the creation, publication, or use of the finding aid. Frontmatter can have two subelements:

`<titlepage>` for grouping bibliographic data about the finding aid, and `<div>` (Text Division) for a dedication or preface. Since the Howe finding aid did not contain a dedication or preface, the `<div>` element was not needed. Although optional, the Frontmatter was included in the Howe finding aid (Appendix A; Appendix C, Section 2) to give complete and consistent EAD and paper versions of the finding aid. In the Howe finding aid, the `<titlepage>` subelement was used to wrap several optional elements and thus generate a title page for the finding aid. The order of `<titlepage>` elements is optional. The order used in the Howe finding aid was the same as that used in most EAD instances in the OAC: `<titleproper>`; `<num>` for the collection number; `<extptr>` to point to the ASA logo (the print version of finding aid has a

printed logo but the EAD version links to the logo at an external site); <author> for the repository name; <subtitle>; and tags for contact information, name of processor, date of completion of the finding aid, and a copyright statement. Current OAC best practice was followed for the Howe finding aid.

The third section of an EAD finding aid, Archival Description, is mandatory. The <archdesc="collection"> tag for this section contains an attribute to indicate the highest level of description in the finding aid. The attribute "collection" was used in the Howe finding aid. Only two elements (Descriptive Identification and Description of Subordinate Components) are mandatory within Archival Description. However, a finding aid with only these two elements would be technically correct but deficient in information (EAD Working Group, 1999, p. 233). Thus, the Howe finding aid used the two mandatory and seven optional elements as shown in Appendix A and Appendix C, Section 3A-K: descriptive identification (Section 3A), administrative information (Section 3B), biography (Section 3C), scope and content (Section 3D), organization and arrangement (Section 3E), subject access (Section 3F), adjunct descriptive data (Sections 3G, 3I, and 3K), description of subordinate components (Section 3H), and other descriptive data (Section 3J). Descriptive Identification must be the first element of Archival Description. There is no requirement for the arrangement of other elements. The elements in the Howe finding aid followed the order currently practiced in the bulk of EAD instances in the Online Archive of California and the structural model for EAD Version 1.0.

Several optional subelements can be used in Descriptive Identification (`<did>`), the first element of Archival Description. The Howe finding aid used seven subelements (Appendix C, Section 3A) to describe the collection as a whole: `<unittitle>` for the title; `<unitdate>` for the date of the material (incorporated as part of the title following APPM (EAD Working Group, 1999, p. 54); `<unitid>` for the collection number; `<origination>` (wrapped around `<persname>`) for the creator of the archival materials and date; `<extent>` (wrapped within `<physdesc>`) for the extent of the materials; `<repository>` for the repository name; and `<abstract>` for an abstract of the finding aid (EAD Working Group, 1998, p. 110; 1999, p. 48-49).

Administrative Information was used as the second section of Archival Description so that users can be aware immediately about the acquisition, source, or any restrictions on use or reproduction of the materials. The Howe finding aid used six optional content-specific subelements in `<admininfo>` (Appendix C, Section 3B): `<acqinfo>` for provenance including the donor's name and date; `<accessrestrict>` for any access restriction notes; `<userrestrict>` for information on publication rights and copyright; `<processinfo>` for processing information; `<note>` for notes about funding; and `<prefercite>` for the form of the preferred citation. Although Administrative Information can be encoded in simple generic paragraphs (EAD Working Group, 1999, p. 58), the Howe finding aid was structured to use content-specific elements for more precise search and retrieval. Also, such content-tagging

will enable future manipulation of the data better than undifferentiated text (EAD Working Group, 1999, p. 59).

Biography (<bioghist>), Scope and Content (<scopecontent>), and Organization and Arrangement (<organization> <arrangement>) were used as the next three sections of Archival Description in the Howe finding aid (Appendix C, Sections 3C, 3D, and 3E). Generic paragraph tags, <p>, were used in each element. Some content encoding (for example, family names, geographic locations, or dates) can be included in these sections for items not encoded elsewhere in the finding aid. However, as with all EAD encoding, the usefulness of any content encoding should be analyzed first so that users do not obtain irrelevant search results (EAD Working Group, 1999, p. 65). “Tagging every occurrence of a name may actually mislead researchers or search engines that report weighted results” (EAD Working Group, 1999, p. 108).

The finding aid’s next section, Subject Access, groups together controlled vocabulary terms that express major or significant subjects, names, genres, and formats of the Howe materials. The tag <controlaccess> is a wrapper for ten optional, repeatable subelements. Five of these were useful for the Howe materials: <corpname>; <genreform>; <geogname>; <persname>; and <subject> (Appendix C, Section 3F).

EAD has a wrapper element, Adjunct Descriptive Data or <add>, for finding aid access tools such as an index or bibliography. This wrapper was used several times

in the Howe finding aid: in Appendix C, Section 3G for information about sites photographed and photography details that described the collection in a different manner from the Scope and Content element (EAD Working Group, 1999, p. 108); in Section 3I for an index of locations and an index of Howe's negative numbers and the corresponding ASA negative numbers; and in Section 3K for an annotated bibliography. One index, the printed finding aid's Table of Contents was unnecessary for the online EAD version as the information can be accessed through navigation.

The Other Descriptive Data or `<odd>` element was used in the Howe finding aid for the copyright permission letter (Appendix C, Section 3J). Although the EAD Working Group (1999, p. 113) recommends trying to use a more specific element than `<odd>`, the element was useful for the copyright letter in the Howe finding aid because content-specific searching and retrieval was not important for this part of the finding aid. The letter was included in the finding aid solely for the convenience of online users not for search and retrieval purposes.

The second mandatory section of Archival Description is the Description of Subordinate Components or `<dsc>`. This section comprised the bulk of the Howe finding aid (the Container List in Appendix A; Appendix C, Section 3H). EAD has four `<dsc>` models that can be used to describe the archival material: analytic overview, in-depth, combined, and othertype (EAD Working Group, 1999, p. 91). The analytic overview model may be used for narrative series description, the in-depth for a container list, the combined for a narrative series description followed

immediately by the container list for that series, and othertype for any type other than the three listed. Use of the analytic overview model followed by the in-depth model produces a finding aid with all the narrative series descriptions together followed by the container list. This structure, common in legacy finding aids, allows users to review all narrative descriptions in one place (EAD Working Group, 1999, p. 94). However, the double-coding of some information in the narrative description and then in the container list may confuse a computer (EAD Working Group, 1999, p. 94).

The Howe finding aid used the combined model. There were several reasons to select this model. First, the EAD Working Group (1998, p. 10; 1999, p. 91-95) recommends the combined approach and suggests that future web browsers may be able to take a finding aid encoded with the combined model and display series descriptions together as in legacy finding aids.

Second, online users can work easily around the disadvantage of not being able to review all series descriptions in one place by hyper-linking among narrative series descriptions.

The third reason for selecting the combined <dsc> is that a premium was placed on the user being able to see the site location, dates, extent of materials, negative numbers, storage box location, narrative description, and container list in one place without scrolling back and forth through the document, rather than on being able to read all series narratives in one place. Meissner (1997, p. 385) points out that the Minnesota Historical Society even reengineered their finding aid structure so that the

user does not have to gather information about a collection's component from various places in the finding aid.

Thus, after weighing the advantages and disadvantages of the various <dsc> models, it was decided to use the combined <dsc> for the Howe finding aid. Within <dsc="combined">, various levels of materials were tagged with Component wrapper elements. Unnumbered (<c>) or numbered components (<c01> through <c12>) are available in EAD. The numbered ones were used in the Howe finding aid as they make the tags easier to follow. Each component identifies an "intellectually logical section" of the materials (EAD Working Group, 1998, p. 70). In the Howe finding aid, the first level component or <c01> was used for the series level and was indicated thus in the tag: <c01 level="series">. If there was a sub-series, the second level was the sub-series <c02 level="sub-series"> and the third was the item <c03 level="item">. However, where there was no sub-series, the item became <c02="item"> because the numbered components are not linked to specific levels of series, sub-series, or item but to an intellectually logical section of the materials.

As shown in Appendix C, Section 3H, the component definition (<c01> or <c02>) for each series and sub-series was followed by a <did> for Descriptive Information about the series or sub-series. Five subelements followed the <did> definition in the Howe finding aid: <unittitle> (wrapping the <geogname>) for the title ; <unitdate> for span and bulk dates (wrapped within <unittitle> following APPM); <extent> wrapped in <physdesc> for the extent of the materials;

<unitid> for the negative numbers; and <container> for box numbers. Since intellectual access to information about the sites (for example, Burro Flats) was considered more important than information about the physical location in a particular box, first importance was given to the site information. The box information was listed below the site name, date, extent, and negative numbers. Box numbers were included at each series level to prevent the need for users to scroll back to find this information (Dow, 1997). The total number of negatives in the series and the number of sub-series, if any, were put immediately below the series title to give the user a clear concept of the extent and organization. Similarly, the total number of negatives in a sub-series was noted below the title of the sub-series. This format differs from the traditional legacy finding aid structure but results in a very useful online tool that takes away the need to scroll back and forth to find out the box number and extent of the materials. Convenience of use was gained by some repetition of box numbers.

After the <did> for each <c> was closed with the </did> tag, other optional elements were used in the <dsc> section to describe each series, sub-series, or item as needed. For example, <arrangement> was used for notes on the series or sub-series arrangement and <scopecontent> for narrative descriptions at the series and sub-series levels. At the end of the Container List, the Description of Subordinate Components section was closed with the </dsc> tag. After the addition of the <add> and <odd> elements, supra, the Archival Description section was closed with the </archdesc> tag (Appendix C, following Section 3K) and the entire finding

aid with the `</ead>` tag.

As noted, the Howe finding aid structure differs from a typical legacy finding aid in the subordination of the physical location (box number) to several subelements of the intellectual component's (`<c>`) descriptive information (`<did>`). Another difference from legacy finding aids is the placement of the contents of the box of degraded negatives, Box 6, in the Howe finding aid. A typical legacy finding aid may place all Box 6 contents together in the finding aid. In contrast, the Howe finding aid lists degraded negatives in their original place in the negative sequence with a note that the negatives are degraded and are stored separately in Box 6. Two assumptions led to this arrangement. First, users need to know about each negative in its original context. It does not matter that a negative is degraded (except for the fact that the image is less visible or needs to be copied for preservation purposes). Second, although any non-degraded negatives today may be degraded tomorrow and have to be physically moved to Box 6, such movement does not affect their place in the intellectual universe of the negatives. A list consisting solely of Box 6 degraded negatives has no use since the intellectual content is the important element of an image not its condition.

Some key or unique negatives and some noteworthy photographs were described at item level. As shown in the following excerpt from the finding aid, a phrase preceded item-level descriptions indicating whether the listed items comprised a selected group of items in the series or sub-series ("series includes") or all the items ("series contains"). For example, the first sub-series below, Burro Flats, 1953, has a

general sub-series description followed by item-level descriptions of some key items.

The second sub-series, Burro Flats, April 17-18, 1954, has item-level descriptions of all items.

BURRO FLATS (VENTURA COUNTY, CALIFORNIA), 1953-1954 AND UNDATED *[series title and dates in bold upper case font]*

70 negatives: ASA001-209 – 278 *[extent and negative numbers]*

Box 1. Box 6: 10 degraded negatives ASA001-212 . . . *[box location and information about any degraded negatives]*

Three sub-series . . . *[number and arrangement of any sub-series]*

The site (VEN-4) above Chatsworth Reservoir . . . *[series description continues]*

Burro Flats, 1953 *[sub-series title and dates in bold upper and lower case font]*

24 negatives: ASA001-213 – 236 *[extent and negative numbers]*

Views of dig site . . . Sub-series also includes: *[sub-series description followed by item descriptions]*

ASA001-213 chart of baseline . . . *[item descriptions continue]*

Burro Flats, April 17-18, 1954

42 negatives: ASA001-237 – 278

Sub-series contains the following items:

ASA001-237 – 254 many groups of pictographs in a cave. . . *[item descriptions continue]*

Subject Access

In reviewing many collections of photographs online, frequently it was difficult to find images due to the lack of specific descriptions of the images that could be searched. Sometimes, if descriptions existed, it was difficult to locate photographs due

to the lack of controlled vocabulary search terms. Also, it was difficult to comprehend the breadth and depth of an entire collection without scrolling through descriptions in the container list. A chronological list of places photographed and an index of locations were incorporated in the finding aid to assist the user to locate specific groups of negatives among Howe's 1,610 negatives. These two lists were prepared by abstracting information from the finding aid (Appendix A).

For effective searching across collections (for example, if the finding aid eventually becomes a part of a database of finding aids such as OAC or the Research Libraries Group database), subject access was created using controlled vocabulary. Terms from the Library of Congress Graphics Thesaurus I and II (Library of Congress, 1995a, 1995b, 1996, 1998b) and Library of Congress Subject Headings (Library of Congress, 1997) were supplemented with some local terms and names from Howe's notes and notations, and from background research about the photographed archaeological sites. Both informational and contextual values were used for subject access (Schwartz, 1995; Bartlett, 1996; Turner et al. 1997/1998; Collins, 1998). Standard cataloging tools were used (Anglo-American, 1998; Hensen, 1989).

For ease of use, three types of controlled vocabulary terms were provided:

1. format and genre (for example, acetate negatives, landscape photographs);
 2. names of people and institutions that appear in the photographs or are relevant to the context of the photographs; and
 3. major subject themes (topical and geographical), for example, volunteer workers in archaeology.
- These terms allow access to the entire

group of photographs. Thus, a cross-institutional search for "acetate negatives" or "cradleboard" would retrieve the finding aid for Howe's negatives. The former term, acetate negatives, applies to all the negatives but the latter term, cradleboard, applies to only a few of Howe's negatives. Once the user has reached the finding aid for Howe's negatives, the location of specific items depends upon the search engine. On the simplest level, a search for "cradleboard" using the browser "Find" dialog box will retrieve the series "Navajo Country and Wupatki (Arizona), 1957" at negative numbers ASA001-127 - 138 because the term "cradleboard" is used in the series description. If a more robust search engine (for example, Inso's DynaWeb) were available, complex Boolean searches could be used. In the finding aid, controlled vocabulary was used for major themes and uncontrolled for minor themes so that both controlled term and keyword (uncontrolled vocabulary) searches are possible. For example, the term "rock paintings" is a controlled vocabulary term for pictographs. However, many archaeologists would probably first think to search for the uncontrolled vocabulary term, pictographs, not rock paintings.

The construction of the controlled vocabulary search terms is discussed in detail here. For subject access to the photographer's personal name as the main entry access point, the form "Howe, Charley (Clayton), 1897-1989" was selected to conform to cataloging conventions (use the predominant name by which the person is known as found in the chief source of information, APPM 3.1A, 3.1B, 3.2A; Hensen, 1989); use surname then first name, APPM 3.4A, 3.4B3, 3.5A (Hensen, 1989); use birth and

death dates, APPM 3.14, 3.15A(6) (Hensen, 1989), AACR2e 22.18 (Anglo-American, 1998).

For subject access to geographic names, the English form of names were used where possible, for example, Canyon not Cañon, the form preferred by Howe (APPM 4.2A, Hensen, 1989). The state, or county and state when necessary to distinguish locations, were identified and added to the place names used by Howe (APPM 4.4.C2, 4.4F1, Hensen, 1989). Two gazetteers and two atlases were used as sources for the geographic locations (Thesaurus of Geographic Names, 1997; United States Geological Survey, 1999; Arizona Road, 1998; California Road, 1998).

For subject access to corporate names, the name commonly on items issued by the body was used (APPM 5.1, Hensen, 1989). Other forms of corporate names, such as abbreviations, were formed without spaces or periods (APPM 5.2D, Hensen 1989).

A title was supplied for the negatives as they had no formal title (APPM 1.1B2, Hensen, 1989). The title "Charley (Clayton) Howe Photographs, 1947-1972" included the name of the person responsible (APPM 1.1B3, Hensen, 1989), the form of the material (APPM 1.1B4, Hensen, 1989), and the span dates of the photographs (APPM 1.1B5, Hensen, 1989). The term "collection" was not used in the title as it is not appropriate for this group of photographs. It is recommended that the term only be used for a group of materials that lacks integrity and unity of provenance (APPM 1.1B4, Hensen, 1989).

Digitization of Selected Images

Prints of selected images were prepared for use in scanning the images. Custom printing was done by Fullerton Photographics (at the standard cost of \$7.00 per 5x7-inch print). As suggested by Gowan & Friant (1999, p. 14-15), the prints were numbered sequentially and cross-referenced to the negative number. This was done by appending the letter "P" (for print) to the negative number, for example, ASA001-1514P is the print of negative no. ASA001-1514. Prints were stored in protective transparent sleeves to allow viewing without handling (Ritzenthaler, 1984b). A log was kept of reproduction priorities so that reference prints and new negatives (of badly degraded ones) can be prepared by ASA as funds allow. The log will be submitted to ASA at the conclusion of this project so that the reproduction can proceed in an organized way that will enhance the preservation and use of the collection.

A few key images (e.g., Appendix B, Plates 1-20) were selected that can be linked after completion of this project as digitized versions to the EAD finding aid. Images with text convey information more effectively than isolated images (Rundell, 1978). The images that were digitized for ASA's web page incorporate Rundell's "movement of ideas from image to image" and will have sufficient textual information as captions or links to be meaningful. The primary aim in displaying digital images is to provide information (Bruce, 1994, 1996; Ostrow, 1998) not decoration.

Since the images are for visual reference not preservation, they were scanned at low resolution of 300 dpi with relatively small file size for faster web load time (Reilly

& Frey, 1996; Watson, 1998). Creating a large JPEG image and small JPEG thumbnail (Rinehart, 1998) may be appropriate later for ASA as the web-site develops so that the user can select an image without loading a full size one first. Rinehart (1998) gives detailed instructions about the procedure to do this. A Hewlett-Packard 6100C scanner and Photofinish were used to prepare the scanned images.

Dissemination

Although the ultimate use of the finding aid will be at the discretion of the ASA and ASA webmaster, the screen presentation should integrate the critical features of a good display that were evident during review of state of the art websites. In particular, the frames format is ideal for navigating quickly and easily between the table of contents and the document sections.

The value of the recommendations about the ideal display offered by participants in Duff and Stoyanova's study (1998, figure 2) became obvious during the project review of web sites. A screen display with a pleasing, easy-to-read appearance using, for example, white space or bold was ideal. For users unfamiliar with all the windows functions, a note that the frames can be sized and that one can use the browser's "Find" tool was useful. The first screen should state boldly and clearly the nature of the collection and how to browse or search. Since the collection had several local search terms (for example, site and place names), a user-friendly browse screen can be used to understand the parameters of the collection so that searches can be structured in a meaningful way. During the project review of web sites, the lack of a

browse function was found to be a tremendous handicap. Those unfamiliar with southern California archaeology will be handicapped in searching the finding aid for terms peculiar to the area (for example, Black Canyon) without subject browse access.

The ideal display is a blend of an informative, user-friendly interface (UC San Diego and University of Virginia sites), imagination (Confederate States Ship Alabama site), relevance (University of Liverpool site), tailored, organized, easy-to-understand image/text (Scripps, Library of Congress, and all cooperatives), navigable frames (many sites, especially cooperatives), good subject access and a browse function (Library of Congress sites). A copyright statement was included near the beginning of the finding aid. Thus, when the aid is encoded and displayed, this statement will appear prior to access to the photographic images so the user knows that the photographic images can be used only for scholarship or research. The user will be required to check a box online agreeing to follow these principles.

After completion of this project, the processed collection of negatives and photographic prints will be submitted to ASA for deposit in a repository. The collection will be open to researchers and all negatives and paper copies of the finding aid will be available for their use (location to be decided).

At ASA's request, an article (with three photographs) was prepared for publication in the ASA Bulletin, (Srivastava, 1999) to inform the ASA membership about the project. Names of unidentified people and sites were included along with a

request for information from members. If any is forthcoming, it will be added to the finding aid.

Assessment

In order to improve reference services, archives evaluate how well services meet user needs. Traditionally, evaluation has been through exit interviews, forms, observation, and surveys (Pugh, 1992, p. 101). Users of the collection will be asked to supply feedback and, after the finding aid is put onto the ASA web page, an e-mail address will be available for user input. Suggestions will be requested about the usefulness of the content and the ease of access. Analysis of site usage statistics and user feedback may allow evaluation of the effectiveness of this type of access to archival photographs.

Conclusion

This project preserves and creates access to a valuable collection of 1,610 negatives of photographs taken by Charley (Clayton) Howe (1897-1989) in California and Mexico between 1947 and 1972. Howe, an adventurous avocational archaeologist, amateur photographer and member of the Archaeological Survey Association of Southern California, Inc., donated the negatives to ASA in 1975. The association envisioned the negatives as the core of a photograph archive on California archaeology.

The images document Howe's travels and ASA's survey work. Several are the only complete records of destroyed archaeological treasures, including rock art.

During this project, the negatives were preserved to halt further deterioration, arranged in 96 series by site, and described in a finding aid to permit intellectual access to specific topics and sites. A final report was submitted to San Jose State University in two parts, the project (the finding aid) and the written report, in November 1999.

The collection was described in a finding aid format to allow the application of emerging technology in the archival field that would make the collection accessible to researchers. The format adheres to the standards of Encoded Archival Description or EAD, an SGML-based document type definition. Virtual visitors will be able to access this resource through the EAD finding aid mounted on ASA's website. Since someone else's textual interpretation of an image can never replace the primary resource of the image itself, access to actual images is vital. The finding aid and images will be available for use both on the web and in a repository.

The finding aid does not conform to some established practices of legacy finding aids but makes the photographic images accessible through an archival tool that allowed addition of informational and contextual background. This challenging aspect of arranging and describing photographs — giving context and access to images so they are not lost in space — was addressed well with the EAD standard. The format also permitted intellectual access to take priority over the physical location and condition of the negatives. Box locations were repeated for each series to facilitate online retrieval without extensive scrolling. Deteriorated negatives that were segregated into a separate box were described as part of the original sequence, not as a separate box list, thus

keeping the integrity of the collection. Controlled vocabulary was used for major subjects, names, genres, and formats to allow collection and image access through controlled vocabulary searches and uncontrolled vocabulary keyword searches.

An article in the ASA Bulletin (Srivastava, 1999) and a talk at the ASA Third Annual Symposium "Preparing for Archaeology in the Next Century" on October 23, 1999, informed members about the project. After completion of the project, the finding aid will be encoded with EAD, and mounted on ASA's website. Digital images of rock art, a significant theme of the photographs, will be linked to the finding aid. Some deteriorated negatives will be salvaged in January 2000. A second article in ASA Bulletin will inform members about access to the finished collection.

Two items should be pursued further. As funds allow, reference prints should be made to reduce handling of negatives. State and county names were added to all place names except for Oak Creek. It would be useful to pin-point this site as well.

Given Howe's love of photography, one may speculate that other photographs exist and were included in materials of particular archaeological sites. ASA's archives would be enhanced if such photographs could be located and linked with this collection.

The negatives are ASA's first processed archival collection, ASA001, and a source of pride and encouragement for members as they look back through this window on ASA's many accomplishments. The project has reminded members also that it is time to look into the rest of ASA's archives and preserve the very materials that, ironically, were produced during preservation of archaeological sites.

References

- Agnew, N. (1998). Canvas of the millennia. Conservation, the GCI Newsletter, 13 (2), 16-17.
- Albright, G. (1983). Photographs. In S. G. Swartzburg (Ed.), Conservation in the library: A handbook of use and care of traditional and nontraditional materials (pp. 79-102). Westport, CT.: Greenwood Press.
- American Heritage Virtual Archive Project. Retrieved February 27, 1999 from the World Wide Web: <http://sunsite.berkeley.edu/amher/>
- American Institute of Physics, Neils Bohr Library. Retrieved February 23, 1999 from the World Wide Web: <http://www.aip.org/history/findaid/fndaid.htm>
- American Memory: Historical collections from the National Digital Library. Retrieved January 30, 1999 from the World Wide Web: <http://memory.loc.gov/ammem/>
- Anglo-American cataloging rules, 2nd ed. revised. (1998). Chicago: American Library Association.
- Arizona road and recreation atlas. (1998). Berkeley, CA: Benchmark Maps.
- Balter, M. (1999, March 19). Restorers reveal 28,000-year-old artworks. Science, 283, 1835.
- Bartlett, N. (1996, Fall). Diplomatics for photographic images: Academic exoticism? American Archivist, 59 (4), 486-494.
- Bearman, D. (1995, Fall). Archival strategies. American Archivist, 58 (4), 380-413.
- Bellardo, L. J., & Bellardo, L. L. (1992). A glossary for archivists, manuscript curators, and record managers. Chicago: Society of American Archivists.
- Berkeley Art Museum and Pacific Film Archive, University of California. Retrieved February 2, 1999 from the World Wide Web: <http://www.bampfa.berkeley.edu/search/collectionguides.html>
- Besser, H., & Trant, J. (1995). Introduction to imaging: Issues in constructing an image database. Getty Information Institute. Retrieved January 29, 1999 from the World Wide Web: http://www.ahip.getty.edu/intro_imaging

Blast from the past no. 4. (1989, Spring). ASA Bulletin, 14 (1), 7.

Bouché, N. L. (1997, Fall). Implementing EAD in the Yale University Library. American Archivist, 60 (4), 408-419.

Bradsher, J. G. (1988). An introduction to archives. In J. G. Bradsher (Ed.), Managing archives and archival institutions (pp. 1-16). Chicago: University of Chicago Press.

Brandeis University Libraries Special Collections. Retrieved February 4, 1999 from the World Wide Web: <http://www.library.brandeis.edu/spcoll/findaid.htm>

Bruce, R. (1994, Spring/Summer). Will the digital image change curatorial practice? Image, 37 (1/2), 17-25.

Bruce, R. (1996, Fall/Winter). Digital photography: Liquifier of museums? Image, 39 (3/4), 10-17.

California Heritage Collection. Retrieved February 11, 1999 from the World Wide Web: <http://sunsite.berkeley.edu/CalHeritage/>

California road and recreation atlas. (1998). Berkeley, CA: Benchmark Maps.

Can this photograph be saved? (n.d.). Housatonic, MA: Chicago Albumen Works.

Collins, K. (1998, Spring). Providing subject access to images: A study of user queries. American Archivist, 61 (1), 36-55.

Columbia University, Rare Book and Manuscript Library. Retrieved March 4, 1999 from the World Wide Web: <http://www.columbia.edu/cu/libraries/indiv/rare/guides/>

Confederate States Ship Alabama (1998). Retrieved February 2, 1999 from the World Wide Web: <http://www.lib.ua.edu/hoole/cssala/main.htm>

Conway, P. (1996, March). Preservation in the digital world. Washington, DC: Council on Library and Information Resources. Retrieved April 3, 1999 from the World Wide Web: <http://www.clir.org/cpa/reports/conway2>

Cover, R. (1999). The SGML/XML web page. Retrieved January 30, 1999 from the World Wide Web: <http://www.oasis-open.org/cover/sgml-xml.html>

- Cowper, D. (1975). Clues of worth: Reports on the Lake LeConte sites (53S): La Quinta, Garnet Wash and Travertine Palms. In N. Zelenka (Ed.) (1984), Notes on ASA Digs and Surveys Volume III, 169-173. Redlands, CA: Archaeological Survey Association.
- Craig, B. (1998, Spring). Old myths in new clothes: Expectations of archives users. Archivaria, 45, 118-126.
- Czech, R. L. H. (1998, Fall). Archival MARC records and finding aids in the context of end-user subject access to archival collections. American Archivist, 61 (2), 426-440.
- Daniels, M. F. (1988). Records appraisal and disposition. In J. G. Bradsher (Ed.), Managing archives and archival institutions (pp. 53-66). Chicago: University of Chicago Press.
- DeRose, S. J. (1997, Summer). Navigation, access, and control using structured information. American Archivist, 60 (3), 298-309.
- Desnoyers, M. F. (1988). Personal papers. In J. G. Bradsher (Ed.), Managing archives and archival institutions (pp. 78-91). Chicago: University of Chicago Press.
- Dooley, J. M. (1997, Summer). Introduction — Encoded archival description: Context and theory. American Archivist, 60 (3), 264-265.
- Dow, E. H. (1997, Fall). EAD and the small repository. American Archivist, 60 (4), 446-455.
- Duff, W., & Stoyanova, P. (1998, Spring). Transforming the crazy quilt: Archival displays from a user's point of view. Archivaria, 45, 44-79.
- Duke University Rare Book, Manuscript, and Special Collections Library. Retrieved April 11, 1999 from the World Wide Web: <http://odyssey.lib.duke.edu/findaid/>
- Durham University Library. Retrieved February 2, 1999 from the World Wide Web: <http://www.dur.ac.uk/Library/asc/navidocs/dulasc.sgml>
- EAD Roundtable. (1999, February). EAD sites annotated. Retrieved March 3, 1999 from the World Wide Web: <http://jefferson.village.virginia.edu/ead/sitesann.html>

- Eastman Kodak Co. (1979). Preservation of photographs. Rochester, NY: Eastman Kodak.
- Eaton, G. T. (1970). Preservation, deterioration, restoration of photographic images. In H. W. Winger & R. D. Smith (Eds.), Deterioration and preservation of library materials (pp. 85-98). Chicago: University of Chicago Press.
- Eiteljorg, H. (1998). Archiving archaeological data in the next millennium. Cultural Resource Management Online, 21 (6), 21-23. Retrieved April 3, 1999 from the World Wide Web: <http://tps.cr.nps.gov/crm/issue.cfm?volume=21&number=06>
- Encoded Archival Description (EAD) Working Group. (1998). Encoded Archival Description: Tag library version 1.0. Chicago: Society of American Archivists.
- Encoded Archival Description (EAD) Working Group. (1999). Encoded Archival Description application guidelines: Version 1.0. Chicago: Society of American Archivists.
- European Commission DGXIII/E. (1998). Archiving standards. Retrieved April 2, 1999 from the World Wide Web: <http://www2.echo.lu/oii/en/archives.html#EAD>
- Exploring Barstow: Black and Inscription Canyons. Retrieved April 7, 1999 from the World Wide Web: <http://www.exploring-barstow.com/history/black-canyon.html>
- Facca, A. E. (1998). CRM and the WWW. Cultural Resource Management Online, 21 (5), 12-13. Retrieved April 3, 1999 from the World Wide Web: <http://tps.cr.nps.gov/crm/issue.cfm?volume=21&number=05>
- Fox, M. (1997, Summer). Implementing encoded archival description: An overview of administrative and technical considerations. American Archivist, 60 (3), 330-343.
- Gowan, L., & Friant, M. J. (1999, January/February). Managing multiple formats in a twentieth-century photographic collection. Archival Outlook, 14-15.
- Gower, H. D., Jast, L. S., & Topley, W. W. (1916). The camera as historian: A handbook. London: Sampson Low, Marston.
- Green, D. L. (1999, January/February). Leveraging archivists in our digital future. Archival Outlook, 12-13, 35.

Guidelines for Electronic Text Encoding and Interchange (TEI P3). Retrieved February 11, 1999 from the World Wide Web: <http://www.hti.umich.edu/docs/TEI/>

Ham, F. G. (1993). Selecting and appraising archives and manuscripts. Chicago: Society of American Archivists.

Harvard University/Radcliffe Colleges Digital Finding Aids Project. Retrieved February 2, 1999 from the World Wide Web: <http://hul.harvard.edu/dfap/>

Hazen, D., Horrell, J., & Merrill-Oldham, J. (1998, August). Selecting research collections for digitization. Washington, DC: Council on Library and Information Resources. Retrieved March 3, 1999 from the World Wide Web: <http://www.clir.org/pubs/reports/hazen/pub74.html>

Heald, C. (1996, Winter). Is there room for archives in the post modern world? American Archivist, 59 (1), 88-101.

Hedstrom, M., & Montgomery, S. (1998). Digital preservation needs and requirements in RLG member institutions. Mountain View, CA: Research Libraries Group.

Hensen, S. L. (1989). Archives, personal papers, and manuscripts: A cataloging manual for archival repositories, historical societies, and manuscript libraries (2nd ed.). Chicago: Society of American Archivists.

Hensen, S. L. (1993). The first shall be first: APPM and its impact. Archivaria, 35, 64-70.

Hensen, S. L. (1997, Summer). "NISTF II" and EAD: The evolution of archival description. American Archivist, 60 (3), 284-296.

Higgins, R. (1997). The encoded archival description: Using SGML to create permanent electronic handlists. Business Archives Principles and Practice, 73. Retrieved February 12, 1999 from the World Wide Web: <http://www.dur.ac.uk/library/asc/eadarticle.html>

Hockey, S. (1997, May). Making technology work for scholarship: Investing in the data. Paper presented at conference on Scholarly Communication and Technology, Emory University, April, 24-25, 1997. Retrieved March 9, 1999 from the World Wide Web: <http://arl.cni.org/scomm/scat/hockey.html>

- Howe, C. (1980). A prehistory of Black Canyon: A preliminary view (Occasional Paper No. 11). Redlands: Archaeological Survey Association of Southern California.
- Howe, C. (n.d.). Handwritten draft index to negative file of Charley Howe. Unpublished; held in ASA unprocessed archive files. Typed draft transcription (with some inaccuracies) is also in file. Index covers most negatives of images taken between 1947 and mid-1960; estimated date of index is late 1960.
- Hutchinson, T. (1997, Fall). Strategies for searching online finding aids: A retrieval experiment. Archivaria, 44, 72-101. [Correction to figure 4 in Hutchinson, T. (1998, Spring). Letter to editor. Archivaria, 45, 4].
- Iowa Women's Archives, University of Iowa Libraries. Retrieved February 11, 1999 from the World Wide Web: <http://www.lib.uiowa.edu/iwa/findinga.htm>
- Johns Hopkins Medical Institutions, Chesney Medical Archives. Retrieved February 2, 1999 from the World Wide Web: <http://ww2.med.jhu.edu/medarchives/ppapers.htm>
- Kepley, D. R. (1988). Reference service and access. In J. G. Bradsher (Ed.), Managing archives and archival institutions (pp. 161-173). Chicago: University of Chicago Press.
- Ketelaar, E. (1988). Exploitation of new archival materials. In E. Ketelaar, The archival image: Collected essays pp. 67-80. Hilversum, Netherlands: Verloren. 1997. Paper presented at 11th International Congress on Archives, Paris, August 22-26, 1988.
- Kiesling, K. (1997, Summer). EAD as an archival descriptive standard. American Archivist, 60 (3), 344-354.
- Kiesling, K. (1999). What is the encoded archival description standard? Cultural Resource Management Online, 22 (2), 28-29. Retrieved April 3, 1999 from the World Wide Web: <http://tps.cr.nps.gov/crm/issue.cfm?volume=22&number=02>
- Kurtz, M. J. (1988). Archival management. In J. G. Bradsher (Ed.), Managing archives and archival institutions (pp. 241-252). Chicago: University of Chicago Press.
- Lacy, M. A., & Mitchell, A. (1997, Fall). EAD testing and implementation at the Library of Congress. American Archivist, 60 (4), 420-435.

- Leary, W. H. (1988). Managing audio-visual archives. In J. G. Bradsher (Ed.), Managing archives and archival institutions (pp. 104-120). Chicago: University of Chicago Press.
- Library of Congress Finding Aids Project: Finding aids. Retrieved February 8, 1999 from the World Wide Web: <http://lcweb2.loc.gov/faid/>
- Library of Congress Finding Aids Project: Prints and Photographs Collection. Retrieved February 7, 1999 from the World Wide Web: <http://www.loc.gov/rr/ead/eadhome.html#P&P>
- Library of Congress. (1995a). Thesaurus for graphic materials I: Subject terms (TGM I). Retrieved April 7, 1999 from the World Wide Web: <http://lcweb.loc.gov/lexico/tgm1/brsearch.html>
- Library of Congress. (1995b). Thesaurus for graphic materials II: Genre and physical characteristics terms (TGM II). Retrieved April 7, 1999 from the World Wide Web: <http://lcweb.loc.gov/rr/print/tgm2/toc.html>
- Library of Congress. (1996). TGM II: New terms and updated terms. Retrieved April 7, 1999 from the World Wide Web: <http://lcweb.loc.gov/rr/print/tgm2/newterms.html>
- Library of Congress. (1998a). Encoded archival description sites on the web. Retrieved February 11, 1999 from the World Wide Web: <http://lcweb.loc.gov/ead/eadsites.html>
- Library of Congress. (1997). Library of Congress Subject Headings. Washington, DC: Library of Congress.
- Library of Congress. (1998b). New postable terms and subdivisions added to TGM I. Retrieved April 7, 1999 from the World Wide Web: <http://lcweb.loc.gov/rr/print/tgm1/newterms.html>
- Library of Congress. (1998c). NUCMC: National Union Catalog of Manuscript Collections. Retrieved March 9, 1999 from the World Wide Web: <http://lcweb.loc.gov/nucmc.html>
- Linard, L., & Sverdloff, B. M. (1997, Winter). Not just business as usual: Evolving trends in historical research at Baker Library. American Archivist, 60 (1), 88-98.

- Long, M. S. (1984a). Appraisal and collecting policies. In M. L. Ritzenthaler, G. J. Munoff & M. S. Long, Archives and manuscripts: Administration of photographic collections (pp. 55-70). Chicago: Society of American Archivists.
- Long, M. S. (1984b). Photographs in archival collections. In M. L. Ritzenthaler, G. J. Munoff & M. S. Long, Archives and manuscripts: Administration of photographic collections (pp. 9-26). Chicago: Society of American Archivists.
- Louisiana State University Libraries. Retrieved February 11, 1999 from the World Wide Web: <http://indigo.lib.lsu.edu/special/findaid/>
- McCown, L. (1989, Fall). Goodbye to ASA pioneer Charley Howe. Bulletin of the Archaeological Survey Association of Southern California, 14 (3), 3.
- Meissner, D. (1997, Fall). First things first: Reengineering finding aids for implementation of EAD. American Archivist, 60 (4), 372-387.
- Miller, F. M. (1990). Arranging and describing archives and manuscripts. Chicago: Society of American Archivists.
- Miller, R. J. (1988, Fall). Charlie Howe honorary fund for photo preservation. Bulletin of the Archaeological Survey Association of Southern California, 13 (3), 2.
- Minnesota Historical Society. Retrieved April 3, 1999 from the World Wide Web: <http://www.mnhs.org/>
- Moir, M. B. (1993, Autumn). Finding aids and photographs: A case study in the use of analog optical disc technology to improve access to historical images. Archivaria, 36, 74-86.
- Morris, L. A. (1997, Fall). Developing a cooperative intra-institutional approach to EAD implementation: The Harvard/Radcliffe Digital Finding Aids Project. American Archivist, 60 (4), 388-407.
- Munoff, G. J. (1984). Arrangement and description. In M. L. Ritzenthaler, G. J. Munoff & M. S. Long, Archives and manuscripts: Administration of photographic collections (pp. 71-93). Chicago: Society of American Archivists.
- National Archives and Records Administration. (1996). Frequently asked questions about preservation of photographs. Retrieved March 24, 1999 from the World Wide Web: <http://www.nara.gov/nara/preserv/faqs/faqsspec.html>

National Parks Service (1998, April). Caring for cellulose nitrate film. Conserv O Gram, 14 (8). Retrieved April 4, 1999 from the World Wide Web:
http://www.cr.nps.gov/csd/publications/conservoogram/cons_toc.html

Network Development and MARC Standards Office, Library of Congress. (1998). Version 1.0 of EAD SGML DTD now available: Announcement to creators of archival finding aids. Retrieved February 1, 1999 from the World Wide Web:
<http://www.loc.gov/ead/eadv1.html>

New York Public Library Digital Library Collections. Retrieved February 11, 1999 from the World Wide Web: <http://149.123.1.8/browse.html>

New York Public Library Finding Aids. Retrieved February 11, 1999 from the World Wide Web: <http://149.123.1.8/nyplafa.html>

North Carolina State University Libraries Finding Aids. Retrieved February 11, 1999 from the World Wide Web:
http://www.lib.ncsu.edu/libraries/archives/tech_serv/ead.html

O'Donnell, L. (1994, Fall). Towards total archives: The form and meaning of photographic records. Archivaria, 38. 105-118.

Online Archive of California (OAC). Retrieved February 12, 1999 from the World Wide Web: <http://sunsite2.berkeley.edu/oac/>

Online Archive of California: SGML tools overview. (1998). Retrieved February 12, 1999 from the World Wide Web: <http://sunsite.berkeley.edu/findingaids/uc-ead/tools.html>

Oregon State Archives. Retrieved February 23, 1999 from the World Wide Web:
<http://arcweb.sos.or.gov/spmlink/historicalphotoslink.html>

Ostrow, S. E. (1998). Digitizing historical pictorial collections for the internet. Washington, DC: Council on Library and Information Resources. Retrieved April 7, 1999 from the World Wide Web:
<http://www.clir.org/pubs/reports/ostrow/pub71.html>

O'Toole, J. M. (1990). Understanding archives and manuscripts. Chicago: Society of American Archivists.

Parinet, E. (1996, Fall). Diplomats and institutional photographs. American Archivist, 59 (4), 480-485.

Photograph archives of the Peabody Museum. Retrieved October 9, 1999 from the World Wide Web: <http://www.peabody.harvard.edu/photo>

Photographic archives established. (1975, Fall/Winter). ASA Newsletter, 22 (2), 7.

Piché, J. (1998, Spring). Doing what's possible with what we've got: Using the world wide web to integrate archival functions. American Archivist, 61 (1), 106-122.

Pitti, D. V. (1995). Access to digital representations of archival materials: The Berkeley Finding Aid Project. In RLG Digital Image Access Project: Proceedings from an RLG Symposium (pp. 73-81). Palo Alto: Research Libraries Group. Retrieved February 6, 1999 from the World Wide Web: <http://sunsite.berkeley.edu/findingaids/ead/diap.html>

Pitti, D. V. (1997, Summer). Encoded archival description: The development of an encoding standard for archival finding aids. American Archivist, 60 (3), 268-283.

Public Records Office. (1998). An introduction to photos: Preservation. Retrieved April 7, 1999 from the World Wide Web: <http://www.pro.gov.uk/preservation/photospres.htm>

Public Records Office, U.K. Retrieved February 11, 1999 from the World Wide Web: <http://www.pro.gov.uk/finding/coreexec.htm>

Pugh, M. J. (1992). Providing reference services for archives and manuscripts. Chicago: Society of American Archivists.

Reilly, J. M., & Frey, F. S. (1996). Recommendations for the evaluation of digital images produced from photographic, microphotographic, and various paper formats. (Report to Library of Congress NDLP Contract No. 96CLCSP7582). Rochester, NY: Image Permanence Institute. Retrieved April 11, 1999 from the World Wide Web: <http://lcweb2.loc.gov/ammem/ipirpt.html>

Rempel, S. (1987). The care of photographs. New York: Nick Lyons Books.

Research Libraries Group (RLG) Finding Aids Program. Retrieved February 11, 1999 from the World Wide Web: <http://www.rlg.org/primary/faprog.html>

- Rinehart, R. (1998). Procedures for digitizing images from the collection. Retrieved April 12, 1999 from the World Wide Web:
<http://www.bampfa.berkeley.edu/geninfo/imagingprocedures.html>
- Ritzenthaler, M. L. (1984a). Legal issues. In M. L. Ritzenthaler, G. J. Munoff & M. S. Long, Archives and manuscripts: Administration of photographic collections (pp. 131-140). Chicago: Society of American Archivists.
- Ritzenthaler, M. L. (1984b). Managing a photographic copy service. In M. L. Ritzenthaler, G. J. Munoff & M. S. Long, Archives and manuscripts: Administration of photographic collections (pp. 141-152). Chicago: Society of American Archivists.
- Ritzenthaler, M. L. (1984c). Preservation of photographic materials. In M. L. Ritzenthaler, G. J. Munoff & M. S. Long, Archives and manuscripts: Administration of photographic collections (pp. 94-130). Chicago: Society of American Archivists.
- Ritzenthaler, M. L. (1993). Preserving archives and manuscripts. Chicago: Society of American Archivists.
- Robl, E. H. (1986). Organizing your photographs. New York: Amphoto.
- Rundell, W. (1978, October). Photographs as historical evidence: Early Texas oil. American Archivist, 41 (4), 373-398.
- Rutgers University and Center for Electronic Texts in the Humanities (CETH). Retrieved February 2, 1999 from the World Wide Web:
<http://www.ceth.rutgers.edu/projects/Griffis/project.htm>
- Ruth, J. E. (1997, Summer). Encoded archival description: A structural overview. American Archivist, 60 (3), 310-329.
- Scally, P. H. (1999, January/February). Digital technology projects already thriving in public libraries. Public Libraries, 38 (1), 48-50.
- Schrock, N. C. (1981). Preservation and storage. In H. P. Harrison (Ed.), Picture Librarianship (pp. 85-130). Phoenix, AZ: Oryx Press.
- Schwartz, J. M. (1995). "We make our tools and our tools make us": Lessons from photographs for the practice, politics, and poetics of diplomatics. Archivaria, 40, 40-74.

Scripps Institution of Oceanography Archives. Retrieved January 12, 1999 from the World Wide Web: <http://scilib.ucsd.edu/sio/archives/photos/index.html>

Seaman, D. (1997, Fall). Multi-institutional EAD: The University of Virginia's role in the American Heritage Project. American Archivist, 60 (4), 436-444.

Smith, A. (1999). Why digitize? Washington, DC: Council on Library and Information Resources. Retrieved April 7, 1999 from the World Wide Web: <http://www.clir.org/pubs/reports/pub80-smith/pub80.html>

Soete, G. J. (1997). Preserving digital information. Washington, DC: Association of Research Libraries.

Soleilhavoup, F. (1998, April). An endangered art. UNESCO Courier, 29-31. Retrieved April 7, 1999 from the World Wide Web: http://www.unesco.org/courier/1998_04/uksomm

Srivastava, R. A. (1999, Summer). The Charley Howe photographs: The ASA's photograph collection no. ASA001. ASA Bulletin, 23 (3), 4-5.

Stanford University Library, Department of Special Collections. Retrieved February 2, 1999 from the World Wide Web: <http://www-sul.stanford.edu/depts/spc/findaids.html>

Steele, L. (1982). The thirty year search for ancient man: A history of the Archaeological Survey Association of Southern California (Occasional Paper No. 12). Redlands: Archaeological Survey Association of Southern California.

Syracuse University Library. Retrieved February 3, 1999 from the World Wide Web: <http://libwww.syr.edu/aboutsul/depts/speccoll>

Taylor, H. (1979, October). Documentary art and the role of the archivist. American Archivist, 42 (4), 419-428.

Tennant, R. (1999, February 15). Beyond GIF and JPEG: New digital image technologies. Library Journal, 124 (3), 111-112.

Thesaurus of geographic names, Version 1.0. (1997). Los Angeles: The J. Paul Getty Trust. Retrieved June 27, 1999 from the World Wide Web: http://shiva.pub.getty.edu/tgn_browser/

- Thibodeau, S. G. (1988). Archival arrangement and description. In J. G. Bradsher (Ed.), Managing archives and archival institutions (pp. 67-77). Chicago: University of Chicago Press.
- Thomas, D. (1998, October). Automation and the impact of the internet on archives. Paper presented at International Symposium 25 Years of Professional Archival Training in Ireland at University College, Dublin, October 2-3, 1998. Retrieved April 3, 1999 from the World Wide Web: <http://www.ucd.ie/~archives/thomart.html>
- Turnbaugh, R. C. (1997, Spring). Information technology, records, and state archives. American Archivist, 60 (20), 184-200.
- Turner, J. M., Jorgensen, C., Goodrum, A., Grove, A. S., & Blase, N. (1997, December/1998, January). Classification and indexing for image collections: Theory and practice [session, 1997 ASIS meeting]. Bulletin of the American Society for Information Science, 24 (2), 15-16. Retrieved March 28, 1999 from Proquest database on World Wide Web: <http://proquest.umi.com>
- United States Geological Survey. (1999). Geographic names information system. Retrieved June 27, 1999 from the World Wide Web: <http://mapping.usgs.gov/www/gnis/gnisform.html>
- University of California, San Diego, Mandeville Special Collections Library. Retrieved February 22, 1999 from the World Wide Web: <http://orpheus.ucsd.edu/speccoll/testing/mscl-fal.html>
- University of Liverpool Special Collections. Retrieved March 14, 1999 from the World Wide Web: <http://sca.lib.liv.ac.uk/collections/index.html>
- University of Michigan, Bentley Historical Library Finding Aids Project. Retrieved February 11, 1999 from the World Wide Web: <http://www.umich.edu/~bhl/EAD/>
- University of North Carolina at Chapel Hill, Manuscripts Department. Retrieved February 2, 1999 from the World Wide Web: <http://www.lib.unc.edu/mss/inv>
- University of Sydney Libraries (SETIS). Retrieved February 11, 1999 from the World Wide Web: <http://setis.library.usyd.edu.au/ead/>
- University of Vermont Special Collections. Retrieved April 14, 1999 from the World Wide Web: <http://sageunix.uvm.edu/~sc/>

University of Virginia Library, Special Collections Department. Retrieved February 12, 1999 from the World Wide Web: <http://www.lib.virginia.edu/speccol/ead/>

University of Warwick, Modern Records Centre. Retrieved February 5, 1999 from the World Wide Web:
<http://www.csv.warwick.ac.uk/services/library/mrc/wwwead.html>

Van Camp, A. (1999, February). Enhancements to the archival resources services. RLG Focus, 36, 2.

Watson, A. (1998, Spring). CSS Alabama digital collection: A special collections digitization project. American Archivist, 61 (1), 124-134.

Weinstein, R. A., & Booth, L. (1977). Collection, use, and care of historical photographs. Nashville, TN: American Association for State and Local History.

Whitley, D. S. (1996). A guide to rock art sites: Southern California and southern Nevada. Missoula, MT: Mountain Press.

Wilhelm, H. (1993). The permanence and care of color photographs: Traditional and digital color prints, color negatives, slides, and motion pictures. Grinnell, IA: Preservation Publishing.

Yale University Library. Retrieved March 10, 1999 from the World Wide Web:
<http://webtext.library.yale.edu/>

Appendix A

Finding Aid for Charley (Clayton) Howe Photographs, 1947-1972.

CHARLEY (CLAYTON) HOWE PHOTOGRAPHS, 1947-1972

Collection No. ASA001

**Archaeological Survey Association of Southern California, Inc.
Redlands, California 92374**

A Finding Aid for the Charley (Clayton) Howe Photographs

Contact information:

Rosalind A. Srivastava
info@asa-online.org

Processed by:

Rosalind A. Srivastava

Date completed:

November 1, 1999

© 1999 by Archaeological Survey Association of Southern California, Inc.

Table of Contents

Descriptive Summary	3
Title	3
Collection Number	3
Creator	3
Extent	3
Repository	3
Abstract	3
Administrative Information	3
Provenance	3
Access	4
Publication Rights and Copyright Information	4
Processing Information	4
Funding Note	4
Preferred Citation	4
Biography	4
Scope and Content	6
Organization	8
Selected Search Terms (controlled vocabulary)	9
Format and Genre	9
Names	9
Subjects	9
Chronological List of Sites Photographed	10
Photography Details	14
Cameras	14
Films	14
Container List (details of series, sub-series, and some items)	15
Index of Locations	64
Reference List of ASA and Howe Negative Numbers	67
Reference List of Missing Negatives (Howe's numbers)	68
Application for Permission to Reproduce Images	69
Annotated Bibliography	70

Descriptive Summary

Title: Charley (Clayton) Howe Photographs, 1947-1972

Collection Number: ASA001

Creator: Howe, Charley (Clayton), 1897-1989

Extent: 1,610 black-and-white negatives in individual negative enclosures in 6 boxes; the replaced original negative enclosures in 2 additional boxes.

Repository: Archaeological Survey Association of Southern California, Inc.

Abstract: The collection has 1,610 negatives of photographs taken by Charley (Clayton) Howe (1897-1989) in southern California and Mexico between 1947 and 1972. A serious amateur photographer and avid avocational archaeologist, Howe was an adventurous, desert-loving member of the Archaeological Survey Association of Southern California, Inc. ("ASA"). The images document Howe's travels and many of ASA's archaeological fieldtrips and excavations. There are hundreds of excellent photographs of petroglyphs and pictographs. Many of the archaeological sites and the rock art no longer exist. Details of cameras and films used by Howe are summarized by year and location. Two indexes help to locate negatives in the collection.

Administrative Information

Provenance: In 1975, Charley (Clayton) Howe donated this collection of his negatives and a photocopy of his draft handwritten index of some photographs to the Archaeological Survey Association of Southern California, Inc. The association established a fund to preserve the negatives. During the late 1970s and 1980s, ASA member Rebecca Miller took the collection home, re-sleeved some negatives in new enclosures, transferred some of Howe's notations to the new enclosures, and stored the replaced enclosures in an ASA archive box. An unidentified person prepared a draft transcription of Howe's index. In January 1999, Rosalind Srivastava identified and consolidated 1,610 negatives that belong to Howe's collection from among materials stored in six boxes of ASA's photograph archives at the office of ASA President Donn Grenda in Redlands, California.

Access: Collection is open to researchers.

Publication Rights and Copyright Information: The images in this collection are copyrighted. Images may be displayed, copied, or used for personal study only. Written permission to reproduce an image for electronic or print publication may be obtained from the Archaeological Survey Association of Southern California, Inc. Please use the permission form located at the end of this document.

Processing Information: Rosalind Srivastava processed and re-housed this collection. Howe's negative numbers and other notations on the original enclosures (including those replaced and stored by Rebecca Miller) were transferred verbatim to the upper left-hand corner of new enclosures. For control purposes, the new enclosures were numbered from ASA001-1 through ASA001-1610 in the upper right-hand corner. The negatives were placed in the numbered enclosures and the original enclosures were stored in archival box numbers 7 and 8. Approximately one sixth of the negatives are deteriorated, including two crumbled ones that were discarded. "D" was written below the ASA number on the enclosures of deteriorated negatives to prevent their re-filing among non-deteriorated negatives. After numbering the collection, deteriorated negatives were segregated to prevent any auto-catalytic effect of deterioration on good negatives and were stored in archival box number 6. The rest of the collection was placed in archival box numbers 1 through 5. As noted in the Container List, several of the unique but deteriorated negatives will be copied in January 2000. The finding aid was completed in November 1999.

Funding Note: The cost of preservation supplies, printing of negatives, and duplication of some unique, deteriorated negatives was funded by the Archaeological Survey Association of Southern California, Inc.

Preferred Citation: [ASA001-{negative no.}, Charley (Clayton) Howe Photographs, 1949-1972, Archaeological Survey Association of Southern California, Inc., Redlands, California.

Biography

Howe was a serious amateur photographer and an avid avocational archaeologist who led many archaeological fieldtrips, participated in archaeological excavations, and photographed many sites during digs and on dozens of solitary trips. His photographs document his travels and archaeological work in California and Mexico.

In 1948, Howe joined the year-old Archaeological Survey Association of Southern California. The ASA had been founded to survey southern California to locate and document archaeological sites before the evidence was destroyed by

urbanization or vandalism. Howe joined in this search for evidence with enormous enthusiasm. An eager student of ASA's professional archaeologists, Howe worked hard to understand the principles of archaeology and believed that "ASA members [are] in an enviable position. . . . You are among the very first American archeologists to be freed from arbitrarily imposed age ceilings and other similar handicaps to unbiased research" (Simpson, 1954/1983). Howe loved the challenge of pinpointing early people's arrival in America.

Howe was born in Spottsville, Kentucky, on October 4, 1897, and by the age of fourteen was working in a shoe factory in Missouri. A fellow worker spun tales of the Mohave Desert in California but Howe had to wait twenty years to satisfy his curiosity to see it. Meanwhile, he fought in France in World War I, married, had seven children, and moved to California in the 1930s. Howe died on July 13, 1989, just before his ninety-second birthday in Inglewood, California, after a life as a bowyer, fletcher, and owner of California Bowyers, an archery and fishing equipment store.

Owning his own store allowed Howe to post a "Gone Fishing" sign when ASA needed a crew to survey an archaeological site. Howe served as ASA's field chairman for seven years, led many trips and digs, and was elected ASA President in 1970. Fellow members accorded him the singular honor of calling him "Mr. ASA." The honor was not wasted on Howe for he loved the ASA. The Association set aside a special day for him in 1976 to thank him for his devotion to ASA and archaeology (Notes, 1976). On that occasion, Chizomana Ishii, ASA past-President (1972, 1973) and niece of Hopi Chief Sekakuku, wrote a poem about Howe in which she mentions the strength, integrity, and compassion of this man who was

. . . filled with kindness and understanding
Seldom found in these days of great demanding.
Few know and comprehend the desert as he,
Who has been the shining example for all to see . . .

Ishii touches upon the essence of Howe: his enchantment with the desert and his joy at sharing his awareness and adventures with others. Howe traveled the southern California deserts and down to Baja and Barranca del Cobre in Mexico many times. Eventually, in 1959, his jeep, El Esperito del Desierto II, gave him the freedom to traverse the rockiest of desert terrain. He enjoyed roughing it and teaching his desert survival skills to others. He wrote the "Ten Commandments for Field Behaviour" to encourage ASA volunteers to become valuable team members (Howe, 1953/1983).

Howe was inventive. To speed the process of sifting material at archaeological excavations, he and ASA member Clyde Price designed and constructed a power shaker using a Sears refrigerator spring for a gentle bounce, a one-cylinder motor, and nesting variable-size mesh screens. At the Calico Early Man site near Barstow (where he volunteered "a pretty good slice of my life . . . in the pits"), Howe and ASA member Clifton Clouse developed a method of using small mirrors to show both sides of artifacts in a photograph. Howe worked to develop his photography skills and

taught artifact photography ((Howe, 1960; Steele, 1982). The National Geographic sent him a Leica 35mm camera that “got a pretty good workout” (Howe, 1977b).

The Los Angeles Times observed that Howe was “as natural in the desert as the prickly cactus or the sagebrush and sand. He wears a dusty, shapeless, wide-brimmed hat . . . squints through yellow-brown eyes set in a tanned face that seems to have been carved from granite” (Hulse, 1954). Fortunately, Howe was meticulous and took good care of his photographs documenting his and ASA’s work, travel, and adventures.

(Full bibliographic references are at end of this finding aid)

Scope and Content

The collection contains 1,610 black-and-white negatives, mostly 4x5-inch, taken in California and Mexico by Charley (Clayton) Howe between 1947 and 1972. Howe had joined the Archaeological Survey Association of Southern California, Inc. in 1948 and, in 1975, donated the negatives to the ASA. The Association envisioned the negatives as the initial collection of an archive of photographs on California archaeology that would be open for reference by scholars (“Photographic Archives Established,” 1975).

The negatives cover 26 years of Howe’s travels in California and Mexico and a 25-year span of ASA’s active survey work in southern California beginning a year after the association was founded. During this period, ASA surveyed over 120 sites. These negatives document more than 155 trips by Howe to more than 84 locations.

As in many areas worldwide, southern California has sustained the loss of archaeological treasures due to urbanization and vandalism. The state of rock art in two beautiful Mojave Desert canyons, Black and Inscription, is typical of the extensive manmade damage that is common at archaeological sites in southern California. The destruction includes graffiti, bullet holes, red paint stains from attempted rubbings, artwork destroyed by people trying to chisel it off the rocks, and trash dumped around the artwork. Howe’s images show such destruction of rock sites over the years.

In 1947, archaeologists at the Southwest Museum in Los Angeles worried about the destruction of archaeological sites and anticipated a dearth of source material for understanding the prehistory of southern California. Thus, the ASA was founded by Southwest Museum archaeologists Mark Harrington, Edwin Francis Walker, Frederick Webb Hodge, and Howard Arden Edwards (Steele, 1982) with the goal of surveying southern California to document archaeological sites. The membership of the professional-amateur association grew from the initial 50 to 200 in five months. Amateurs from many walks of life surveyed southern California archaeological sites along with professional archaeologists from universities (including University of Southern California, University of California, Los Angeles, University of California, Riverside, University of California, Santa Barbara, University of Redlands, and Long

Beach State College) and museums (including Southwest Museum, San Diego Museum of Man, and Los Angeles County Museum of Natural History) (Steele, 1982). Some of Howe's photographs are the only complete remains of destroyed treasures such as a petroglyph of several sheep traversing a cliff face in Black Canyon, California. The negatives contain valuable, comprehensive, and sometimes unique documentation for archaeologists and historians. There are beautiful black-and-white images of difficult-to-photograph petroglyphs and pictographs from California locations including Black Canyon, China Lake, Burro Flats, and Painted Cave; ASA's Barranca del Cobre Expedition (Mexico) in 1960; trips to the Baja Peninsula in Mexico beginning in 1956, long before the paved highway opened up Baja in 1973; ASA members excavating, staking, laughing, resting, and digging again; campsites rigged around ordinary cars that somehow made it out into the desert; Tarahumara Indians in Barranca del Cobre; a Paiute friend in Bishop; a Mexican family at remote El Arco in Baja; a Paiute in a magnificent headdress; artifacts, intaglios, and cairns; tarantulas and snakes; giant cacti and flowering yuccas in the desert; the dedication of ASA's Early Man Research Center; and many other subjects.

The negatives contain hundreds of images of petroglyphs and pictographs in California and some images of the exquisite and faithful rock art reproductions prepared by Charles LaMonk, a professional artist and ASA member. LaMonk pursued enthusiastically the goal of recording and preserving Indian rock art (Charles LaMonk: ASA artist, 1976/1983) and donated over one hundred reproductions to the ASA (referenced in this finding aid as "ASA LaMonk No."). He made his first reproductions for ASA at Burro Flats in 1953 where Howe worked with LaMonk to figure out an implement that LaMonk could use to reproduce the rock art accurately. They found that a folded piece of paper with a torn end was a tool that simulated a tightly folded piece of buckskin with a flayed end and "produced heavy and thin lines, curves . . . that matched the brushwork and technique [of the pictographs] exactly" (LaMonk, 1953/n.d.; Jackson, 1954). LaMonk also painted portraits of American Indians and his work has been exhibited at national and international exhibitions and in the White House by presidential invitation (Redtfeldt, 1991).

Some of Howe's travels and archaeological work is not represented in these negatives. Given his love of photography, one may speculate that other photographs exist and were perhaps included with materials pertaining to particular archaeological sites. Some negatives are missing from the collection as evidenced by empty original enclosures or references to items on Howe's draft index (n.d.). A list of missing negatives appears near the end of this finding aid.

State and county names have been added to Howe's place names here. Two gazetteers (Thesaurus of Geographic Names, 1997; United States Geological Survey, 1999) were used to locate information. One site, Oak Creek, could not be pin-pointed.

(Full bibliographic references are at end of this finding aid)

Organization

Collection ASA001 is organized in 96 series. Each series contains negatives of photographs taken at one location. When a series has photographs taken on different dates, negatives from each date comprise separate sub-series that are arranged in chronological order (undated last).

For control purposes, the negatives were re-numbered in a continuous sequence from ASA001-1 through ASA001-1610. The collection number was used as a prefix to prevent confusion with Howe's original numbers, 1 through 10400. A cross-reference list of ASA and Howe numbers appears near the end of this finding aid. All negative enclosures bear the Howe number (or the notation "[no number]") and ASA number.

Negatives are stored in archival boxes numbered 1 through 6. Boxes 1-5 contain negatives that had not deteriorated at the time of processing. Deteriorated negatives are segregated in box 6. The integrity of the collection was maintained by separating deteriorated negatives only after numbering the entire collection.

The organization follows the original order intended by Howe. According to Howe's draft index of some negatives taken between 1947 and 1972, the "dominant classification is by site name" (Howe, n.d.). Howe numbered most of the negatives taken between 1947 and mid-1960 from 1 to 10400. Negatives from each site were numbered in sequence in approximately chronological order. The order in which each site appears in the numeric sequence appears arbitrary. Some number ranges were reserved for future use or some were allocated to a specific location, for example, 1000 et seq. for Black Canyon. Howe may have numbered the negatives some years after the photographs were taken. For example, numbers assigned to negatives of photographs taken in 1955 precede those of some from 1952.

Negatives of photographs taken after October 1960, and some before 1960, are not numbered or listed on Howe's (n.d.) index. However, some were filed at the end of a numbered site sequence. For example, unnumbered negatives of photographs taken in Rodman Mountains in the 1960s follow the numbered Rodman negatives in chronological order but precede 1956 China Lake negatives. There are exceptions. For example, Howe numbered negatives of Yuma as 1-3 and 1689-1690. Since Howe's numbering sequence was not changed during processing, negatives of photographs taken at some locations appear in more than one place in the collection.

Most of the negatives not numbered by Howe were filed after Howe's last number (10400) grouped by site. Many negatives were out of order, perhaps due to the project being unfinished by Howe, or due to reorganization, use, or misfiling by others. Minor re-arrangement was done during processing to follow Howe's intent to organize by site, and within site in chronological order. Most of the negatives are 4x5-inch. Other sizes of negatives are noted in the container list.

Selected Search Terms for Collection Access

Controlled vocabulary terms from Library of Congress Subject Headings and Thesaurus for Graphic Materials I and II; and some local terms.

Format and Genre:

Acetate negatives
Ethnographic photographs
Group portraits
Landscape photographs
Polyester negatives
Portrait photographs
Reproductions
Views

Names:

Antelope Valley Indian Museum (Lancaster, Calif.)
Archaeological Survey Association of Southern California (Redlands, Calif.)
Black Canyon (San Bernardino, Calif.)
Black, Chio (Chizomana Ishii)
China Lake Naval Air Weapons Station (Calif.)
Cowper, Dorothy
Curtis, Freddie, b. 1913
Eastern California Museum (Independence, Calif.)
Howe, Charley (Clayton), 1897-1989
LaMonk, Charles, d. 1990
Simpson, Ruth DeEtte
San Bernardino County Museum (Redlands, Calif.)
Southwest Museum (Los Angeles, Calif.)
Wormington, Hannah Marie, 1914-1994

Subjects:

Anthropology - California
Anthropology - Mexico
Archaeological sites - California
Archaeological surveying - California
Archaeology - California
Artifacts - California
Artists - American - California
California - Antiquities
Cocopa Indians - Mexico
Cradleboards - Arizona

Desert plants – California
 Deserts – California
 Excavations (Archaeology) – California
 Hopi Indians
 Indians – Antiquities
 Jeep automobiles
 Mojave Desert – California
 Navaho Indians
 Orphanages – Mexico
 Paiute Indians – California
 Petroglyphs – California
 Petroglyphs – Nevada
 Photography in archaeology
 Pueblos – Arizona
 Rock art – California
 Rock art – Nevada
 Rock paintings – California
 Tarahumara Indians – Mexico
 Volunteer workers in archaeology

Chronological List of Sites Photographed

(In California unless noted otherwise)

1947:

Month unknown: Malibu Mountains Pictograph Cave

1948:

May: Salton Sea

1949:

Month unknown: Black Canyon; Painted Cave

1950:

Month unknown: Black Canyon

1951:

April and May: Yuma sand dunes

May: Black Canyon

1952:

March and June: Black Canyon

November: a California ranch

Month unknown: Temecula

1953:

February: Avawatz Mountains

April and November: Deep Creek

May: Black Canyon

July: Downey site

November: Willow Springs

Month unknown: Burro Flats

1954:

March: Black Star Canyon

March, May and June: Black Canyon

April: Burro Flats; Coyote Gulch

June: Antelope Valley Indian Museum; Humming Bird Ranch

July: Amazon Hill

Month unknown: Painted Cave; Phillips Ranch; Providence Mountains; Texas Street, San Diego; Torrance site

1955:

January: Kingston Wash; Leach Lake; Providence Mountains

March: Black Canyon

March and November: Rodman Mountains

May: Devil's Post Pile; Malaga Cove

June, July, and November: Phillips Ranch

July: Aqua Dulce Ranch and Painted Cave

August: Mutau Meadows

September: Cuddleback Lake

October: Signal Mountain, Mexico

Month unknown: Thousand Palms

1956:

February: Rodman Mountains

April: Black Canyon

September and October: Baja California, Mexico

Month unknown: Baja California, Mexico; Black Canyon; China Lake

1957:

March: Southwest Museum

April: Mule Canyon; Rodman Mountains

May: China Lake

May/June; and November: Baja California, Mexico

July: Grover City

September: Amazon Hill; Casmalia Beach

October: Mesquite Springs; San Timoteo Canyon

Month unknown: Harbor Freeway in Los Angeles; Navajo Country and Wupatki, Arizona

1958:

January and March: Black Canyon

March: Rock Springs

1959:

October: Baja California, Mexico

Month unknown: Black Canyon

1960:

February: Aguanga

February, March, April, May, and November: Black Canyon

April: Gem Hill

May: Guadalupe Canyon, Mexico

July: Independence

August: Bishop and Owen's Valley

October: Barranca del Cobre, Mexico

Month unknown: Joshua Tree Monument; Seco Laguna Chapala, Mexico

1961:

February; and March: Black Canyon; Little Lake

March: Petroglyph Cave

May: Amazon Hill

June: Angeles Crest Highway; Bishop; Casa Diablo; Coso Hot Springs

September: Davis Dam, Arizona-Nevada; Taos and Bandelier, New Mexico

Month unknown: Keeler; Lone Pine; Sage Canyon; Shadow Mountain; Swansea;

Tropico Mojave Mine; Western Star/Price Ranch

1962:

January: Black Canyon, Davis Dam (Arizona-Nevada), Grapevine Canyon (Nevada), Lone Pine, Western Star/Price Ranch

May: Last Chance Canyon
 Month unknown: Coso Hot Springs

1963:

January: Davis Dam and Grapevine Canyon, Nevada
 June: Baja California, Mexico
 October: Barranca del Cobre, Mexico

1964:

July: Crowley Site No. 1
 October: Barranca del Cobre, Mexico
 Month unknown: Black Canyon; Bloomington [Redlands]; Rodman Mountains;
 Western Star/Price Ranch

1965:

April: Davis Dam, Arizona-Nevada
 Month unknown: China Lake; Colonia Guerro, Mexico

1966: no locations mentioned

1967:

Month unknown: Baja California, Mexico; Grapevine Canyon (Nevada); Howe noted that the Calico dig took first place in ASA field activities (Ishii, 1968). No photographs of Calico here.

1968:

Month unknown: Black Canyon; Fossil Falls

1969: no locations mentioned

1970: no locations mentioned

1971:

November: Hole-in-the-wall
 Month unknown: Rancho California; Yucca Valley

1972:

February: Baja California, Mexico

No dates: Amboy Crater, Barstow, Chilao Flats, Fort Tejon, Horse Canyon Cave,

Irvine Ranch, Maricopa, Oak Creek, Vincent, Ventura Boulevard in Los Angeles County, Zion National Park (Utah). There are both dated and undated negatives for the following nine locations: Bishop, Black Canyon, Burro Flats, Coso Hot Springs, Davis Dam (Arizona-Nevada), Humming Bird Ranch, Keeler, Baja California (Mexico), Barranca del Cobre (Mexico)

Photography Details

According to Howe's notes on a few of the negative enclosures, he used at least eight different cameras and seventeen kinds of film to produce these photographs.

Cameras:

1952: Brand 17 and 8-inch Ektar lens, Graflex, Voightlander reflex, and box camera owned by Howe's son, Vernon (Black Canyon ASA001-425 - 467 series)

1954: Printex (Burro Flats ASA001- 237, 244, 258, 260, 261 and Coyote Gulch ASA001-714-731 series), Recomar (first time that Howe used this camera: Black Canyon ASA001-487 - 489), and Voightlander reflex (Burro Flats ASA001-249 - 254)

1955: Brand 17 with wide angle lens (Black Canyon ASA001-527 - 529); Recomar (Leach Lake ASA001-964 - 970 series and Providence Mountains ASA001-1010 - 1011)

1956: Ansco reflex (Baja California ASA001-1144 - 1152)

1957: Ansco reflex (China Lake ASA001-931 - 932)

1960: Kodak Medalist (first time that Howe used this camera: Guadalupe Canyon ASA001-90 - 96)

1962: Kodak Medalist (Grapevine Canyon ASA001-1481 - 1489)

Films:

1951: Kodak Commercial, Panatomic X, Pentagon film (all photographs with this film are very degraded) and Super XX (Black Canyon ASA001-403 - 418 series)

1952: Contrast Process Pan, DuPont Commercial, Portrait Pan, and Super XX (Black Canyon ASA001-425 - 467 series)

1953: Ansco Commercial, Contrast Process Pan, DuPont Process Pan, Ortho and fine grain Pan (Black Canyon ASA001-468 – 475 series)

1954: Isopan with D23 borax developer (Burro Flats ASA001-244 and Coyote Gulch ASA001-714-731 series), Panatomic X with D23 borax as developer, and Process Pan (Coyote Gulch ASA001-714-731 series)

1955: Ansco Isopan (Rodman Mountains ASA001-780), Ortho X (Rodman Mountains ASA001-765), Panatomic X (Leach Lake ASA001-964 – 970 series; Rodman Mountains ASA001-776, 848 – 851 (848-851 were intensified with Kodak Chromium Intensifier)

1956: One negative (China Lake ASA001-892) was intensified in copper and is extremely degraded

1957: Adox KB14 film (China Lake ASA001-931 – 932)

1961: Plus X Pan with K2 filter (Bishop ASA001-1325)

1962: Kodak Panatomic X film and D76 developer 1 to 1 (Grapevine Canyon ASA001-1481 – 1489)

1963: Plus X rated at 320ASA and developed 8 minutes at 70 degrees (Davis Dam ASA001-1400 – 1408 and Grapevine Canyon ASA001-1490 – 1492)

Container List

YUMA SAND DUNES (CALIFORNIA), APRIL 1951

3 negatives: ASA001-1 – 3

Box 1

ASA's first field trip on April 21-22, 1951, was to the Sand Hills area for surveying and surface collecting (Peck, 1953).

Photographs of ASA group around a campfire. Group includes Dr. Herbert Cowper (at left in light cap) and son Gregory (Zajicek, 1988). Photographs were taken with F 7.7 Ektar lens with one no. 5 bulb. ASA001-3 was published in ASA Bulletin (Blast from the past no. 1, 1988). See also: Yuma sand dunes, May 1951, ASA001-702 – 703.

MALIBU MOUNTAINS PICTOGRAPH CAVE (CALIFORNIA), 1947

7 negatives: ASA001-4 - 10

Box 1

Howe took this trip with Grover Reeder and Dirk Gutcher. Very faint pictographs in a cave in the Malibu Mountains. Photographs include Verna (Mrs. Charley) Howe (ASA001-8) and Mrs. Howe with a group of people near a cave entrance (ASA001-9).

PAINTED CAVE (SANTA BARBARA COUNTY, CALIFORNIA), 1949-1955

20 negatives: ASA001-11 - 30

Box 1. Box 6: 9 degraded negatives ASA001-11, 12, 20, 23 - 28

Three sub-series in chronological order

"Painted Cave is in the San Marcos Pass near Santa Barbara. The property at this date [July 10, 1955] is owned by Mr. Ralph Ogram who lives nearby. This trip was made with Harford Bridges and Lily Colvin on a hot day in July. Mr. Ogram gave us the key to the cave and we worked in the cave, using Harford's powerful electronic flash, until past midnight. Mr. Ogram told me that he has pictures taken by his grandfather showing the pictographs nearly complete and before the vandalism of the white man. The colors of these glyphs are very brilliant." (Howe, original enclosure for ASA001-18). Site trinomial is SBA-506. ASA001-21 was published in ASA Bulletin (Blast from the past no. 2, 1988).

Painted Cave, 1949

2 negatives: ASA001-11 - 12

Pictographs in cave; very degraded negatives (scheduled for preservation copying in January 2000).

Painted Cave, 1954

5 negatives: ASA001-13 - 17

Pictographs in cave.

Painted Cave, July 10, 1955

13 negatives: ASA001-18 - 30

Pictographs in cave.

THOUSAND PALMS (RIVERSIDE COUNTY, CALIFORNIA), 1955

7 negatives: ASA001-31 – 37

Box 1. Box 6: 2 degraded negatives ASA001-34, 37

A well-defined ancient Indian trail (ASA001-32, 33, 35) and cleared areas in the desert pavement on terraces above the wash (ASA001-31, 36).

TORRANCE SITE (LOS ANGELES COUNTY, CALIFORNIA), 1954

1 negative: ASA001-38

Box 1

Two metates and two bowls “taken by [Los Angeles] County Museum and all artifacts went there” (Howe, original enclosure). 4x3-inch negative.

**CUDDLEBACK LAKE (SAN BERNARDINO COUNTY, CALIFORNIA),
SEPTEMBER 17-18, 1955**

1 negative: ASA001-39

Box 1

A dry lake site (Howe, n.d.). Photograph shows a campsite in the desert with a jeep rigged as a tent.

MALAGA COVE (LOS ANGELES COUNTY, CALIFORNIA), MAY 1, 1955

2 negatives: ASA001-40 – 41

Box 1

People working at archaeological excavation of a milling site. The material went to the Southwest Museum (Steele, 1982).

**MUTAU MEADOWS OR FLATS (VENTURA COUNTY, CALIFORNIA),
AUGUST 20-21, 1955**

6 negatives: ASA001-42 – 47

Box 1

Many pictographs in a cave near the ranch house (site VEN-2) but “quarters too close to get photos of most” (Howe, enclosure for ASA001-47). The main pictograph in negatives ASA001-46 – 47 was reproduced in 1959 by Charles LaMonk (ASA LaMonk

No. 82). The other pictograph in the same negatives is similar to ASA LaMonk No. 26.

Four photographs show a deer killed by a mountain lion and found by a hunter (ASA001-42 – 45).

TEXAS STREET, SAN DIEGO (CALIFORNIA), 1954

4 negatives: ASA001-48 – 51

Box 1

Views of Dr. George Carter's archaeological site (Carter, 1980); no digging in progress. Howe (n.d.) cross-indexed the photographs under the entry "Geological Interest."

SIGNAL MOUNTAIN (BAJA CALIFORNIA, MEXICO), OCTOBER 8-9, 1955

1 negative: ASA001-52

Box 1

A three-jeep camp with Signal Mountain in the background.

SOUTHWEST MUSEUM, LOS ANGELES (CALIFORNIA), MARCH 2, 1957

8 negatives: ASA001-53 – 60

Box 1

Views of the exterior and vicinity of the museum that was ASA's first home. The founders of ASA were archaeologists at the museum.

MULE CANYON (SAN BERNARDINO COUNTY, CALIFORNIA), APRIL 6-7, 1957

1 negative: ASA001-61

Box 1

ASA began the survey of Mule Canyon with a reconnaissance trip in March 1957; about forty members participated (Simpson, 1957/1984). ASA worked the site on weekends during 1957.

Photograph of jeep-car camp with Chester and Thelma Crain (not Crane as on original

enclosure) having dinner beside car. Date taken from Howe (n.d.) as original enclosure is undated. Photograph was published in ASA Bulletin (Blast from the past no. 8, 1990).

KINGSTON WASH (SAN BERNARDINO COUNTY, CALIFORNIA), JANUARY 24, 1955

1 negative: ASA001-62

Box 1

Clyde Price working at archaeological site in a cave at Kingston Wash.

HUMMING BIRD RANCH, SIMI VALLEY AREA (VENTURA COUNTY, CALIFORNIA), UNDATED

1 negative: ASA001-63

Box 1

Woodpecker holes in telephone pole near Humming Bird Ranch. Howe (n.d.) indexed this image as "unusual or different."

"EL TORO" JEEP, UNDATED

3 negatives: ASA001-64 - 66

Box 1. Box 6: 2 degraded negatives ASA001-64, 65

Jeep with the name "El Toro" painted on the door. Price (?) with jeep.

CASMALIA BEACH (SANTA BARBARA COUNTY, CALIFORNIA), SEPTEMBER 1-2, 1957

2 negatives: ASA001-67 - 68

Box 1

Beach visited with Jim Fisher (not pictured). 2.25x2.25-inch negatives.

GROVER CITY (SAN LUIS OBISPO COUNTY, CALIFORNIA), JULY 6-7, 1957

4 negatives: ASA001-69 - 72

Box 1

Howe (?) posing with Bill and Evelyn Goodnight outside house. 2.25x2.25-inch negatives.

**VENTURA BOULEVARD (LOS ANGELES COUNTY, CALIFORNIA),
UNDATED**

2 negatives: ASA001-73 - 74

Box 1

A single sandstone concretion propped against a brick wall.

HARBOR FREEWAY (LOS ANGELES COUNTY, CALIFORNIA), 1957

10 negatives: ASA001-75 - 84

Box 1

Howe found fossils at the Harbor Freeway construction site near his house on 113th Street near Imperial Highway; the State of California later condemned his property for construction of the Century Freeway (Howe, 1977a). It is not clear whether the photographs in this series are from Howe's find or from another excavation.

Photographs of Pleistocene bones (identification from notation on enclosure of ASA001-82); view of the freeway dig between 112th and 113th streets in Los Angeles; sandspike picture made for Chuck Williams that Howe (n.d.) cross-indexed under the entry "Geological Interest" (ASA001-75, undated).

**SAN TIMOTEO CANYON (SAN BERNARDINO COUNTY, CALIFORNIA),
OCTOBER 6, 1957**

5 negatives: ASA001-85 - 89

Box 1

Photographs of a human skeleton (ASA001-87) and historical artifacts including a five franc 1834 coin, an 1854 coin, a belt buckle, and an engraved spoon (ASA001-85 - 86). Howe (n.d.) cross-indexed the photographs under the entry "Historical Interest."

GUADALUPE CANYON (BAJA CALIFORNIA, MEXICO), MAY 30, 1960

7 negatives: ASA001-90 - 96

Box 1

Howe took this trip with Don Fruit, Wilma Williams, and Andy Kastell. The canyon, on the Sierra Juarez Plateau in northern Baja, has hot pools (Howe, 1976c). The photographs include a group of people having refreshments beside a car, landscapes, jeeps traversing rocky hill terrain, a swimming hole, and a hut of palm fronds.

AMBOY CRATER (SAN BERNARDINO COUNTY, CALIFORNIA), UNDATED

1 negative: ASA001-97

Box 1

View of the crater and the surrounding landscape.

AGUANGA (RIVERSIDE COUNTY, CALIFORNIA), FEBRUARY 1960

1 negative: ASA001-98

Box 1

Petroglyph of a lanky man walking "made by removing lichens from the rock" (Howe, original enclosure). Location is near Bergman's Museum.

HORSE CANYON CAVE (KERN COUNTY, CALIFORNIA), UNDATED

10 negatives: ASA001-99 – 108 (Howe negative no. 268 envelope is empty)

Box 1. Box 6: 3 degraded negatives ASA001-105, 107, 108

Excavation was sponsored by Southwest Museum and University of California, Los Angeles (Steele, 1982).

Views of the cave entrance at the canyon site (KER-93); Clyde Price posing with tripod (ASA001-103); rainbow-shaped and circular, radiating pictographs (ASA001-104, 106). Some of these pictographs appear in the reproductions prepared by Charles LaMonk in 1954 (ASA LaMonk Nos. 66 and 80). In addition to these reproductions, the ASA owns four other LaMonk reproductions of Horse Canyon rock art (ASA LaMonk Nos. 28, 50, 51, 71).

AQUA DULCE RANCH (LOS ANGELES COUNTY, CALIFORNIA?), JULY 3, 1955

10 negatives: ASA001-109 – 118

Box 1

Views include a swimming hole with "No Frog Hunting" and "No Fishing" signs and a picnic area with parked cars (ASA001-109 – 111). Several small groups of people are posing on a rock (ASA001-112 – 118). Howe (n.d.) references a "Mrs. Lotito." According to archaeologist M. Lerch, this location now may be Vasquez Rocks, a Los Angeles County park (D. Grenda, personal communication, October 23, 1999).

**AVAWATZ MOUNTAINS (SAN BERNARDINO COUNTY, CALIFORNIA),
FEBRUARY 20-23, 1953**

8 negatives: ASA001-119 – 126

Box 1

Views of a cave entrance and the surrounding area.

NAVAJO COUNTRY AND WUPATKI (ARIZONA), 1957

12 negatives: ASA001-127 – 138

Box 1

Photographs include a Navaho mother with her child in a cradleboard with a close-up showing construction of the cradleboard; views outside a Navaho hogan; groups of unidentified people outside a house constructed of wooden planks (ASA001-127 – 130); three photographs of the Wupatki ruins, northeast of Flagstaff, Arizona (ASA001-135 – 138). Some 2.25x2.25-inch negatives.

**ANTELOPE VALLEY INDIAN MUSEUM (LOS ANGELES COUNTY,
CALIFORNIA), JUNE 10-11, 1954**

6 negatives: ASA001-139 – 144

Box 1

Exterior views of museum originally built as the residence of one of ASA's founders, H. A. Edwards. ASA's Antelope Valley Indian Museum survey material is believed to be in this museum (Steele, 1982).

AMAZON HILL AND CAVE (INYO COUNTY, CALIFORNIA), 1954-1961

18 negatives: ASA001-145 – 162

Box 1

Three sub-series in chronological order

Near Lone Pine. ASA participated in a survey sponsored by the Eastern California Museum in September 1957 that located five caves with evidence of recent Indian occupation (Rozaire, 1968). Howe (n.d.) mentions a Waldo Kell. Material from the survey went to the Eastern California Museum (Steele, 1982).

Amazon Hill and Cave, July 24-25, 1954

8 negatives: ASA001-145 – 152

Landscapes showing the hill and the cave entrance; a young man near the cave entrance (ASA001-148 and 151); and a group of people posing on the hoods of two cars (ASA001-152).

Amazon Hill and Cave, September 28-29, 1957

7 negatives: ASA001-153 – 159

Views taken during ASA survey of the area; basketry from the cave; several women climbing the hill. 2.25x2.25 negatives.

Amazon Hill and Cave, May 1961

3 negatives: ASA001-160 – 162

On May 27, 1961, ASA made a trip to recover basketry (Apostolides, 1961/1984a). Views of the hill. 2.25x3.25-inch negatives.

ARTIFACTS FOUND AT SECO LAGUNA CHAPALA (BAJA CALIFORNIA), 1960

1 negative: ASA001-163

Box 6: 1 degraded negative ASA001-163

A display of artifacts that includes projectile points.

ARTIFACTS OF UNKNOWN ORIGIN, 1960

1 negative: ASA001-164

Box 1

“Artifacts now in my possession and of unknown origin” (Howe, original enclosure). The display of artifacts includes projectile points.

CHILAO FLATS (LOS ANGELES COUNTY, CALIFORNIA), UNDATED (1954?)

25 negatives: ASA001-165 – 189

Box 1. Box 6: 6 degraded negatives ASA001-174, 178, 179, 182, 188, 189

At the request of the U.S. Forest Service, the Southwest Museum sponsored a salvage dig worked by ASA and led by Dave Rice (Rice, 1954/1984; Rozaire, 1958/1984). The excavation of a mourning site in the mountains uncovered a burial, beads, steatite bowls, and a "pelican hook" (Rice, 1954/1984).

Detailed photographs of people working at the excavation near Chilao Ranger Station; in situ and displayed artifacts. ASA001-175 shows the sign at the dig: "Dave Rice, 1700 Santee, LA #15."

MESQUITE SPRINGS (CALIFORNIA), OCTOBER 26-27, 1957

19 negatives: ASA001-190 – 208

Box 1. Box 6: 4 degraded negatives ASA001-190, 192, 201, 208

Views of the historical Trona and Tidewater Railway in the desert; a jeep campsite is near the railway track (ASA001-190 – 195). Howe (1960) cross-indexed the photographs under the entry "Historical Interest." One photograph shows pictographs on rocks viewed from Mesquite Springs towards the railway (ASA001-194). Photographs of pictographs (ASA001-196 – 208) include walls of pictographs (ASA001-205, 206). Great variety of pictograph designs with circular elements.

BURRO FLATS (VENTURA COUNTY, CALIFORNIA), 1953-1954 AND UNDATED

70 negatives: ASA001-209 – 278

Box 1. Box 6: 10 degraded negatives ASA001-212, 222, 224 – 226, 230 – 231, 257, 265, 278

Three sub-series as numbered by Howe (chronological order but with undated series before 1953 series)

The site (VEN-4) above Chatsworth Reservoir was on a private ranch owned by Mr. Silvernale. There were two cave homes at the site and pictographs in varied shapes and vivid color. The West Coast's first atomic power plant was planned for some of the Burro Flats area in 1954 (Jackson, 1954).

Charles LaMonk made his first reproductions of pictographs for the ASA at this site (ASA LaMonk Nos. 7, 8, 11, 12, 76 prepared in 1953; ASA LaMonk Nos. 13, 15, 17, 19, 25, 37 prepared in 1954). On October 24-25, 1953, Howe and LaMonk experimented with brush strokes and “we found that by folding a piece of paper and tearing the end off square to simulate a tightly folded piece of buckskin with a flayed end, that we had a very versatile tool. It produced heavy and thin lines, curves . . . that matched the brushwork and technique [of the pictographs] exactly” (LaMonk, 1953/n.d.; Jackson, 1954).

ASA001-258 was published in ASA Bulletin (Blast from the past no. 9, 1990). The original negative shows pictographs within the cave and LaMonk and Cowper painting and sketching outside the cave.

Burro Flats, undated

4 negatives: ASA001-209 – 212

Photographs of LaMonk’s reproductions. Neither of the original reproductions is in the ASA LaMonk collection.

ASA001-209 – 211 photograph of LaMonk’s reproduction of the most dominant pictograph figure in the ceremonial cave. Hedges (1985) states that the figure illustrates the flight metaphor. A similar figure appears in ASA LaMonk No. 11 prepared in 1953. VanTilburg (1983, p. 44-45) recorded a similar figure from a “rock shelter in the Simi Hills.”

ASA001-212 photograph of LaMonk’s reproduction of the “Jumping Man” figure in the cave. ASA LaMonk Nos. 13 and 37 (prepared in 1954) are similar reproductions.

Burro Flats, 1953

24 negatives: ASA001-213 – 236

Views of dig site; the cave entrance; and a small cave near a tank about one mile from the main site. Sub-series also includes:

ASA001-213 chart of baseline and grid of dig site dated October 10, 1953.

ASA001-220 cairn.

ASA001-221 ash deposit.

ASA001-222 pictograph of a central body with 2 rake-like arms.

ASA001-225 – 226 pictograph cave.

ASA001-227 – 229 a group of people around a campfire includes W. O. Gilkey dressed up as an Indian in a headdress (ASA, 1977).

Burro Flats, April 17-18, 1954

42 negatives: ASA001-237 – 278

Sub-series contains the following items:

ASA001-237 – 254 many groups of pictographs in a cave. Pictographs in ASA001-237 include the dominant pictograph shown in ASA001-209 – 211. ASA001-249 – 254 are 2.25x2.25-inch negatives.

ASA001-255 – 257 small rock shelter with pictographs painted in black on the ceiling.

ASA001-258 – 259 Charles LaMonk, Charles Jr., and Dorothy Cowper (wife of late Dr. Herbert H. Cowper), sitting outside a cave entrance and sketching pictographs. Pictographs are visible inside the cave.

ASA001-260 – 261 Freddie Curtis taking a rest.

ASA001-262 – 263 Ruth DeEtte Simpson laughing and pointing toward pictographs with a trowel.

ASA001-264 – 265 Ruth DeEtte Simpson and Freddie Curtis.

ASA001-266 – 267 Jumping Man cave and Freddie Curtis.

ASA001-268 view of a trail across the flats.

ASA001-269 bedrock mortars.

ASA001-270 – 278 views of the ranch and the surrounding landscape. Also, general views of areas near the caves.

DEEP CREEK (SAN BERNARDINO COUNTY, CALIFORNIA), 1953

27 negatives: ASA001-279 – 305

Box 1. Box 6: 17 degraded negatives ASA001-282 – 287, 290 – 296, 299, 300, 302, 305

Two sub-series as numbered by Howe (chronological sub-series but Howe numbered the November 1953 sub-series before the April 1953 sub-series).

Deep Creek, November 1, 1953

3 negatives: ASA001-279 – 281

Displays of artifacts including projectile points and tools.

Deep Creek, April 18-19, 1953

24 negatives: ASA001-282 – 305

Views of area, dig site, artifacts and people including:

ASA001-282 Mojave River, looking toward Victorville.

ASA001-284 a small projectile point in Dave Rice's hand.

ASA001-286 Ritner Sayles posing at the site.

ASA001-290 Ruth DeEtte Simpson in the distance.

ASA001-296 display of artifacts labeled as Deep Creek 46.

ASA001-297 – 301 excavation including a hearth (ASA001-299, 300).

ASA001-303 – 305 group of people working at the dig.

BLACK STAR CANYON (ORANGE COUNTY, CALIFORNIA), MARCH 1954

6 negatives: ASA001-306 – 311

Box 1

Photographs of bedrock mortars (?) and of Gordon Redtfeldt working at the dig. ASA worked the site in 1954 and 1964 (Redtfeldt, 1965; Steele, 1982). The site was worked previously by the Work Projects Administration, then the University of Southern California; collections went to the Museum of American Indians, Heye Foundation (Washington), and Bowers Museum (Santa Ana); some material went to the ASA

Laboratory (Steele, 1982).

DOWNEY SITE (LOS ANGELES COUNTY, CALIFORNIA), JULY 31, 1953

6 negatives: ASA001-312 – 317

Box 1. Box 6: 1 degraded negative ASA001-317

Mrs. Howe and others working at the ASA archaeological dig in the back yard of Dr. Taylor in Downey, California. The site was called tentatively the "Downey Site."

TEMECULA (RIVERSIDE COUNTY, CALIFORNIA), 1952

22 negatives: ASA001-318 – 339

Box 1. Box 6: 3 degraded negatives ASA001-327, 335, 339

Smithsonian requested ASA to excavate the area to be flooded by a dam; project led by B. E. McCown (McCown, 1955).

The photograph of a group of people taking a meal break (ASA001-324) was published in ASA Bulletin (Blast from the past, 1991).

Series contains the following items:

ASA001-318 – 322 copies of prints made for McCown of pictures of a man, dog, hut, floor plan, and an Indian woman weaving a basket (ASA001-318, 319, 321, 322 are undated but Howe filed and numbered them within this 1952 sequence).

ASA001-323 – 329 a large group of people taking a meal break in the shade of trees.

ASA001-330 – 339 people working at dig site; detailed photographs of dig site show labels that indicate several fireplaces and post-holes; Ben McCown (face not visible) with a gopher snake.

WILLOW SPRINGS, NEAR GEM HILL (KERN COUNTY, CALIFORNIA), NOVEMBER 28-29, 1953

17 negatives: ASA001-340 – 356

Box 1. Box 6: 9 degraded negatives ASA001-340, 343, 344, 346 – 348, 350, 352, 353

Twenty-six ASA members surveyed and worked this site on November 28-29, 1953. The site covered five square miles and had camps, mortar holes, cairns, and pictographs (Price, 1954/1984b). Photographs of landscapes, pictographs, and general views of the site include:

ASA001-341 – 342 group of pictographs.

ASA001-346, 348, and 349 people working at the dig.

SALTON SEA (CALIFORNIA), MAY 30, 1948

7 negatives: ASA001-357 – 363

Box 1

B. E. McCown, an engineer, avocational archaeologist, and ASA member, was leader of the long-term project (ASA report to be published in 2000). Area has travertine rocks, fish traps, and petroglyphs. Howe (n.d.) references some negatives of "Beach Line: Travertine Point" and "Fish Traps" but the negatives are missing from the collection. Series contains the following items:

ASA001-357 Obsidian Buttes; Howe (1960) cross-indexed the photograph under the entry "Geological Interest."

ASA001-358 – 359 Cliff's family at Frink Spring and Betty Alice (no last name given) at one of the lower pools.

ASA001-360 – 361 mud pots.

ASA001-362 – 363 Mullet Island and Canal Road.

BLACK CANYON AND INSCRIPTION CANYON (SAN BERNARDINO COUNTY, CALIFORNIA), 1949-1968 AND UNDATED (BULK DATES 1949-1958)

338 negatives: ASA001-364 – 701

Box 2. Box 6: 26 degraded negatives ASA001-408, 412, 427, 431, 434, 435, 436, 442, 443, 453, 468, 469, 471, 472, 473, 475, 512, 514, 515, 516, 532, 553, 556, 561, 626, 670

Twenty-seven sub-series in chronological order

Howe led many ASA trips to Black Canyon and Inscription Canyon, a small arroyo at the north end of Black Canyon (Pederson, 1956/1984; Howe, 1980). He found the bird petroglyph that ASA adopted as its logo; the bird is about 20 feet above the road and has a wing-span of over two feet (Pederson, 1953/1983). The petroglyph is unique in the area although a similar bird petroglyph occurs 120 miles away (Haenszel, 1972/n.d.). In 1953, the ASA posted a sign, "This is Black Canyon," telling visitors about the canyon and asking them to "live in peace with this extraordinary place" (ASA, 1953/1984).

Charles LaMonk donated several of his reproductions of petroglyphs in Inscription Canyon to ASA (ASA LaMonk Nos. 9, 10, 14, 35, 38, 40, 69, 77 prepared in 1954 and ASA LaMonk no. 46 prepared in 1964).

Photographs include some taken in Inscription Canyon. This collection has no photographs of the ASA trip in June 1966 to attempt to repair damage by vandals (Howe, 1966).

Black Canyon, 1949

23 negatives: ASA001-364 – 386

"First time here with Art Robbins who guided me to the site" (Howe, original enclosure). Robbins, Deputy Sheriff, owned ranch on Harper's Lake District Road (ASA, 1953/n.d.).

Photographs of walls of petroglyphs include:

ASA001-374 wall of petroglyphs photographed with infrared film without a filter.

ASA001-378 wall of petroglyphs.

ASA001-380 Art Robbins standing beside a wall of petroglyphs that includes a petroglyph of corn symbols superimposed on a sheep figure. See also: ASA001-662 a photograph of the same petroglyph taken in 1960. Whitley considers this geometric and figurative design as one seen in the third stage of a shaman's altered state (Whitley, 1996).

ASA001-383 – 384 Art Robbins and petroglyph

Black Canyon, 1950

16 negatives: ASA001-387 – 402

Howe took this trip with Grover Reeder. ASA001-394 was published in ASA Bulletin (Blast from the past no. 3). The group of sheep with a "newborn" lamb (ASA001-389) may be conflation of man and sheep as seen by a shaman during a trance (Whitley, 1996). It has since been vandalized leaving only one-and-a half of the original ten sheep (Whitley, 1996).

Petroglyphs and walls of petroglyphs. Sub-series also includes:

ASA001-387 Joshua tree.

ASA001-388 a snake.

ASA001-389 close-up of part of group of sheep with a "newborn lamb."

ASA001-391 group of three sheep.

ASA001-394 Grover Reeder and petroglyphs.

Black Canyon, May 1951; some May 16, 1951

16 negatives: ASA001-403 - 418

Petroglyphs; general views of Black Canyon; views of Inscription Canyon (ASA001-403 - 404, ASA001-409 - 412, and ASA001-414 - 417).

The negatives are well-preserved but have a gray cast rather than sharp black-and-white images. Sub-series includes:

ASA001-416 Howe's son Vernon and a jeep.

ASA001-417 petroglyph of a long-bodied big horn sheep. The photograph was published as Plate 37 in A prehistory of Black Canyon (Howe, 1980). See also: ASA001-605, 643 for photographs of same petroglyph taken in 1958 and 1959. Petroglyph has since been "unintentionally vandalized" by red paint used for a rubbing (illustration in Whitley, 1996).

ASA001-418 Howe's son Vernon and an impressive wall of petroglyphs.

Black Canyon, March 25, 1952

6 negatives: ASA001-419 - 424

No locations given on any of the original enclosures but Howe classified the negatives within the Black Canyon sequence; the photographs look like Black Canyon. General views of the canyon.

Black Canyon, June 1952, some June 10, 1952

43 negatives: ASA001-425 – 467

Sub-series includes the following items:

ASA001-425 – 441 views of the canyon and the surrounding landscape.

ASA001-442 – 443 a jeep.

ASA001-444 – 446 bird petroglyph adopted by ASA as the association's logo. ASA001-444 is probably the photograph published as Plate 38 in A prehistory of Black Canyon (Howe, 1980). ASA001-446 is a good view of the bird petroglyph. See also: ASA001-470 for a close-up of the same petroglyph taken in 1953.

ASA001-455 – 461 a jeep and petroglyphs; Howe's son Vernon atop a wall of petroglyphs (ASA001-461). The photographs were taken with Vernon's box camera; 2.25x2.25-inch negatives.

ASA001-462 – 464 black and white mountain taken with Voightlander camera; 2.25x2.25-inch negatives.

ASA001-465 cacti.

ASA001-466 petroglyph of a group of sheep with a "newborn lamb;" 2.25x2.25-inch negative.

ASA001-467 view of the canyon.

Black Canyon, May 30, 1953, some "1953"

8 negatives: ASA001-468 – 475

The photograph of a group of sheep (ASA001-468) was published in ASA Bulletin (Blast from the past no. 4, 1989).

Sub-series contains the following items:

ASA001-468 very degraded negative of the group of sheep with a "newborn lamb" (scheduled for preservation copying in January 2000). Notation on original enclosure: "sheep – very popular at museum . . . petroglyph has been destroyed and this is the only documentary record."

ASA001-469 – 470 close-up of bird petroglyph; ASA001-469 is degraded. See also: ASA001-446 for a more distant view of the same petroglyph taken in 1952.

ASA001-471 – 473 several interesting petroglyphs but the negatives are degraded. The caption of Plate 35 in A prehistory of Black Canyon (Howe, 1980) states that one of the petroglyphs (ASA001-473) suggests a basket and pestle. LaMonk donated to ASA his 1954 reproduction of this petroglyph (ASA LaMonk No. 77). See also: ASA001-490 is the basket petroglyph.

ASA001-474 Howe included this photograph in his Black Canyon sequence although the image shows Paiute House Rings on the desert pavement beyond Opal Mountain. The ring is the same one as in ASA001-479.

ASA001-475 petroglyphs at upper end of Inscription Canyon; degraded negative.

Black Canyon, March 1954

11 negatives: ASA001-476 – 486

Photographs of Thelma Crain's site at Hinkley (San Bernardino County, California). Views show Opal Mountain in the distance at Milk Spring. Lithic material was taken to Southwest Museum. ASA001-478 was published in ASA Bulletin (Blast from the past no. 7, 1989).

Sub-series contains the following items:

ASA001-476, 479 – 485 Paiute house rings near Milk Springs.

ASA001-477 – 478, 486 people working at dig site.

Black Canyon, May 8-9, 1954

3 negatives: ASA001-487 – 489

Two photographs of ASA members' vehicles at campsite in Black Canyon and one photograph of petroglyphs. These photographs are among the first pictures that Howe took with a Recomar camera.

Black Canyon, June 1, 1954

10 negatives: ASA001-490 – 499

Sub-series contains the following items:

ASA001-490 petroglyph. The photograph was published as Plate 35 in A prehistory of Black Canyon (Howe, 1980); plate caption states that the petroglyph suggests a basket and pestle. LaMonk donated to ASA his reproduction of this petroglyph at site SBr-322 (ASA LaMonk No. 77, prepared in 1954). ASA001-473 is a very degraded negative of a photograph of the same petroglyph taken in 1953.

ASA001-491 somewhat vandalized petroglyph of the group of sheep with a "newborn lamb."

ASA001-492 – 499 petroglyphs and intaglios.

Black Canyon, June 21, 1954

9 negatives: ASA001-500 – 508

Sub-series contains the following items:

ASA001-500 Joshua tree.

ASA001-501 – 504 petroglyphs. Some in Little Valley.

ASA001-505 – 506 terrace near the well.

ASA001-507 petroglyph.

ASA001-508 historical inscription "1932 Buckeye Joe Colorado Carl Pomona Sept 6."

Black Canyon, March 26, 1955

37 negatives: ASA001-509 – 545

Sub-series contains the following items:

ASA001-509 – 510 Carol Larson standing on top of jeep.

ASA001-511 – 522 intaglio on the terrace above the bird petroglyph. Howe notes on ASA001-511 enclosure: “maze pattern or intaglio in the black pavement on the terrace above the Bird Glyph. This, and the following shots were mostly taken with a wide-angle lens.”

ASA001-523 ring near pattern in black pavement above bird petroglyph.

ASA001-524 – 526 Joshua tree; ASA001-526 published as Plate 6 in A prehistory of Black Canyon (Howe, 1980).

ASA001-527 – 529 Inscription Canyon with wide-angle lens.

ASA001-530 – 532 corn petroglyph; ASA001-532 is a very degraded negative.

ASA001-533 – 537 various petroglyphs; negatives are a little too light.

ASA001-538 – 540 two people at Dave Rice Cave; undated negatives but Howe filed within this date sequence.

ASA001-541 Clyde Price at Price Cave; undated negative but Howe filed within this date sequence.

ASA001-542 – 544 Andy Kastell and Karen (last name unknown) on jeep running-board.

ASA001-545 black and white mountain scenic view “near top end of Black Canyon” (Howe, original enclosure).

Black Canyon, April 23-24, 1955; some “April 1956”

16 negatives: ASA001-546 – 561

Sub-series contains the following items:

ASA001-546 – 547 ASA hosted the Sierra Club. Archery exhibit at camp fire. Photograph of campsite with jeep and cars.

ASA001-548 – 549 Betty Moore at Price Cave. Moore was a nurse and ASA member who participated in many excavations. She often went out alone during the week to dig because she had to work on the weekends when fellow ASA members were out digging.

ASA001-550 – 552 anvil stone at Price Cave.

ASA001-554 – 555 petroglyphs; unidentified person in Little Valley.

ASA001-556 – 560 “a small group of petroglyphs in an isolated place by a small wash, one of which is extremely faint” (Howe, original enclosure for ASA001-556).

ASA001-561 vandalized petroglyph of the group of sheep with a “newborn lamb.” The negative is very degraded.

Black Canyon, 1956

42 negatives: ASA001-562 – 603

Black Canyon caves. Sub-series includes:

ASA001-562 Black Canyon caves including Cave 1 with basket, fibres, and cyst.

ASA001-569 person inside Black Canyon cave.

ASA001-571 fibres in Black Canyon cave.

ASA001-574 two people inside Black Canyon cave.

ASA001-575 – 577 people working on dig outside Price Cave.

ASA001-579 copy of map of Black Canyon area.

ASA001-580 – 586 artifacts (tools) from Black Canyon.

ASA001-587 – 603 views of Black and Inscription Canyons and of canyon walls and a few petroglyphs.

Black Canyon, January 4, 1958

32 negatives: ASA001-604 – 635

Sub-series contains the following items:

ASA001-604 vandalized petroglyph of a group of sheep with a "newborn lamb." "Series of petroglyphs at lower end of Canyon showing vandalism. One sheep is gone from lower right" (Howe, ASA001-604 enclosure).

ASA001-605 petroglyph of a long-bodied big horn sheep; Howe published a different photograph of this petroglyph (ASA001-417 taken in 1951) as Plate 37 in A prehistory of Black Canyon (Howe, 1980). See also: ASA001-643.

ASA001-606 – 607 camp at Scout Cove; a miner's dugout excavated in volcanic tuff in 1910 by American Opal Company. The company extracted common opal in the area but Tiffany and Company did not find the fire opal that they wanted (Howe, 1980). Photographs published as Plates 7A and 7B in A prehistory of Black Canyon (Howe, 1980).

ASA001-608 – 621 photographs include some interesting petroglyphs.

ASA001-622 black and white mountain scenic view.

ASA001-623 – 635 interesting petroglyphs, intaglios (ASA001-626), and walls of petroglyphs, including large sheep and concentric circles. ASA001-629 was published as Plate 29 in A prehistory of Black Canyon (Howe, 1980). The plate caption reads "weathered petroglyphs – may be oldest recorded in Inscription Canyon." ASA001-628 is a clear photograph of the same petroglyphs.

Black Canyon, March 16, 1958

6 negatives: ASA001-636 – 641

Photographs of members of the Sierra Club, Charles LaMonk, and petroglyphs. Two photographs show LaMonk holding one of his reproductions with the original petroglyph on the canyon wall behind him (ASA001-636 – 637). The reproduction that LaMonk is holding is not in the ASA LaMonk collection.

Black Canyon, 1959

2 negatives: ASA001-642 – 643

People working at dig site; petroglyph of long-bodied big horn sheep that seems to be disappearing beneath lichens. See: photographs of same petroglyph taken in 1951 and 1958 (ASA001-417 and 605).

Black Canyon, February 1960

1 negative: ASA001-644

View of black and white mountain taken with infrared film with #25A filter.

Black Canyon, March 1960

1 negative: ASA001-645

View of black and white mountain taken with infrared film with #25A filter.

Black Canyon, April 1960

15 negatives: ASA001-646 - 670

Petroglyphs and scenes of trash and vandalism in the canyon. Sub-series contains the following items:

ASA001-646 - 648 petroglyphs.

ASA001-649, ASA001-651 - 655 vandalized petroglyph of a group of sheep with a "newborn lamb."

ASA001-650, ASA001-656 - 657 trash in Black Canyon.

ASA001-658 photograph published as Plate 36 in A prehistory of Black Canyon (Howe, 1980); it is a "unique petroglyph element" (plate caption).

ASA001-659 Joshua tree.

ASA001-660 petroglyph.

ASA001-661 a gopher snake in Inscription Canyon.

ASA001-662 petroglyph of corn symbols superimposed on a sheep. Photograph was published as Plate 39 in A prehistory of Black Canyon (Howe, 1980). See also: ASA001-380 is same petroglyph in 1949.

ASA001-663 – 670 petroglyphs and canyon views.

Black Canyon, May 1960

2 negatives: ASA001-671 – 672

Various geometric and atlatl-like petroglyphs.

Black Canyon, November 19, 1960

3 negatives: ASA001-673 – 675

Petroglyphs photographed on Inscription Canyon trip “taken with Gruber.”
2.25x3.25-inch negatives.

Black Canyon, February 1961

4 negatives: ASA001-676 – 679

Campsite and people working at dig site. 2.25x3.25-inch negatives.

Black Canyon, March 1961

6 negatives: ASA001-680 – 685

Person resting near a cave; canyon view; petroglyphs.

Black Canyon, January 1962

1 negative: ASA001-686

Vandalized petroglyph of a group of sheep with a “newborn lamb” (copy from 35 mm color slide).

Black Canyon, 1964

3 negatives: ASA001-687 – 689

Landscapes; vandalized petroglyph of a group of sheep with a “newborn lamb.”

Black Canyon, 1968

6 negatives: ASA001-690 – 695

Geometric petroglyphs. ASAS001-690 “taken at night with only a flashlight for illumination. Exposure F8 at 15 sec. to 2 min.” (Howe, original enclosure).

Black Canyon, undated

6 negatives: ASA001-696 – 701

Sub-series contains the following items:

ASA001-696 historical inscription “July 1 1984, A. Tillman, S.F.”
 Photograph was published as Plate 8B in A prehistory of Black Canyon (Howe, 1980).

ASA001-697 and 699 bird petroglyph that was adopted as ASA logo:
 ASA001-697 was probably enlarged and published as Plate 38 in A prehistory of Black Canyon (Howe, 1980).

ASA001-698 “space ship” petroglyph (Howe, original enclosure).

ASA001-700 basket from Black Canyon Cave 1.

ASA001-701 Charles LaMonk at work in Black Canyon; photograph
 was published as Plate 30 in A prehistory of Black Canyon (Howe, 1980).

YUMA SAND DUNES (CALIFORNIA), MAY 1951

2 negatives: ASA001-702 – 703

Box 3

Tracks of small desert animals in the sand. See also: Yuma sand dunes, April 1951:
 ASA001-1 – 3.

IRVINE RANCH (ORANGE COUNTY, CALIFORNIA), UNDATED

8 negatives: ASA001-704 – 711

Box 3

Ben McCown with a gopher snake.

SNAKE PIT AT VINCENT, NEAR PALMDALE (CALIFORNIA), UNDATED

1 negative: ASA001-712

Box 6: 1 degraded negative ASA001-712

Many snakes in a snake pit; negative is very degraded.

ZION NATIONAL PARK (UTAH), UNDATED

1 negative: ASA001-713

Box 6: 1 degraded negative ASA001-713

Petroglyphs; negative is very degraded.

COYOTE GULCH (SAN BERNARDINO COUNTY, CALIFORNIA), APRIL 24-25, 1954

18 negatives: ASA001-714 - 731

Box 3. Box 6: 1 degraded negative ASA001-731

Site discovered by Betty Moore in March 1951; ASA assisted with the Southwest Museum excavation directed by Ruth DeEtte Simpson (Simpson, 1961).

Photographs of various geometric petroglyphs; designs include linear, curved, rake-like, and lines within borders of various shapes. The group of petroglyphs in ASA001-714 and ASA001-716 is shown on Plate 12A of Coyote Gulch (Simpson, 1961).

ROCK SPRINGS (SAN BERNARDINO COUNTY, CALIFORNIA), MARCH 1, 1958

13 negatives: ASA001-732 - 744

Box 3

People working at ASA archaeological dig; close-ups of the power shaker that Howe and Clyde Price designed and constructed (Howe, 1977c; see also: ASA001-1610 for details about the construction of the shaker).

RODMAN MOUNTAINS (SAN BERNARDINO COUNTY, CALIFORNIA), 1955-1964 (BULK 1955-1957)

127 negatives: ASA001-745 - 871

Box 3. Box 6: 16 degraded negatives ASA001-775, 783, 794, 802, 805, 813, 830, 831, 838, 839, 840, 841, 846, 847, 861, 863

Six sub-series as numbered by Howe (chronological but March 1955 photographs in two series; the second follows February 1956 series)

Rodman Mountains, March 19-20, 1955

46 negatives: ASA001-745 – 790

A wide variety of petroglyphs and canyon walls full of petroglyphs. See also: ASA001-846 – 854 for additional photographs taken on March 20, 1955.

Rodman Mountains, November 19-20, 1955

24 negatives: ASA001-791 – 814

A few petroglyphs including one in a rake-like design; general views of surrounding area, canyon walls, cleared areas, and campsite.

Rodman Mountains, February 1956

31 negatives: ASA001-815 – 845

Various petroglyphs with rake-like, anthropomorphic, diamond-grid, snake-like, and sunray designs; general views of surrounding area.

Rodman Mountains, March 20, 1955

9 negatives: ASA001-846 – 854

Petroglyphs with geometric, snake-like, and atlatl-like designs. See also: ASA001-745 – 790 for additional photographs taken on March 20, 1955.

Rodman Mountains, April 13-14, 1957

15 negatives: ASA001-855 – 869

Views of campsite, and petroglyphs including an anthropomorphic-geometric one with rake-like “feet.” Sub-series also includes the following:

ASA001-855 Verna Howe and Andy Kastell near campfire with a coffee-pot (?) on the grate.

ASA001-860 – 869 four series of negatives of photographs of petroglyphs on boulders that represent “an experiment in ‘before & after’ photography to determine if it is desirable or practical – ‘or ethical’ – to chalk petroglyphs” (Howe, n.d.).

Rodman Mountains, 1964

2 negatives: ASA001-870 – 871

Petroglyphs with multicellular, ray, and rake-like designs; wall with variety of petroglyphs. 2.25x2.25-inch negatives.

**CHINA LAKE NAVAL AIR WEAPONS STATION (CALIFORNIA), 1956-1965
(BULK 1956-1957)**

92 negatives: ASA001-872 – 963

Box 3. Box 6: 20 degraded negatives ASA001-872, 873, 874, 878, 879, 880, 881, 882, 884, 886, 891, 892, 893, 894, 896, 897, 909, 918, 929, 947

Three sub-series in chronological order

Outstanding petroglyphs and photographs. A dry lake area (Howe, n.d.). Prior names of Naval Air Weapons Station that are referenced in some ASA publications are Naval Ordnance Test Station (NOTS) and Naval Weapons Center (NWC).

This collection has no photographs of the China Lake portion of May 19-20, 1968, trip organized by Howe (see Fossil Falls ASA001-1551 – 1560).

China Lake, 1956

26 negatives: ASA001-872 – 897

Petroglyphs: many negatives are very degraded. Sub-series includes:

ASA001-876 petroglyph of a very long-bodied animal.

ASA001-877 petroglyphs of two sheep.

ASA001-885 petroglyphs of four sheep with boat-shaped bodies.

ASA001-886 – 887 petroglyphs of two enormous (mural-sized) sheep. A person standing in ASA001-886 is effective in showing the scale of the petroglyphs but the negative is very degraded.

ASA001-890 person sitting near petroglyphs and adjusting camera.

China Lake, May 11, 1957

55 negatives: ASA001-898 – 952

Immense variety of petroglyphs. Sub-series includes:

ASA001-903 person sitting on a boulder covered with petroglyphs.

ASA001-918 petroglyph of four sheep with boat-shaped bodies, very short horns, and very long legs. The degraded negative is scheduled for preservation copying in January 2000.

ASA001-928 petroglyph of a long-bodied animal.

ASA001-951 petroglyph of an animal with a very long body, short ears or horns, a very long tail, and feet like round balls.

China Lake, 1965

11 negatives: ASA001-953 – 963

Little Petroglyph Canyon, China Lake. Sixty-two ASA members and guests went on this trip on May 9, 1965 (Layton, 1965; Redtfeldt, 1965/1984a).

Photographs of many outstanding petroglyphs of sheep, anthropomorphic figures, and geometric designs.

LEACH LAKE (SAN BERNARDINO COUNTY, CALIFORNIA), JANUARY 25, 1955

7 negatives: ASA001-964 – 970

Box 3

A dry lake site (Howe, n.d.). Photographs of two metates found under a bush; landscape; and flakes weathering out of the dunes (ASA001-967 – 968).

DEVIL'S POST PILE (CALIFORNIA), MAY 28-30, 1955

7 negatives: ASA001-971 – 977

Box 3

Views of Devil's Post Pile and nearby river. Howe (1960) cross-indexed the photographs under the entry "Geological Interest."

PROVIDENCE MOUNTAINS (SAN BERNARDINO COUNTY, CALIFORNIA), 1954-1955

34 negatives: ASA001-978 – 1011

Box 3. Box 6: 10 degraded negatives ASA001-982, 985, 986, 987, 988, 1001, 1003,

1004, 1007, 1008

Two sub-series in chronological order

Howe was the leader and official photographer of a survey trip to a shallow cave and four-room cave in Providence Mountains on March 11-12, 1961 (Miller, R., 1968). However, there are no photographs of that trip in this collection.

Providence Mountains, 1954

21 negatives: ASA001-978 – 998

Howe's first trip in with Archie French who discovered these caves. Views of the caves and of a jeep campsite. Sub-series includes:

ASA001-987 – 988 a tarantula.

ASA001-989 – 992 Archie French at a cave entrance: French is holding some arrow shafts in ASA001-989.

ASA001-993 – 996 basket fragments.

ASA001-997 – 998 entrance to a cave showing a forked spirit witch stick still in place. Howe (1960) indexed the photograph under the entry "Odds & Ends." Cowper (1975/1984) tells of a witch stick that Howe found in another location, Garnet Wash, on February 29, 1959.

Providence Mountains, January 23-24, 1955

13 negatives: ASA001-999 – 1011

Sub-series contains the following items:

ASA001-999 – 1000 Cave no. 5.

ASA001-1001 Cave no. 5 with Betty Moore and Clyde Price.

ASA001-1002 Cave no. 5 with Charles Dirks.

ASA001-1003 – 1008 Cave no. 5.

ASA001-1009 group around a campfire.

ASA001-1010 – 1011 snow and Joshua trees near Cima.

PHILLIPS RANCH, NEAR WILLOW SPRINGS (KERN COUNTY, CALIFORNIA), 1954-1955

75 negatives: ASA001-1012 – 1086

Box 3. Box 6: 13 degraded negatives ASA001-1027, 1031, 1042, 1043, 1048, 1049, 1050, 1058, 1059, 1060, 1061, 1062, 1078

Four sub-series in chronological order

Site near Tehachapi Pass with petroglyphs, more than 20 house rings, bedrock mortars, and a monolith with a cave containing pictographs (Price. 1954/1984a).

Phillips Ranch, 1954

25 negatives: ASA001-1012 – 1036

People working at excavation; LaMonk preparing a pictograph reproduction in cave (ASA001-1025 – 1026); an isolated group of petroglyphs (ASA001-1036).

Phillips Ranch, June 1955

5 negatives: ASA001-1037 – 1041

Campsite; people working at the dig; artifacts (ASA001-1039 – 1041).

Phillips Ranch, July 16-17, 1955

26 negatives: ASA001-1042 – 1067

Views of cave and people working at dig; yucca plants in Tehachapi Pass (ASA001-1063 – 1067).

Phillips Ranch, November 12-13, 1955

19 negatives: ASA001-1068 – 1086

Detailed photographs of people staking-out the site and working at the dig; group of people drinking “hot soup on a cold, rough day served by Lily Colvin” (ASA001-1084).

BISHOP AND OWEN’S VALLEY (CALIFORNIA), AUGUST 1960

7 negatives: ASA001-1087 – 1093

Box 4

Views of several walls of petroglyphs in Owens Valley and Bishop area. 2.25x3.25-inch negatives. See also: ASA001-1330-1340 are additional photographs that Howe

took of the Bishop area in 1960-1961 but did not include in this numbered sequence.

HUMMING BIRD RANCH, SIMI VALLEY AREA (VENTURA COUNTY, CALIFORNIA), JUNE 1954

32 negatives: ASA001-1094 - 1125

Box 4. Box 6: 4 degraded negatives ASA001-1107, 1108, 1117, 1118

Howe also refers to this site as Rancho Chuparosa. A rock shelter had faint red stains suggestive of pictographs. There were three small caves but the ranch owners cleaned out most of the materials; some basketry found in the caves (Howe, 1954/1984).

Series contains the following items:

ASA001-1094 - 1104 and 1125 in situ basketry.

ASA001-1105 - 1112 display of artifacts including projectile points.

ASA001-1113 - 1115 group of nine people posing in front of three vehicles; a hat is atop a camera on a tripod. ASA001-1113 was published in ASA Bulletin (Blast from the past, 1990); from left are Gordon and Lucille Redtfeldt second and third, Verna Howe sixth, Clyde Price eighth (Letters, 1990). Howe (1954/1984) mentions group members Lily Colvin, Harford Bridges, Mr. and Mrs. Clyde Price, and Mr. and Mrs. Howe.

ASA001-1116 ranch house.

ASA001-1117 - 1118 people working at dig site; very degraded negative.

ASA001-1119 - 1120 very faint "pictographs in red - almost gone."

ASA001-1121 - 1124 people working at the entrance to a cave or rock shelter.

GEM HILL (KERN COUNTY, CALIFORNIA), APRIL 1960

1 negative: ASA001-1126

Box 4

Leona Barnes holding a metate.

BAJA CALIFORNIA (MEXICO), 1956-1967 (BULK 1956-1957)

72 negatives: ASA001-1127 – 1198

Box 4. Box 6: 1 degraded negative ASA001-1183

Nine sub-series in chronological order.

Howe made many trips to Baja before the paved highway opened up the peninsula in 1973. He relates an amusing tale of a jeep trip with Clyde Price (Howe, 1976a). See also: ASA001-1282 – 1301 for additional negatives of photographs taken in Baja.

Baja California, September, 1956

2 negatives: ASA001-1127 – 1128

"My friend Jose Villavicencia at Rancho Barrile" (Howe, original enclosure of ASA001-1127). The rancho "El Barril" (remote when Howe visited it) is northeast of Santa Gertrudis (which is north of San Ignacio) (Crosby, 1981).

Baja California, October, 1956

11 negatives: ASA001-1129 – 1139

Sub-series contains the following items:

ASA001-1129 – 1135 portraits of members of "the Lopez family in El Arco." El Arco is a village (remote when Howe visited it), northwest of Santa Gertrudis (Crosby, 1974, 1981).

ASA001-1136 – 1139 saguaro and ocotillo plants.

Baja California, undated [1956?]

4 negatives: ASA001-1140 – 1143

"Jim Fisher and myself." These photographs may belong with the next group of photographs that were taken in 1956.

Baja California, 1956

9 negatives: ASA001-1144 – 1152

"Jim Fisher and myself." Photographs of Howe, Fisher, ruins (?), and general landscapes. Location in Baja is not identified.

Baja California May 31 – June 2, 1957

20 negatives: ASA001-1153 – 1172

Sub-series contains the following items:

ASA001-1153 - 1163 beach views and people posing in front of a building at Puerto Cito.

ASA001-1164 - 1167 desert plants including ocotillo.

ASA001-1168 - 1172 the giant Cardon cactus with a person standing beside it. The cactus appears to be approximately 25 feet tall.

Baja California, November 1957

15 negatives: ASA001-1173 - 1187

San Felipe harbor, shell mounds, and fisherman's shrine; ocotillo plants and an elephant tree (ASA001-1177 - 1184).

Baja California, October 1959

3 negatives: ASA001-1188 - 1190

Sub-series contains the following items:

ASA001-1188 an Old Man Cactus.

ASA001-1189 camping near San Borjas.

ASA001-1190 Howe posing with a 132-pound sailfish, two rooster fish, and a yellow tail that he caught off La Paz on October 23, 1959.

Baja California June 1963

6 negatives: ASA001-1191 - 1196

Several Cocopah [Cocopa] women from Baja and portraits of one woman.

Baja California, 1967

2 negatives: ASA001-1197 - 1198

Victoria Faust (in distance).

BARRANCA DEL COBRE (CHIHUAHUA, MEXICO), 1960-1964

83 negatives: ASA001-1199 – 1281

Box 4. Box 6: 1 degraded negative ASA001-1270 and enclosure only for ASA001-1273 that was discarded as it had deteriorated and crumbled into tiny fragments

Three sub-series in chronological order

Barranca del Cobre, October 1960

50 negatives: ASA001-1199 – 1248

Howe, then ASA Vice-President, led this expedition of 25 ASA members (Barranca del Cobre trip, 1960/n.d.). A Chihuahua newspaper published a report of the trip; Señor Oliv, the engineer who first mapped the Barrancas, met the group. ASA member Miriam Muehlenbach spent many years getting to know the Tarahumara in the Basihuare valley (Muehlenbach, 1973/n.d., 1974/n.d.).

Howe filed the undated negatives ASA001-1222 – 1225 within this sequence. Most negatives in this series are 2.25x3.25-inch.

Sub-series includes photographs of Howe's "symbol of strength and dependability," his six cylinder big six cab-over jeep named "El Espiritu del Desierto II" (Howe, 1974).

Sub-series contains the following items:

ASA001-1199 schoolhouse at Samachicque.

ASA001-1200 – 1201 Corrinne Milton in the rain at Samachicque.

ASA001-1202 Howe's notation on the original enclosure reads "Tarahumara boy at Samachicque" but the negative in the enclosure is a photograph of a group of children. One of the boys is the same one as in ASA001-1306 – 1308.

ASA001-1203 – 1207 Chitecha: "oven near our camp at Citecha" and various local people.

ASA001-1208 large truck with name painted on the door "El Esperito del Desierto."

ASA001-1209 – 1210 "our camp at Citecha."

ASA001-1211 – 1219 landscapes, views of dwellings, “road from Chicuacua to Creel”, a tiny church, and a group of locals at a ranch.

ASA001-1220 – 1221 a group of twenty-four people at “Base Camp.”

ASA001-1222 – 1229 landscape around Base Camp; views of caves (?).

ASA001-1230 – 1233 church at Cusarare.

ASA001-1234 – 1239 portraits of “Cusarare: the Dancer, Lupe.”

ASA001-1240 – 1245 “Divisadero” scenic views.

ASA001-1246 – 1248 Howe’s jeep (name painted on the door is “El Esperitu del Desierto II”) and a group of people at “Santa Rita motel in Chicuacua.”

Barranca del Cobre, October 1963

29 negatives: ASA001-1249 – 1277

“Barranca Expedition.” Sub-series contains the following items:

ASA001-1249 – 1253 scenic views at Camp “Busted Radiator.”

ASA001-1254 – 1256 Casas Grandes ruins with walk-in well.

ASA001-1257 – 1275 Indian children in schoolyard at Basihuare; scenic views of the surrounding area (ASA001-1273 is an empty enclosure – the negative had crumbled into tiny pieces and was discarded).

ASA001-1276 – 1277 Indian church at Basihuare.

Barranca del Cobre, October 1964

4 negatives: ASA001-1278 – 1281

Portrait of a person “at Barranca” and a church at Basihuare.

BAJA CALIFORNIA, 1965 AND 1972 (BULK 1972)

20 negatives: ASA001-1282 – 1301

Box 4

Two sub-series in chronological order as filed by Howe

See also: ASA001-1127 – 1198 for additional negatives of photographs taken in Baja.

Baja California, 1965

4 negatives: ASA001-1282 – 1285

Orfanatorio at Colonia Guerrero, B.C. Photographs show several groups of children and adults posing in front of the Christ Faith Mission Orphanage.

Baja California, February 1972

16 negatives: ASA001-1286 – 1301

Landscapes; jeep camps; a building with a palm-frond roof.

BARRANCA DEL COBRE (CHIHUAHUA, MEXICO), OCTOBER 1960 AND UNDATED

20 negatives: ASA001-1302 – 1321

Box 4. Box 6: enclosure only for one degraded negative ASA001-1321 that was discarded as it had deteriorated and crumbled into tiny fragments

Two sub-series in chronological order

Howe filed this group of negatives after his Barranca del Cobre and Baja California negatives. The original negative numbers and enclosures suggest that the negatives may be copies of photographs taken by Charles LaMonk. Most of the negative nos. (14 [sic], 1000, 1002, and 1004 – 1009) are prefaced with "LaMonk" and various other numbers, for example, "6 LaMonk 1007." The numbers do not fall within the the sequence and numbering pattern of Howe's negative numbers.

Barranca del Cobre, October 1960

7 negatives: ASA001-1302 – 1308

Portraits of Tarahumara Indians taken at Citecha: a mother and child, several people, and a boy in a cape (the same boy as in the group of children in ASA001-1202).

Barranca del Cobre, undated

13 negatives: ASA001-1309 – 1321

Portraits of Tarahumara Indians: a man holding a hat, a man in a cape, several other groupings of men, and two people with oven at Citecha in the background. Negative ASA001-1321 was discarded as it had crumbled into tiny fragments.

JEEP, 1955

1 negative: ASA001-1322

Box 4

Four cylinder jeep with “El Turtle” painted on the door. Vehicle is parked in front of unidentified buildings in unknown location.

A CALIFORNIA RANCH (CALIFORNIA), NOVEMBER 30, 1952

1 negative: ASA001-1323

Box 6: 1 degraded negative ASA001-1609

General view of a ranch.

BISHOP (CALIFORNIA), 1960-1961 AND UNDATED

10 negatives: ASA001-1324 – 1333

Box 4

Three sub-series in chronological order

This collection has no photographs of the Bishop Loop trip that was organized by Field Chairman Howe on September 2-4, 1967 (Ishii, 1967).

Bishop, August 1960

1 negative: ASA001-1324

Petroglyphs.

Bishop, June 18, 1961

5 negatives: ASA001-1325 – 1329

Chalfant group of petroglyphs on "Petroglyph Loop." See also: ASA001-1087 - 1093 are photographs of Bishop area taken in August 1961.

Bishop, undated

4 negatives: ASA001-1330 - 1333

Petroglyphs on cliffs (copied from 35mm color photographs).

INDEPENDENCE (CALIFORNIA), JULY 1960

5 negatives: ASA001-1334 - 1338

Box 4

ASA members participated in the Eastern California Museum Association's Owens Valley Point Typology Workshop, Independence, July 9-10, 1960; collectors brought in over 7,500 points from about 65 collections for identification (Owens Valley, 1960/1984). These photographs may have been taken at this time. Series contains the following items:

ASA001-1334 - 1335 Cottonwood charcoal kilns near Owen's Lake where Howe camped.

ASA001-1336 - 1338 Reyes and Jessie Durant posing and holding a display of artifacts. "Jessie is a Paiute from Mono Lake area and married to Reyes Durant who is from Taos, New Mexico. They live at Rt. #1, Box 93, Bishop, California" (Howe, original enclosure).

JOSHUA TREE MONUMENT (SAN BERNARDINO COUNTY, CALIFORNIA), 1960

3 negatives: ASA001-1339 - 1341

Box 4

Groups of people looking at petroglyphs.

ANGELES CREST HIGHWAY (CALIFORNIA), JUNE 1961

2 negatives: ASA001-1342 - 1343

Box 4

Scene on highway and photograph of a Yucca plant.

CASA DIABLO (CALIFORNIA), JUNE 18, 1961

3 negatives: ASA001-1344 - 1346

Box 4

North side of Owens River gorge. The excavation was done for the Forest Service and the material went to the Eastern California Museum (Steele, 1982).

View of gorge; house ring; vehicles at campsite.

COSO HOT SPRINGS (INYO COUNTY, CALIFORNIA), 1961-1962 AND UNDATED

21 negatives: ASA001-1347 - 1367

Box 4. Box 6: 1 degraded negative ASA001-1359

Three sub-series in chronological order

Coso Hot Springs, June 1961

11 negatives: ASA001-1347 - 1357

Coso Junction; fire pits; people using the power shaker; Coso dig site; and artifacts (in situ bones).

Coso Hot Springs, 1962

8 negatives: ASA001-1358 - 1365

People working at dig site.

Coso Hot Springs, undated

2 negatives: ASA001-1366 - 1367

Joshua tree; people at dig site.

DAVIS DAM (ARIZONA-NEVADA), 1961-1965 AND UNDATED (BULK 1961-1963)

53 negatives: ASA001-1368 - 1420

Box 4

Five sub-series in chronological order

Davis Dam, September 1961

8 negatives: ASA001-1368 – 1375

Petroglyphs include a group of six sheep; walls of petroglyphs.

Davis Dam, January 20, 1962

23 negatives: ASA001-1376 – 1398

Scenic views and petroglyphs.

Davis Dam, January 7, 1963

10 negatives: ASA001-1399 – 1408

Wall of petroglyphs; photograph of a little girl (ASA001-1401).

Davis Dam, April 27, 1965 and April 1965

11 negatives: ASA001-1409 – 1419

Petroglyphs and walls of petroglyphs including a group of six sheep, a circle, and a larger sheep below (ASA001-1410; ASA001-1484 is a better photograph).

Davis Dam, undated

1 negative: ASA001-1420

Petroglyphs (copy from 35 mm color).

KEELER (INYO COUNTY, CALIFORNIA), 1961 AND UNDATED

3 negatives: ASA001-1421 – 1423

Box 5

Two sub-series in chronological order

Keeler, 1961

1 negative: ASA001-1421

Tram at Keeler; 2.25x3.25 negatives.

Keeler, undated

2 negatives: ASA001-1422 – 1423

Flash flood between Keeler and Olancho; 2.25x3.25 negatives.

LITTLE LAKE (INYO COUNTY, CALIFORNIA), MARCH 1961

6 negatives: ASA001-1424 – 1429

Box 5

A dry lake site (Howe, n.d.). Photographs of dig and people working at dig. Excavation of two rock shelters by 32 ASA members on March 26-27, 1961 (Redtfeldt, 1962/1984b).

LONE PINE (INYO COUNTY, CALIFORNIA), 1961-1962 (BULK 1962)

15 negatives: ASA001-1430 – 1444

Box 5

Two sub-series in chronological order

Lone Pine, 1961

3 negatives: ASA001-1430 – 1432

Scenic views of the Alabama Hills.

Lone Pine, January 1962

12 negatives: ASA001-1433 – 1444

Portraits of Paiute children and adults; Paiute Herbert Bellas in a headdress (ASA001-1442; identification from Clouse, 1962/n.d.); and an old man with a young boy, and a girl. These photographs were taken at the ASA's January 13-14, 1962, project to record Paiute legends, songs, dances, and arrowmaking: six Pauites worked with the ASA on the project: Tom Stone (Chief of Owens Valley tribes), Pete Thomas, Herbert Bellas, Johnny Sims, Emily Bellas, and Nadeen Naylor (Clouse, 1962/n.d.).

PETROGLYPH CAVE (CALIFORNIA), MARCH 18-19, 1961

6 negatives: ASA001-1445 – 1450

Box 5. Box 6: 4 degraded negatives ASA001-1445, 1446, 1447, 1449

Distant views of hillside with a cave and of a tree growing right at the top of a cliff.

SAGE CANYON (KERN COUNTY, CALIFORNIA), 1961

5 negatives: ASA001-1451 – 1455

Box 5

Scouting trip with Doug Huntingdon. People at campsite and at Sage Canyon Cave.

SHADOW MOUNTAIN (CALIFORNIA), 1961

6 negatives: ASA001-1456 – 1461

Box 5

Views of open-pit turquoise mines near Halloran Springs east of Baker, California; the surrounding area; and people pointing at features (?). Original enclosure of ASA001-1456 states, in handwriting by someone other than Howe, "East Camp CA-SBr-205." The enclosure also bears a rubber stamp: "Archaeological Survey Association, Armacost Library, University of Redlands, Redlands, California 92373."

SWANSEA (INYO COUNTY, CALIFORNIA), 1961

2 negatives: ASA001-1462 – 1463

Box 5

ASA trip August 5-6, 1961, to record petroglyphs in imminent danger of destruction due to blasting (Apostolides, 1961/1984b). Petroglyphs very weathered (Steele, 1982).

Landscape view; artifact with arrow pointing to it.

TAOS AND BANDELIER (NEW MEXICO), SEPTEMBER 1961

9 negatives: ASA001-1464 – 1472

Box 5

Vacation in Taos, Bandelier, Silverton (Colorado), and the Grand Canyon; photographs include Taos pueblo, Bandelier ruins, and landscapes. 2.25x3.25-inch negatives.

TROPICO MOJAVE MINE (KERN COUNTY, CALIFORNIA), 1961

3 negatives: ASA001-1473 – 1475

Box 5. Box 6: 2 degraded negatives ASA001-1473, 1474

Views of mine buildings on hillside; vehicles include wagon chassis and vintage truck.

WESTERN STAR (PRICE) RANCH (INYO COUNTY, CALIFORNIA), 1961-1964

5 negatives: ASA001-1476 - 1480

Box 5. Box 6: 1 degraded negative ASA001-1477

Three sub-series in chronological order

Western Star Ranch was known by ASA members as Price Ranch Site after the owners, and ASA members, Earl and Verdie Price. Preliminary report notes site the number as INY-121 (Clouse, 1965).

Western Star (Price) Ranch, 1961

2 negatives: ASA001-1476 - 1477

People at dig.

Western Star (Price) Ranch, January 20, 1962

1 negative: ASA001-1478

ASA member Renee Miller working on artifacts at dig site (copy from 35 mm color slide).

Western Star (Price) Ranch, 1964

2 negatives: ASA001-1479 - 1480

People working at dig site. ASA worked at the site on July 18-19, 1964, and completed the work on July 25-26, 1964 (Redtfeldt, 1965).

GRAPEVINE CANYON, NEAR DAVIS DAM (ARIZONA-NEVADA), 1962-1967

30 negatives: ASA001-1481 - 1510

Box 5. Box 6: 1 degraded negative ASA001-1507

Three sub-series in chronological order

Grapevine Canyon, January 20, 1962

9 negatives: ASA001-1481 - 1489

Photographs of petroglyphs including a group of six sheep, a circle, and a larger sheep below (ASA001-1484 is a better photograph of the group than ASA001-1410); 2.25x3.25-inch negatives.

Grapevine Canyon, January 7, 1963

3 negatives: ASA001-1490 – 1492

Walls of interesting petroglyphs. Whitley identifies the petroglyphs as at the foot of Spirit Mountain (Newberry Peak), Nevada (Whitley, 1996). Someone other than Howe wrote on ASA001-1490 enclosure: "prints should be made before negative deteriorates - a very different site from Keyhole Canyon although near it." Haenszel (1970/1984) noted that Howe took photographs on ASA's trip to Keyhole Canyon, November 1968. However, the photographs are not in this collection.

Grapevine Canyon, 1967

18 negatives: ASA001-1493 – 1510

Walls of petroglyphs. Many photographs of Hopi artist, Chio Black (Chizomana Ishii), who was ASA President in 1972 and 1973. Howe filed three undated negatives ASA001-1496 – 1498 within this sequence.

Sub-series includes the following items:

ASA001-1493 Chizomana Ishii, Dorothy Cowper, and petroglyph wall.

ASA001-1494, 1495, 1497, 1499, 1500, 1503, 1504, 1506, 1508
Chizomana Ishii and walls of petroglyphs. See also: ASA001-1561 – 1562 for Ishii in 1969.

ASA001-1501 view of the canyon.

ASA001-1502 interesting wall of petroglyphs.

ASA001-1509 Chizomana Ishii adorned with Indian jewelry.

ASA001-1510 ASA member Doris Bowers and unidentified person.

LAST CHANCE CANYON (KERN COUNTY, CALIFORNIA), MAY, 1962 AND MAY 5-6, 1962

23 negatives: ASA001-1511 – 1533

Box 5

Howe led a survey of three rock shelters in March, April, and May, 1962, on land owned by Howard E. Stilwell of San Gabriel. Howe took photographs on the trips (Apostolides, 1968a) but there are no photographs of the March or April trips in this collection.

Photographs include views of "Excavation by South West Museum" including two signs at the site "62-S 5-5-62 SR-2 6 inches N-125" (ASA001-1511) and "62-S 5-6-62 SR-2 Charcoal lens N-125" (ASA001-1513); landscapes; and people working at the site. 2.25x3.25 negatives.

CROWLEY SITE NO. 1 (CALIFORNIA), JULY 4, 1964

7 negatives: ASA001-1534 – 1540

Box 5

Views of archaeological excavation and people working at dig. The material from the excavation went to the Los Angeles Department of Water and Power (Steele, 1982).

EARLY MAN RESEARCH CENTER, BLOOMINGTON (CALIFORNIA), 1964

10 negatives: ASA001-1541 – 1550

Box 5. Box 6: 1 degraded negative ASA001-1547

Dedication of center at San Bernardino County Museum, February 1, 1964. Photographs include keynote speaker, Marie Wormington (Curator of Anthropology, Denver Museum of Natural History, Ruth DeEtte Simpson, John Kettl, and Bill Tennis.

FOSSIL FALLS (INYO COUNTY, CALIFORNIA), 1968

10 negatives: ASA001-1551 – 1560

Box 5

Views of falls "showing ragged skyline." Howe organized a trip to Big Petroglyph Canyon (China Lake) and Fossil Falls on May 19-20, 1968 (Miller, 1968). There are no photographs of the China Lake part of the trip in this collection.

CHIZOMANA ISHII BLACK, 1969

2 negatives: ASA001-1561 – 1562

Box 5

Portrait of Hopi artist Chio Black (Chizomana Ishii) in native dress. See also: ASA001-1493 – 1510 series for Ishii in 1967.

FLASH TEST, APRIL 1969

2 negatives: ASA001-1563 – 1564

Box 5

Flash test set-up labeled as “Busch #5 bulb F2.2 and 10 ft. Camera at 3 ft. Guide #220” and a close-up of a projectile point.

**HOLE-IN-THE-WALL (SAN BERNARDINO COUNTY, CALIFORNIA),
NOVEMBER 1971**

10 negatives: ASA001-1565 – 1574

Box 5

Views of area and petroglyphs. In the Mid-Hills survey area (Steele, 1982). 2.25x2.25-inch negatives.

RANCHO CALIFORNIA (RIVERSIDE COUNTY, CALIFORNIA), 1971

15 negatives: ASA001-1575 – 1589

Box 5. Box 6: 4 degraded negatives ASA001-1581, 1582, 1583, 1585

Two sub-series in chronological order

The excavation of a Luiseño campsite near Temecula was conducted by ASA under direction of San Bernardino County Museum (Rancho California, 1971).

Rancho California, October 1971

5 negatives: ASA001-1575 – 1579

Artifacts and a hearth.

Rancho California, November 1971

10 negatives: ASA001-1580 – 1589

Dig site; artifacts include a metate.

YUCCA VALLEY (CALIFORNIA), 1971

6 negatives: ASA001-1590 – 1595

Box 5. Box 6: 2 degraded negatives ASA001-1592, 1593

Photographs of vegetation of the area. Some of the original enclosures have notations "Pat Nolina" (in the distance) and "Pat, Louise and Harrison" (not pictured).

UNKNOWN LOCATION, 1971 AND UNDATED

6 negatives: ASA001-1596 – 1601

Box 5. Box 6: 2 degraded negatives ASA001-1600, 1601

Two sub-series in chronological order

Unknown location, 1971

4 negatives: ASA001-1596 – 1599

Blooming desert flora; petroglyphs that resemble atlatis; geometric petroglyphs that are multicellular or radiate from a ring.

Unknown location, undated

2 negatives: ASA001-1600 – 1601

Views of boulders with petroglyphs.

BARSTOW ARCHERY (CALIFORNIA), UNDATED

1 negative: ASA001-1602

Box 5

View of a tree in the desert identified on original enclosure as "Tree and desert scenes – Group Burro 2 Special."

CLOUDS, UNDATED

1 negative: ASA001-1603

Box 5

Landscape and clouds taken with infrared film.

FORT TEJON (KERN COUNTY, CALIFORNIA), UNDATED

1 negative: ASA001-1604

Box 5

View of the barracks building at Fort Tejon.

MARICOPA (KERN COUNTY, CALIFORNIA), UNDATED

2 negatives: ASA001-1605 - 1606

Box 5

Photographs taken on a scouting trip with Wilma Williams: artifacts; Williams with a shovel.

OAK CREEK (UNKNOWN LOCATION), UNDATED

3 negatives: ASA001-1607 - 1609

Box 5

People working at a dig.

POWER SHAKER, UNDATED

1 negative: ASA001-1610

Box 5

Group of people using the power shaker that Howe and Clyde Price designed and constructed. They used a Sears refrigerator spring to obtain a gentle bounce, a one-cylinder motor, and nesting variable-size mesh screens (Howe, 1977c).

Index of Locations

Aqua Dulce Ranch (Los Angeles County, Calif.)	ASA001-109 - 118
Aguanga (Riverside County, Calif.)	ASA001-98
Amazon Hill and Cave (Inyo County, Calif.)	ASA001-145 - 162
Amboy Crater (San Bernardino County, Calif.)	ASA001-97
Angeles Crest Highway (Calif.)	ASA001-1342 - 1343
Antelope Valley Indian Museum (Los Angeles County, Calif.)	ASA001-139 - 144
Avawatz Mountains (San Bernardino County, Calif.)	ASA001-119 - 126

Baja California (Mexico)	ASA001-1127 - 1198, 1286 - 1301
Bandelier (New Mexico)	ASA001-1464 - 1472
Barranca del Cobre (Chihuahua, Mexico)	ASA001-1199 - 1285, 1302 - 1321
Barstow Archery (Calif.)	ASA001-1602
Basihuare (Mexico)	ASA001-1257 - 1281
Bishop (Calif.)	ASA001-1087 - 1093, 1324 - 1333
Black Canyon (San Bernardino County, Calif.)	ASA001-364 - 701
Black Star Canyon (Orange County, Calif.)	ASA001-306 - 311
Burro Flats (Ventura County, Calif.)	ASA001-209 - 278
California Ranch (Calif.)	ASA001-1323
Casa Diablo (Calif.)	ASA001-1344 - 1346
Casas Grandes (Mexico)	ASA001-1254 - 1256
Casmalia Beach (Santa Barbara County, Calif.)	ASA001-67 - 68
Chicuacua (Mexico)	ASA001-1246 - 1248
Chilao Flats (Los Angeles County, Calif.)	ASA001-165 - 189
China Lake Naval Air Weapons Station (Calif.)	ASA001-872 - 963
Citechá (Mexico)	ASA001-1203 - 1229, 1302 - 1321
Colonia Guerrero, Baja California (Mexico)	ASA001-1282 - 1285
Coso Hot Springs (Inyo County, Calif.)	ASA001-1347 - 1367
Coyote Gulch (San Bernardino County, Calif.)	ASA001-714 - 731
Crowley Site No. 1 (Calif.)	ASA001-1534 - 1540
Cuddleback Lake (San Bernardino County, Calif.)	ASA001-39
Cusarare (Mexico)	ASA001-1230 - 1239
Davis Dam (Arizona-Nevada)	ASA001-1368 - 1420
Deep Creek (San Bernardino County, Calif.)	ASA001-279 - 305
Devil's Post Pile (Calif.)	ASA001-971 - 977
Downey Site (Los Angeles County, Calif.)	ASA001-312 - 317
Early Man Research Center, Bloomington (Calif.)	ASA001-1541 - 1550
El Arco, Baja California (Mexico)	ASA001-1129 - 1139
El Barril, Baja California (Mexico)	ASA001-1127 - 1128
Fort Tejon (Kern County, Calif.)	ASA001-1604
Fossil Falls (Inyo County, Calif.)	ASA001-1551 - 1560
Gem Hill (Kern County, Calif.)	ASA001-1126
Grapevine Canyon (Nevada)	ASA001-1481 - 1510
Grover City (San Luis Obispo County, Calif.)	ASA001-69 - 72
Guadalupe Canyon (Baja California, Mexico)	ASA001-90 - 96
Harbor Freeway (Los Angeles County, Calif.)	ASA001-75 - 84
Hole-in-the-wall (San Bernardino County, Calif.)	ASA001-1565 - 1574
Horse Canyon Cave (Kern County, Calif.)	ASA001-99 - 108
Humming Bird Ranch (Ventura County, Calif.)	ASA001-63, 1094 - 1125
Inscription Canyon (San Bernardino County, Calif.)	ASA001-364 - 701

Independence (Calif.)	ASA001-1334 – 1338
Irvine Ranch (Orange County, Calif.)	ASA001-704 – 711
Joshua Tree Monument (San Bernardino County, Calif.)	ASA001-1339 – 1341
Keeler (Inyo County, Calif.)	ASA001-1421 – 1423
Kingston Wash (San Bernardino County, Calif.)	ASA001-62
La Paz, Baja California (Mexico)	ASA001-1190
Laguna Chapala, Baja California (Mexico)	ASA001-163
Last Chance Canyon (Kern County, Calif.)	ASA001-1511 – 1533
Leach Lake (San Bernardino County, Calif.)	ASA001-964 – 970
Little Lake (Inyo County, Calif.)	ASA001-1424 – 1429
Lone Pine (Inyo County, Calif.)	ASA001-1430 – 1444
Malaga Cove (Los Angeles County, Calif.)	ASA001-40 – 41
Malibu Mountains Pictograph Cave (Calif.)	ASA001-4 – 10
Maricopa (Kern County, Calif.)	ASA001-1605 – 1606
Mesquite Springs (Calif.)	ASA001-190 – 208
Mule Canyon (San Bernardino County, Calif.)	ASA001-61
Mutau Meadows or Flats (Ventura County, Calif.)	ASA001-42 – 47
Navajo country (Arizona)	ASA001-127 – 138
Oak Creek (unknown location)	ASA001-1607 – 1609
Owen's Valley (Calif.)	ASA001-1087 – 1093, 1324 – 1333
Painted Cave (Santa Barbara County, Calif.)	ASA001-11 – 30
Petroglyph Cave (Calif.)	ASA001-1445 – 1450
Phillips Ranch (Kern County, Calif.)	ASA001-1012 – 1086
Price (Western Star) Ranch (Inyo County, Calif.)	ASA001-1476 – 1480
Providence Mountains (San Bernardino County, Calif.)	ASA001-978 – 1011
Puerto Cito, Baja California (Mexico)	ASA001-1153 – 1163
Rancho California (Riverside County, Calif.)	ASA001-1575 – 1589
Rock Springs (San Bernardino County, Calif.)	ASA001-732 – 744
Rodman Mountains (San Bernardino County, Calif.)	ASA001-745 – 871
Sage Canyon (Kern County, Calif.)	ASA001-1451 – 1455
Salton Sea (Calif.)	ASA001-357 – 363
Samachicque (Mexico)	ASA001-1199 – 1248
San Borjas, Baja California (Mexico)	ASA001-1189
San Felipe, Baja California (Mexico)	ASA001-1173 – 1187
San Timoteo Canyon (San Bernardino County, Calif.)	ASA001-85 – 89
Sand Hills (Yuma sand dunes) (Calif.)	ASA001-1 – 3, ASA001-702 – 703
Shadow Mountain (Calif.)	ASA001-1456 – 1461
Signal Mountain (Baja California, Mexico)	ASA001-52
Southwest Museum, Los Angeles (Calif.)	ASA001-53 – 60
Swansea (Inyo County, Calif.)	ASA001-1462 – 1463
Taos (New Mexico)	ASA001-1464 – 1472

Temecula (Riverside County, Calif.)	ASA001-318 - 339
Texas Street, San Diego (Calif.)	ASA001-48 - 51
Thousand Palms (Riverside County, Calif.)	ASA001-31 - 37
Torrance (Los Angeles County, Calif.)	ASA001-38
Tropico Mojave Mine (Kern County, Calif.)	ASA001-1473 - 1475
Ventura Boulevard (Los Angeles County, Calif.)	ASA001-73 - 74
Wupatki (Arizona)	ASA001-127 - 138
Western Star (Price) Ranch (Inyo County, Calif.)	ASA001-1476 - 1480
Willow Springs (Kern County, Calif.)	ASA001-340 - 356
Yucca Valley (Calif.)	ASA001-1590 - 1595
Yuma sand dunes (Calif.)	ASA001-1 - 3, ASA001-702 - 703
Zion National Park (Utah)	ASA001-713

Reference List of ASA and Howe Negative Numbers

ASA001-1 - 30	Howe negative nos. 1 - 31
ASA001-31 - 61	Howe negative nos. 47 - 99
ASA001-62 - 138	Howe negative nos. 201 - 294
ASA001-139 - 162	Howe negative nos. 301 - 318 and unnumbered
ASA001-163 - 164	Howe negative nos. 351 - 352
ASA001-165 - 208	Howe negative nos. 501 - 547
ASA001-209 - 363	Howe negative nos. 851-999
ASA001-364 - 701	Howe negative nos. 1000-1289 and unnumbered
ASA001-702 - 731	Howe negative nos. 1689-1718
ASA001-732 - 744	Howe negative nos. 1751-1763
ASA001-745 - 871	Howe negative nos. 3500-3622 and unnumbered
ASA001-872 - 963	Howe negative nos. 4000 - 4075 and unnumbered
ASA001-964 - 970	Howe negative nos. 4400-4404
ASA001-971 - 977	Howe negative nos. 6001-6007
ASA001-978 - 1011	Howe negative nos. 6101-6130
ASA001-1012 - 1086	Howe negative nos. 6401-6470
ASA001-1087 - 1093	Howe negative nos. 6501-6506
ASA001-1094 - 1125	Howe negative nos. 6601-6619
ASA001-1126	Howe negative no. 6675
ASA001-1127 - 1198	Howe negative nos. 9000-9043 and unnumbered
ASA001-1199 - 1321	Howe unnumbered negatives
ASA001-1322	Howe negative no. 10400; last number used by Howe
ASA001-1323 - 1610	Howe unnumbered negatives

Reference List of Missing Negatives (Howe's numbers)

Negatives missing from enclosures: 26, 268, 510, 520, 521, 524, 877, 940-947, 951-954, 977, 1085, 1133, 1134, 1157, 1158, 1185, 1218, 1240, 1262, 1264, 3569, 9035 - 9037

Negatives and enclosures missing: 101-138, 156, 163 Salton Sea (Howe, n.d.); 202 Little Lake (Howe, n.d.); 10000 "Casadora & w" (Howe, n.d.)

Archaeological Survey Association of Southern California, Inc.

**2024 Orange Tree Lane
Redlands, California 92374**

Application for Permission to Reproduce Images from Collection No. ASA001

(Please complete form, sign and date it, and mail to above address)

Name:

Company Name:

Address:

I hereby request permission to reproduce the following copyrighted images:

Negative nos. ASA001-

Negative nos. ASA001-

Negative nos. ASA001-

(please list any additional images)

Details about publication of the above images:

Type or medium of publication (book, article, CD-ROM, website, etc.):

Title:

Author:

Publisher:

Publication date:

If permission is granted, I agree to include an acknowledgment in the publication stating "Archaeological Survey Association of Southern California, ASA001-___." I understand that there is NO CHARGE for use of an image. I agree to present a copy of the non-electronic publication to the Archaeological Survey Association of Southern California.

Signature:

Date:

Annotated Bibliography

- Apostolides, A. (1968a, Fall). Field report no. 2: Last Chance Canyon excavation, April 14-15, 1962. ASA Newsletter, 15 (3), 8-13. Field report nos. 1, 3 and 4 in same issue.
- Apostolides, A. (1968b, Fall). Field report no. 3: Last Chance Canyon excavation, May 5-6, 1962. ASA Newsletter, 15 (3), 14-15. Field report nos. 1, 2 and 4 in same issue.
- Apostolides, A. (1984a). Amazon Hill field trip. In N. L. Zelenka (Ed.), Notes on ASA digs and surveys: The best of the Newsletters 1953 to 1976 (ASA Paper No. 15) (p. 88-89). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 8 (2), June 1961). ASA trip on May 27, 1961, to recover basketry.
- Apostolides, A. (1984b). Swansea glyph site photo salvage excavation. In N. L. Zelenka (Ed.), Notes on ASA digs and surveys: The best of the Newsletters 1953 to 1976 (ASA Paper No. 15) (p. 90). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 8 (2), June 1961). ASA trip in August 1961 to record petroglyphs in danger of destruction by blasting.
- Archaeological Survey Association of Southern California. (1977). Thirty year history scrap book: 1947-1977 of the Archaeological Survey Association of Southern California. Unpublished; held in ASA unprocessed archive files. Contains photographs, documents, ephemera.
- Archaeological Survey Association of Southern California. (1984). This is Black Canyon. In N. L. Zelenka (Ed.), Notes on ASA digs and surveys: The best of the Newsletters 1953 to 1976 (ASA Paper No. 15) (p. 8). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 1 (2), November 1953). Text of sign posted by ASA in Black Canyon, November 1953.
- Barranca del Cobre trip. (n.d.). In L. Steele (Ed.), Notes on southwest Indians: A diversified collection of papers from ASA Newsletters (ASA Paper No. 14) (p. 114-115). Redlands, CA: Archaeological Survey Association of Southern

California. (Reprinted from ASA Newsletter, 7 (4), November 1960). A few details about ASA's trip and the Tarahumara Indians.

Blast from the past no. 1. (1988, Summer). ASA Bulletin, 13 (2), 7. Photograph of ASA's first field trip (ASA001-3).

Blast from the past no. 2. (1988, Fall). ASA Bulletin, 13 (3), 7. Photograph of Painted Cave pictographs (ASA001-21).

Blast from the past no. 3. (1988, Winter). ASA Bulletin, 13 (4), 7. Photograph of Grover Reeder and petroglyphs in Black Canyon (ASA001-394).

Blast from the past no. 4. (1989, Spring). ASA Bulletin, 14 (1), 7. Photograph of petroglyph of group of sheep in Black Canyon (ASA001-468).

Blast from the past no. 7. (1989, Winter). ASA Bulletin, 14 (4), 7. Photograph of Hinkley site (ASA001-478).

Blast from the past no. 8. (1990, Spring). ASA Bulletin, 15 (1), 5. Photograph of the Crains at Mule Canyon (ASA001-61).

Blast from the past no. 9. (1990, Summer). ASA Bulletin, 15 (2), 5. Photograph of Charles LaMonk, Charles Jr., and Dorothy Cowper at Burro Flats (ASA001-258).

Blast from the past. (1990, Fall). ASA Bulletin, 15 (3), 5. Photograph of group at Humming Bird Ranch, June 1954 (ASA001-1113).

Blast from the past. (1991, Spring). ASA Bulletin, 16 (1), 10. Photograph of group at Temecula in 1952 (ASA001-324).

Carter, G. F. (1980). Earlier than you think: A personal view of man in America. College Station, TX: Texas A&M University Press. Includes discussions of Texas Street site (ASA001-48 - 51) and the Calico Early Man site.

Charles LaMonk: ASA artist. (1983). In L. Steele (Ed.), Notes from the southwest: A diversified collection of papers from ASA Newsletters (ASA Paper No. 13) (p. 113-114). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 23 (2), Fall/Winter 1976). Describes LaMonk's development as an artist.

- Clouse, C. E. (1965, Summer). Preliminary report on the Western Star Ranch site. ASA Newsletter, 12 (1/2), 5 unnumbered pages. The site was known also as Price Ranch.
- Clouse, C. (n.d.). Owens Valley Paiutes. In L. Steele (Ed.), Notes on southwest Indians: A diversified collection of papers from ASA Newsletters (ASA Paper No. 14) (p. 66-67). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 9 (1), March 1962). ASA's January 13-14, 1962, project to record Pauite legends, dances, and songs.
- Cowper, D. (1984). Clues of worth: A report on the Lake LeConte sites (53S): LaQuinta, Garnet Wash and Travertine Palms. In N. L. Zelenka (Ed.), Notes on ASA digs and surveys: The best of the Newsletters 1953 to 1976 (ASA Paper No. 15) (p. 169-173). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 22 (2), Fall 1975). Includes details of a witch stick found by Howe in Garnet Wash.
- Crosby, H. (1974). The King's Highway in Baja California: An adventure into the history and lore of a forgotten region. La Jolla, CA: Copley Books. Fascinating account of author's travels in remote regions of Baja.
- Crosby, H. (1981). Last of the Californios. La Jolla, CA: Copley Books. Travels to ranches in remote regions of Baja.
- Grant, C. (1968). Rock drawings of the Coso Range, Inyo County, California. China Lake, CA: Maturango Press. Comprehensive discussion with many photographs.
- Haenszel, A. M. (1984). Keyhole Canyon. In N. L. Zelenka (Ed.), Notes on ASA digs and surveys: The best of the Newsletters 1953 to 1976 (ASA Paper No. 15) (p. 111-129). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 17 (2), Fall/Winter 1970). Petroglyphs in the canyon.
- Haenszel, A. M. (n.d.). A familiar petroglyph at Pauite Pass. In L. Steele (Ed.), Notes on southwest Indians: A diversified collection of papers from ASA Newsletters (ASA Paper No. 14) (p. 82). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 19 (1), Spring 1972). Bird petroglyph, similar to the one adopted as ASA logo, occurs over 100 miles from Black Canyon.

- Hedges, K. (1985). Rock art portrayals of shamanic transformation and magical flight. In K. Hedges (Ed.), Rock art papers, volume 2 (pp. 83-94). San Diego, CA: San Diego Museum of Man. Analysis of possible meanings of rock art.
- Hedges, K. (1992). Shamanistic aspects of California rock art. In L. J. Bean (Ed.), California Indian shamanism (pp. 67-88). Menlo Park, CA: Ballena Press. Includes history of the theory of shamanistic interpretation.
- Heizer, R. F., & Clewlow, Jr., C. W. (1973). Prehistoric rock art of California. Ramona, CA: Ballona Press. Catalog of rock art.
- Howe, C. (1960, February). Close-up photography in archaeology. ASA Newsletter, 7 (1), 7. Tips on photographing artifacts.
- Howe, C. (1966, Winter). June field trip to Black Canyon. ASA Newsletter, 13 (3), 3. Report on ASA trip to repair damage by vandals.
- Howe, C. (1974, Fall/Winter). Here's Howe: The spirit of the desert. ASA Newsletter, 21 (3), 51. Naming of Howe's beloved jeep.
- Howe, C. (1975, Fall/Winter). Here's Howe: Rancho Chuparosa. ASA Newsletter, 22 (2), 51-52. ASA survey of Humming Bird Ranch site. Also reported in Howe, 1984.
- Howe, C. (1976a, Spring/Summer). Here's Howe: Cabin fever. ASA Newsletter, 23 (1), 31. Light-hearted reminiscence of jeep trip to Baja California.
- Howe, C. (1976b, Fall/Winter). Grasshoppers, anybody? ASA Newsletter, 23 (2), 42-44. Tale of Malaga Cove chief and his three wives as told around 1946 by Tom Towers, a friend of the chief.
- Howe, C. (1976c, Fall/Winter). True, so help me. ASA Newsletter, 23 (2), 41. Humorous tale of a Baja trip in 1960.
- Howe, C. (1976d, Fall/Winter). Vignettes. ASA Newsletter, 23 (2), 45. Brief light-hearted tales of Calico and the ghost town of Balarat [Ballarat].
- Howe, C. (1977a, Spring/Summer). Here's Howe: Sometimes you find things in the damndest places. ASA Journal, 1 (1), 27-28. Howe found fossils at Harbor Freeway construction site.

- Howe, C. (1977b, Fall/Winter). Calico: The crew. ASA Journal, 1 (2), 31. Howe reminisces about the Calico Early Man dig, near Barstow.
- Howe, C. (1977c, Fall/Winter). Power shaker screen. ASA Journal, 1 (2), 35. Howe and Clyde Price's invention of power shaker.
- Howe, C. (1980). A prehistory of Black Canyon: A preliminary view (ASA Paper No. 11). Redlands, CA: Archaeological Survey Association of Southern California. Includes chapters by Haenszel and Simpson.
- Howe, C. (1983). Ten commandments for field behaviour. In L. Steele (Ed.), Notes from the southwest: A diversified collection of papers from ASA Newsletters (ASA Paper No. 13) (p. 51). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 1 (2), November 1953). Howe encourages ASA members to become valuable dig crew members.
- Howe, C. (1984). Preliminary report on a cave in Simi Valley. In N. L. Zelenka (Ed.), Notes on ASA digs and surveys: The best of the Newsletters 1953 to 1976 (ASA Paper No. 15) (p. 16-17). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 2 (1), July 1954). ASA survey of Humming Bird Ranch site. Also described in Howe, 1975, Fall/Winter.
- Howe, C. (n.d.). Handwritten draft index to negative file of Charley Howe. Unpublished; held in ASA unprocessed archive files. Typed draft transcription (with some inaccuracies) is also in file. Index covers most negatives of images taken between 1947 and mid-1960; estimated date of index is late 1960.
- Hulse, J. (1954, May 24). Canyon near Barstow has pictures of ancient life. Los Angeles Times, 1, 10. Report on ASA's activities in Black Canyon; profile of Howe who was field chairman at the time.
- Ishii, C. (1967, Fall). The Bishop loop trip. ASA Newsletter, 14 (3), 3-5. Trip organized by Howe.
- Ishii, C. (1968, Fall). ASA annual general meeting, January 20, 1968. ASA Newsletter, 15 (1), 5-8. Field Chairman Howe reports that the Calico Early Man dig took priority with ASA in 1967.

Jackson, C. (1954, May 10). Diggers race to unearth Indian relics in Burro Flats. Valley Times. Report discusses plans for atomic energy station in the area.

Johnson, B. E. (1971, July 18). Tradition in yarn. Los Angeles Times Home Magazine. Profile of Chizomana Ishii, Hopi artist who served as ASA President in 1972 and 1973.

LaMonk, C. (1984). Pictograph Cave, Burro Flats. In N. L. Zelenka (Ed.), Notes on ASA digs and surveys: The best of the Newsletters 1953 to 1976 (ASA Paper No. 15) (p. 11). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 1 (2), November 1953). Details of Howe and LaMonk's experiment with brush work to reproduce rock art.

Layton, E. (1965, Fall). Field chairman report. ASA Newsletter, 12 (3), 3. Trip to China Lake in 1965.

Leadabrand, R. (1964, April). Into the past in San Bernardino County. Westways, 9-11. Profile of ASA activities and sites in San Bernardino.

Letters. (1990, Winter). ASA Bulletin, 15 (4), 2. Redtfeldt identifies some people in the group photograph (ASA001-1113) taken at Humming Bird Ranch site.

Library of Congress. (1995a). Thesaurus for graphic materials I: Subject terms (TGMI). Retrieved July 3, 1999 from the World Wide Web: <http://lcweb.loc.gov/lexico/tgm1/brsearch.html>

Library of Congress. (1995b). Thesaurus for graphic materials II: Genre and physical characteristics terms (TGMII). Retrieved July 3, 1999 from the World Wide Web: <http://lcweb.loc.gov/rr/print/tgm2/toc.html>

Library of Congress. (1996). TGMII: New terms and updated terms. Retrieved July 3, 1999 from the World Wide Web: <http://lcweb.loc.gov/rr/print/tgm2/newterms.html>

Library of Congress. (1997). Library of Congress Subject Headings. Washington, DC: Library of Congress.

Library of Congress. (1998). New postable terms and subdivisions added to TGMI. Retrieved July 3, 1999 from the World Wide Web: <http://lcweb.loc.gov/rr/print/tgm1/newterms.html>

- McCown, B. E. (1955). Temeku: A page from the history of the Luiseno Indians (ASA Paper No. 3). [Los Angeles, CA]: Archaeological Survey Association of Southern California. Excavation at Temecula led by McCown.
- McCown, L. (1989, Fall). Goodbye to ASA pioneer Charley Howe. ASA Bulletin, 14 (3), 3. Obituary.
- Miller, J. (1968, Summer). China Lake expedition. ASA Newsletter, 15 (2), 16. Trip organized by Howe.
- Miller, R. (1968, Fall). Survey trip to the Providence Mountains, March 11, 12, 1961. ASA Newsletter, 15 (3), 21-22. Trip led by Howe.
- Miller, R. J. (1989, Winter). Charley Howe Memorial Fund for photo preservation. ASA Bulletin, 14 (4), 6. Request for donations; ASA raised some funds by collecting and selling aluminum cans.
- Muehlenbach, M. (n.d.). Below Chihuahua since 1964: The Tarahumaras. In L. Steele (Ed.), Notes on southwest Indians: A diversified collection of papers from ASA Newsletters (ASA Paper No. 14) (p. 103-109). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 20 (3), Fall 1973). Semana Santa four-day festival, tesquenada, and observations about Tarahumara.
- Muehlenbach, M. (n.d.). More on the Tarahumara Indians of Chihuahua, Mexico: Escuela y profesores. In L. Steele (Ed.), Notes on southwest Indians: A diversified collection of papers from ASA Newsletters (ASA Paper No. 14) (p. 110-113). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 21 (1), Spring 1974). Observations on school and teachers in Basihuare.
- Notes from annual meeting January 16, 1976. (1976, Spring/Summer). ASA Newsletter, 23 (1), 8. ASA designated day to honor Howe.
- Owens Valley typology workshop. (1984). In N. L. Zelenka (Ed.), Notes on ASA digs and surveys: The best of the Newsletters 1953 to 1976 (ASA Paper No. 15) (p. 84). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 7 (3), May 1960). Collectors from the area brought over 7,550 points to the Eastern California Museum Association's workshop.

- Peck, S. L. (1953). Some pottery from the Sand Hills, Imperial County, California (ASA Paper No. 1). [Los Angeles, CA]: Archaeological Survey Association of Southern California. ASA's first field trip, 1951.
- Pederson, C. (1983). The ASA emblem. In L. Steele (Ed.), Notes from the southwest: A diversified collection of papers from ASA Newsletters (ASA Paper No. 13) (p. 116). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 1 (1), July 1953). Black Canyon bird petroglyph adopted as ASA logo.
- Pederson, C. (1984). Inscription Canyon: A report on the petroglyphs of Black Canyon. In N. L. Zelenka (Ed.), Notes on ASA digs and surveys: The best of the Newsletters 1953 to 1976 (ASA Paper No. 15) (p. 41-49). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 3 (2), May 1956). Analysis of petroglyphs.
- Photographic archives established. (1975, Fall/Winter). ASA Newsletter, 22 (2), 7. Announcement of Howe's donation of negative collection and ASA's vision for photograph archive.
- Price, C. (1984a). The Phillips site. In N. L. Zelenka (Ed.), Notes on ASA digs and surveys: The best of the Newsletters 1953 to 1976 (ASA Paper No. 15) (p. 22-24). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 2 (2), November 1954). Description of site and artifacts.
- Price, C. (1984b). Tehachapi camps and cairns. In N. L. Zelenka (Ed.), Notes on ASA digs and surveys: The best of the Newsletters 1953 to 1976 (ASA Paper No. 15) (p. 18). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 2 (1), July 1954). Willow Springs site, November 28-29, 1953.
- Rancho California excavation begins. (1971, November). San Bernardino County Museum Association Newsletter, 6 (11), 3. Very brief report on excavation.
- Redtfeldt, G. (1965, Summer). Annual field chairman report. ASA Newsletter, 12 (1/2), 1-2. Dates of Black Star Canyon and Western Star Ranch field trips.
- Redtfeldt, G. (1984a). Field trip to China Lake. In N. L. Zelenka (Ed.), Notes on ASA digs and surveys: The best of the Newsletters 1953 to 1976 (ASA Paper

- No. 15) (p. 103). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 12 (3), Fall 1965). May 9, 1965 trip to Little Petroglyph Canyon.
- Redtfeldt, G. (1984b). Painted Rock site, Little Lake, California. In N. L. Zelenka (Ed.), Notes on ASA digs and surveys: The best of the Newsletters 1953 to 1976 (ASA Paper No. 15) (p. 94-95). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 9 (2), Summer 1962). March 26-27, 1961 excavation of rock shelters at Little Lake.
- Redtfeldt, G. (1991, Spring). Charles LaMonk. ASA Bulletin, 16 (1), 10. Obituary.
- Rice, D. (1984). Chilao. In N. L. Zelenka (Ed.), Notes on ASA digs and surveys: The best of the Newsletters 1953 to 1976 (ASA Paper No. 15) (p. 21). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 2 (1), July 1954). Note on ceremonial material found in 1954.
- Rozaire, C. (1968). Archaeological investigations at Amazon Hill, Inyo County, March 1958 (sic). ASA Newsletter, 15 (3), 17. Survey in 1957.
- Rozaire, C. (1984). Preliminary report on excavations at Chilao Flats. In N. L. Zelenka (Ed.), Notes on ASA digs and surveys: The best of the Newsletters 1953 to 1976 (ASA Paper No. 15) (p. 68-70). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 5 (2), May 1958). Description of some artifacts.
- Sanger, K. K., & Meighan, C. W. (1990). Discovering prehistoric rock art: A recording manual. Calabasas, CA: Wormwood Press. Informative introduction to rock art.
- Simpson, R. D. (1961). Coyote Gulch: An archaeological investigation of an early lithic locality in the Mohave Desert of San Bernardino County (ASA Paper No. 5). [Los Angeles, CA]: Archaeological Survey Association of Southern California. Site report.
- Simpson, R. D. (1983). Editorial. In L. Steele (Ed.), Notes from the southwest: A diversified collection of papers from ASA Newsletters (ASA Paper No. 13) (p. 79). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 2 (2), November 1954). Perspective on ASA's potential to contribute to the search for Early Man in America.

- Simpson, R. D. (1984). The Mule Canyon survey. In N. L. Zelenka (Ed.), Notes on ASA digs and surveys: The best of the Newsletters 1953 to 1976 (ASA Paper No. 15) (p. 64-65). Redlands, CA: Archaeological Survey Association of Southern California. (Reprinted from ASA Newsletter, 4 (1/2), Feb/May 1957). ASA reconnaissance trip in March 1957.
- Smith, G. A., & Turner, W. G. (1975). Indian rock art of southern California with selected petroglyph catalog. Redlands, CA: San Bernardino County Museum. Catalog of rock art designs organized by site.
- Sonin, W. (1995). California rock art: An annotated site inventory and bibliography. Los Angeles, CA: Rock Art Archive of the Institute of Archaeology, University of California. Detailed catalog of hundreds of rock art sites.
- Srivastava, R. A. (1999, Summer). The Charley Howe photographs: The ASA's photograph collection no. ASA001. ASA Bulletin, 23 (3), 4-5. Progress report to ASA membership on processing of ASA's first archival collection.
- Steele, L. (1982). The thirty year search for ancient man (ASA Paper No. 12). Redlands, CA: Archaeological Survey Association of Southern California. Comprehensive history of ASA from 1947 to early 1980s.
- Thesaurus of geographic names, Version 1.0. (1997). Los Angeles: The J. Paul Getty Trust. Retrieved June 27, 1999 from the World Wide Web: http://shiva.pub.getty.edu/tgn_browser/
- United States Geological Survey. (1999). Geographic names information system. Retrieved June 27, 1999 from the World Wide Web: <http://mapping.usgs.gov/www/gnis/gnisform.html>
- Van Tilburg, J. A. (Ed.). (1983). Ancient images on stone: Rock art of the Californias. Los Angeles, CA: University of California. Includes photographs, some interpretations, and few site details. A rock art figure similar to that in ASA001-209 - 211 is on p. 44-45.
- Whitley, D. S. (1996). A guide to rock art sites: Southern California and southern Nevada. Missoula, MT: Mountain Press. Includes analyses of possible rock art meanings.

- Whitley, D. S. (1998). Meaning and metaphor in the Coso Range petroglyphs; Understanding Great Basin rock art. In E. Younkin (Ed.), Coso rock art: A new perspective (pp. 109-174). Ridgecrest, CA: Maturango Press. Reviews theories about rock art meaning.
- Zajicek, P. (1988, Fall). ASA people. ASA Bulletin, 13 (3), 2. Cowper identifies people on ASA's first field trip (ASA001-3).

Appendix B

Plates 1-20: photographic prints from Charley Howe negatives.

Plate 1: Pictograph, Mutau Flats, California, 1955; ASA001-47.

Plate 2: Pictographs, Burro Flats, California, 1954; ASA001-237.

Plate 3: Petroglyphs, China Lake, California, 1956; ASA001-876.

Plate 4: Petroglyphs, China Lake, California, 1956; ASA001-877.

Plate 5: Petroglyphs, China Lake, California, 1956; ASA001-885.

Plate 6: Petroglyphs (mural size), China Lake, California, 1956; ASA001-887.

Plate 7: Petroglyph, China Lake, California, 1957; ASA001-951.

Plate 8: Petroglyphs, Black Canyon, California, 1958; ASA001-608.

Plate 9: Petroglyphs, Black Canyon, California, 1955; ASA001-530.

Plate 10: Petroglyphs, Black Canyon, California, 1960; ASA001-662. Same petroglyphs as in Plate 9 five years later showing increased growth of lichens over the petroglyphs.

Plate 11: Petroglyphs, Black Canyon, California, 1954; ASA001-490.

Plate 12: Petroglyph, Black Canyon, California, 1951; ASA001-417.

Plate 13: Petroglyphs, Black Canyon, California, 1953; ASA001-468. This print was found loose in an ASA archive box. The negative is now very deteriorated and scheduled for preservation copying.

Plate 14: Petroglyphs, Black Canyon, California, 1958; ASA001-628.

Plate 15: Petroglyph, Black Canyon, California, 1952; ASA001-444. Petroglyph adopted as ASA logo.

Plate 16: Petroglyphs, Davis Dam, California, 1961; ASA001-1368.

Plate 17: Petroglyphs, Rodman Mountains, California, 1956; ASA001-818.

Plate 18: Pictographs, Horse Canyon, California, undated; ASA001-104.

Plate 19: Pictographs, Horse Canyon, California, undated; ASA001-105. Example of deteriorated cellulose acetate negative.

Plate 20: Pictographs, Painted Cave, California, 1955; ASA001-23. Example of channeling in deteriorated cellulose acetate negative.

Appendix C

The following are the main EAD tags for the Howe finding aid (Appendix A). For easy reference, the instance is divided into three sections. Subordinate attribute and header tags are shown only as needed for discussion purposes.

<ead>

SECTION 1: EAD HEADER

<eadheader audience="internal" findaid status="edited-full-draft"

langencoding="ISO 639-2">

<eadid> unique identification no. **</eadid>**

<filedesc> **<titlestmt>** **<titleproper>** title **</titleproper>** **</titlestmt>**

</filedesc>

<profiledesc> **<creation>** name of person who did markup **<date>** date of digital version **</date>** **</creation>** **</profiledesc>**

</eadheader>

SECTION 2: FRONTMATTER

<frontmatter>

<titlepage>

<titleproper> title **</titleproper>**

<num> collection no. **</num>**

<extptr entityref="asalogo"> *[print version of finding aid has printed logo but EAD version will link to logo]*

<author> repository **</author>**

<subtitle> subtitle **</subtitle>**

<p> contact information **</p>**

<p> processed by **</p>**

<date> date completed **</date>**

<p> copyright statement **</p>**

</titlepage>

</frontmatter>

[A Table of Contents is included in the finding aid printed version not in the EAD version. A separately tagged Table of Contents is redundant in the EAD instance since access is through navigation]

SECTION 3: ARCHIVAL DESCRIPTION

<archdesc level="collection">

SECTION 3A: DESCRIPTIVE IDENTIFICATION

```

< did >
    < unittitle > title < unitdate > dates of materials < /unitdate >
    < /unittitle >
    < unitid > collection no. < /unitid >
    < origination > < persname > creator and date < /persname >
    < /origination >
    < physdesc > < extent > extent < /extent > < /physdesc >
    < repository > repository < /repository >
    < abstract > abstract < /abstract >
< /did >

```

SECTION 3B: ADMINISTRATIVE INFORMATION

```

< admininfo >
    < acqinfo > < p > provenance < persname
role = donor > donor < /persname > < /p > < p > < date > accession
date < /date > < /p > < /acqinfo >
    < accessrestrict > access < /accessrestrict >
    < userrestrict > < p > publication rights and copyright information < /p >
    < /userrestrict >
    < processinfo > processing information < /processinfo >
    < note > < p > funding note < /p > < /note >
    < prefercite > preferred citation < /prefercite >
< /admininfo >

```

SECTION 3C: BIOGRAPHY

```

< bioghist >
    < p > Howe was a serious amateur . . . < /p >
    < p > In 1948 . . . < /p >
    < p > repeatable
< /bioghist >

```

SECTION 3D: SCOPE AND CONTENT

```

< scopecontent >
    < p > The collection contains . . . < /p >
    < p > The negatives cover . . . < /p >
    < p > repeatable
< /scopecontent >

```

SECTION 3E: ORGANIZATION AND ARRANGEMENT

```

< organization > < p > Organized into the following series . . .
< /p > < /organization >

```

<arrangement> <p> In chronological order . . . </p> </arrangement>

SECTION 3F: SUBJECT ACCESS

<controlaccess> <head> Selected Search Terms </head>
 <corpname> Southwest Museum (Los Angeles, Calif.) </corpname>
 <genreform> Acetate negatives </genreform>
 <geogname> Black Canyon (San Bernardino, Calif.) </geogname>
 <persname> Black, Chio (Chizomana Ishii) </persname>
 <subject> Hopi Indians </subject>
 </controlaccess>

SECTION 3G: ADJUNCT DESCRIPTIVE DATA

<add> <head> Sites Photographed </head>
 <p> sites </p> </add>
 <add> <head> Photography Details </head>
 <p> cameras and films </p> </add>

SECTION 3H: DESCRIPTION OF SUBORDINATE COMPONENTS

<dsc type="combined">

<c01 level="series"> <did> <unittitle> <geogname> BURRO FLATS
 (VENTURA COUNTY, CALIFORNIA), </geogname> <unitdate> 1953-
 1954 AND UNDATED </unitdate> </unittitle>

<physdesc> <extent> 70 negatives: </extent> </physdesc>
 <unitid> ASA001-209 - 278 </unitid>

<container> Box 1. </container> <container> Box 6: </container>
 <p> 10 degraded negatives ASA001-212, 222, 224 - 226, 230 - 231, 257,
 265, 278 <p> </did>

<arrangement> <p> Three sub-series as numbered by Howe (chronological
 order but with undated series before 1953 series) </p> </arrangement>

<scopecontent> <p> The site (VEN-4) above Chatsworth Reservoir was on a
 private ranch owned by Mr. Silvernale. There were two cave homes at the site
 and pictographs in varied shapes and vivid color. </p> </scopecontent>

<c02 level="sub-series"> <did> <unittitle> Burro Flats,
 <unitdate> 1953 </unitdate> </unittitle>

<physdesc> <extent> 24 negatives: </extent> </physdesc>

<unitid> ASA001-213 - 236 </unitid> </did>

<scopecontent> <p> Views of dig site; cave entrance; small cave near a tank about one mile from the main site. Sub-series also includes: </p> </scopecontent>

<c03 level="item"> <did> <unitid> ASA001-213
</unitid> <p> chart of baseline and grid of dig site dated
October 10, 1953. </p> <did>
</c03> [repeatable]

</c02> [repeatable]

</c01> [repeatable]

</dsc>

SECTION 3I: ADJUNCT DESCRIPTIVE DATA

<add> <index> <head> Index of Locations </head>

<indexentry> <geogname> Salton Sea (Calif.) </geogname>

<ref> ASA001-357 - 363 </ref> </indexentry> </index>

</add>

<add> <index> <head> Reference List of Negative Numbers </head>

<indexentry> <ref> negative numbers </ref>

</indexentry> </index>

</add>

SECTION 3J: OTHER DESCRIPTIVE DATA

<odd> <p> Application for Permission to Reproduce Images . . .

</p> </odd>

SECTION 3K: ADJUNCT DESCRIPTIVE DATA

<add> <bibliography> <head> Annotated Bibliography </head>

<bibref> Apostolides, A. (1968a, Fall). <title> Field report no. 2: Last
Chance Canyon excavation, April 14-15, 1962. </title> ASA Newsletter, 15

(3), 8-13. Field report nos. 1, 3 and 4 in same issue. </bibref>

<bibref> <title> </title> </bibref> [repeatable]

</bibliography> </add>

</archdesc> </ead>

Two Copyright Permission Letters.

Rosalind A. Srivastava
3054 Blandford Drive, Rowland Heights, California 91748-4825
Telephone: (626) 965-4014 • Fax: (626) 810-4556

September 7, 1999

Dr. Donn R. Grenda
(President, ASA)
Director, California Office
Statistical Research, Inc.
535 W. State St., Suite J
P. O. Box 390
Redlands, CA 92373

Dear Dr. Grenda:

Permission is herewith requested to reproduce the logo of Archaeological Survey Association of Southern California, Inc. ("ASA").

I intend to use the logo on the cover page of a finding aid for the Charley (Clayton) Howe photographs (ASA collection no. ASA001), a part of my thesis project (MLIS degree, School of Library and Information Science, San Jose State University).

Please indicate your permission by signing and dating one of the copies of this letter. In authorizing use, you warrant that the Archaeological Survey Association of Southern California is the sole owner of the rights granted. If ASA does not control these rights, I would appreciate your indicating whom I should contact.

Thanking you in advance,

Sincerely,

Rosalind A. Srivastava

Rosalind A. Srivastava

Permission granted: *Donn R. Grenda*

Date: *17/sept/99*

Rosalind A. Srivastava
3054 Blandford Drive, Rowland Heights, California 91748-4825
Telephone: (626) 965-4014 • Fax: (626) 810-4556

September 7, 1999

Dr. Donn R. Grenda
(President, ASA)
Director, California Office
Statistical Research, Inc.
535 W. State St., Suite J
P. O. Box 390
Redlands, CA 92373

Dear Dr. Grenda:

Permission is herewith requested to reproduce photographs from the Archaeological Survey Association of Southern California, Inc's (ASA) collection no. ASA001 "Charley (Clayton) Howe Photographs, 1949-1972."

I intend to use the photographs as plates in my thesis project (MLIS degree, School of Library and Information Science, San Jose State University) and as images connected to the collection's finding aid that will be mounted on ASA's web page.

Please indicate your permission by signing and dating one of the copies of this letter. In authorizing use, you warrant that the Archaeological Survey Association of Southern California is the sole owner of the rights granted. If ASA does not control these rights, I would appreciate your indicating whom I should contact.

Thanking you in advance,

Sincerely,

Rosalind A. Srivastava

Rosalind A. Srivastava

Permission granted:

Donn R. Grenda

Date: 17 Sept 1999