

A. STATEMENT OF BROAD NEED

Audio-Visual Media: The pace of technological advancement in the 20th century has left libraries, museums, and archival repositories with a critical mass of analog film, video, and audio objects, often in physical formats that are quickly degrading.¹ The unique preservation needs of this material has been described by the UNESCO's Memory of the World program:

The audiovisual document is an analogue representation of a physical status or event: every part of such a document is information. While a speck of mould in a book does not normally hamper the understanding of the text, comparable damage on a photograph would cover up information, and, on a magnetic tape, it could even render the tape unreadable. Seen, therefore, from the perspective of redundancy, audio-visual documents call for a higher degree of protection and security than written materials (UNESCO, 1998).

The ability of this analog media to be accessed and played is also imperiled by its reliance on increasingly obsolete equipment, which fewer and fewer people are trained to operate and maintain. Though digitization of analog media is recommended over repeated playback, the time and cost commitment of scanning and storage makes mass-digital preservation an unrealistic option for most repositories. As a result, the skills of physical assessment, identification, and preservation remain vital to the safeguarding of analog media items until digitization is possible, often many years in the future.

Though born-digital media formats have become more regular components of archival acquisitions in recent years, digital formats and technologies are at just as high a risk of obsolescence, decay, and content loss (Digital Preservation Coalition, 2015). As a result, the demand for cultural heritage and information professionals with experience in media preservation will only become greater as more and more born-digital media enters our archival collections.

Loss of Cultural Heritage: The vulnerability of archival audiovisual material poses a considerable risk to cultural heritage and collective memory of many diverse communities. As the CCAA writes, [The] cultural influence and informational content [of audiovisual media] is immense, and rapidly increasing. Transcending language and cultural boundaries, appealing immediately to the eye and the ear, to the literate and illiterate alike, they have transformed society by becoming a permanent complement to the traditional written record. Their content cannot be reduced to written form, and its integrity is closely tied to the format of its carrier – be it film, magnetic or optical media (Coordinating Council of Audiovisual Archive Associations, 2005).

Beyond commercial narrative cinema, advocates for media preservation stress the significant record of cultural heritage held in many diverse media formats, including news footage; home movies; artistic works; educational programs; public broadcasting; industrial film and advertising; anthropological and scientific research recordings; filmed lectures, conferences, and civic events; performances; oral history interviews; and media made by and for communities historically excluded from the mainstream, like the “race films” created and circulated in Black American communities in the early 20th century (Cifor et al., 2018).

Publications and conference proceedings from the Association of Moving Image Archivists (AMIA), Society of American Archivists, and Society for Cinema and Media Studies often attest to the myriad ways archival media collections are used by researchers, educators, artists, and activists to preserve and elevate historically underrepresented voices and contribute to a richer, more diverse understanding of history. For example, since 2020, the Tribesourcing Southwest Film Project has brought mid-century educational films about Native American people into tribal communities they represent, allowing tribal members to record narration contextualizing and correcting historic depictions of their cultures (Jenkins et al., 2020). In the last few years, notable media collections preserved by archivists around the country include decades of broadcasts from Puerto Rico's public radio station, WIPR (Tadic et al., 2019); records and recordings of the black-owned Golden State Mutual Life Insurance Company, documenting community action against racial discrimination in Los Angeles (Dessem et al., 2019); and video programs from OutTV Atlanta, including activist efforts, artistic performances, and cultural events, providing an authentic representation of gay and

¹ See the Supporting Documents of this application for a bibliography of full citations and additional sources

lesbian lives in Atlanta (Michaelis, 2019). In 2019, the AMIA Community Archiving Workshop (CAW) assisted in assessing and preserving film and video recordings from the Deaf Folklife Films Project, whose unique home movie collections offer invaluable illustrations of sign language practices in the U.S. throughout the mid-20th century (CAW, 2019). Such projects and collections reflect the importance of preserving audiovisual material as illustrative evidence of diverse communities and experiences.

Media archiving and preservation education: In response to the considerable risk of media obsolescence and decay, advocates for media preservation stress the need for dedicated preservation education. In 2010, the National Recording Preservation Board urged that, due to specific skills and expertise required to handle and care for media items, “a system must be developed to ensure that the generations of engineers and archivists who have had no experience with analog recording formats will gain familiarity with the physical properties of, and best methods for preserving, legacy media” (NRPB, 2010). However, researchers in Library and Information Studies have examined the curricula of traditional library, archives, and preservation programs, with one study reporting, “Current preservation education... does not provide adequate preparation in the areas of technical and managerial expertise to deal with the preservation of digital collections, audiovisual media, or visual materials” (Gracy and Croft, 2007). In 2017, less than 20% of ALA-accredited LIS programs offered courses in audiovisual preservation; among archives-specific LIS programs, the number remained less than 25% (Ceja and Schutzman, 2017).

Importantly, the National Film Preservation Board has also stressed that “Preservation is incomplete without public access to the preserved films” (NFPB, 1993). Beyond technical preservation skills, training in Media Archiving and Preservation must also include many other activities that constitute archival work: collection development; donor relations; arrangement and description; access and discovery; outreach; programing; instruction; and navigating copyright, privacy and records laws, all while balancing the complex ethics and values that inform these activities, particularly regarding records of and relationships with historically excluded communities. All of these aspects of archival work are vital to transforming the audiovisual information held in analog formats into useful historical evidence, expressions of cultural heritage, and accessible tools for advocacy and accountability.

Following a call for action in 1993 from the NFPB, three graduate degree programs were developed in the US for training in film preservation: the Selznick School of Preservation at the George Eastman House (1996), the Moving Image Archival Studies program at the UCLA (2002), and the Moving Image Archiving and Preservation program at NYU (2003). However, while these programs have proved to be robust training grounds for media preservation professionals, there remain significant barriers to accessing this education. Respondents of a 2018 survey by AMIA’s Advocacy Committee noted the high financial barrier of attending those programs, including necessary relocation to coastal urban centers (Advocacy Committee, 2019). Critically, the limitation of media preservation training to these three programs also contributes to inequity in the profession. Most respondents to AMIA’s Advocacy Committee survey indicated that the pressure to acquire a graduate degree in archiving and preservation can pose a “significant financial burden that stops many, especially underrepresented voices and those from lower socioeconomic backgrounds, from pursuing a career in this field.” Professionals in the broader heritage conservation field have also noted that, with few alternative training opportunities, the high cost of a graduate degree disproportionately affects students from underrepresented cultural groups, leading to a critical lack of diversity in preservation professions (Balachandra, 2016). One solution suggested by AMIA’s Advocacy Committee was to “bring archival education to high schools and colleges,” to “recruit potential professionals from pools not previously tapped into.” Advocates of diversity and inclusion in SAA have also recommended undergraduate internships and coursework as tools to recruit first-generation college students and students from low-income backgrounds, underrepresented groups, and rural areas into the profession (Hartwig and Weidman, 2015; Gilliland, 2015).

Of note, archival education and the archives profession do not have an accrediting body, like the American Library Association. The breadth and diversity of organizations in which audiovisual archivists work – libraries, museums, corporate archives, non-profits, government bodies, media production companies – allow for many points of entry into the field, with or without a master’s degree. While

undergraduate courses, internships, and fellowship positions may serve as recruitment to MLIS or graduate film preservation programs, they may also provide professional skills and expertise directly relevant to a number of media production or cultural heritage careers, outside of traditional libraries and archives. Practical archival training for undergraduate students has been useful in developing information literacy, digital curation, content management, and critical thinking skills, especially regarding complex questions of media ethics, representation, power, culture, and memory (Wagner Webster, 2020; Whitmore, 2018).

Experiential Learning in Regional and Community Archives: Inspired by the field of critical librarianship, archivists increasingly acknowledge that promoting equity and diversity in archival collections and the profession goes beyond acquiring diverse materials or hiring more diverse archivists into major institutions. Instead, diversifying the historical record also necessitates actively sharing the expertise and resources of preservation and archival practice with community organizations and small repositories, to support the stewardship of local histories by their own communities (Hicks, 2016; and Sheffield, 2016). There are many programs nationally that connect under-resourced organizations and repositories with archivists and students, to provide education and consultation on collaborative projects. These include NYU's Activist Archiving workshops, AMIA's Community Archiving Workshops, and ALA's Preservation in Action program. One inspiration for our proposed Community Internship Program is the TLAM project (Tribal, Libraries, Archives, and Museums) at the University of Wisconsin-Madison. Since 2008, TLAM has developed lasting service-learning partnerships with tribal cultural institutions in Wisconsin and Minnesota, placing UW-Madison MLIS students into small tribal libraries and archives to share resources and serve community needs, while developing students' cultural competency and librarianship skills.

Similarly, the Public Broadcasting Preservation Fellowship (PBPF) program was developed in 2018 by WGBH to address the lack of opportunities for media preservation training outside of the East and West coasts. The program placed LIS graduate students with training in audiovisual archives into public media stations throughout the country, to assess and inventory archival media recordings and help develop preservation plans with the local stations. Now replicated at the University of Alabama, the program has been successful in providing students with hands-on training opportunities, preserving hundreds of audiovisual media items at local broadcasting stations, and developing strong reciprocal mentoring relationships among student fellows and participating organizations, especially for those unable to access traditional A/V archiving training and resources. PBPF program leaders argue, "Envisioning audiovisual archives as truly national and community-based entities will further support the goal of increasing diversity and equity within the field by providing opportunities for students to connect with a variety of pathways into the profession" (Davis Kaufman et al., 2020).

Needs in Colorado: Colorado's Front Range is a rich center of western American history, industry, art, and culture, including ancestral lands and cultures of Ute, Cheyenne, and Arapaho peoples. As a gateway to the Rocky Mountains and seat of Colorado government, its history reflects the complex legacies of Western expansion and settlement; violence against indigenous peoples; Japanese internment; and the Ku Klux Klan. At the same time, the region has been an epicenter of activists movements for labor rights, Chicano rights, disability rights, and nuclear disarmament. Culturally, the Boulder-Denver area has served as a Western hub for 1930s and 1940s jazz music; a center for folk and bluegrass music; and a magnet for American avant-garde filmmaking, beat poets, and New Age counterculture. The area still hosts a wide variety of community and cultural organizations and programs, including the Central City Opera, Su Teatro Cultural and Performing Arts Center, Cleo Parker Robinson Dance Ensemble, Japan America Society of Colorado, and rich regional art, comedy, DIY music, and drag performance scenes.

In 2001, the Strategic Plan of the Colorado Historical Records Advisory Board (CHRAB) identified a primary threat to cultural heritage materials in Colorado as the lack of education and training, stating, "Insufficient professional knowledge and training are negatively affecting the preservation of Colorado's historical record" (CHRAB 2001). They suggested that, "without proper planning or management" – "often because organizations cannot afford to hire professionally trained personnel" – "historical documents sit unprocessed in basements, closets, and sheds" throughout the Rocky Mountain region. According to

directories of the ALA and Association for Library Collections and Technical Services, the University of Denver is the only institution in Colorado, Wyoming, Utah, or New Mexico with an ALA-accredited LIS program or course offerings in preservation and conservation, though Kansas's Emporia State hosts regional cohorts in Denver and Centerville, Utah. The Western States and Territories Preservation Assistance Service, which offered continuing education and training in preservation topics ended in 2018.

Since 2001, CHRAB has increased its continuing education work and grant funding for the preservation of diverse archival collections throughout the state, including public libraries, local historical societies and museums, college and university libraries, religious institutions, and community organizations like the Colorado Mountain Club. However, CHRAB has yet to address the distinct preservation needs of audio-visual materials, though recent preservation grant funding has included oral history collections at the Fort Collins Museum of Discovery, and film collections at the Holy Cross Abbey in Cañon City, Colorado. In 2018, the Society of Rocky Mountain Archivists hosted a symposium on Audio Visual Media which attracted near-record attendance from archivists, librarians, and other professionals from throughout Colorado and Wyoming. SRMA reports that attendees responded to the event with overwhelming positivity, expressing a distinct lack of audiovisual preservation knowledge and experience in their own institutions. CO-PI of this project, Jamie Marie Wagner, is uniquely positioned to assess needs and form relationships among Front Range media collectors, serving as both SRMA's Continuing Education Coordinator and the Rocky Mountain area representative to the AMIA Regional Audiovisual Archiving Committee.

B. PROJECT DESIGN

Goals: The Experiential Curriculum in Media Archiving and Preservation has the following goals:

1. To develop an expanded curriculum of courses in the Department of Cinema Studies related to the theories, practices, and curatorial and ethical principles of media archiving and preservation
2. To establish a Media Preservation Fellowship program for undergraduate students within CU Boulder Libraries' RaD and Digital Media Services Lab
3. To pilot a Community Internship Program for undergraduate students in Media Archiving and Preservation that identifies and addresses media archiving and preservation needs of under-resourced cultural heritage institutions and community organizations in the Front Range

Activities: The funding requested in this proposal will cover four areas of activity:

1) Curriculum research and planning: In Fall 2021, we will draft a detailed set of Learning Objectives for the expanded Media Archiving and Preservation curriculum, to inform the development and evaluation of the activities below. After a review of current research and writing on media archiving education, we will draft curriculum Learning Objectives that reflect professional skills and competencies recommended by groups like the SAA Education Committee and the Curriculum Subcommittee of AMIA's Continuing Education Task Force (SAA, 2016; Gracy, 2018). In addition to filling Cinema Studies degree requirements, the Learning Objectives will serve the broader needs of undergraduate students by emphasizing skills within media archiving and preservation that are transferable to other media production and cultural heritage careers, like project management, digital literacy, and navigating copyright law.

The drafted Learning Objectives will be examined iteratively each year in response to feedback from students and other grant participants, with a final version published in 2024. In this period, we will also create a student Competency Survey (*see Performance Measures below*), and recruit a small Curriculum Evaluation Committee - including Cinema and Libraries faculty as well as outside experts and stakeholders - who will be asked to review the proposed Learning Objectives and respond to the program's Annual Reports.

2) Archiving and Preservation courses: Since 2018, the Department of Cinema Studies and Moving Image Arts has offered two courses that address theories and skills related to film preservation, as electives to the undergraduate Cinema major. In this grant period, these courses will be modified and expanded to reflect the Learning Objectives developed for the curriculum. They include:

- Film Archiving and Preservation, a 3-credit seminar combining ethical and philosophical issues related to the discipline with hands-on work on film prints in the Cinema Studies lab

- Advanced Analog Alchemy, a 3-credit course on understanding and investigating historical processes in the creation of motion picture works. This knowledge is invaluable in the practice of film archiving and restoration, which requires the identification and preservation of diverse historical stocks and formats
- Beginning Spring 2022, Cinema Studies will create three additional film and media preservation courses, taught by CU Boulder Libraries' faculty and a visiting media preservation professional:
- Moving Image Archives Curation, Management, and Programming, a 3-credit seminar addressing the ethics and best practices of collection development, arrangement and description, access and outreach, including questions of intellectual property, privacy and records laws, and ethical community engagement
 - Preservation of Audio and Video Media, a 3-credit course on the assessment and preservation of analog video and audio tapes, media playback, audiovisual engineering, metadata and digitization practices, as well as ethical and practical issues in access and use, including machine recognition
 - Archiving and Preserving Digital Media, a 1-credit course on tools and best practices for collecting and preserving digitized media and born-digital material

Courses will be offered in cycles from Spring 2022 to Spring 2024.² Due to the specialized equipment and technical requirements of the courses, enrollment will be limited to 6-12 students per course. The Co-PIs will work with instructors in the program to develop syllabi that meet curriculum Learning Objectives, to administer student Competency Surveys, to monitor course progress, and to discuss student evaluations. Class assignments will incorporate hands-on experience with material from the CU Boulder Libraries' RaD and will make use of the considerable resources available in the Department of Cinema Studies.

*Department of Cinema Studies and Moving Image Arts*³: The Department of Cinema Studies offers undergraduate students a BA in critical film studies, a BFA in film and video arts, and a Cinema Studies minor for students outside of the department – in addition to MA and MFA programs. Each program includes a wide variety of classes addressing cinema history, analysis, theory, and artistic and commercial production practices, to which Media Archiving and Preservation courses will contribute meaningful historical context and useful professional skills. As a celebrated hub of documentary and experimental media production, the Department of Cinema Studies and Moving Image Arts puts a strong emphasis on the use of archival media in film scholarship and production. This emphasis has been evident in recent courses like Professor Melinda Below's Fall 2020 seminar, "Snapshots, Memoirs, and Home Movies: Mining the Personal Archive," and a Spring 2021 editing workshop by visiting filmmaker Alex Rivera, drawing on archival material from the Defense Visual Information Distribution Service.

The considerable lab facilities in the Department of Cinema Studies were first designed to support students in processing, editing, and post-production of analog film. In 2016, the lab was renovated and expanded with a view toward coursework in preservation and restoration of archival film, following the donation of high-end equipment from the Boulder firm GW Hannaway and Associates, which had then discontinued commercial analog film processing. Cinema Studies students and instructors are now able to take advantage of lab equipment - including a Lasergraphics film scanner, a digital-to-film 16mm laser printer, several film inspection tables and flatbed viewers, and an analog film processing facility- for both creative projects and preservation/restoration instruction.

3) Media Archiving and Preservation Fellowships: Beginning in Spring 2022, the CU Boulder Libraries will offer three Media Preservation Fellowships per semester for undergraduate students within the Libraries' Rare and Distinctive Collections (RaD) and Digital Media Services Lab. Two students, trained and supervised by the Moving Image Archivist, will learn to review, identify and describe moving image film reels and analog video recordings from RaD's archival collections and to prepare films for digitization and/or long-term preservation. One student, trained and supervised by staff of the Digital Media Services Lab, will learn the techniques and best practices of digitizing archival film, video, and audio recordings. The work done by Media Preservation Fellowship students will contribute enormously to the long-term physical and digital preservation of these rare and unique media items, and to making CU Boulder Libraries' long-hidden

² See the Schedule of Completion in this application for a complete schedule of courses

³ See Organizational Profile for more on the Department of Cinema Studies and Moving Image Arts

archival media collections discoverable and accessible by researchers and public users. (Note: Student Fellows will contribute to regular, on-going processing and digitization projects of the CU Boulder Libraries' RaD and Digital Media Lab. Metadata creation and management of digital collections are conducted by other sections of the Libraries' Digital Strategy and Library IT Services Chapter and are outside the scope of activities in this grant project.)

Each Media Preservation Fellow will be expected to participate in 120 hours of archival activities in the CU Boulder Library and will receive a stipend of \$1800 for the semester. Due to the amount of training and experience necessary, the same student may be offered a Fellowship position for recurring semesters, not to exceed one calendar year. In addition to professional mentoring relationships with their Fellowship supervisors, Fellows will be invited to participate in workshops and events for students in CU Boulder Libraries' various internship and apprentice programs, organized by the Recruitment to the Profession committee⁴. Past events have included an introduction to Government Documents, a roundtable on Collection Management, and workshops on library job searches and resume writing.

*CU Boulder Libraries' Rare and Distinctive Collections*⁵: CU Boulder's archival collections are housed within CU Boulder Libraries and overseen by its Rare and Distinctive Collections (RaD) team. Since 2019, more than 20,000 audiovisual items have been identified in RaD's diverse archival collections. This rare, unique, and original material includes: early science education film; video interviews with retired Front Range coal workers; production material from environmentalist documentarian Robert Godfrey; original solar research footage from the National Center for Atmospheric Research; political campaign material from former Secretary of the Interior, Ken Salazar, and US Senator Gary Hart; and original publicity and conference recordings by the Women's International League for Peace and Freedom, National Farmers Union, and International Typographical Union, among many others.

CU Boulder Libraries' Digital Media Services: Though the Digital Media Services Lab offers digitization services to all of the CU Boulder campus, as well as the general public, the CU Boulder Libraries' RaD is its primary client. Since 2010, the Media Services lab has digitized over 1,800 audio items and 450 video items from RaD collections, as well as over 100 moving image films since 2018. The lab is capable of digitizing archival media in many formats, including 8mm, 16mm, and 35mm film; audiocassette tapes, reel-to-reel audio, VHS, U-matic video, Betacam, and an array of digital video tape formats.

4) Community Internship Projects: Beginning fall semester 2022, the Department of Cinema Studies will offer a semester internship program for undergraduate students who have: (1) taken Film Archiving and Preservation or Moving Image Archives Curation, Management, and Programming, or (2) completed at least one semester of the Media Preservation Fellowship. Students will receive 3-credit hours for 120 hours of internship participation, and will conduct some scholarly reading and writing assignments on topics related to their field work, in accordance with guidelines of the College of Arts and Sciences.

CO-PIs of this project will work closely with institution and organization leaders in the Front Range to identify at-risk media collections and to develop project work plans that: (1) can be reasonably completed by an undergraduate student in one semester, (2) address unmet preservation needs of the host institution, and (3) fill Learning Objectives of the student intern. Once projects have been identified, students will be paired with projects that fit their interests and objectives. The CO-PIs will serve as the internship Faculty Sponsors for the semester and will offer expertise and guidance to both students and hosts, when needed, especially for organizations or institutions that lack experience handling and processing audiovisual material.⁶ Internship projects will provide students with experiential, self-directed learning opportunities to process and preserve physical collections, create descriptive resources, digitize material, and make material accessible to patrons through digital collections, digital exhibits, or other means. At the same time, students trained in the specialized skills of media preservation will help to meet the needs of under-resourced organizations, with guidance on the ethics of building trusting and collaborative community partnerships.

⁴ In a 2020/21 Libraries' re-org, this committee has been dissolved, but will reform under a new name in 2021/22

⁵ See the Organization Profile in this application for more information on the CU Boulder Libraries' RaD

⁶ See Performance Measures below for more on project development plans and supervision expectations

A number of repositories in the Front Range Area have expressed enthusiastic interest in and need for a media archiving or preservation intern, including Boulder's Carnegie Library for Local History, the Denver Museum of Science and Nature, the Barco Cable and Media Library, and the archives at Colorado College in Colorado Springs. ArtHyve, a grassroots organization of artists and archivists in Denver designed to empower BIPOC artists to preserve their own material, has expressed interest in incorporating CU Boulder preservation students into their work, offering guidance and resources directly to local video and media artists. Librarians at Boulder's Naropa University, which lacks the resources for a dedicated archivist, have stated that a CU Boulder media preservation intern could offer much needed time and attention to their archival audiovisual collections - like spoken word recordings from alumni of the Jack Kerouac School of Disembodied Poetics - which remain largely uncatalogued, inaccessible, and at risk of physical deterioration. Without staff or faculty with a background in audiovisual preservation, Naropa librarians also indicate that the expertise of a Faculty Advisor from CU Boulder Libraries or Cinema Studies would be invaluable to developing workplans to begin addressing their considerable, untouched media backlog.

COVID-19: Activities in this project are scheduled to begin in August 2021. If access to campus spaces remains limited through the 2021/2022 academic year, we are prepared to make the following adjustments: ***Archiving and Preservation Courses:*** Moving Image Archives Curation, Management, and Programming (Spring 2022) can be offered as a fully virtual course, drawing on existing digital collections and material scanned from RaD collections. ***Media Preservation Fellowships:*** By Spring 2022, access to the Libraries' workspaces by student Fellows is expected to be possible, with proper social distancing and increased cleaning protocols. If needed, Fellowships may be postponed, with additional positions offered in subsequent semesters. ***Community Internship Projects:*** Each project will be designed collaboratively by CU Boulder faculty and the participating organizations; COVID-19 prevention and mitigation needs can be built into the project expectations, though projects are not expected until Fall 2022.

Performance Measures: In the course of this project, data will be collected from a number of sources⁷:

- ***Student Course Evaluations:*** Instructors will be asked to submit evaluation data related to the course content and structure, not on their individual teaching
- ***Internship and Fellowship Student Project Plans and Evaluations:*** With their Faculty Advisor, Internship Host, and/or Fellowship Supervisor, students will identify and reflect on semester Learning Objectives and expectations
- ***Internship Host and Fellowship Supervisor Evaluations:*** Fellowship Supervisors and Internship Hosts will evaluate the work of the student. Internship Hosts will also evaluate their experiences as participants in the Internship program
- ***Internship and Fellowship processing statistics:*** Quantifiable metrics (e.g. number of films inspected, number of tapes digitized) will be used to develop and evaluate semester projects.
- ***Competency Surveys:*** Each student enrolled in a Media and Archiving Preservation course, as well as each Intern and Fellow, will be asked to complete a simple survey at the start and end of the semester, rating their own competency in each of the program Learning Objectives

These qualitative and quantitative data sources will be used to evaluate the project as follows:

- ***Effectiveness:*** Quantitative data from Competency Surveys will be used to evaluate how well project activities meet Learning Objectives. Qualitative data from Internship and Fellowship Project Plans and Evaluations will offer more detailed reflection on the effectiveness of specific project activities.
- ***Efficiency:*** Processing expectations identified in Project Plans and completion statistics reported in Evaluations will be used to evaluate the efficiency of the Internship and Fellowship programs at meeting the processing goals of host organizations and the CU Libraries. Costs in this project are limited to set salary, consultation fees, and student support costs, on an annual or semester basis.
- ***Quality:*** Internship, Fellowship, and Student Course Evaluations will be used to assess student satisfaction with their experience, and will solicit recommendations to better meet student learning

⁷ See Supporting Documents of this application for drafts of Internship and Fellowship Project Plans and Evaluation forms

expectations and needs. Internship Host Evaluations will indicate the satisfaction of project partners with the program, including the support of CU Boulder and the program's ability to meet their needs

- **Timeliness:** Each activity in this project necessarily aligns with the University academic calendar. CO-PIs will monitor the completion of project activity and collection of data each semester.

Annual Reports: In addition to IMLS progress reports, evaluation information gathered above will be used to write an Annual Report on project progress. SMART (Specific, Measurable, Attainable, Relevant, and Time-Based) goals will be identified to improve student learning success and the efficacy of archiving and preservation projects, and to build stronger collaborative relationships to support the needs of host organizations. While tracking the volume of archival media material that is processed, preserved, or digitized in the course of the project, we will reflect particularly on the prioritization of collections by and about historically underrepresented communities. The Annual Report will be reviewed and discussed by the program's Curriculum Evaluation Committee. In view of the program's continuation after 2024, data will also be gathered that may be used to evaluate the long-term effectiveness and quality of this program, including future job placement and salaries for student participants, and news articles, research, or digital projects developed from archival collections preserved as a result of program activities.

Target community: Courses, Fellowships, and Internships in this program will be developed to fulfill degree requirements CU Boulder undergraduate students in Cinema Studies. In addition, these opportunities will be advertised to students in related fields, including art and art history, media studies and communication, history, and museums studies, where students are equally inclined toward careers in archivism and librarianship. The curriculum may fill elective requirements in other degree programs and will expand the media and digital literacy skills of these students in ways that are vitally important in archival and heritage professions, yet rarely covered in traditional MLIS training programs.

Internship projects will be developed in partnership with organizations and institutions throughout Colorado's Front Range that collect and care for audiovisual cultural heritage materials or have audiovisual materials within their own organizational records that require archiving and preservation attention. Priority will be placed on internship projects that either (a) focus on collection materials representing diverse communities, including BIPOC, LGBTQ, and individuals with disabilities, and/or (b) take place within community organizations or small institutions by and for historically excluded communities. Examples include Denver's Blair-Caldwell African American Research Library and ArtHyve, described above.

Because processing, handling, and preservation of analog and digital media formats is often an intimidating task that requires specialized knowledge, many small and under-resourced libraries, historical societies, and college or university libraries in the Front Range area have expressed a lack of expertise, time, and resources to address their audiovisual material specifically. In addition to these traditional repositories, we will seek internship projects that allow students to directly address the preservation needs of community organizations - like social groups, religious institutions, or artistic collectives - that have audiovisual materials within their own organizational records. To identify these projects, we will leverage existing relationships with film and artistic communities in the Boulder-Denver area, with members of the Society of Rocky Mountain Archivists, and with communities whom the CU Boulder Libraries' RaD has frequently collaborated, including Japanese and Japanese-American community members, Chicana/Latina community members, and members of diverse Jewish communities in the area.

Dissemination: In 2024, participating faculty in CU Boulder Libraries' RaD and the Department of Cinema Studies will collaborate on a white paper reporting on the design and evaluation of Learning Objectives for the curriculum, and on the identification and development of community-oriented archival internship projects for undergraduate students. With the white paper, we will release a set of Open Educational Resources (OER) produced in the project, including a final draft of curriculum Learning Objectives, a template of the Student Competency Survey, syllabi for media archiving and preservation courses, and any course assignments or lesson plans considerable replicable by others. All of these materials will be made openly available to the public via CU Boulder's institutional repository, CU Scholar, along with the project's annual reports

We hope to offer replicable guidance on integrating experiential archives and preservation training into diverse undergraduate humanities curricula. We plan to present about this project, its progress, and its outcomes at the annual meeting of the Society of Rocky Mountain Archivists, as well as conferences like the Society of American Archivists, Association of Moving Image Archivists, and Society for Cinema and Media Studies. Student participants and members of host organizations will be encouraged to develop articles, digital exhibits or conference presentations or posters about their work or collections processed, with the support and collaboration of CU Boulder faculty when possible.

C. DIVERSITY PLAN:

This curriculum program is developed with a dedicated intention to recruit, train, and empower a more diverse generation of media archivists. Offering professional media archiving and preservation training within the scope of an undergraduate degree in a public university broadens entry to the field to students from lower income families and historically underrepresented groups, who may be excluded by the financial and social barriers of an additional graduate program.

Plans for diversity and inclusion are central to each of part of this project, in the following ways:

Libraries' Media Archiving Fellowships: Recruitment will emphasize opportunities for BIPOC students, first-generation college students, women, LGBTQ students, and students with disabilities. Applicants will be asked to submit a one-paragraph personal statement responding to the following prompt:

“The field of archiving and preservation relies on equity and diversity to create and protect the most inclusive historic records. In what ways will you bring a unique perspective to this fellowship?
(Consider your background, personal experiences, viewpoints, and interests)”

Working to fill the AMIA Advocacy Committee's call to “Advocate for increasing diversity in the field” through “mentorship and training” (Advocacy Committee of the Board, 2019), students will develop close advisory relationships with Libraries' archivists and media technicians and will be included in professional development workshops offered by the Libraries' Recruitment to the Profession committee. Fellows can also be connected to opportunities like the AMIA Diversity and Inclusion Fellowship Program (ADIFP) and ALA Spectrum Program, to offer financial support and mentoring for students attending professional conferences or considering a graduate MLS or film archiving degree.

Community Media Archiving Internships: As described above, this program will leverage relationships with diverse community and professional organizations in the Front Range to identify collaborative internship project opportunities for students that meet the needs of under-resourced repositories and community groups. Students will directly contribute to the collection and preservation of underrepresented cultural heritage material from across the state, with particular attention to indigenous, Latinx, and Black histories. We intend to approach outreach and work with community organizations with values of respect, radical empathy (Caswell and Cifor, 2016), and the “slow archives” methodology (Christian and Anderson, 2019), to establish lasting, trusting, and equitable partnerships, and to emphasize these values to our student interns.

Media Archiving and Preservation courses: Courses in the scope of this curriculum will emphasize diversity and inclusion in all aspects of archives and preservation practice, guided by recent research and writing by practitioners in the field. Lessons will include: archival silences and the need for historical representation; theories of decolonization in archival holdings; racial and gender bias in machine-automated software and programs; anti-racist and inclusive description and metadata creation; creating accessible resources and research spaces; an ethic of care in working with records of traumatic experiences; the Protocols for Native American Archival Materials; and the ethics of building equitable and sustainable community partnerships, including cross-cultural communication. We intend to develop this curriculum with an aim toward recruiting and training young media archivists who are attentive to issues of diversity and inclusion, are self-reflective in their own practice, and think critically about the implications of their choices, as a matter of course.

D. BROAD IMPACT:

By expanding the curriculum of courses in media archiving and preservation at the University of Colorado Boulder, and by leveraging community-oriented internship projects for media preservation students, we believe the activities of this project will have a direct influence on the preservation of audiovisual cultural

heritage material in Colorado's Front Range and the ability of educators, researchers, artists, activists, and other archives' users to access previously hidden collections.

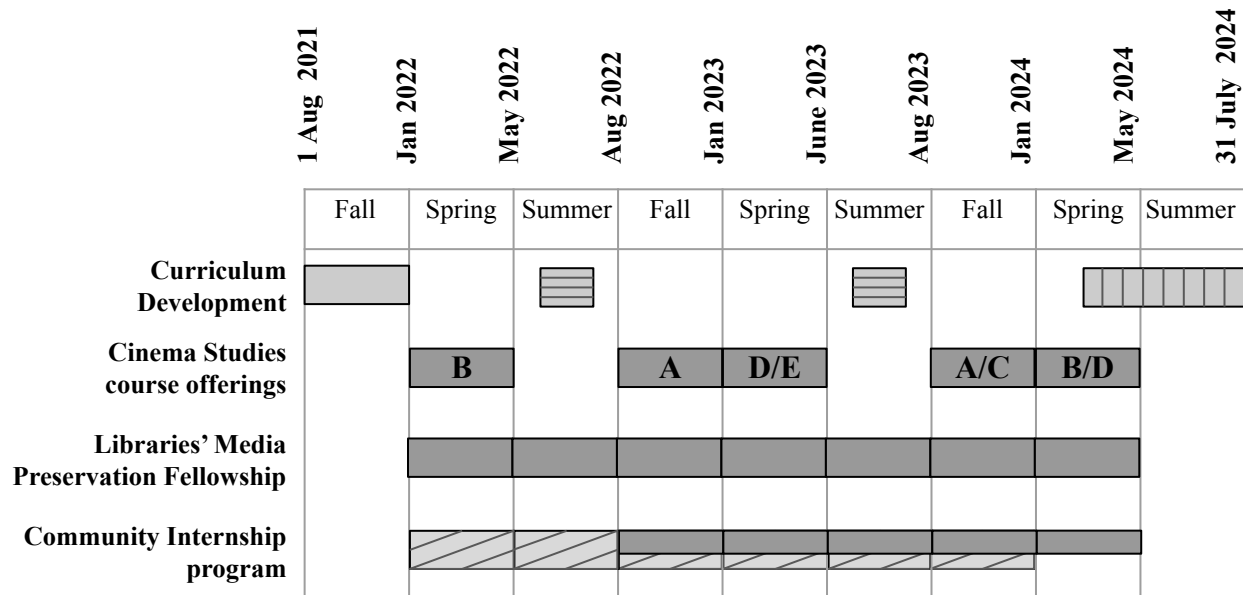
We believe this program can be made widely replicable in other undergraduate institutions, guided by the white paper and OERs produced in this project. Any college or university film and media program could partner with its local archive to develop classes in audiovisual preservation. The collaboration between the University Libraries and the Department of Cinema Studies enriches both fields, lending the expertise of librarianship and information science to education in audiovisual history, while contributing directly to the preservation of Libraries' archival collections. Sharing our resources, equipment, and community networks strengthens our ability to fill the mission of the program and reach a more diverse audience. Though full-scale film and media preservation work can be costly, access to inexpensive older equipment has become easier as film production and processing industries have turned to digital technologies. The Department of Cinema Studies acquired much of its preservation lab equipment as a donation from such a company. Basic inspection equipment can be obtained for only hundreds of dollars, while organizations like AMIA's Regional Audiovisual Archiving Committee continue to create resources to help smaller institutions begin preserving their local collections.









Our project's emphasis on regional audiovisual heritage is what makes it a particularly impactful model. Regional archives are among the most active, and yet underfunded, custodians of our national heritage. Interest in amateur film archiving and preservation has been steadily growing over the past decade, leading to the birth of events like Home Movie Day that testify to the importance of local amateur films in documenting national cultural heritage. The Community Internship Program may serve as a model for other academic programs - including history, art history, media, or other disciplines - to develop local archival internship projects for undergraduate students that directly address the distinct needs of community organizations and small repositories in their area. Integrating audiovisual preservation education into undergraduate film and media studies coursework will also open the field of media archiving to a wider population of students than the limited film-specific grad programs and standard MLS graduate programs.

Last, our program may also serve as one node of a network of regional audiovisual training programs, with which we can exchange experience and practices. Our own project is inspired by regional film archives like Northeast Historic Film in Maine, which have brought national relevance to their regional mission by promoting exchanges with other similar institutions. In 2019, Co-PI Sabrina Negri represented the CU Department of Cinema Studies at an Institute for Film, Theater, and Media Studies symposium in Frankfurt, Germany. Attended by dozens of film archiving and preservation teachers from Europe, the United States, and Africa, the symposium served as a forum for sharing experiences and advice, while opening avenues for collaboration among institutions. Though on pause due to COVID-19, we intend to continue to develop our collaboration with this global network of film preservation schools and to join the effort to explore educational student exchange opportunities, giving global relevance to local experiences.

Sustainability: The proposed grant period is intended as a proof of concept to expand the CU Department of Cinema Studies' Film Archiving and Preservation program. In 2024, the CU Boulder Libraries' RaD will request a permanent faculty line for the Moving Image Archivist, while Cinema Studies will request a second permanent faculty position dedicated to media preservation coursework and oversight of the Community Internship program. We will partner with the University Development teams to solicit donor contributions to establish an endowed fund for the Media Preservation Fellowship program. Additional grant funding will be sought to expand the Community Internship Program, to include student support costs, funding for archival supplies and equipment, and travel stipends, which would allow students to share their media archiving and preservation skills with organizations beyond the Boulder-Denver area. Finally, we will explore the expansion of the curriculum program to offer continuing education training to current archives and library professionals, as well as an independent study course for students to facilitate research and scholarship on the theories and practices of archiving and preservation. We consider the activities of this grant period to be an ambitious and achievable progression toward ultimately establishing a certificate or degree program in Media Archiving and Preservation at the University of Colorado Boulder that maintains an emphasis on undergraduate training opportunities.

Schedule of Completion



-  **Annual Report**
-  **Final Report, White Paper, and Conference Submissions**
-  **Preparation and planning: relationship building and project development**
Lead: CO-PIs: Jamie Wagner and Sabrina Negri
-  **A Film Archiving and Preservation (3-credit)**
Professor: Sabrina Negri (Cinema Studies)
-  **B Moving Image Archives: Curation, Management, and Programming (3-credit)**
Lecturer: Jamie Wagner (Libraries' Moving Image Archivist)
-  **C Advanced Analog Alchemy (3-credit)**
Instructor: Andy Busti (Cinema Studies)
-  **D Preservation of Audio and Video Media (3-credit)**
Visiting Lecturer: Wyndham Hannaway
-  **E Archiving and Preserving Digital Media (1-credit)**
Professor: Walker Sampson (Libraries' Digital Archivist)

Project activities are set to begin August 1, 2021 and continue through July 31, 2024
 Periods reflect the CU Boulder academic calendar, which generally falls on the following dates:
 Fall semester: August 22/23 - December 14/15
 Spring semester: January 10/11 - May 4/5
 Summer semester: May 8/9 - August 18/19

Students are not expected to participate in grant activity during semester breaks, though staff and faculty will continue working, preparation, and evaluation during that time.



DIGITAL PRODUCT FORM

INTRODUCTION

The Institute of Museum and Library Services (IMLS) is committed to expanding public access to digital products that are created using federal funds. This includes (1) digitized and born-digital content, resources, or assets; (2) software; and (3) research data (see below for more specific examples). Excluded are preliminary analyses, drafts of papers, plans for future research, peer-review assessments, and communications with colleagues.

The digital products you create with IMLS funding require effective stewardship to protect and enhance their value, and they should be freely and readily available for use and reuse by libraries, archives, museums, and the public. Because technology is dynamic and because we do not want to inhibit innovation, we do not want to prescribe set standards and practices that could become quickly outdated. Instead, we ask that you answer questions that address specific aspects of creating and managing digital products. Like all components of your IMLS application, your answers will be used by IMLS staff and by expert peer reviewers to evaluate your application, and they will be important in determining whether your project will be funded.

INSTRUCTIONS

If you propose to create digital products in the course of your IMLS-funded project, you must first provide answers to the questions in **SECTION I: INTELLECTUAL PROPERTY RIGHTS AND PERMISSIONS**. Then consider which of the following types of digital products you will create in your project, and complete each section of the form that is applicable.

SECTION II: DIGITAL CONTENT, RESOURCES, OR ASSETS

Complete this section if your project will create digital content, resources, or assets. These include both digitized and born-digital products created by individuals, project teams, or through community gatherings during your project. Examples include, but are not limited to, still images, audio files, moving images, microfilm, object inventories, object catalogs, artworks, books, posters, curricula, field books, maps, notebooks, scientific labels, metadata schema, charts, tables, drawings, workflows, and teacher toolkits. Your project may involve making these materials available through public or access-controlled websites, kiosks, or live or recorded programs.

SECTION III: SOFTWARE

Complete this section if your project will create software, including any source code, algorithms, applications, and digital tools plus the accompanying documentation created by you during your project.

SECTION IV: RESEARCH DATA

Complete this section if your project will create research data, including recorded factual information and supporting documentation, commonly accepted as relevant to validating research findings and to supporting scholarly publications.

SECTION I: INTELLECTUAL PROPERTY RIGHTS AND PERMISSIONS

A.1 We expect applicants seeking federal funds for developing or creating digital products to release these files under open-source licenses to maximize access and promote reuse. What will be the intellectual property status of the digital products (i.e., digital content, resources, or assets; software; research data) you intend to create? What ownership rights will your organization assert over the files you intend to create, and what conditions will you impose on their access and use? Who will hold the copyright(s)? Explain and justify your licensing selections. Identify and explain the license under which you will release the files (e.g., a non-restrictive license such as BSD, GNU, MIT, Creative Commons licenses; RightsStatements.org statements). Explain and justify any prohibitive terms or conditions of use or access, and detail how you will notify potential users about relevant terms and conditions.

A.2 What ownership rights will your organization assert over the new digital products and what conditions will you impose on access and use? Explain and justify any terms of access and conditions of use and detail how you will notify potential users about relevant terms or conditions.

A.3 If you will create any products that may involve privacy concerns, require obtaining permissions or rights, or raise any cultural sensitivities, describe the issues and how you plan to address them.

SECTION II: DIGITAL CONTENT, RESOURCES, OR ASSETS

A.1 Describe the digital content, resources, or assets you will create or collect, the quantities of each type, and the format(s) you will use.

A.2 List the equipment, software, and supplies that you will use to create the digital content, resources, or assets, or the name of the service provider that will perform the work.

A.3 List all the digital file formats (e.g., XML, TIFF, MPEG, OBJ, DOC, PDF) you plan to use. If digitizing content, describe the quality standards (e.g., resolution, sampling rate, pixel dimensions) you will use for the files you will create.

Workflow and Asset Maintenance/Preservation

B.1 Describe your quality control plan. How will you monitor and evaluate your workflow and products?

B.2 Describe your plan for preserving and maintaining digital assets during and after the award period. Your plan should address storage systems, shared repositories, technical documentation, migration planning, and commitment of organizational funding for these purposes. Please note: You may charge the federal award before closeout for the costs of publication or sharing of research results if the costs are not incurred during the period of performance of the federal award (see 2 C.F.R. § 200.461).

Metadata

C.1 Describe how you will produce any and all technical, descriptive, administrative, or preservation metadata or linked data. Specify which standards or data models you will use for the metadata structure (e.g., RDF, BIBFRAME, Dublin Core, Encoded Archival Description, PBCore, PREMIS) and metadata content (e.g., thesauri).

C.2 Explain your strategy for preserving and maintaining metadata created or collected during and after the award period of performance.

C.3 Explain what metadata sharing and/or other strategies you will use to facilitate widespread discovery and use of the digital content, resources, or assets created during your project (e.g., an API [Application Programming Interface], contributions to a digital platform, or other ways you might enable batch queries and retrieval of metadata).

Access and Use

D.1 Describe how you will make the digital content, resources, or assets available to the public. Include details such as the delivery strategy (e.g., openly available online, available to specified audiences) and underlying hardware/software platforms and infrastructure (e.g., specific digital repository software or leased services, accessibility via standard web browsers, requirements for special software tools in order to use the content, delivery enabled by IIIF specifications).

D.2. Provide the name(s) and URL(s) (Universal Resource Locator), DOI (Digital Object Identifier), or other persistent identifier for any examples of previous digital content, resources, or assets your organization has created.

SECTION III: SOFTWARE

General Information

A.1 Describe the software you intend to create, including a summary of the major functions it will perform and the intended primary audience(s) it will serve.

A.2 List other existing software that wholly or partially performs the same or similar functions, and explain how the software you intend to create is different, and justify why those differences are significant and necessary.

Technical Information

B.1 List the programming languages, platforms, frameworks, software, or other applications you will use to create your software and explain why you chose them.

B.2 Describe how the software you intend to create will extend or interoperate with relevant existing software.

B.3 Describe any underlying additional software or system dependencies necessary to run the software you intend to create.

B.4 Describe the processes you will use for development, documentation, and for maintaining and updating documentation for users of the software.

B.5 Provide the name(s), URL(s), and/or code repository locations for examples of any previous software your organization has created.

Access and Use

C.1 Describe how you will make the software and source code available to the public and/or its intended users.

C.2 Identify where you will deposit the source code for the software you intend to develop:

Name of publicly accessible source code repository:

URL:

SECTION IV: RESEARCH DATA

As part of the federal government's commitment to increase access to federally funded research data, Section IV represents the Data Management Plan (DMP) for research proposals and should reflect data management, dissemination, and preservation best practices in the applicant's area of research appropriate to the data that the project will generate.

A.1 Identify the type(s) of data you plan to collect or generate, and the purpose or intended use(s) to which you expect them to be put. Describe the method(s) you will use, the proposed scope and scale, and the approximate dates or intervals at which you will collect or generate data.

A.2 Does the proposed data collection or research activity require approval by any internal review panel or institutional review board (IRB)? If so, has the proposed research activity been approved? If not, what is your plan for securing approval?

A.3 Will you collect any sensitive information? This may include personally identifiable information (PII), confidential information (e.g., trade secrets), or proprietary information. If so, detail the specific steps you will take to protect the information while you prepare it for public release (e.g., anonymizing individual identifiers, data aggregation). If the data will not be released publicly, explain why the data cannot be shared due to the protection of privacy, confidentiality, security, intellectual property, and other rights or requirements.

A.4 What technical (hardware and/or software) requirements or dependencies would be necessary for understanding retrieving, displaying, processing, or otherwise reusing the data?

A.5 What documentation (e.g., consent agreements, data documentation, codebooks, metadata, and analytical and procedural information) will you capture or create along with the data? Where will the documentation be stored and in what format(s)? How will you permanently associate and manage the documentation with the data it describes to enable future reuse?

A.6 What is your plan for managing, disseminating, and preserving data after the completion of the award-funded project?

A.7 Identify where you will deposit the data:

Name of repository:

URL:

A.8 When and how frequently will you review this data management plan? How will the implementation be monitored?