

Ethical Access to *Music Time in Africa*

I. SIGNIFICANCE

The project's significance is grounded in the rich quality and extraordinary value of the *Music Time in Africa* (MTiA) radio program recordings and the original live field recordings made by Leo Sarkisian (b. 1921). This intrinsic value is amplified through the project's innovative approach to preservation and access. This section discusses significance in three contexts: 1) *Music Time in Africa* and the Leo Sarkisian Archive; 2) the challenges of making available recorded musical heritage; and 3) the cultural mandates that determine an "ethical access" to culturally significant musical heritage.

Music Time in Africa and the Leo Sarkisian Archive

Music Time in Africa is the oldest and longest-running radio program broadcast by the Voice of America (VoA), the official broadcast agency of the US government (Heil 2003).¹ Ethnomusicologist Leo Sarkisian created the weekly program in the 1960s at the invitation of famed journalist Edward R. Murrow (Gwamna 1992). Leo (as he is universally and affectionately known) recorded hundreds of hours of original field recordings in over thirty-eight newly decolonized African nations and selected tracks from these and other regional recordings for weekly or twice-weekly thirty-minute broadcasts. Sarkisian chose the musical excerpts and scripted the broadcasts based on his first-hand knowledge of musical genres and cultures of the African continent. A series of very talented and popular announcers performed the scripts around the selections "inserted" into the program at specifically-timed intervals.

Music Time in Africa was first broadcast in May 1965. Production for MTiA began in Liberia's VoA Program Center, then relocated permanently to the VoA headquarters in Washington DC in 1968, when Leo was appointed the VoA Music Director of the Africa Division. He continued to travel to Africa for field recording through 1985. He also promoted the program by developing marketing strategies, responding in person and in writing to fans, keeping in contact with musical artist and their communities, and hiring charismatic co-hosts: Bryn Poole (1965-68), Susan Moran (1969-978), Rita Rochelle (1978-2005), Matthew Lavoie (2005-2012), and Heather Maxwell (2012-present). Leo Sarkisian directed MTiA through his semi-retirement in 2004 and his full retirement in 2012, at the age of 91. In 2012 the Library of Congress inducted Leo Sarkisian's *Music Time in Africa* into the National Registry of Recorded Sound (Maxwell 2015, Munezan 2014). In 2012, Leo Sarkisian's *Music Time in Africa* was inducted into the National Registry of Recorded Sound by the Library of Congress. The July 29, 1978 program—music from Mauritania—was enshrined alongside Chubby Checker's "The Twist," Simon & Garfunkel's "Sounds of Silence," and Pink Floyd's "Dark Side of the Moon." The Library of Congress chose twenty-five recordings that year (LoC 2012).

Because of legal constraints only recently removed by the US Congress (NDAA 2013), *Music Time in Africa* has never been heard beyond the generations of listeners on the African continent. With over 20 million listeners per year, VoA's *Music Time in Africa* radio show has been a key part of that global listener experience (Maxwell 2015). The show's immense popularity is evidenced from the 1,000+ fan letters that the show has received every month for decades, and which Leo and his wife Mary have faithfully responded to—letter by letter. **Appendix 2** illustrates the nature and quantity of fan mail. Some of the listener-letters included photos and cassette recordings. A cherished example is the black and white photo of a radio that a listener sent Leo to show him the radio the listener uses every week to tune in to *Music Time in Africa*. Another example comes from former US Ambassador to Ethiopia Irvin Hicks who reported in a letter to the VoA Director on a September 1995 visit by Leo to that country:

¹ See **Appendix 1** for Works Cited in the Narrative.

“The public outpouring of support and affection for this cultural ambassador was simply overwhelming. From the moment his plane landed until he departed from the hotel, Ethiopian fans of all ages and backgrounds besieged the VOA broadcaster with questions, presents, and requests for autographs.... Over 4500 Ethiopians responded to the listeners contest, a number far greater than any other African country. Over the course of the last thirty years, his program and personality has touched more lives and inspired more young people than any single effort [sic] by USIS Addis Ababa.” (Sarkisian 2012, 89)

Leo Sarkisian Library/Archive: Until the VoA inventoried, boxed, and transferred major portions of the collection to the University of Michigan Library (MLibrary) in January 2015, the Leo Sarkisian Archive was a very active and highly organic music library of original and commercial sound recordings. The library supported all aspects of the creation, production, and delivery of MTiA, from 1965 to 2007 (when the program shifted to a digital format). In its former home at the headquarters in Washington, DC, the Leo Sarkisian Library consisted of five major clusters of recordings that lived in a single room in a near constant state of organizational flux:

- 1) recordings of the MTiA **radio program** as either broadcast or the “inserts” of musical selections for the programs;
- 2) **scripts** for MTiA, to be read by a broadcaster surrounding musical selections;
- 3) recordings of **live musical performances** made by Leo Sarkisian in his travels through Africa or by African staff trained by Leo Sarkisian to make professional quality recordings on his behalf—often at the radio stations he helped found.
- 4) recordings **transferred** from other media to magnetic tape, created to support the production of the radio broadcast.
- 5) **commercial** recordings acquired by Leo Sarkisian or sent to him by record companies and listeners in the form of LPs, 45s, and cassettes.

Appendix 3 contains photographs of the Sarkisian Archive in its original home and in transit.

Transfer to the University redefined a music library into the Leo Sarkisian Archive, housed by MLibrary in a group of 188 archival storage boxes, accompanied by brief item inventories. Under terms of a 2014 Memorandum of Understanding (MoU), the University accepted four of the five series (excluding most commercial recordings in their original physical media, including a remarkably extensive collection of LPs now transferred and absorbed into VoA’s primary music library). The University components constitute the vast majority of the original Leo Sarkisian Library and now form a structured archival collection from which certain materials have been selected for inclusion in this project. See below for more detail on the materials included in the proposed project, along with notes on selection.

Related Collections: As the central component of the radio programs and the associated musical inserts, the heart and soul of the Leo Sarkisian Archive are the recordings that Leo made or fostered over a thirty-year period. The Archive is one of the top four collections of African musical heritage in existence. The others are the Hugh Tracey collection at the International Library of African Music (ILAM) in Grahamstown, South Africa (Thram 2010), the Kwabena Nketia collection at the Institute of African Studies, University of Ghana (IAS, n.d.), and the Gerhard Kubik collection housed privately in Vienna (Kubik, n.d.). All four collections span many African countries and ethnic groups; all include both traditional and popular musical forms. The Sarkisian collection, however, exceeds the others in its geographic and musical breadth.

Arguably, more than Tracey or Nketia or Kubik, Leo has embraced the full spectrum of African musical practices. Leo’s recordings include not only traditional forms of music, but popular music (ranging from jazz bands to Afro-funk), as well as gospel and African-composed classical music (opera and symphonies). Leo, furthermore, carries the singular credit for being the first ethnomusicologist to train African sound

engineers, making possible African-initiated music archiving; this training process was part of his role as US cultural ambassador to newly-independent African nations, to ensure that Africans could carry on the work of documenting and preserving their own musical heritage. The Sarkisian collection contains both Leo's own field recordings and recordings made by sound engineers he trained across the continent: Radio Tanzania, Radio Comores, Radiodiffusion nationale Tchadienne (Chad), Radio Dahomey, Radio Rurale (Burkina Faso), Radio Burundi, Radio Douala (Cameroon). Hence the Sarkisian collection is both an individual and collective achievement, begun by one person and then enriched by many people. The collection's value lies, in part, in being a representation of African music that, while catalogued under one individual, preserves the experiences, skills, and choices of many.

The *Music Time in Africa* recordings and associated live field recordings are neither duplicated nor truly complemented by Voice of America materials housed at the US National Archives and Records Administration (NARA) and the Library of Congress (LC). NARA record group 306 (United States Information Agency) encompasses the records of the VoA and its governing board, and includes potentially useful paper records documenting audience surveys and other impact assessments of VoA programming in Africa. NARA has accessioned some 60,000 reels of sound recordings related to VoA *news broadcasts*, some targeted for the African continent. NARA has not appraised or accessioned any sound recordings from the Leo Sarkisian Archive or its parent English-to-Africa Division. The Voice of America Collection at the Library of Congress (spanning the years 1945-88) comprises more than fifty thousand recordings of United States arts, culture, and music performances recorded by the VoA for overseas broadcast. This collection does not include any recordings made by Leo Sarkisian in African countries and Leo did not use any of the VoA recordings in *Music Time in Africa*, preferring instead to deliver African music to African audiences. Additionally, the Leo Sarkisian Archive is among the very best documentary resources for studying the history of radio broadcasting on an international level. In the United States, the collections of radio broadcasting archives tend to be regional in nature (e.g., Pacifica Radio Archives, New York Radio Archives). The Internet Archive's Old Time Radio collection has breadth and some depth, but is limited to broadcasts in the United States.² The vast Library of American Broadcasting at the University of Maryland emphasizes public radio broadcasts.³ Portions of archive holdings are similar in character to the scripts and broadcast recordings in the Sarkisian archive.

Within the breadth and depth of the musical holdings lies the value for research and teaching lies the humanities—including the public humanities—of the MTiA radio programs and the musical holdings of the Leo Sarkisian Archive. This value is at least three-fold. First, the Archive documents Leo's role in training people in audio recording techniques in the countries he visited, and in doing so helped safeguard the vast and varied musical traditions of nations newly established and emerging from the ravages of colonialism. This musical conservation intervention has proved critically important, since colonial governments had argued that Africans had no culture worth preserving at all. Second, the radio programs, together with the Sarkisian musical recordings, constitute a *global resource* documenting Africa's cultural heritage, one not restricted to nationalist agendas. An overwhelmingly significant amount of contemporary popular culture derives from African musical roots. Once accessible, the Sarkisian archive will allow musicians, music scholars, and music lovers to explore and more deeply research the circulating flows of Central and West African traditional rhythms—that, for instance, form the basis of Cuban and other Latin music, which then gets re-appropriated in the Congo and neighboring nations as 'Congolese rumba.' Third, the scripts and radio programs, bolstered by full field recordings, are irreplaceable primary source material. Because the recordings have not previously been accessible to scholars, digitizing major parts of it and facilitating access to it will enable researchers in the USA, Africa, and elsewhere to mine this curated collection for research

² Pacifica Radio Archives, <http://www.pacificaradioarchives.org/>; New York Radio Archive, <http://www.nyradioarchive.com/>; Internet Archive Old Time Radio, <https://archive.org/details/oldtimeradio>

³ Library of American Broadcasting (Maryland). <http://www.lib.umd.edu/libraryofamericanbroadcasting>

including (but not limited to) ethnomusicology, history, anthropology, folklore, literature, the fine arts, and cultural studies. Empirical, formal, and interpretive work in multiple disciplines is all deeply enabled by the Sarkisian materials.

Challenges of Making Available Recorded Musical Heritage

The need to preserve and make available the audiovisual cultural heritage is the twenty-first century's brittle-books crisis. Disintegrating media imperils research, education, and public programming across nearly all humanities disciplines. The crisis manifests itself in three deeply-interrelated ways. First, vast quantities of audiovisual content exist on obsolete, deteriorating, and increasingly at-risk media—the majority of it magnetic tapes of various vintages (CLIR 2010; Casey 2014). Second (and paradoxically), while unique, non-commercial recordings are arguably the most intellectually-rich and valuable materials in an archive, knowledge about finding and using these materials is almost always inadequate or catching up to the conservation demands of the media (AVPS 2014). Third, even in those cases where a tape or recording can be handled, where working playback equipment is available, and where the contents of the object is known beyond what may be scrawled on a tape box or summary inventory, access and use are further limited by intellectual property laws and regulations (Hirtle 2015). This interplay of physical, intellectual, and legal constraints is the next challenge to the survival of vital and vast segments of the world's cultural heritage. Without creative innovation in accessibility, audiovisual resources of the second half of the twentieth century face inevitable and catastrophic loss.

Materials Selected for the MTiA Project: The project incorporates into a unified delivery system selections from three series of the Leo Sarkisian Archive at the University of Michigan: 1) program recordings and/or the associated musical inserts; 2) program scripts; and 3) Leo Sarkisian's live field recordings.

1. **Music Time in Africa Broadcasts and Inserts, 1965 to 1989.**

900 items (each 20–30 minutes duration).

Format: ¼ inch reel-to-reel magnetic tape, mono single track.

See **Appendix 4** for a summary of the distribution of programs and inserts.

Music Time in Africa is a thirty-minute pre-recorded program, broadcast on Sunday afternoons (once weekly from 1965–1982, and starting in 1983, with two separate Sunday programs). The series contains selected full radio programs from 1965–1975, and a nearly complete run of radio programs from 1976–1989. Much of the weekly production work for the program involved choosing musical selections or excerpts from the Leo Sarkisian Library, then crafting an appropriate script. Leo assembled program excerpts on a tape reel of “inserts;” the reel typically mixes original Sarkisian field recordings with complementary tracks from commercially-produced and distributed recordings (45s, LPs, cassettes, and other media). At transmission time, a radio announcer (supported by a sound technician) “performed the box” containing the script and associated musical inserts. Some scripts are in the tape box with the insert reels.

2. **Scripts for Music Time in Africa, 1965 to 1989.**

900 items (3–4 pages per script).

Format: 8.5” x 11”, typescript, mimeograph, or electrostatic photocopy.

See **Appendix 5** for examples of scripts.

The printed script is the textual record of each broadcast program included in the series. The script is both an extraordinarily rich source of information about the program itself and the cultural context that the program seeks to synthesize. Each script is a self-contained narrative, with a remarkably similar flow from program to program that remained stable over four decades. Typically, each script first introduces a program's theme, then describes the musical selections, including commentary on composition, performers, instrumentation, and the selected track's

context in the overall sociocultural context of the program's theme. Scripts conclude with acknowledgements and VoA contact information. Scripts tend not to be overtly "newsy," although passing references to current events is a common feature. For archiving purposes, scripts provide invaluable technical and descriptive metadata for each broadcast recording and the associated musical excerpts. Each program script is dated. Each program contains timing marks (mm:ss) indicating the excerpt lengths and its sequence in the program. Finally, programs also provide copious references to proper names (places and people) and other identifiers that link musical selections to genres, instruments, and musical concepts.

3. **Leo Sarkisian Live Field Recordings, 1953 to 1985.**

360 items (10–75 minutes per item).

Format: ¼ reel-to-reel magnetic tape, 1 or 2 channel mono, 5", 7" or 10" reels). Digital surrogates. Leo Sarkisian traveled throughout Africa with professional sound equipment on which he was trained by Central Recording Studios in Hollywood, California. In 1953, he started in Central Asia (Pakistan, Afghanistan, Bangladesh) as an employee of Tempo Records in Hollywood, which had hired Leo to obtain music for films set in exotic locales (Sarkisian 2012, 15). In 1958, Leo was sent to newly-independent Ghana. There, he worked with Radio Ghana music director Atta Mensah, recording music throughout the country and across ethnic groups. In 1962, invited by Edward R. Murrow, Leo became Music Director for the VOA Program Center in Monrovia, Liberia. Leo continued his work recording music and training sound engineers, now under the banner of the US diplomacy (Sarkisian 2012, 63). Working fifty years as a VOA employee, Leo recorded music in over thirty-eight African nations from Senegal to Ethiopia (see **Appendix 6** for the geographical distribution of the recordings). Included within the corpus are the only known recording of Louis Armstrong performing at the 1967 Tunis Festival, the first-known recording of famed Nigerian Fela Anikulapo-Kuti, and the first-known recording of Guinea's popular Bembeya Jazz Band. Also represented are traditional music, chorale music, big band music, Afro-funk, Latin covers, and Western-style opera and symphonies by African composers.

Selection: Selection of materials for inclusion in the project reflects an overall goal of representing the creation and broadcast of the MTiA programs as fully and completely as possible, given the nature of the materials transferred to the University. In striving for comprehensive coverage, the MTiA project digitizes, preserves, and makes available for research and scholarship all of the program scripts from 1965–1989, along with all extant full radio program recordings. If a given script lacks a program recording, the associated reel of musical "inserts" is substituted. The project will also make available all Sarkisian live field recordings previously digitized. The access and delivery system provides for cross linkages between script and recordings. After 1989 the number of new, unique programs declined significantly; previous programs were recycled instead. Leo made his last original field recording in 1985.

Providing "Ethical Access" to Culturally Significant Music

As both scholars and observers note, music is a key component of community identity for many in Africa (and the African diaspora). A sonic and bodily form of sociality enacted through performance, music binds people into a community, both within and across ethnic lines. Yet access to historical sources of musical production has been greatly limited, and the capacity of radio stations, ministries of culture, music organizations and universities to conserve musical heritage has been hampered by fluctuations in temperature and humidity, limited technological resources, and shortage of trained personnel. The International Library of African Music, which curates the Hugh Tracey collection, has embarked on an ambitious program of repatriating the music Tracey recorded. Connections are being forged with community organizations in each site he visited so as to return musical heritage to communities of origin in digital formats (Kailath, 2015). This is a shared goal of our team and Leo Sarkisian himself. Especially in

countries that have suffered war and turmoil such as Liberia and Sierra Leone, the return of these musical recordings means in many cases providing them with the only access they can have to that heritage. And even in countries that have not suffered conflict and mass upheaval, for example Kenya⁴ and Tanzania⁵, limited capacity to safeguard audio collections in under-resourced public institutions resulted in attrition and loss hence generating an imperative to repatriate recordings from other collections like that of Sarkisian (Klesmith 2014).

A primary goal of the proposed MTiA project is to explore the feasibility of a performer/community based process, which we have dubbed “*ethical access*,” that may well mitigate some of the legal barriers inhibiting online access to recorded sound, even including streaming, where it is lawful to do so. Because each of the broadcast announcers and Mr. Sarkisian himself were federal government employees, the typed and annotated scripts, as well as the spoken segments of the recorded programs, are in the public domain. The intellectual property rights of the underlying content on the recordings are potentially more complex. We know that Leo Sarkisian and his team made the live field recordings explicitly for two purposes—broadcast on the *Music Time in Africa* radio program, and the preservation of cultural heritage—substantial documentation exists of Leo having secured explicit permission to record and broadcast. **Appendix 7** contains examples of such release forms filed with the live field recordings.

Our focus is on the prerogatives of performers to express their access preferences for the radio programs and the live field recordings. Such recordings and broadcasts (often of traditional songs) were a source of pride for the musicians and their communities. Access carries with it a *scholarly responsibility* to engage performers, their descendants, and their communities in a dialogue on their music and its meaning to wider audiences. This is what we intend to do, utilizing the tested and successful anthropological methods that co-PI Professor Kelly Askew has used successfully in six African countries for the past 25 years. If we are successful in implementing our performer and community based outreach process, the project has the potential to be a significant advance in providing access to government-generated radio programs. Access will be through streaming only, rather than download. No music will be sold in any form. Upon request from performers, their descendants, and their communities, the project will provide (at no cost) copies of relevant and appropriate recordings. We are fully prepared to use well-established take-down policies and procedures developed at the University to respond in situations where resistance arises to opening the Leo Sarkisian materials. But our commitment to a performer-based approach to scholarly access mandates that the project utilize all available telecommunications resources to explore ways to give back to the communities that Leo Sarkisian and the VoA have touched for decades. In this way, the project draws on precedents from three ongoing developments in audiovisual preservation and access: efforts to make available historic radio programs through the Internet, efforts to distribute unpublished musical recordings made live in the field, and efforts to repatriate cultural property to those who made it.

II. HISTORY, SCOPE, AND DURATION

For purposes of this project, the most important prior work with the Leo Sarkisian Library concerns the 2009 negotiation of a Memorandum of Understanding (MoU). The MoU conveyed rights and responsibilities from the Voice of America to the University of Michigan for digitizing roughly 350 of Leo Sarkisian’s live field recordings; these recordings were identified by Professor Kelly Askew as part of her research. In 2014, a second MoU extended and modified the first. The 2014 MoU authorized the long-term loan of nearly all of the Leo Sarkisian Library to MLibrary and codified the use of the physical collection for

⁴ National Public Radio story on Hugh Tracey’s Kenyan recordings: <http://www.npr.org/2015/06/28/417462792/in-a-kenyan-village-a-65-year-old-recording-comes-home>

⁵ See the Tanzania Heritage Project website, an effort seeking to revive and preserve what remains at RTD: <http://tanzaniaheritageproject.org/>

research and teaching and the digitization of any components chosen by the University. The 2014 MoU authorized University to make digitized recordings available and defined a working relationship between the VoA and the University. **Appendix 8** contains copies of both MoU documents.

The proposed 24-month project has received no prior National Endowment for the Humanities funding or funding from any other US federal funding source. Internal funding totaling ~\$50,000 from various units at University (Afroamerican and African Studies; Office of the Senior Vice Provost; African Studies Center, Hatcher Library) enabled the cataloging of the Sarkisian collection and the digitization of 360 Sarkisian field recordings. A subsequent internal grant (\$60,000) from the University of Michigan under terms of the MCubed Research Initiative supported an eighteen-month R&D project that forged a working relationship among the principal investigators, a deep analysis of the content and value of Leo Sarkisian's live field recordings, and the design of a prototype delivery system that the proposed project will build and deploy.⁶ The MCubed project also explored and documented the international complexities of intellectual property management of live music recordings from the African continent. An African Studies Center grant (\$10,000) supported a team of graduate students who completed a preliminary inventory and initial physical processing of the Leo Sarkisian Archive. These planning efforts have laid the foundation for the proposed project by identifying the core group of MTiA recordings, testing assumptions about project workflow, building a delivery/access system on an open source platform.

Because the University has a long-standing relationship with Leo Sarkisian and the VoA, the University is a natural home for the Leo Sarkisian Archive and for the proposed preservation and access activities. Michigan distinguished professor and advisory board member Lester Monts has been a colleague of Mr. Sarkisian for over thirty years, and listened to *Music Time in Africa* in the 1970s while conducting doctoral research in Liberia and Sierra Leone. In the early 1990s, co-PI Kelly Askew utilized a part of the Leo Sarkisian Library at VoA as part of her doctoral research. Professor Askew has worked with Mr. Sarkisian and his broadcasters for twenty years to help inventory and assess the value of the collection for VoA and for other uses. Both the broadcasters who replaced Mr. Sarkisian at VoA (Matthew Lavoie and Heather Maxwell) are former students of Professor Askew. In 2004, Mr. Sarkisian donated his collection of over 350 rare African musical instruments to MLibrary, where they are now preserved and accessible as part of the Stearns Musical Instrument Collection.

From 2010–2012, 360 of Leo Sarkisian's live field recordings were digitized by MLibrary technical staff of the Digital Media Commons. Digitization processes met or exceeded the standards of the International Association of Sound and Audiovisual Archives (IASA), resulting in full information capture. Digitization produced preservation and production masters (BWF, uncompressed, 96 khz/24 bit), access derivatives (AIFF and MP3), digital scans of original tape boxes and any notes or paperwork included with the tapes, and scans of the tape reel itself prior to scanning. Master recordings are preserved in the HathiTrust Digital Library. Use copies are located on CDs that are housed at the University of Michigan Music Library, where they are available for listening, with no circulation allowed. A MARC record for the collection is in the MLibrary catalog and a finding aid for the digitized materials is available online.⁷ The project will reunite the live field recordings with the *Music Time in Africa* radio programs.

III. METHODOLOGY AND STANDARDS

⁶ University of Michigan MCubed Project, <http://mcubed.umich.edu/projects/community-memory-and-ethical-access-music-ark-and-african-field>

⁷ Finding Aid, Leo Sarkisian Field Recordings, <http://quod.lib.umich.edu/cgi/f/findaid/idx/m/mlibraryead/umich-mlib-sarkisian?byte=39557;focusrgn=summaryinfo;subview=standard;view=reslist>

The proposed project starts with digitization, but establishes a new and potentially influential model for providing intellectual and physical access to live sound recordings and radio broadcasts, particularly those with associated program scripts.

Physical Materiality

The MTiA recordings chosen for inclusion in the project consist of ¼" magnet tape wound on 5" or 7" plastic reels or 10" aluminum reels. Recordings made from 1963 to 1977 (ca. 10% of total) are generally acetate tape; recordings made after 1977 are generally polyester tape. There is evidence of light sticky shed syndrome on the earlier tapes, pack inconsistencies, and curling. None of these issues is significant enough to prohibit playback for purposes of digitization. All tapes are housed in individual containers with typed or handwritten labels affixed. All of the information noted on the box has been recorded on an internal processing spreadsheet for inventory control and future cataloging activities. **Appendix 5** illustrates the nature of the physical housing. We assessed the priority for digitization using the new MediaSCORE evaluation system developed by Indiana University and AVPreserve.⁸ MediaSCORE allows for the assembly of facts about a given asset group (materials with similar media originating in a single collection) and the calculation of a risk factor that can be used to establish priorities for digital transfer. The MediaSCORE for the acetate tapes is 3.44 of 5.0, while the polyester asset group scored 3.24 of 5.0. Both scores represent "Moderate Risk-Digitize Soon" in the MediaSCORE system.

The Leo Sarkisian Archive tapes are housed in archival-quality boxes on library shelving in a preservation quality University storage facility. The facility holds limited circulation library materials, features 24-hour security, and has delivery on demand services to campus libraries. According to the terms of the MoU, the University has authority to undertake archival processing, to identify and separate duplicates, and to rehouse and reorder the collection as necessary for access and digital reproduction. VoA retains the right to determine the disposition of duplicates and may request that physical tape recordings be returned following preservation-quality digitization.

Project Activities

The project consists of three clusters of interrelated and overlapping activities, including 1) digitization of sound recordings; 2) the development of a delivery system for sounds, texts, and metadata, delivery system development; and 3) community outreach for metadata, memory, and access management. See **Appendix 9** for a Gantt chart illustrating the flow of these activities over the 24-month grant period.

0. Setup: Upon receipt of the grant, the project PIs will recruit and train the first group of graduate students, who will begin the project by creating and launching the project website. Content for the website has already been developed as part of the planning effort.

1. Digitize Sound Recordings and Scripts: Project planning has identified 900 MTiA scripts with associated full program recordings (ca. 825) or insert reels in the absence of a full recording (ca. 75). The grant will support the digitization of all 900 programs through a third party vendor, MediaPreserve of Cranberry Township, Pennsylvania. The University prequalified MediaPreserve in 2013. MediaPreserve is well equipped, highly experienced, and fully capable of completing the digitization processing on the schedule required for the grant. MediaPreserve will provide the following: 1) proper levels of customized services needed to obtain preservation quality master files; 2) production files identical to master files except for normalization and noise reduction processing; and 3) appropriate access derivatives, including MP3 and high resolution FLAC and AAC files. Preservation master files conform to the highest standards recommended by IASA TC-04. Preservation Master Files. Digitization will generate three files: use copy, production master, and a preservation master. In this project, MediaPreserve will provide the technical

⁸ AVPreserve, <https://www.avpreserve.com/tools/mediascore-mediarivers/>

metadata for each digital file, with all files for a given batch wrapped in a master METS record that will then receive descriptive and administrative metadata as part of quality review and post processing activities.

As part of the quality assurance workflow designed for the project but informed by the Sound Directions best practices (Indiana 2007), graduate students hired and trained by the PI will undertake a set of processes that prepare the production master for ingest into an access and delivery system.

- Listen to digital surrogates to evaluate signal strength, quality, and completeness as detailed by the digitization specifications.
- Create digital images for each music program script, which are complex documents with hand annotations and variable readability. Images will conform to FADGI guidelines for digital still images (400 dpi; 10 bit gray scale).⁹
- Add minimal descriptive metadata to the METS file received from MediaPreserve.
- Generate text files from spoken word portions of the radio programs, using the ResCarta Toolkit.
- Prepare sound files, image files, and text files for ingest into the University's MiVideo and DLXS access platforms.

2. Access System Development: A robust access and delivery system is the centerpiece of the project. The MTiA delivery system will support search and discovery of radio programs by full text of the script as well as faceted search and browse by a number of criteria, including date of broadcast, geographic topic, musical genre, instrumentation, musician name, and song title, where available. Much of the information for searching will be extracted from the scripts, which are such a rich source of information on a given program. The underlying tools for search, sound file streaming, and image/text display will support a dynamic web interface. The budget for the grant provides for the technical consulting needed to integrate the audio content (radio programs and live field recordings) with image and text content (scripts) behind an elegant dynamic web interface. Plans call for an ongoing evaluation and testing of the usability and accessibility of the access and delivery implementation by bringing the project into graduate-level course *SI 622 Needs Assessment and Usability Evaluation*. The course works with external clients to improve interface designs in real-world settings.

Descriptive Metadata: The MTiA project will use the PBCore descriptive metadata standard to catalog individual reels. PBCore is used by audiovisual collections such as the Smithsonian Channel, the Dance Heritage Coalition, the Alliance for Community Media, and the Rock and Roll Hall of Fame and Museum (PBCore 2015). PBCore has been successfully implemented to archive radio programs and scripts such as WHYY's Fresh Air. The American Archive of Public Broadcasting has taken an active role in developing PBCore schema (PBCore 2011). We will use the American Archive of Public Broadcasting's PBCore as a model for developing a PBCore application profile specific to the Sarkisian collection (AAPB 2015). AAPB's guidelines demonstrate and provide controlled vocabularies for describing the structure, genre, format and contributors involved in recordings of radio programs. We will initiate original cataloging by using ffprobe to automatically and efficiently generate consistent data on the digital instantiations as recommended on the PBCore website. We will use the available radio scripts to conduct item-level processing of each radio program recording, taking advantage of PBCore's structure to provide descriptions of the segments and clips within each broadcast as well (again using AAPB's guidelines as an example). In order to facilitate discovery, a collection level record will be imported into OCLC and Mirlyn, the MLibrary catalog.

ResCarta Data Conversion: For each radio program, the project will use the ResCarta Toolkit¹⁰ to process production masters and create files that are ready for ingest into the MiVideo media delivery system.

⁹ Federal Agencies Digitization Guidelines Initiative, Technical Guidelines for Digitizing Cultural Heritage Materials, August 2010, <http://www.digitizationguidelines.gov/guidelines/digitize-technical.html>

¹⁰ ResCarta Toolkit, <http://www.rescarta.org/index.php/sw/the-toolkit>

ResCarta is a collection of open-source software programs that create metadata in Library of Congress METS-and-MODS-formatted XML files. One of seven ResCarta tools creates raw transcriptions of the spoken-audio portions of the radio broadcasts (using the CMU SPHINX¹¹ conversion program), then adds the text to the METS file for the program. ResCarta editorial tools allow project team members to correct generated OCR, based on a visual comparison to the digitized script. Once work on a given radio program has produced both metadata and a corrected full-text script, ResCarta bundles this information with the Broadcast WAV file, then produces a checksum that helps verify data accuracy as files are ingested into the MiVideo system. ResCarta will be taught to both graduate students (from the University's School of Information, UMSI) and undergraduates (recruited from the Undergraduate Research Opportunity Program, UROP) in two workshops led by John Sarnowski, head of the ResCarta Foundation. The net result of ResCarta processing are usable files and the distribution of technical knowledge to students who will have the expertise to use ResCarta for other applications and settings.

Access Content Management: The MTiA project will utilize the MiVideo audio and video content management and delivery system to manage search and discovery of access versions of the project's audio files, to stream services through the Internet, to enable mobile device optimization, to provide access controls for protecting restricted intellectual property, and to produce analytics for tracking use of MTiA content across time and geographical space.¹² MiVideo helps organize, catalog, share, search and distribute multimedia content, including audio files in a wide variety of formats. The MiVideo service at the University uses the Kaltura video platform,¹³ which provides a rich collection of APIs and other tools for low-level customization of delivery options, roles-based access management, and for links to other enterprise systems, including the University's learning management systems and image and text management infrastructure. The Kaltura platform (as implemented at Michigan) enables MTiA project to establish a distinctive portal (MediaSpace) for digitized sound recordings and tie this portal into the delivery of the images and full text files stored elsewhere, while also taking advantage of social media mechanisms (blog, Twitter, Facebook, etc.) for publicizing the project and engaging users. The system has a robust built-in set of metrics built and can also interpret Google analytics. The MLibrary's robust and well-supported DLXS system will house and deliver the EAD finding aid, digital images and full text versions of the scripts.

3. Performer/Community Outreach: A significant portion of the intellectual and physical effort of the co-PIs is focused on connecting the access/delivery system to those performers represented on 1965-89 MTiA radio broadcasts and the Sarkisian live field recordings. For this project the key to our connections with the African continent is the engagement of the vast listener base for the current on-air version of *Music Time in Africa* and the ability of our delivery system to function optimally on mobile platforms, including smartphones and tablets. Through our partnership with the VoA, the MTiA project will work through the extensively-read VoA blog, English-to-Africa news, and music programming. Through these channels, we will alert listeners to the project and invite them to visit and engage with the radio programs and the live field recordings. Using simple "mailto" email feedback links as well as established social media connections (like Facebook and Twitter), the project will capture the attention of people who have tuned in to *Music Time in Africa* for decades and invite them to participate in valuing the musical performances that Leo Sarkisian collected for their communities of performers. Students working on the project will nurture all outreach and communication activities and log all information acquired about interests in the music in the metadata files for each recording.

Analog and Digital Disposition

¹¹ CMU SPHINX, <http://cmusphinx.sourceforge.net/wiki/>

¹² MiVideo, University of Michigan, <http://services.it.umich.edu/mivideo>

¹³ Kaltura Open Source Video, Video Platform Features, <http://corp.kaltura.com/products/video-platform-features>

To support teaching and research (and if the material conditions permit), tapes without digital surrogates will be available for listening at two locations on the University campus: the Music Library reading room and the Digital Media Commons of the Duderstadt Center. Reproduction for limited use in teaching and primary research (at cost and at user expense) will be permitted under terms of fair use and the TEACH Act. Search and discovery of the digital collection will be facilitated primarily through the MiVideo and DLXS platforms. Four mechanisms help provide discovery beyond the core delivery systems: a MARC record in Mirlyn (MLibrary catalog), a collection record deposited in OCLC, search engine optimization, and OAI metadata provision through the MLibrary's OAI provider service.

Digital preservation masters will be delivered from School of Information project servers for permanent storage in the MLibrary's preferred digital repository solution. **Production masters** will be available to project staff and technical support personnel. To support processing of files prior to ingest, the production masters will be available on research servers owned by the University of Michigan School of Information and maintained by the University's Information Technology Services. **Access and use derivatives** (MP3) will be created by the digitization vendor as part of the digital conversion process and will be delivered to the University on portable hard drives. Other appropriate use derivatives (AAC, FLAC, mobile-ready MP3) will be developed as part of post-scan file processing.

IV. SUSTAINABILITY

The proposed project represents a strong and continuing partnership between a team of University of Michigan faculty, the University of Michigan Library, and the Voice of America. Each partner has one or more roles to play that help ensure the sustainability of preservation, access, and the project itself. The faculty team of co-PIs provides intellectual continuity prior to, during the course of, and following the completion of the proposed project. For the faculty, the Leo Sarkisian Archive is a vital component of their research and teaching activities. The commitment to sustaining and building the resources represented by the Sarkisian material will not evaporate at the end of the grant project. We see the NEH grant as giving the project the momentum and visibility required to attract additional funding expanding the interconnections among students, scholars, musicians and music-lovers, and musical communities in Africa.

Based on formal agreements and long-standing collaboration, the Voice of America is committed to fostering the project and deepening their working relationship with the University, well beyond the timeframe of the proposed NEH grant. Perhaps most compellingly, VoA deeply supports the University's efforts to reconnect the first and most innovative years of *Music Time in Africa* with worldwide listeners, and also introducing the radio program to American listeners. This support and encouragement transcends the bounds of a single grant-funded project.

For the University of Michigan Library (indeed, for the University as a whole) the preservation of and access to audiovisual resources needed for research and teaching in the humanities is a strategic priority. That priority manifests itself in the commitment of the MLibrary to store and preserve the master digital files in a preservation-grade storage architecture and to hold the archival source materials in a preservation-quality library shelving facility. Additionally, our deep commitment to persistent access is reflected in our choice to adopt and adapt open-source, fully-supported application tools to process the content and deliver sound, text, and image in an integrated. The cost model for sustaining access to the *Music Time in Africa* digital files and associated scripts and archival materials is currently configured at the University as a "pay as you go" cost model, where central IT services charges an annual fee based on the quantity of information delivered and the purposes of the access system. The costs for the access system is built into the grant budget.

V. DISSEMINATION

The project itself is fundamentally about lawful dissemination—of content and scholarship. A project website will convey the design and outcomes of the project and provide quarterly status reports on the project. The content delivery system will be open and will provide metadata for all digital objects in the system and as much content as possible, given the complexities of international copyright law. The project website will serve as an open forum with ongoing blog posts, commentary, and other social media conversations. The website will be supported by the School of Information computing services.

The faculty project team has an extraordinarily successful track record for presenting its work at top archival and anthropological association meetings and producing articles in peer-reviewed journals and other scholarly publications on their work. This project will be no different; we expect a cumulative output of at least six articles (African Affairs, African Anthropology, Archival Science, ARSC Journal, etc.) or white papers published or disseminated through the website. All publications will be deposited in the University's open-access institutional repository (DeepBlue).

Given the substantive content made available through the project, we expect and will welcome media attention for the project and its outcomes. The Voice of America will promote the project through its widely read blog¹⁴ and will link to the project through its websites marketing VoA programs on a worldwide level. Additionally, the project Principal Investigators are committed to the public humanities and will seek out opportunities to foster wide public conversations on preserving musical heritage and the importance of community outreach on intellectual property and international copyright issues.

VI. WORKFLOW

The plan of work encompasses a two-year project that will proceed over phases that roughly correspond to the flow of the academic year at the University of Michigan. **Appendix 9** contains a Gantt chart showing the principal activities over time.

Summer 2016

- Set up project and create project website (PIs, UMSI graduate students)
- Pack and ship 900 tapes to vendor in monthly batches of 150 tapes (UMSI graduate students)
- Map delivery system requirements from prototype to production design, establish appropriate development expertise (PI, graduate student, MLibrary IT staff)

Fall 2016

- Complete digitization of 900 tapes
- Ingest digital master files for digital preservation and house analog source materials (MLibrary, graduate students)
- Begin quality assurance on digitized recordings and local digitization of program scripts (students)
- Begin ResCarta post-processing of production masters to produce audio transcripts
- Begin populating MiVideo system with metadata and sound/image/text content (Students, MLibrary)
- Design, pilot and finalize community outreach and intellectual property identification and documentation protocols (Faculty team, Advisory Board)
- Advisory Board meets in Ann Arbor

Winter 2017

¹⁴ Voice of America, Music Time in Africa [blog], <http://www.voanews.com/archive/music-time-in-africa/latest/672/1456.html>

- Complete populating delivery systems (MiVideo, DLXS) with metadata and sound/image/text content (MLibrary, graduate students)
- Complete and open web gateway to access system (MLibrary staff)
- Conduct usability assessment, mobile accessibility tests (UMSI students in SI 622)
- Launch outreach blitz to targeted African populations (VoA)

Summer 2017

- Reports and articles on initial results (Faculty team)
- Continue outreach engagement with top priority communities in African countries (Faculty team)

Fall 2017

- Extend community outreach to second priority communities (Faculty team)
- Evaluate IP management successes and continuing barriers (Advisory Board)
- Advisory Board meets in Ann Arbor

Winter 2018

- Review project for transition to sustainability (MLibrary, Faculty team)
- Data curation profile (Faculty team, UMSI students)
- Reports and articles on findings (Faculty team)
- Complete project and report publicly (Faculty team)

VII. STAFF

A team of three faculty at the University of Michigan form the core leadership for the project. They are substantively supported by the head of preservation and conservation for the MLibrary, a delivery system designer, and a group of graduate students from the School of Information. The project team will meet weekly through the course of the project and document its work on a project website. The distinguished Advisory Board, described above, is an integral part of the project design and will provide continuing input on all aspects of the project.

- **Paul Conway** (Associate Professor, UMSI) is the principal investigator of for the project. Professor Conway will devote 12% of his time during the academic year and half of two summers on the project. His principal responsibilities are to oversee digitization, post-processing, and metadata activities, supervise graduate students, lead the design of the delivery system, and report on the project in writing and public presentations.
- **Kelly M. Askew** (Professor, Anthropology, Afroamerican and African Studies) is co-principal investigator. Professor Askew will devote 10% of her time during the academic year and half of two summers on the project. Her responsibilities involve domain expertise in African music and culture, liaison with the Voice of America English-to-Africa Division, and leading the community/performer outreach aspects of the project.
- **Shannon Zachary** (Head of Preservation and Conservation, MLibrary) is the essential administrative and professional link between the School of Information and the MLibrary. She will coordinate the management and preservation of the analog source tapes, the digital sound files created during the project, and the data-management plan for the project. She will also represent the project in administrative review meetings on campus and to the American Library Association's preservation and audiovisual interest groups.

Advisory Board. An involved and impactful Advisory Board is an important part of the project design. The eight members who have agreed to serve represent the variety of intellectual, technical, and legal issues that are at the heart of the project. All are very distinguished in their respective fields. All have agreed to attend two Advisory Board meetings in Ann Arbor and to take active advisory roles remotely through the course of the grant period.

- Jolene M. Beiser, Archivist, Pacifica Radio Archives, North Hollywood, CA

- Rachelle V. Browne, Associate General Counsel, Smithsonian Institution, Washington, DC
- Alan R. Burdette, Director, Archives of Traditional Music, Indiana University, Bloomington, IN
- Peter Hirtle, Senior Policy Advisor, Cornell University and Fellow of Berkman Center for Internet & Society, Harvard University
- Melissa Levine, Lead Copyright Officer, University of Michigan Library, Ann Arbor, MI
- Heather Maxwell, Producer and Host, *Music Time in Africa*, Voice of America, Washington, DC
- Lester Monts, Arthur F. Thurnau Professor, School of Music, Theater and Dance, University of Michigan, Ann Arbor, MI
- Derek Vaillant, Associate Professor, Department of Communication Studies, University of Michigan

Graduate Students. Through the course of the project, three graduate students will be employed on a part time basis (fifteen hours per week during the academic year; halftime during the summer) to undertake three interrelated tasks: managing the workflow for sound recording digitization activities (including quality assurance), metadata population of the delivery system, and digitization of program scripts and other archival materials included in the project. One of these students will be designated as lead to coordinate and document work.