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Keeping our story: Preservation of audio visual archives in Ghana

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1. Background

Audio Visual (AV) archives exist for the preservation and continuation of the materials as a cultural heritage, and are vital elements of an institution or a nation's collective memory, documenting the past, present and future as well as its achievements over the years (Zinyengere 2008). An AV archive is a unit or department of an organization which is statutorily mandated to provide access to the AV heritage through collection, provision and promotion of access to the AV collections (Edmondson 2004). They include sound recordings, film and video, graphic materials, electronic resources, three-dimensional objects, maps, and microforms among others.

Preservation of AV collections has been recognized as a challenging but necessary armament for maintaining the past in the present. According to Addo (2014) an inherent challenge that faces a nation or an institution world over in establishing an audiovisual archive is how to preserve the varied collections that come into its custody through field recordings, donations and purchases. In particular, the handling, preservation and provision access to AV collections are much more complex and expensive as compared to paper archives. This Matangira (2003) indicated has resulted in the difficulty in developing AV archives in Africa. According to Mnjama (2010) despite the fact that AV materials play a vital role in the maintenance of cultural heritage, they are very often neglected and usually accorded less attention as compared to paper based records especially in developing countries.

Over the years, several authors (Lihoma 2008; Mnjama 2010; Gracy & Cloonan 2015; Smith 2016) have attributed the neglect of AV preservation in most institutions to a combination of several factors such as; lack of the appropriate equipment needed to inspect and view such material, a lack of qualified personnel to care for and maintain both the materials and the equipment, limited resources for engaging in AV preservation and reformatting activities, and the absence of sufficient description of these materials.

Nevertheless, despite the looming reality that it is impossible to preserve AV forever, it does not follow however, that custodians and preservation managers cannot do anything about it. What is achievable can be done. Indeed, the gathering of the AV collection in one place and putting them in storage to extend the collection's lifeline is already an act of preservation (Abrigo & Abrigo 2016). Matangira (2003), Mnjama (2010) and Chigarrio (2014) observed that different countries face specific preservation challenges as far as the preservation and maintenance of AVs are concerned. As such, the preservation of AV collections needed to be explored in the Ghanaian context with the view to address possible solutions facing the preservation of AV archives in Ghana. Specifically, the paper sets out to investigate the authority, standards and practice for the

preservation of AV archives in Ghana, as well as competencies of the staff involved in the management of the AV archives, and the challenges to the preservation of AV archives in Ghana. This study is significant as it will contribute the extent to which AV archives are preserved in Ghana. It would also serve as a wakeup call to management of AV archives who do not consider good preservation practices high on their agenda to rethink their positions. Finally, this study will fill the gap in the literature as the search for literature on preservation of AV archives produced very little in terms of relevance in the context of AV archives in Ghana.

2. Literature Review

Implications for preserving Audio Visual collections

Preservation strategies are usually undertaken to determine the preservation requirements required for the AV collection and to evaluate the strengths and weaknesses of the building, policies and guidelines, storage environment, and disaster management issues (Mnjama, 2010). Depending on the state of the document, AV materials feature in three main forms, namely: Conservation, Restoration and Digitization (Oomen et al. (2009). Conservation involves explicit policies and procedures applied to avoid delay and reverse deterioration or damage to documents (Abankwah 2007). Laas (2011) put forward that conservation can be achieved through proper handling, packing and shelving, control of environmental conditions such temperature and humidity, and condition monitoring. Restoration refers to the means of repairing, and, or treating damaged materials and bringing them close to their original state as possible for useful access (Evens and Hautekeete, 2011; Forde, 2007). Digitization is a vital aspect of collection care in audio visual archives (DeGracia, 2009; Edmondson, 2004). It comes with much importance as Abankwah (2007) postulates that it protects historical collections and analogue records from further deterioration. It also salvages endangered collections and prevents deterioration that accompanies repetitive handing (BruceCathline, 2013).

Challenges of preserving AV collections

AV literature has shown that existing and persistent deterrent factors in AV archiving are the challenges associated with the preservation of collections that come into their custody. According to literature, existing and persistent deterrent factors in AV archiving are the challenges associated with the preservation of collections (Astle and Muir, 2002; Wright, 2014). Zinyengere (2008) as cited by (Mnjama, 2010) rightly stated that, in most African countries, AV recordings are endangered due to several factors, such as legal statutes towards AV materials, obsolescence of playback equipment, staffing, the lack of training and funding, societal perception towards archives, technological awareness and the preservation, climatic issues, and access to recordings, legal statutes towards AV materials, staffing, lack of training

and funding, obsolescence of playback equipment, perception of society towards archives, climatic issues, technological awareness and the preservation and access of recordings.

Digitization

Digitization serves as an effective tool for preservation of AV collections (Akinwale, 2012; Anderson, and Maxwell, 2004; Asogwa, 2011; DeGracia, 2009; Mudzaki, 2013; Puplick, 2009; Rowley & Smith, 2012). A globally acknowledged fact is, all AV collections from the twentieth century are in analogue format (Feather, 1996; Jones, 2001; Monageng, 1997; Zulu, 1994). Analogue contents on vulnerable magnetic materials are being migrated onto digital medium for both access and preservation. Professionals recommend that all AV archives will probably need to be digitized for preservation as non-digital options are disappearing (“General Guide,” 2006). Film restoration is expensive, however the quality, when digitized makes it cheaper, quicker and easy to store (Laas, 2011). This in the view of Laas (2011) and Lihoma (2008) presupposes that digitization is gaining popularity in the field of AV archiving and must be adapted by preservationist in order to regulate cost. Directly linked to preservation as explained above, digitization of AV collections aids in their preservation (Abankwah, 2007; Zulu and Kalusopa, 2009). AV collections are rare and fragile; therefore helps to preserve them by reducing the frequency of their handling (Feather, 1996; Forde, 2007). Forde (2007), Oomen et al. (2009), Pickover (2009), and Puplick (2009) demonstrate that among AV archivists, digitization reduces the continuous handling of documents and promotes their longevity. Most cultural heritage institutions such as AV archives are confronted with the challenge and limitation of failing to satisfy the information requirements of all of their prospective patrons (Schüller, 2008; Van Malssen, 2008). Considering the worthy prospects, digitization is often presented as a remedy to the challenges and limitations of traditional AV preservation and access information; however, there exist disadvantages of digitization that could cause AV preservationist serious regrets. It is therefore important these difficulties are sorted and possibly controlled before digitization is attempted (Zulu & Kalusopa, 2009).

3. Overview of AV archives in the University of Ghana

The University of Ghana, the premier university and the largest university in Ghana was founded as the University College of the Gold Coast by Ordinance on August 11, 1948 for the purpose of providing and promoting university education, learning and research. Presently, the University of Ghana has adopted the collegiate system where all schools, institutes and departments have been categorized under four (4) main colleges namely College of Basic and Applied Sciences, College of Humanities College of Education and College of Health Sciences. Although the university has a central archive, some institutes and units within the four

colleges also have archival institutions purposely for the collection and preservation of AV materials. These include the J. H. Kwabena Nketia Archives located in the Institute of African Studies (IAS) which is under the College of Humanities, and the AV preservation unit located in the Balme Library within the College of Education.

The J. H. Kwabena Nketia Archives was established in 1952 by Professor Emeritus J. H. Kwabena Nketia a musicologist and composer of African music. Professor K. A. Busia, together with his team travelled throughout the ten regions of Ghana and captured a lot of audio materials on the “reel-to-reel” which was the trending audio recorder at the time. These recordings later formed the basis of the sound archives at the IAS. The J. H. Kwabena Nketia Archives is currently made up of collections of the IAS and that of the International Centre for Music and Dance (ICMD) collected between the 1950s and 1970s. The archives was expanded to include paper documents since 2014, and is presently contains a collection of audios, videos, photographs, manuscripts and paper holdings numbering up to approximately twelve thousand seven hundred (12700) (Interview with the head of the J. H. Kwabena Nketia Archives {Mr Opoku-Boateng,}, 16th December, 2016; 11:00am-1:35pm).

Unlike the J. H. Kwabena Nketia Archives, the AV preservation unit often referred to as the microfilm unit is a section of the Africana library in the Blame Library. This unit is not as old as the Balme library but was established when the need arose for an AV unit to manage the AV materials received and identified very effectively and efficiently to ensure easy access and retrieval of information in this formats. The unit has eight hundred and fifty five (855) rolls of films with varied contents ranging from newspapers, research findings; theses and gazette among others (see Appendix 1). Additionally, the unit stores microfilms with videos containing information on the reconciliation commission instituted by the government of Ghana. (Interview with the head of the Balme Library Africana Section {Mrs Antonia Appiah}, 15th December, 2016; 11:00am-12:55pm). However, even though the main function of the staff of the J. H. Kwabena Nketia Archives and the Balme Library AV preservation unit is to store, retrieve and make available AV materials whenever they are called for, both AV units perform some common functions which include:

1. Overall supervisory of the units
2. Cataloguing collections
3. Control of archives database,
4. Identification and description of AV materials
5. Creation of preservation masters and access copies for AV digitized files Ensuring the quality and integrity of the files created

6. Managing back-up archive and AV database
7. Maintenance of all archive equipment
8. Assisting students and lectures in their research

4. Methodology

The study was purely qualitative. Open ended interview schedule was used to obtain data from the staff of the AV archives in the University of Ghana Library System and the J.H Nketia AV archives. Interviews were held with all five (5) and three (3) staff in charge of the J.H Nketia archives and the Balme Library AV and preservation unit respectively. Thus, the study population and sample size was eight (8). Selection of the subjects were based strictly on Creswell's (2009) suggestion that in qualitative research, selection of respondents should be purposeful and informants should be subjects who will best provide answers in line with the research objectives. Permissions were obtained from the University Librarian and the heads of the AV units before the conduct of the study. Respondents also received an introductory letter explaining the purpose of the study and informing them that participation is voluntary. Data obtained have been analysed and presented under major themes outlined in the findings of the study.

4. Findings and Discussions

After a careful analysis of the responses from the respondents the researchers observed that most of the responses relating to some particular questions were comparable, and as such data obtained from both the interviewees from the J.H Nketia archives and the Balme Library AV and preservation unit have been presented together for easy collation of the research findings. The findings are presented and discussed under the following broad headings:

1. Respondents' demographics
2. Preservation of AV Collections
3. AV preservation Challenges
4. Digitization

4.1 Respondents' demographics

Out of the eight respondents, 4 (50%) were males and the remaining 4 were also females. The age distribution of the interviewees ranged from 22 to 45 years with a work experience ranging from 3 to 10 years. The distribution of respondents' educational qualification indicated that all staff of J. H. Kwabena Nketia Archives and Balme Library AV preservation unit had tertiary education. In fact all the qualifications of the respondents were in either library science or archival studies. However, the highest level of education as shown in **Table 1** was a Master of Philosophy Degree. Thus, inferring from the background of respondents in terms of educational qualification, it can be said that the staff in charge of both J. H. Kwabena Nketia Archives and Balme Library AV preservation unit were highly qualified in their area of work. This according to Mnjama's (2010) is very appropriate because the handling of AV materials requires trained personnel who are skilled and have some form of education in archives or library studies. In fact, this finding does not support Mnjama's (2010) assertion that there is lack of professional personnel in AV archiving especially in Africa.

4.2 Preservation of AV Collections

Storage Facilities

Regarding facilities being used for preserving collection of files, the J. H. Kwabena Nketia Archives and Balme Library AV unit, responses from interviewees proved that although there were designated areas (specific rooms) for keeping AV archives, there were no well-constructed vaults for archiving. One of the interviewees from the H. Kwabena Nketia Archives for instance complained:

...hmmm, the facilities here in this institution are scarce hence we manage to keep the AV files here in this locally made shelves with locks; just right there... Seriously, this is not done in the developed countries because they have special vaults with regulated temperatures. We wish we could get vaults to store these collections but we don't.

A respondents from the Blame Library AV unit also lamented:

...Where we keep the AV collections is not appropriate at all. At least the Balme library can provide us with a bigger space if nothing at all to store and maintain these AV materials because they contain very important information.

This finding is contrary to the views of scholars like Schüller (2008), Van Malssen (2008), Webb (2004) who indicated that ideally, location of storage areas within a given building

should be in the centre of a building, slightly elevated from the ground floor in that such a storage location must exist to allow for effective and autonomous control over all environmental factors as well as magnetic stray fields to be achieved. Hence, it is appropriate for one to assert that the storage facilities for AV collections at the J. H. Kwabena Nketia Archives and the Balme Library AV unit do not meet the international standards.

Storage Media

Akussah (2011) has explained that storage media refers to the base on which the intellectual content of a document has been captured or the material that had been used to create the document. As shown in Table 2, although both the J. H. Kwabena Nketia Archives and the Balme library AV unit had their AV materials on either videos or CD-ROMS, both AV units had a number of storage media formats. Nevertheless, responses from the interviewees at both AV units indicated that there are other forms of more advance media for the storage of AV collections which are not available at the AV units.

An interviewee from the Balme Library AV unit mentioned:

...Well we use a number of storage media for the AV collections but we would be glad if the library could purchase some more current media for storing AV materials, because the current once are more durable although very expensive.

Another interviewee from the J. H. Kwabena Nketia Archives also indicated:

...There are new and more modern storage media facilities for AV collections, and we would prefer that to what I currently being used.

Nevertheless, it is interesting to note that when asked to mention some of the names of the current media they preferred, none of the interviewees was able to provide an example of what they termed as the modern storage media.

However, the respondents indicated that the current storage media used were durable and as such the security of AV information kept on them were secured. One of the respondents from the J. H. Kwabena Nketia Archives for example indicated:

...the storage media are good, they are good, and the Formats are much secured.

Another respondent from the Balme Library AV unit also said:

...the storage facilities we use for now are highly secured even though they are not sophisticated. Again the media formats are highly protected from public access and this goes a long way to protect the media formats from deterioration that may result from unprofessional handing.

These findings on storage media for the preservation of AV collections supports the purpose of digitization, which according to Abankwah (2007), Feather (1996), Rowley and Smith (2012), and Schüller (2008) is to afford archives the opportunity to protect the original document from further deterioration by placing it in appropriate and secure storage areas.

4.3 Challenges of Preserving AV Collections

In responses to the challenges of preserving AV collections at both the J. H. Kwabena Nketia Archives and the Balme Library AV Unit respondents mentioned physical deterioration of magnetic tapes, inadequate storage facilities, obsolescence of equipment, and power outages among others.

Some statements made by interviewees from the Balme *Library AV Unit with regards to* challenges encountered in preserving the AV collections include:

1....The tropical climate is very damaging to the tapes. It made the room either too hot or too cold (temperature fluctuation) which makes the tapes deteriorate faster. You see our climate is up and down, hence we don't have a stable condition in the room and the tapes are affected when the temperature is unstable.

2....These acetate materials used for producing the tapes cannot withstand the climatic weather conditions as in Europe and America. It is deteriorating day in and day out...creating a very big problem for us.

3.... The air conditioner in the preservation room is faulty. The climate is creating an unstable temperature in media storage areas. Most often temperature in the media storage areas fluctuates!, look, the archival machines are also air-conditioned reliant and cannot work under warm environment. As for us we cannot do anything about it but it is the rate at which the tapes are deteriorating. You see that these tapes are made with acetate materials, so the pests feed on it.

4...Materials required to do our work are also out of stock especially the repair tapes, we hope that we will receive funding for our activities and to deal with the pertinent issues we are encountering. In the advanced countries enough funding is provided to support the preservation of AV collections and we hope to experience that here.

5...Look, conversion of magnet tapes to digital ones is not a joke, it is virtually impossible...we find it hard to do it because these old techniques are archaic, and “We hope to have all of them converted to digital formats in the near future but for now it is not easy.

Other sentiments shared by the staff of the J. H. Kwabena Nketia Archives as constrains to the preservation of AV materials also include the following:

1...we share offices with the tapes and other equipment and there is also inadequate space to house materials resulting in the disposal of most of them. There are no proper vaults to control temperatures, the store rooms are old and cannot withstand the tropical climate

2...Most tapes are on obsolete media formats and the machines are unplayable, obsolete machines cannot be found in the vendor shops in Ghana anymore. Presently all the collections are accessible except the tapes that are on obsolete media formats

3...There have been few difficulties digitizing quarter inch open reel, the play back reel to reel machine was initially imported from Germany, but upon receipt of the equipment, it was realized that most of the reels were half-track (1/2”) and quarter track (1/4”) and the imported machine could only play half-track. This problem had put a halt to the digitization process until a new machine that could play both tracks was again sourced from the United States of America.

4...There are inadequate metadata on the tapes so we have to call old photographers and old researchers to help in identifying images, places and other details on the programmes that have been captured.

5...Another problem encountered was the power crisis Ghana experienced. Even though the Archive has a reliable UPS that could last for four hours, the room becomes warm and most of the equipment cease working resulting in a pause in process until the electricity supply is stable.

6...Unstable internet bandwidth is another deterrent factor. Most of the metadata is embedded in the database, and inability to retrieve the information from the internet, renders digitization impossible. The internet is not stable at all... it makes the work slow and “At times, the WAN and LAN becomes slow, and if it happens like that we are unable to work,”

7...We lack technical expertise to help manage the materials, this is putting a strain on the archivist and her staff due to the inadequate staff situation there is a reliance on service persons annually who do not have any special expertise

4.4 Digitization

Emphasizing on future success of digitization in Ghana, responses from the interviewees revealed that both the J. H. Kwabena Nketia Archives and the Balme Library AV unit have started a digitization project.

A respondent from the J. H. Kwabena Nketia Archives revealed:

...We have started a digitization project called “Making African Academic Resources Accessible” (MAARA) project. Under this project, a target of a pilot of 400 hours of audio deposited on the quarter inch open reels was digitized within 18 months and the target was achieved successfully within the set period.

The respondent went on to explain that;

..The next digitization project to embark on would hopefully be ‘video digitization’ because the archive has a huge collection of heritage materials deposited on VHS, Betacam, U-matics, Mini-DV, Hi-8 and video 8.

Similarly, an interviewee from the Balme Library AV unit also professed:

...Presently, the collections of the AV and preservation unit of the Balme library are being digitized using the Mekel M200X microform reader and expected to be hosted on a web platform for public access and use

When asked the need or importance to digitize, one of the interviewees from the J. H. Kwabena Nketia Archives answered:

...Digitization is worthwhile since the successes overcome the challenges. Moreover, information that has been hidden in these quarter inch formats for 64 years can now be retrieved and accessed by students, researchers and teaching faculty.

Another interviewee from J. H. Kwabena Nketia Archives also commented:

...Due to the importance attached to the digitization of these resources, There has been both local and international project collaborations between the Institute of African Studies and New York University where experts from AV Preservation Solutions in New York were contracted by New York University to train staff on audio digitization which lead to the setting up a digitization lab.

Interviews with staff of both the J. H. Kwabena Nketia Archives and the Balme Library AV unit also disclosed that both units sometimes outsource some of its technical tasks. This involves direct and contractual consultancies with both international and their local experts for ad hoc and specified tasks.

5. Conclusions

Records and information provide evidence of transactions and events of both past and future occurrences, and as such the sound management and preservation of records and information in all forms whether electronic, microfilm or paper has become a topical issue globally (Mensah, 2016). This study was set out to find out the state of the preservation of AV collections in Ghana with particular reference to the J. H. Kwabena Nketia AV Archives and the Balme Library AV preservation unit. Findings from the study revealed a fair degree of operational direction for the preservation of AV collections in both units studied. Nevertheless, although digitization has magnified potentials for preservation in archives, the AV units studied were faced with a number of challenges with AV preservation including: climatic conditions, obsolete media format and conversion, lack of expertise, unavailable obsolete machines, inadequate facilities, poor internet connectivity, and poor storage which were all affected by financial constraints. Furthermore, unlike developed countries, there were few strategies adopted for preserving AV collections in Ghana, specifically at the J. H. Kwabena Nketia Archives and the Balme Library AV preservation unit. In sum, to enhance effective and efficient preservation of the AV collections at the J. H. Kwabena Nketia Archives and the Balme Library AV preservation unit the researchers have come out with some recommendations which both AV units can adopt to good preservation practices to help contribute to the achieving their set goals and objectives

6. Recommendations

Sourcing of Funds

The first recommendation is the need for the archives to source for funds. The funding of audio visual institutional archives should not be left to the parent institution alone. Individuals and nongovernmental organizations should endeavour to support it with donation of funds to enable the archivists purchase quality equipment such as vaults and modern archive machines for storage of sensitive collections and also help in acquiring logistics to enhance the progress of digitization projects.

Training of Archive Staff

Secondly, the human resource of the archive must be improved and well trained. This should include staffing archives with the required technical expertise and providing continued professional training. This will improve professionalism and develop staff capability to deal with the challenges of digitization and conversions. Moreover, training of audio visual archivists should not be the sole responsibility of educational institutions but also professional bodies such as the Archivist and Record Managers Association of Ghana (ARMAG) which should run specialist short courses, seminars and workshops to equip individuals who are willing to work in audio visual archives but lack the required skills with basic expertise on managing audio visual resources.

Good House Keeping

Moreover, it is good to suggest regular clean up exercises for the archives. With the nature of storage spaces, there should be good housekeeping practices and consistent monitoring of collections. This would ensure the regular cleaning of materials, good temperature regulation, and periodic fumigation to prevent fungus infestations and check tape binder degradation. Again, archivists should be careful with the quality of the media files they secure into their custody, obsolete audio visual materials must be turned away since their acquisition merely end up in severe preservation challenges later.

Digitization of Video Files

It is of general benefit to promote digitization in archives. This is highly recommendable since archiving aims at preservation for access while access should not be limited to a few. It is important that the J. H. Nketia Archives in particular embark on digitizing its video files soon

so that access can be extended to the public. This would promote good academic and research work.

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Appendix 1:Content of AV Collections

Content	Year Range
Daily Graphic	1950-1977
Ghanaian Times	1958-1969
Evening News	1950-1969
Pioneer	1971-1976
Gold Coast Gazette	1822-1823
West African Monitor	1953
Soil Science Research	Not available
Special Collection (Monetary Planning In The USSR)	1950
Ghana Statesman	1950
Gold Coast Leader	1902-1948
Gold Coast Independence	1923-1948
Gold Coast Times	1874-1940-
Daily Mail	1958-1962
Nigerian Pioneer	1915-1932

Lagos Standards	1892-1920
The Rhodesia Herald	1921-1926
Lagos Weekly	1891-1921
Nigerian Chronicle	1908-1912
Nigerian Times	1910-1920
West African Reporter	1876-1884
Gold Coast Express	1897-1900
The Independent (Free Town)	1874-1878
Echo	1937-1953
Ashanti Pioneer	1951-1962
African Morning Post	1935-1962
New Ashanti Times	1951-1962
West African Times	1931-1935
Gold Cost Spectator	1937-1938
Spectator Daily	1939
Gold Coast Echo	1888
Ghana Journal Of Sociology Vox Pulpuli Accra	1930-1938
Gold Coast Pioneer	1921
Ghana Legislative Assembly Debates	1951
A History of Teacher Training In Ghana	Not available
Grammatical Units In Ewe	Not available
Theses	Not available

Source: Field Data, 2016

Appendix 2: Interview Guide

A. Respondents demographics

How long have you been working as an audio visual archivist?

What are your duties?

What is your highest level of education?

Do you possess any professional qualification or training as an audio visual archivist?

B. Storage media/Security for AV collections

How many collections do the archives hold?

What are some of the various media /carriers (format) used for their preservation?

Do you need special skills or training to handle these mediums?

How secured are these collections?

C. AV preservation challenges

. What are the type and nature of your collections?

What is the state of their preservation?

Are the collections accessible?

What are some of the preservation challenges encounter?

D. Digitization

Have you started any digitization project?

If yes, what prospects do you have for digitization?

Are you encountering or have you encountered any challenge in digitization so far?

How are you working to remedy these challenges?

Considering your challenges, is digitization worthwhile?

F. Suggestions

Any suggestion on audio visual collections you would like to share.