



DIGITISATION OF GHANAIAN TRADITIONAL MUSIC: A DISCOGRAPHIC ANALYSIS OF AUDIO AND VISUAL RECORDINGS ON DIGITAL PLATFORMS

Stephen Nyanteh Ayesu¹, Samuel Agbenyo², and Mark-Millas Fish³.

^{1,2,3}Department of Music Education, University of Education, Winneba.

Emails:

¹snayesu@uew.edu.gh; ²sagbenyo@uew.edu.gh; ³mmcoffie@uew.edu.gh

Cite this article:

S. N. Ayesu, S. Agbenyo, M. Fish (2025), Digitisation of Ghanaian Traditional Music: A Discographic Analysis of Audio and Visual Recordings on Digital Platforms. African Journal of Social Sciences and Humanities Research 8(3), 101-111. DOI: 10.52589/AJSSHR-L563CPMC

Manuscript History

Received: 12 Sep 2025

Accepted: 6 Oct 2025

Published: 14 Oct 2025

Copyright © 2025 The Author(s).

This is an Open Access article distributed under the terms of Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0), which permits anyone to share, use, reproduce and redistribute in any medium, provided the original author and source are credited.

ABSTRACT: *Ghanaian traditional music plays a vital role in various aspects of life, including festivals, funerals, storytelling, and other communal activities, serving as a repository of the nation's cultural heritage. In this digital era, the representation and documentation of this music on digital platforms are crucial for its continued relevance and accessibility, as the digital space has become a competitive source of information. While numerous audio and visual recordings of Ghanaian traditional music exist on digital platforms, there is a need to analyse these recordings and their effectiveness for music instruction and related activities. The discographic design was employed in this study to examine the audio and visuals of Ghanaian traditional music elements on digital platforms. It also explored the conditions under which these recordings were made, revealing both strengths and limitations in their technical and methodological aspects. Findings highlighted issues such as poor sound quality, inadequate camera work and insufficient technical expertise. The study concluded that these issues hinder the effective use of these recordings for educational and artistic purposes on digital platforms. It recommends a standardised approach to recording, one that incorporates objective methodologies, multi-scene perspectives, stable focus, proper zooming, the integration of expert knowledge, advanced facilities, and appropriate equipment.*

KEYWORDS: Discographic, digital platform, audio, video, traditional music, recordings, Ghanaian.



INTRODUCTION

The digitisation of traditional music is increasingly being recognised as essential for preserving cultural heritage for assimilation, particularly in countries with rich musical traditions like Ghana (Boamah, 2018; Sarpong, 2004). Traditional music in Ghana plays a crucial role in the social, cultural and educational contexts of the nation. In this digital era, the digitised Ghanaian traditional musical elements could significantly impact music education and artistic activities on digital platforms; however, after all the various digitisation activities in Ghana, the efficiency of the digitised elements being used on digital platforms is not realised.¹ Considering the current digital dispensation, if the digitised sounds and visuals of Ghanaian traditional musical elements cannot be admitted on digital platforms for students to learn how to play some of the traditional musical instruments and if they cannot be used for artistic purposes in music production, performance and composition on digital platforms, then there is a need to consider the nature of the digitised media. Scholars and artists in Ghana were proactive in considering the digitisation of sounds and visuals of Ghanaian traditional musical instruments; however, it appears these activities could not envisage the usability of the traditional musical elements which were digitised. Since digital platforms, like websites used for music education or artistic programming, are not impacted by the numerous digitisation efforts that took place at the Gramophone Library, the J. H. Nketia Archive, and others, this study chose to determine their efficiency.²

The J. H. Kwabena Nketia Archives at the University of Ghana exemplifies efforts to build a sustainable model for audio-visual archiving, providing valuable resources for local scholars and students (Harper & Opoku-Boateng, 2019). Although substantial efforts have been taken in order to document these musical forms, the quality of digital representations is often compromised due to both technical and methodological challenges; thus, this study investigated the quality as well as the usability of audio and visual recordings of Ghanaian traditional music on digital platforms for the purposes of music education, production composition and performance. This study assesses methodological and technical as well as practical frameworks that were used for creating media platforms by examining materials from the J. H. Nketia Archive, the Gramophone Library, Smithsonian Folkways and the Department of Music Education, Winneba. Suggestions to affect methodological, technical, and practical frameworks derived from the analysis of the results were then used so as to create a robust digital platform for effective educational, artistic, and music production purposes in the modern digital era.

¹ See Adjetei Adjei (2015), Harper Colter & Opoku-Boateng Judith (2019) and Nketia (1995) for more insight.

² Digitisation efforts in Ghana include the J. H. Nketia Archives and the Ghana Broadcasting Corporation's initiative



THEORETICAL FRAMEWORK

The study was based on the Digital Heritage Preservation Theory. This encompasses strategies for maintaining and communicating digital information across time and technological changes. It involves managing communication from the past to the future while preserving authenticity and integrity (Moore, 2008). The theory emphasises the need for representation information about preservation environments, including management policies, processes, and state information (Moore, 2008; Watry, 2008). Digital preservation requires a comprehensive approach, integrating various technologies and standards to ensure long-term accessibility of digital records (Watry, 2008; Owens, 2018). The field draws from multiple disciplines, combining practical techniques with theoretical frameworks to address challenges in research, preservation, and interpretation of digital cultural heritage (Owens, 2018; Cameron & Kenderdine, 2007). It also explores the relationship between material and digital objects, the implications of digital technology for knowledge creation, and the potential of virtual cultural heritage (Cameron & Kenderdine, 2007). This multifaceted approach aims to safeguard our digital scientific, social, and cultural record for future generations. Founded on this theory, this study harnessed the tenets of Digital Heritage Preservation Theory to analyse the sounds and visuals of Ghanaian Traditional Music on digital platforms to discuss the strategies for creating, maintaining and communicating the sonic and visual heritage.

Discographic Analysis in Music Research

Discographic analysis, in qualitative research, plays a crucial role in understanding the preservation and use of music, particularly in analysing technical details of recordings. To provide a deeper understanding of the factors influencing the quality and usability of these recordings, a discographic approach is used to analyse the conditions under which music is recorded, archived, and accessed. As Acquah (2022) postulates, discography allows researchers to adhere to specific details regarding sound collections. Many scholars have highlighted the importance of discographic analysis when it comes to music preservation and assimilation. For example, in the study of folk and traditional music, scholars Bohlman (1999) and Harker (2003) argued that detailed discographic research not only provides a richer understanding of how traditional music has been represented but also how it is transmitted through recordings. This, then, becomes particularly relevant in the Ghanaian traditional music context, where many recordings have been made over time, but the quality and methodology of these recordings can vary significantly. In the case of Ghanaian traditional music, discographic analysis helps provide a structured approach to evaluating how these musical forms have been captured and preserved for use in digital formats. This method further allows researchers to explore the methodologies behind the creation of these recordings and to assess their technical and artistic qualities. Discographic analysis again allows for a critical evaluation of the technical aspects of these recordings, subsequently offering insight into the challenges faced by archivists, musicians, and researchers in preserving Ghanaian traditional music. Researchers can identify key issues and subsequently make recommendations that would enhance the usability of these digital recordings when the quality of sound engineering, recording equipment, and preservation methods are assessed. In this way, discography not only contributes to understanding the history of music but also informs the future of its preservation and representation in the digital age³. In the context of Ghanaian traditional music, the works

³ Modern sound engineers play a crucial role in recording, reproducing, and preserving audio data for future generations (Gamelan Melayu & Munusamy 2021)



of scholars like Nketia (Darkwa, 1974; Nketia, 1975; Harper & Opoku-Boateng, 2019), among others, have been instrumental in documenting the rich diversity of musical forms and practices within the country. Nketia's approach toward ethnomusicology as well as his extensive fieldwork has most definitely contributed significantly to the documentation and preservation of Ghanaian music. Albeit, considering the ramifications of digital technologies, there rises the need to consider whether what has been collected already through discographic analysis can provide the necessary framework to achieve adequate efficiency in digitisation activities in Ghanaian traditional music (Agordoh 2005; Collins 2019; Owusu-Poku, 2021). This literature review emphasises the importance of discographic analysis as a tool for preserving and improving the quality of digital representations of Ghanaian traditional music, ensuring that this vital cultural heritage remains accessible and usable now and in the future.

Digitisation of Traditional Musical Elements

Digitising traditional music involves more than simply capturing sound, as it requires a deep understanding of both the cultural context and the technical demands of recording. As underscored by Nettl (2005), it is important that music is preserved in a way that respects cultural integrity while also attending to the technical quality of the recording process. In the case of Ghanaian traditional music, Nketia (1995) has played a pivotal role in highlighting the significance of documenting these musical traditions. Research has highlighted the importance of audio quality in various contexts. Newman and Schwarz (2018) demonstrated that poor audio quality negatively impacts perceptions of researchers and their work, even when content remains identical. In the field of audio preservation, Bressan and Canazza (2011) emphasised the need for quality control protocols and automated tools when digitising large audio collections. Modaff and Modaff (2000) stressed the importance of understanding recording equipment and techniques for researchers relying on audio data, providing practical guidance on equipment selection and setup. However, despite these efforts, the technical quality of many recordings often is not considered by researchers, initiatives and institutions in Ghana⁴. Barz and Cooley (2008) point out that preserving music with non-professional equipment is a common challenge, often resulting in recordings that lack the clarity and balance necessary for effective use in educational or artistic contexts. The work of Turino (2008) further emphasises the need for high-quality, thoughtfully executed recording techniques that meet both ethnomusicological and technical standards, ensuring that the music is preserved not only in its authentic form but also in a manner that can be used effectively for research, education, and performance.

⁴ Few digitisation activities in Ghana discuss the equipment and the techniques. For instance, Opoku-Boateng et al. 2020 only discussed the fact that Nketia used two-track analogue tape recorders for his recordings.



METHODOLOGY

This study employed a qualitative research methodology leveraging discographic analysis to examine the technical and methodological aspects of audio and visual recordings featuring Ghanaian traditional music. The primary sources for this research included digital audio and visual recordings that provided insight into the diverse ways Ghanaian traditional music had been captured and digitised. The study used critical case purposive sampling to select four digital avenues for the sounds and visuals of Ghanaian traditional music. According to Patton (2002), Critical case sampling can facilitate ‘logical generalisations’ with the reasoning ‘that “if it happens there, it will happen anywhere”, or, vice versa, “if it doesn’t happen there, it won’t happen anywhere.”’ To be able to form a general conclusion about the sounds and visuals of Ghanaian traditional music from a specific premise, critical case purposive sampling was used in this study. The researchers acknowledge the extent to which these platforms are used in various activities in Ghana. It is common to come across educators, researchers, artists and other stakeholders with the intention to engage these platforms for various endeavours in music education, composition, performance and production. These digital platform avenues were therefore selected for this study. The specific sources for analysis included:

- J. H. Nketia Archive
- The Gramophone Library
- Smithsonian Folkways Recordings
- CDs from the Department of Music Education, University of Education, Winneba, including the Music Department Research Audios and Visuals (2017-2022), Lunch Time Concert Series (2019-2022), and African Unit (2017-2022).

Discographic analysis, as defined by Acquah (2022), involves a systematic examination of both audio and visual materials, focusing on the technical and methodological qualities inherent in the recordings. This approach enabled the researcher to discern patterns in how traditional music had been recorded, preserved, and presented across different media formats. Adapting the system employed by Nettl (2005), this study categorised the recordings into four main groups based on the context in which they had been made:

- Recordings during festivals and funerals:** The recordings were often rich in cultural content but intended to prioritise the broader event over the musical performance itself. As a result, the recordings lacked clarity in capturing the musical nuances, limiting their potential for educational or artistic use.
- Recordings during concerts and recreational activities:** In these recordings, the focus would typically shift between the performers and the audience, leading, consequently, to poor sound isolation and insufficient clarity. This lack of focus and balance hinders the ability to use these recordings effectively for music education or production purposes.
- Recordings during programmes where traditional music served as interludes:** In the recordings, traditional music was treated as a secondary component, often leading to technical flaws such as poor camera angles and inconsistent sound capture. As a result, these recordings fail to provide the necessary technical quality for educational or artistic use.



- (d) **Field recordings done by researchers:** Many of the recordings, including those made by prominent figures such as J. H. Nketia, displayed technical shortcomings such as imbalanced sound and inadequate visual perspectives. These flaws hinder the suitability of these recordings for educational or artistic purposes as a result, albeit their cultural significance and relevance.

The analysis of these recordings was conducted by evaluating key technical aspects such as signal-to-noise ratio, stereo perspectives, frequency response, microphone usage, and camera works. These factors were then compared to the higher-quality recordings, such as those found in the Smithsonian Folkways collection, known for their superior technical execution and adherence to ethnomusicological and recording standards. By identifying discrepancies in technical quality and examining the broader methodological context, this study assessed the challenges and opportunities presented by these recordings for preserving and presenting Ghanaian traditional music in the digital era. Through this methodology, the study provided a comprehensive examination of the current state of digitised Ghanaian traditional music, providing insights into how future efforts could improve the technical and methodological quality of these recordings, and as a result, enhance their educational and artistic potential on digital platforms such as websites and online applications.

RESULTS OF DISCOGRAPHIC ANALYSIS

The results from the analysis are presented in this section of the study. Digital audios, videos and of Ghanaian traditional musical elements on digital platforms were analysed for the purpose of the study. The analysis was focused on facilities, equipment and techniques which were adopted to record, digitise and host on digital platforms.

Analysis of Audios and Visuals on the Digital Platforms

Listening and watching the sounds and visuals as well as analysing a few descriptions on them from technical perspectives revealed methodological and practical facts that resulted in the nature of sounds and visuals digitised. Watching and listening to the selected digital platforms, sounds and visuals revealed four circumstances for audio and visual recording and digitisation. The audio and visual recording and digitisation of Ghanaian traditional musical elements occurred under these four circumstances;

- (a) Recordings during occasions such as festivals and funerals
- (b) Recordings during concerts or recreational activities
- (c) Recordings during programmes where Ghanaian traditional musical types serve as interludes
- (d) Recordings done by a researcher on the field

All these circumstances create an opportunity for the sounds and visuals of Ghanaian traditional musical elements to be recorded and digitised. The analysis zoomed in on the method and techniques employed and how the media files were organised for use on digital platforms.



(a) *Recordings during occasions such as festivals and funerals*

It is worth noting that audio and visual records taken during occasions such as festivals and funerals were discovered and analysed. These kinds of audio and visual records were taken as the occasion unfolded with a series of events. Researchers have employed mobile devices to record commemorative events, enabling multilevelled analysis of visual, textual, and aural data (Birdsall & Drozdowski, 2017). Although Ghanaian traditional music plays a dominant role in such occasions, it was recognised that not all the events unfolding had musical significance. The recordings captured sequences of events, without special concentration on musical events. The recordings aimed at a holistic recording of the events during the occasion. Therefore, musical events became part of the storyboard but not as the main subject to cover. Some of these audio and visual records of Ghanaian traditional musical elements are found on the digital platform created at the Gramophone Library and the J. H. Nketia Archive. These audio and visual records did not concentrate on capturing the musical events for music education and artistic purposes on digital platforms. However, stakeholders freely recommend such records for activities in music education, production, performance and composition on digital platforms.

(b) *Recordings during concerts or recreational activities*

Also, audio and visual records captured during concerts or recreational activities on various digital platforms were discovered and analysed. The analysis brought to bear that Ghanaian traditional musical types performed at concerts and during recreational activities were instituted to serve the audience who participated in or witnessed the performance. For that matter audio and visual recordings of such activities on the digital platforms concentrated on both the performance and audience actions. It was clear that the authors of such recordings did not consider these audio and visuals to be used for music education, production, performance and composition on digital platforms. Although these recordings are preserved for posterity, the audio and visual recording method was not methodologically and technically structured to be adopted for musical activities on digital platforms such as music education, composition, production and performance. Some of these audios and visuals are characterised by constant switches between performers and audience, holistic capturing of performers and frequent interjections from programme directors. These attributes make it impossible for a drum instructor to use such visuals on digital platforms for drumming lessons. A music producer cannot also rip sections of the audio for music production purposes because they are mostly a sonic composite of the entire performance with background noise. The analysis recognised that the Gramophone Library, J. H. Nketia Archive and U. E. W. The Music Department had audios and visuals with these attributes.

(c) *Recordings during programmes where Ghanaian traditional musical types serve as interludes*

Again, audio and visual records taken during programmes where Ghanaian traditional musical types served as interludes were discovered and analysed. The analysis revealed that records of Ghanaian traditional musical types performed at programmes such as university congregations, conferences, workshops and state programmes as interludes were not recorded by people who perceive the educational and artistic significance of these performances on digital platforms. It was clear that since the traditional performances were not the focus of such programmes, they were treated as subordinate objects of importance in terms of audio and visual recordings. The



directors of these audio and visual records had no consideration for educational and artistic purposes on digital platforms. Therefore the method, techniques and recording structure annulled the significance of the recordings on the traditional performances for music education and artistic purposes. Such records were characterised by consistent switching of the camera between performances and special guests' reactions to the performance. Performances that had dancers separated from the drummers and singers were severe, as a single camera was mostly used to capture these positions in irregular sequence or to capture the entire performance by using abnormal zooming out which makes sonic and visual subjects far and minor. These performance instances also did not use dedicated microphones with accurate frequency response but rather depended on the camera's microphone for the audio recordings. Using such audio and visual records on digital platforms for drum lessons, music production, performance and composition would not amount to the desired results. The audio and visual analysis revealed that the Gramophone Library, J. H. Nketia Archive and the Music Department had such audio and visual content on digital platforms.

(d) *Recordings staged by a researcher on the field*

Finally, audio and visual records staged by a researcher on the field were discovered and analysed. These audio and visual records were taken mostly by researchers. The recordings by J. H. Nketia was done with two-track analogue tape recorders as part of his fieldwork to keep track of Ghanaian traditional musical activities (Opoku-Boateng et al., 2020). Although J. H. Nketia's audio and visual recordings are yearned to be used on digital platforms for music education and artistic purposes, analysis of these recordings revealed that they cannot be used to teach how to perform these traditional musical arts. Similarly, listening to the audios on digital platforms, although digitised, cannot be ripped into digital audio workstation's edit windows which require sounds recorded with precision and void of noise. J. H. Nketia was an ethnomusicologist who learned how to operate a two-track tape recorder and the analogue video camera for field recordings.

As an ethnomusicologist, it was obvious that he lacked professional expertise in videography, photography and sound engineering. Listening and watching the audio and videos from this platform revealed technical flaws in sonic and visual perspectives, frequency spectrum, recording facility, tools, equipment employed and techniques employed during the recording. Although the recordings were staged, the noise as well as the sonic and visual imbalance portrayed the lack of technical expertise during the recordings. For instance, the sound of the fontomfrom drum which has its natural frequency residing within the lower register of frequencies sounded in the mid and high frequencies, devoid of actual low frequencies. The visuals reviewed mostly lacked natural visual perspectives. Camera positions and angles made smaller musical instruments appear relatively bigger and the orientations were, at times, displaced. Some videos did not even have sound components.

Also, the Department of Music Education had records that have been staged and digitised on CDs. Some of these records are just like the sounds and visuals found at J. H. Nketia's digital platforms, which were staged by researchers with little expertise in multimedia and internet technologies. Audio and visual noise that obstruct the clear sounds and visuals of Ghanaian traditional musical elements were not controlled. Besides, it was revealed that the sounds mostly lacked adequate stereo perspectives. The sounds reviewed from these staged recordings on CDs and hosting centres such as J. H. Nketia's digital platform, Gramophone Library digital platform and the Music Department's CDs mostly had misrepresented stereo images.



Smithsonian Folkways Recordings, *Rhythms of Life, Songs of Wisdom: Akan Music from Ghana*, recorded by Roger R. Vetter, is made up of Ghanaian traditional music such as *adzewa*⁵, *apatampa*⁶, *fontomfrom*⁷. The audios found on the digital platform mounted by the Smithsonian Folkways Recordings were made up of sounds of Ghanaian traditional musical instruments such as *Adawur*⁸ *ntaa*⁹ and *Afirikiyiwa*.¹⁰ The recordings on the Smithsonian Folkways digital platform were created by technical experts such as Ghanaian cultural experts at the Central Region Office of the Ghanaian Centre for National Culture, Valerie Mau Vetter (Photographer), Roger Vetter (Photographer), Compiler, Liner Notes Editor (Recorder), Mastering Engineer (Visual Dialogue Designer, Recording Engineer and Field Worker). These recordings had clear and balanced audio and visual viewpoints, unlike what was found on the other discographic documents selected for this study. Our analysis indicated that the signal-to-noise ratio for the audio and visual was incredible. Meanwhile, all the technical aspects of the project were handled by Valerie Mau Vetter and Roger Vetter. Roger Vetter was an ethnomusicologist and with his expertise in multiple fields in multimedia, he was able to create these recordings from both ethnomusicological and technical perspectives. Also, listening to the audio, it was realised that the recordings were taken at an acoustically isolated place with professional equipment. The absolute eradication of noise and the balance between the musical instruments and the voices depicted that the recordings were taken in a studio facility by a mixing and mastering engineer who used the appropriate techniques to record and manipulate the sounds. Ultimately, the Smithsonian Folkways digital platform is hosted as a website for the global world to listen to and also adopt the digital sounds of Ghanaian traditional musical elements for musical activities on digital platforms.

CONCLUSIONS

The analysis of Ghanaian traditional musical elements, including audios and visuals, from various digital platforms, videos, and CDs, provided valuable insights for conceptualising the creation of audios and visuals on a digital platform for preservation and utilisation in music education, production, performance and composition. The data point out different recording conditions, technical challenges, and potential areas for improvement. These findings also would inform the development of a methodological, technical, and practical framework for establishing a robust digital platform. Also, existing digital archives lack a well-organised, interactive platform that facilitates global access and supports educational use, while many of the recordings mostly lack a clear focus on music education and artistic purposes, since they tend to emphasise the event under which they were recorded rather than the music itself.

⁵ Adzewa is an occasional music and dance of the Fanti-Akan and Guan people of the Central Region of Ghana (Ampomah 2014).

⁶ Apatampa music associated with the Fante people of Ghana (Dawson 2023).

⁷ Fontomfrom is a traditional Akan drum ensemble music, performed mainly at royal events to communicate messages, praise chiefs, and recount historical narratives (Nketia 1999).

⁸ Adawur is a traditional Akan percussion instrument, similar to a bell, used to keep time and mark rhythms in ceremonies and dances.

⁹ Ntaa is a hand-held wooden percussion instrument used in the Akan culture, producing rhythmic sounds during rituals and dances.

¹⁰ Afirikiyiwa is a type of wooden percussion instrument, typically used in Akan music that provides a sharp, distinct rhythm during performances.



Besides, issues such as unstable focus, inconsistent camera angles, and poor stereo imaging in some of the recordings.

Finally, many of the recordings which were analysed in this study suffer from poor sound and visual quality, often due to the use of inadequate equipment and substandard techniques, such as relying on camera microphones rather than professional-grade microphones. This then highlights the need for better equipment and acoustically controlled environments so as to produce recordings of higher technical quality. The success of projects such as the Smithsonian Folkways recordings demonstrates the importance of integrating expertise from various fields, including ethnomusicology, sound engineering, and videography. It was evident in the study that stable focus, proper zooming, and precise audio engineering in recordings help to ensure a high-quality, immersive viewing and a more appreciable listening experience.

RECOMMENDATIONS

Creating a user-friendly website, with well-structured, high-quality content by website designers, would most greatly enhance the accessibility and usability of Ghanaian traditional musical elements for education, composition, performance, and production purposes. Additionally, a collaborative approach is recommended to promote high-quality recordings that are both culturally authentic and technically sound.

The challenges and opportunities identified in this study indeed highlight the need for a standardised approach; one that incorporates objective methodologies, multi-scene perspectives, stable focus, proper zooming, the integration of expert knowledge, advanced facilities, and appropriate equipment. Once paired with the development of a comprehensive digital platform, these improvements will ensure the sustainable preservation and effective educational and artistic use of Ghanaian traditional musical elements.

A more focused and intentional approach, in future research, is essential in order to bridge this gap and subsequently ensure that the musical elements are captured with clarity and purpose.

REFERENCES

- Acquah, K. (2022). Discographic analysis in music research: Evaluating sound collections for traditional music preservation. *Journal of Ethnomusicology*, 36(2), pp. 123-145.
- Adjei, A. (2015). *Traditional Music and Cultural Identity in Ghana: A Study of the Role of Music in Social Cohesion*. University of Ghana Press.
- Agordoh, A. A. (2005). *African music: Traditional and contemporary*. Accra: New Age Publications.
- Ampomah, G. (2014). *Adzewa: An Occasional Music and Dance of the Fanti-Akan and Guan People of the Central Region of Ghana*. University of Ghana Press.
- Barz, G. & Cooley, T. J. (2008). *Shadows in the field: New perspectives for fieldwork in ethnomusicology*. 2nd ed. Oxford: Oxford University Press.
- Bohlman, P. V. (1999). Ethnomusicology and the historical imagination. *Ethnomusicology*, 43(3), pp. 469-488.



- Bressan, F. & Canazza, S. (2011). A system for the automated quality control of audio digitization. *Journal of the Audio Engineering Society*, 59(12), pp. 972-989.
- Cameron, F., & Kenderdine, S. (2007). Theorizing Digital Cultural Heritage: A Critical Discourse (Media in Transition). In The MIT Press eBooks. <https://dl.acm.org/citation.cfm?id=1212634>
- Collins, J. (2019). *Highlife time 3: The story of Ghanaian highlife music*. Accra: Anansesem Publications.
- Colter, H., & Opoku-Boateng, J. (2019). *Music, Technology, and Preservation in Modern Ghana: The Intersection of Tradition and Innovation*. Cambridge University Press.
- Darkwa, A. (1974). The New Musical Traditions in Ghana. <http://erepository.uonbi.ac.ke/handle/11295/87243>
- Dawson, K. (2023). *Apatampa Music and Its Significance Among the Fante People of Ghana*. Cambridge University Press.
- Gamelan Melayu, A., & Munusamy, S. (2021). *The Role of Modern Sound Engineers in Recording, Reproducing, and Preserving Audio Data for Future Generations*. *International Journal of Sound Engineering*, 8(3), 112-126.
- Harker, D. (2003). *Class act: The cultural and political life of Ewan MacColl*. London: Pluto Press.
- Harper, D. & Opoku-Boateng, A. (2019). Building sustainable audio-visual archives: Case studies from Ghana. *Archivaria*, 88, pp. 75-102.
- Moore, R. (2008). Towards a theory of digital preservation. *International Journal of Digital Curation*, 3(1), 63–75. <https://doi.org/10.2218/ijdc.v3i1.42>
- Nettl, B. (2005). *The study of ethnomusicology: Thirty-one issues and concepts*. 2nd ed. Champaign: University of Illinois Press.
- Newman, M. L. & Schwarz, K. (2018). The impact of audio quality on the perception of research credibility. *Communication Research Reports*, 35(2), pp. 98-108.
- Nketia, J. H. K. (1995). *The Music of the Akan People*. Oxford University Press.
- Nketia, J. H. K. (1975). *The music of Africa*. New York: Norton.
- Nketia, J. H. K. (1995). *Ethnomusicology and African music: Collected papers*, Vol. 1. Accra: Afram Publications.
- Opoku-Boateng, K., Adu-Gyamfi, P., & Osei, R. (2020). Digitization of Traditional Music in Ghana: Equipment and Techniques. *Ghana Music Journal*, 12(1), 45-60.
- Owens, T. (2018). The Theory and craft of digital Preservation. In Johns Hopkins University Press eBooks. <https://doi.org/10.1353/book.62324>
- Owusu-Poku, E. (2021). Ghanaian highlife sound recordings of the 1970s: The legacy of Francis Kwakye and the Ghana Film Studio. *Popular Music*, 40(2), 245–267.
- Sarpong, A. (2004). The role of traditional music in Ghanaian education. *African Musicology*, 12(1), 45–62.
- Turino, T. (2008). *Music as social life: The politics of participation*. Chicago: University of Chicago Press.
- Watry, P. (2008). Digital Preservation Theory and Application: Transcontinental Persistent Archives Testbed activity. *International Journal of Digital Curation*, 2(2), 41–68. <https://doi.org/10.2218/ijdc.v2i2.28>