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Internationale Vereinigung der
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IASA JOURNAL EDITORIAL BOARD

In order to ensure diverse and clearly-articulated viewpoints in each issue of the journal, the IASA Journal solicits input and guidance from an Editorial Board consisting of the current IASA Editor and President as well as an invited group of IASA member representatives from each continental region throughout the world.

The IASA Journal Editorial Board provides general review and guidance on direction of the IASA Journal, meets once yearly during the IASA annual conference, assesses previous year's journal issues and makes general suggestions for future activities.

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In the years leading up to my first term as Editor, many significant changes were put in place for the IASA Journal: the move to a fully online, Open Access publication, introduction of peer review, and the formation of an Editorial Board to provide oversight and guidance. These changes are integral to increasing the profile, readership, and professionalization of the journal, and they need to be accompanied by increased resources or support for the editor.

For the past three years, I have focused largely on improving the IASAJ's adherence to scholarly publishing standards and the quality of writing in individual articles. It's been difficult for me to not have time to embark on several projects I view as vital to producing a high-quality journal: creation of a style guide, recruiting a larger pool of peer reviewers, ensuring consistent standards of review, applying for membership in the Directory of Open Access Journals, and close work with our Editorial Board. Serving as Programme Chair for the annual conference has also taken up an enormous amount of my time, as the role took on greater responsibilities as IASA shifted to hosting online and hybrid conferences.

In an effort to enact positive changes that will improve the quality of IASA's publications and give greater support for future editors, I've decided to serve a second term as IASA Editor on the basis of a series of proposed changes to the position that were presented to the Executive Board at our spring meeting in Frankfurt. Based on an analysis of similar journals in the archives field, the Board supported my recommendation to create a new Managing Editor role that, for the time being, will be co-opted by the board; and also to increase the size and scope of the Editorial Board. The Editor will overlap with the Managing Editor for three years, then the Managing Editor will become the "Chief" Editor, and work with a new partner. This will improve continuity, create a more supportive environment, and also will allow us to achieve greater output and take on some of the projects mentioned above that will benefit IASA and the quality of its publications.

I am extremely pleased to report that Marija Dumnić Vilotijević, Research Associate at the Institute of Musicology of the Serbian Academy of Sciences and Arts, has agreed to serve as Managing Editor beginning in September 2023. She works as an ethnomusicologist and sound archivist, and has extensive experience editing peer-reviewed journals and books. Marija has been a committed member of IASA for several years, serving most recently as chair of the Research Archives Section, IASA Ambassador to Serbia, and on the Planning and Programme Committees for the 2023 IASA-ICTM Conference and Forum.. I am grateful that Marija is willing to lend her time and expertise to the IASA Journal, and I look forward to working with her on instituting positive changes to the editorial structure of the journal.

The IASAJ Editorial Board will meet in Istanbul this September, where we will consider additional changes to that body as part of the effort to build support. I would like to welcome Maxim Nasra, Head of Preservation and Conservation at the Qatar National Library to the editorial team as our new Asia Representative. Mr. Nasra has been a thoughtful and dedicated member of IASA, and this past year has been leading a project to translate IASA-TC 03, 04, 05, and 06 into Arabic. These translations are nearing completion and will soon be available on the IASA website.

And with that update on editorial operations, I am excited to introduce this 53rd issue of the IASA Journal, featuring articles from authors based in India, the Czech Republic, Canada, Malaysia, Sri Lanka, and China. While this issue's articles cover a diverse range of topics, all point to the limits of pure technological solutions and the necessity of thoughtful and human-centered approaches to archives work.

The issue's first article is written by Christian Poske of the Highlands Institute, who received an IASA Research Grant in 2022. His research focuses on early 20th century cylinder recordings made by anthropologist John Henry Hutton in India, and the efforts taken to reconnect the recordings to their place of origin in Nagaland. He points out that simply putting audio collections online is not enough, that accessibility also needs "to be supported by actions on the ground in countries of origin... to facilitate community engagement."

Next, Bohuš Zízkal discusses approaches taken by the Czech National Film Archive (NFA) to inform updates to its internal systems for content management and cataloging. Going beyond gathering user requirements, the NFA used a systematic and interdisciplinary methodology based on Practice theory and Interaction design to more clearly understand its internal processes, particularly those concerning appraisal-related decisions. Their analysis revealed sophisticated and nuanced applications of appraisal by staff members, identified areas for improved process tracking, and also uncovered silos of relevant provisional documentation that could be integrated into NFA systems.

Through a case study approach grounded in cultural history and media studies, Canadian scholar Emily Collins examines digital projects utilizing sound archives that employ "ethical and empowering methodologies that support community involvement and a vigorous remediation between sound and visuality." The projects' creative use of digital tools and collaborative methods can provide deeper historical, social and political context that go far beyond mere presentation of audio documents.

And in our final article, frequent group contributors to the IASA Journal, Ahmad Faudzi Musib, Chinthaka Prageeth Meddegoda, Gisa Jähnichen, and Xiao Mei delve into different aspects of the radical disruptions to teaching and learning caused by the Covid pandemic. They reflect on the personal, artistic, and experiential effects of the rapid online shift on education; and share teaching and learning strategies they employed.

I look forward to hearing your thoughts on this issue, and on the future path of the IASA Journal. We are always in need of more support from peer reviewers and editorial board members—feel free to contact me at editor@iasa-web.org if you are interested in serving in either capacity. And as always, I strongly encourage all members of the IASA community and in particular authors of papers at our upcoming IASA Conference and ICTM Forum to submit their work for consideration to the journal at <http://journal.iasa-web.org/pubs>.

With best regards,
Jennifer Vaughn
IASA Editor

A LETTER FROM IASA'S PRESIDENT

Tre Berney, Cornell University Library, USA

Welcome to the 53rd IASA Journal. Despite being more globally connected than ever, there are serious challenges facing cultural heritage institutions in these tumultuous times. Resource scarcity and precarious employment affect far too many workers, and cost of living and inflation crises around the world have increased financial vulnerability. Climate change is affecting growing geographic regions, and with it comes new fears about the environmental impact of networked storage and new threats to cultural heritage sites. International conflicts, civil wars, ethnic violence, and insurgencies across the globe threaten cultural, scientific, educational and religious institutions and sites. The IASA community persists in its work, furthering its mission and recognizes that we must face these challenges as a community through collective action. Common practice in archives is borne by communities with shared needs, goals, challenges, and responsibilities. This is true for IASA as well as other sibling organizations in the Coordinating Council of Audiovisual Archives Associations.

As the Covid pandemic has subsided, in-person conferences have recommenced. Our 2022 IASA Annual Conference was held at the remarkable Fonoteca Nacional in Mexico City, with partners Fonoteca, IIBI UNAM, Memórica, and Ibermemoria. Our first in-person event since 2019 provided our community with the chance to both reconnect and to build partnerships in Latin America. Many IASA members were also present at a spate of recent events, including the Radio Preservation Task Force Conference in Washington, D.C. in April; the ARSC Conference in May in Pittsburgh, Pennsylvania; the AES 2023 International Conference on Audio Archiving & Preservation in Culpepper, Virginia in June; and Broadcast Media Africa's International Conference on Audio-Visual Archiving and Preservation in Johannesburg, South Africa in June. While it's great to meet colleagues in person, IASA recognizes the importance of hosting hybrid events, which provide a vital link for community members unable to travel for conferences.

IASA's Training and Education Committee will hold its Training Programme 21-31 August 2023 in partnership with the Shanghai Conservatory of Music in Shanghai, China. This is IASA's second training programme event and the curriculum offers hands-on training to participants by world-class trainers:

- Nadja Wallaszkovits (Staatliche Akademie der Bildenden Künste)
- Enric Giné (Escola Superior de Música de Catalunya)
- Adam Tovell (British Library)

Our next conference will be held 11-15 September in Istanbul, Türkiye in partnership with the International Council for Traditional Music (ICTM). For the first time, ICTM and IASA join forces in a shared scholarly setting. It promises to be a wonderful opportunity for collaboration between the organizations and their many shared interests. The event will be hybrid, combining in-person and online components. Istanbul University will be the venue and we will also offer online access to significant portions of the event for those who are not able to attend in person. The IASA Conference will take place during the first four days. The ICTM Forum will be featured on the fifth day of the event, with the aim of bringing together both IASA and ICTM members/representatives. I am also delighted to report that renowned anthropologist, ethnomusicologist, archivist and record producer Anthony Seeger will deliver the keynote address on 11 September.

Continuing with the thread of collective effort, I encourage all IASA community members to take advantage of the many avenues to support our ongoing work. Along with the IASA Research Grant award and the Dietrich Schuller Award for Audiovisual Training, there are two new awards that have been generously supported by IASA Technical Committee Chair George Blood:

- The Lars Gaustad Award is given in recognition of his 22 years as chair of the IASA Technical Committee (TC), during which time many of IASA's most influential documents were crafted, significantly shaping the practice of audiovisual preservation worldwide.
- The Carl Fleischhauer Award was created in recognition of Carl Fleischhauer's legacy of patience, persistence, and commitment to guiding the development and deployment of IASA preservation standards and best practices. The Award is given to individuals who embody the qualities of Fleischhauer's legacy by demonstrating a thoughtful and intentional commitment to advancing the dialogue of audio-visual preservation.

Please consider nominating yourself or someone you wish for either of these awards at <https://iasa-web.org/awards>.

Finally, this is the last letter I will write as President for the IASA Journal. At the General Assembly for this year's conference, I will become Past President and will remain on the IASA Executive Board until 2026. It has been an honor and a privilege to serve the IASA community and to be able to work with the Executive Board. The 2020-2023 Board began serving during a global pandemic; an era marked by a pivot to virtual conferences and activities. There was a tremendous amount of work that went into the virtual conferences in 2020, a joint conference with FIAT/IFTA, and 2021, a global conference held in 4 major time zones. This Board had not met in person until the 2022 Annual Conference in Mexico City. Despite only connecting and working together virtually, we were able to accomplish normal activities, business and otherwise. I am grateful for all of them - Secretary-General Elisabeth Steinhäuser, Treasurer Yuri Shimoda, Editor Jennifer Vaughn, Web Manager Richard Ranft, Past President Toby Seay; and Vice-presidents Margarida Ullate i Estanyol, Perla Olivia Rodríguez Reséndiz, and Judith Opoku-Boateng. All of them were invaluable to me in my role and I now count them as friends as well as colleagues. I look forward to continuing on the Executive Board as Past President and working with the incoming 2023-2026 Board members.

Tre Berney
IASA President
August 2023

INDIGENOUS VOICES AND THE ARCHIVE: RECIRCULATING J. H. HUTTON'S CYLINDER RECORDINGS IN NAGALAND

Christian Poske, Research Fellow, The Highland Institute, Kohima

Abstract

Between 1914 and 1919, the British administrator and anthropologist John Henry Hutton (1885-1968) made fourteen cylinder recordings documenting the songs of Naga communities in the Naga Hills District, today part of the state of Nagaland in India. Little is known about the recording circumstances, as the documentation is limited to brief recording notes he sent with the cylinders to the Pitt Rivers Museum in Oxford, which holds the collection. Hutton's publications, on the other hand, include transcriptions and translations of some of the recorded songs, but the poor sound quality makes it difficult to assign these to the published songs with certainty. This paper summarises the outcomes of a research project funded by the International Association of Sound and Audiovisual Archives between January and March 2022, which aimed to reconnect Naga communities with Hutton's recordings to elucidate the content and performance context of the recordings, and to provide digital copies of the collection with enhanced documentation to the Archives and Research Center for Ethnomusicology (Gurgaon) and the Highland Institute (Kohima). Fieldwork participants appreciated the opportunity to hear Hutton's recordings, which they considered important historical documentation of Naga traditional music. Yet, most listeners struggled to identify the recorded songs, although a few were able to name and even perform some of them. The project concluded with an exhibition at the Highland Institute that featured Hutton's recordings and more recent examples of Naga traditional music. Overall, few listeners were aware of the existence of Hutton's recordings when we conducted our fieldwork in February 2022, although the recordings have been available online on the website of the Pitt Rivers Museum since 2013. Thus, I argue that initiatives of making historical sound recordings accessible online need to be supported by actions on the ground in countries of origin, to facilitate community engagement with audio collections uploaded to the web.

KEYWORDS: Naga performing arts, historical sound recordings, online accessibility, community engagement

Introduction

Northeast India is a region of immense ethnic, cultural, and linguistic diversity (Baruah, 2007, pp. 21 ff.). In Nagaland, one of the eight states of the region, the state government currently recognises seventeen major ethnic communities: the Angami, Ao, Chakhesang, Chang, Dimasa Kachari, Khamniungan, Konyak, Kuki, Lotha, Phom, Pochury, Rengma, Sangtam, Sumi, Tikhir, Yimkiung, and Zeliang.¹ There are further Naga communities in the Indian states of Manipur, Assam, Arunachal Pradesh, and in neighbouring Myanmar. Each Naga community speaks its own language, with different regional dialects that can vary considerably even between neighbouring villages. Moreover, there are many subcommunities, some of which have successfully claimed the status of being separate communities.² Culturally distinct from the peoples inhabiting the plains of India and Myanmar, the Nagas lived for centuries unaffected by external political interventions in the hills of northeastern South Asia, maintaining trade relations with the Ahom kingdom

1 All of these are Naga communities, except Dimasa Kachari and Kuki (<https://nagaland.gov.in/pages/nagaland-profile>, accessed 9 May 2022).

2 An example is the recent recognition of the Tikhir as a major "tribe", which went along with the creation of the district Shamator in January 2022, resulting in greater political influence for the community (<https://morungexpress.com/nagaland-cabinet-approves-creation-of-shamator-district-1>, accessed 9 May 2022).

in Assam and possibly beyond (Kanungo, 2002). Like the nomenclatures given to many other South Asian minorities, the term “Naga” is an exonym whose origin is unclear. Possibly derived from the Sanskrit terms *nagna* (“naked”) or *nāga* (“cobra”) (cf. Dalton, 1872, p. 42; Fürer–Haimendorf, 1939, p. 2), others argue that it may stem from the word “nagā”, used in the Ahom and Assamese languages for the Nagas (Peal, 1889, p. 91), or from the Burmese word “na–ka”, meaning people “with pierced ear–lobes” (Sema, 1986, p. 3) or with “pierced noses” (Shikhu, 2007, p. 4).

The British entered western Nagaland in the 1830s, trying to establish a route of communication between colonised Manipur and Assam, which failed due to Naga hostilities (Ketholesie, 2015, p. 55). To protect their economic interests against Naga raids on valley tea estates under British control, they conducted ten punitive expeditions between 1835 and 1851, which, however, did not have the desired effect of deterring Naga raiding. Subsequently, the British tried to control the Nagas by restricting their access to Assamese markets, which turned out to be similarly unsuccessful. Consequently, the British created the Naga Hills District as part of the Assam Province in 1866, thereby bringing under control the Angami territory of western Nagaland (Gait, 1926, p. 315). The British gradually expanded the district eastwards in the following decades and secured control over the whole territory of present-day Nagaland by the 1940s. To establish and maintain control in the administered areas, they imposed taxes and appointed village chiefs, elders, and other high-ranking individuals as *dobashis* (interpreters) who acted as middlemen between the administration and the population.³

From the 1870s onwards, British soldiers like John Butler (d. 1876) and Robert Gosset Woodthorpe (1844–1898) wrote ethnographic accounts of the Nagas (Butler, 1875; Woodthorpe, 1882a; 1882b). Later administrators such as John Henry Hutton (1885–1968) and John Philip Mills (1890–1960) refined ethnographical research of Naga communities and systematically collected items of Naga material culture, which provided “a basis of knowledge through which indirect rule could be implemented” (Jacobs et al., 2012, p. 24). The conclusions the British drew about the Nagas made them stand as elucidators of Naga culture in the eyes of the population, which reinforced the role of the British as rulers (ibid., p. 25). Naga researchers have challenged this output of British colonial anthropology in recent years, pointing out inaccuracies and misrepresentations (Wouters and Heneise, 2017, p. 4).

Invited by the colonial administration, American Baptist missionaries began to convert Ao Nagas in the early 1870s (Thong, 2012, p. 896). In the following years, Baptists established missions among other Naga communities, which set in motion the Christianisation of Nagaland. Today, nearly 88 percent of the population of Nagaland follows the Christian religion,⁴ with Baptism being the predominant denomination. The first decades after Indian independence were marked by the political and military struggle of the Nagaland National Council (NNC) and successor organisations for Naga independence, efforts that were quelled by the Indian government. To appease Naga nationalist demands for greater political autonomy, Nagaland was carved out of Assam in 1962 and became a separate state of India in 1963. The influence of Western culture and Christian

3 Charles Ridley Pawsey (1894–1972), District Commissioner of the Naga Hills District in the 1940s, called *dobashis* “the backbone of the administration” (Pawsey, obituary for Hutton, n.d., Hutton Collection, Pitt Rivers Museum).

4 Census of India 2011 (<https://censusindia.gov.in/censuswebsite/data/census-tables>, accessed 15 June 2022).

religion caused rapid socio-cultural change in Nagaland in the 20th century (Wouters, 2018, p. 3). A significant aspect of this development has been the replacement of traditional epistemologies with Western knowledge systems that are imparted to communities through school and academic education.

In Naga societies, songs have long served as a means of transmitting folk tales and accounts of life stories and historical events (Hutton, 1914, p. 478; 1921a, p. 369; 1921b, pp. 363–4), to bestow honour or express affection (Hutton, 1921a, p. 163; Mongro, 1999, p. 111), and as an accompaniment to agricultural labour, physical work, and festive dances (Hutton, 1921a, pp. 205–8; Meguo–o, 2002). Songs are often composed in archaic dialects that differ considerably from modern Naga vernaculars and are hence difficult to understand (Hutton, 1914, p. 478; 1921a, p. 195). Today, rural communities continue to perform traditional songs during their daily lives,⁵ and urban cultural associations support traditional performing arts, too. The state government, on the other hand, organises the annual Hornbill festival that takes place near the capital Kohima, featuring traditional music and dance groups from all over Nagaland. The event attracts not only Indian and foreign tourists, but also provides a space of meeting and belonging for Naga communities (Wettstein and Stockhausen, 2012, p. xiv). Yet the knowledge of traditional Naga songs is declining among the urban population, whose listening preferences tend to be oriented toward Western-imported music styles today. This is especially the case in the two largest cities, Dimapur and Kohima, which offer a lively music scene with bands performing gospel, country and western, pop, rock, heavy metal, rap, jazz, and fusion music. Many of these bands promote themselves through CD sales and online music platforms such as YouTube.

The Nagaland recordings of John Henry Hutton

J. H. Hutton was born on 27 June 1885, in West Heslerton (East Yorkshire) as son of a Church of England clergyman. After attending school in Chigwell (Essex) from 1899 onwards and studying modern history at Worcester College Oxford from 1904 to 1907, he passed the Indian Civil Service examination in 1908 and travelled to Kolkata the following year. He joined the Eastern Bengal Volunteer Rifles in Dhaka in December 1909 and was subsequently stationed in Eastern Bengal for about three years. Around 1912 or '13, he was transferred to the Naga Hills District, where he was stationed as an Assistant Commissioner in Kohima until 1914. Subsequently, he served as Subdivisional Officer in Mokokchung between 1915 and 1917, before acting as Deputy Commissioner of the Naga Hills District from 1917 to 1929, his headquarters again in Kohima. The government also appointed him as Honorary Director of Ethnography for Assam in 1920. Towards the end of his career, he was stationed as Census Commissioner in Delhi from 1929 to 1933. He resigned from the Indian Civil Service in 1936 and died in New Radnor, Radnorshire, Wales on May 23, 1968.

During his administrative career, Hutton minutely studied the society and culture of Naga communities and published articles on the topic from 1914 onwards (e.g., Hutton, 1914; 1915; 1920). His first two monographs, *The Angami Nagas, With Some Notes on Neighbouring Tribes* (Hutton, 1921a) and *The Sema⁶ Nagas* (Hutton, 1921b), received critical acclaim in England, as they were regarded as setting a high standard in the

5 See, for example, the documentary “Kho ki pa lü / Up, Down, and Sideways” (2017) about the songs of a community from the village Phek: <https://www.youtube.com/watch?v=zJsCbJfIcOY>, accessed 14 May 2022.

6 Nowadays, community members prefer to refer to themselves as “Sumi”.

anthropological study of the Nagas (Hodson, 1922; Haddon, 1922). J. P. Mills became Deputy Commissioner of the Naga Hills District after Hutton and published monographs on Naga communities as well, *The Lhota⁷ Nagas* (Mills, 1922), *The Ao Nagas* (Mills, 1926), and *The Rengma Nagas* (Mills, 1937), the former two with contributions by Hutton. After Hutton's return to England in 1936, he joined Cambridge University as Lecturer in Social Anthropology and was elected William Wyse Professor of Social Anthropology in 1937, a post that he held until his retirement in 1950. In recognition of Hutton's contribution to ethnographic research on the Nagas, he received numerous awards, including the Rivers Memorial Medal and awards from the Royal Society of Arts, the Asiatic Society of Bengal, and the Anthropologische Gesellschaft of Vienna. In 1929, he was elected president of the Royal Anthropological Institute. In addition, he was awarded the Degree of D.Sc. at Oxford and was appointed to give the Frazer Lectures at that university in 1938.

Throughout his tenure in Nagaland, Hutton collected numerous items of Naga material culture and donated these to the Pitt Rivers Museum, where they were catalogued. He also sent a large number of field photographs from Nagaland, but not all are dated. The website of the Pitt Rivers Museum lists 3,148 objects and 2,624 photographs contributed by Hutton, the majority pertaining to Naga culture, which are searchable in an online database.⁸ The Museum of Archaeology and Anthropology Cambridge also holds a smaller collection of items and photographs of Naga culture contributed by Hutton, which are also searchable online.⁹

During his tenure in the Naga Hills District, Hutton made fourteen cylinder recordings, documenting the songs of five Naga communities (Chang, Sangtam, Sumi, Angami, and Lotha). As Hutton documented the recording date of only one cylinder (no. 5, dated 12 July 1916), information on the approximate recording date of the other cylinders must be inferred from the internal records of the Pitt Rivers Museum that holds the collection. The Museum received the first two cylinders from Hutton in 1915, which were marked as damaged (nos. 1–2), and a further twelve cylinders arrived intact in 1919 (nos. 3–14).¹⁰ Thus, Hutton probably recorded the first two cylinders around 1914 or 1915 and the subsequent twelve between 1915 and 1919. This makes Hutton's recordings the oldest known sonic documentation of Naga performing arts.¹¹ The National Sound Archive (NSA) copied the twelve playable cylinder recordings to reel-to-reel tape in 1987 and its successor organisation, the British Library Sound Archive, transferred the contents of the reel-to-reel tape to CD in 2003.

The late 1980s saw the first initiative to compile the content of Western archival collections about the Nagas into a digital database and return it to Nagaland. To this end, the anthropologist Alan Macfarlane (b. 1941) directed the creation of the Naga videodisc, a multimedia resource comprising diary material, official records, digitised photographs, photographs of artefacts, and sound and film recordings from Nagaland from the colo-

7 This term is spelled “Lotha” nowadays.

8 <https://www.prm.ox.ac.uk/collections-online>, accessed 8 May 2022.

9 <https://collections.maa.cam.ac.uk>, accessed 8 May 2022.

10 *Edison-Bell Phonographic Recordings in the Pitt Rivers Museum Oxford: Wax Cylinders and Permanent Recordings made from them*, n.d., presumably compiled by Thomas Kenneth Penniman (1895-1977) between 1939-1963, Pitt Rivers Museum. Another cylinder (no. 14) was found in broken condition and was patched in 1987 (Pitt Rivers Museum, Hutton Collection, CD insert). When I visited the Museum in January 2022, I found that a fourth cylinder (no. 12) had broken in the meantime.

11 The German anthropologist Hans-Eberhard Kauffmann (1899-1986) made more than one hundred cylinder recordings of Naga, Kuki, and Meitei songs in Nagaland in 1936-1937 (Kauffmann and Schneider, 1960). The Berlin Phonogram Archive holds and currently digitises the collection.

nial period up to the 1980s (Turin and Macfarlane, 2008). The videodisc included three of Hutton's cylinder recordings. The project ran from 1985 to 1992 and concluded with the exhibition *The Nagas* (1990–1992) at the Museum of Archaeology and Anthropology in Cambridge. With the hope of making the videodisc available in cultural centres and museums of Nagaland, a player and the videodisc were given to the Chief Minister of Nagaland at the opening, but the initiative fizzled out without tangible results. Videodisc technology became obsolete, and the research team began to explore other avenues of returning the material. Sarah Harrison and Alan Macfarlane thus travelled to Nagaland in 2001, accompanied by a Naga friend, and left numerous CD copies of videodisc material in the state (ibid., p. 375). With the advent of the internet, the videodisc material was transformed into an online database in 2005, which has been accessed by Nagas in India and around the globe (ibid.).¹²

Seven years later, the *Reel to Real* project (2012–2013) made all of Hutton's cylinder recordings accessible online. As a collaboration between the Pitt Rivers Museum, the Oxford e-Research Centre, and the British Library, the project aimed to explore “the potential for making the [Pitt Rivers Museum's] sound recordings better understood and used within the Museum and beyond it, for the benefit both of general public and future researchers”.¹³ As a result of the project, many of the Museum's audio recordings were made accessible online.¹⁴ Furthermore, a webpage was built that explains the background of Hutton's research on Naga performing arts. The page features a playlist with eight of his recordings.¹⁵

The Research Project

Ethnomusicological research has shown that sound archives may remain unused by cultural heritage communities even if these are in close spatial proximity, as class divides can discourage access (Lobley, 2010, pp. 344–5). Therefore, much research on community engagement with archival sound recordings has focused on taking recordings out of archives and into communities to study their responses to the material (e.g., Toner, 2003; Lobley, 2010; Kahunde, 2012; Campbell, 2014; Poske, 2020). In times of increasing global internet connectivity, making recordings available online has become another way of promoting community engagement, as the internet seems to make recording collections accessible globally in a more equitable way. Yet, it often remains unclear to what extent online resources are discovered and utilised by the communities they are intended for. While poor internet connectivity remains an issue in remote regions, search engine algorithms based on the supposed relevance of webpages also play a role here. A Google search from India for the term “Naga folk music” thus lists the Wikipedia entry “Music of Nagaland” as the first result, followed by YouTube links to contemporary Naga traditional and fusion music, then Indian newspapers articles, academic papers, and other online resources on the topic—none of them mentioning historical sound recordings. Amending the search term to “old Naga folk music”, “historical Naga folk music”, “Naga traditional music”, or variants thereof leads to similar results. In contrast, a search using academic language (“historical sound recordings from Nagaland”) quickly leads

12 <https://www.lib.cam.ac.uk/nagas/coll/4/xintroduction/detail/all/index.html>, accessed 14 May 2022.

13 <http://web.prm.ox.ac.uk/reel2real/index.php/about.html>, accessed 8 July 2022.

14 <https://soundcloud.com/pittriversound-1>, accessed 8 July 2022.

15 <http://web.prm.ox.ac.uk/reel2real/index.php/collections-hutton.html>, accessed 16 May 2022. All twelve of Hutton's recordings are accessible at <https://soundcloud.com/tags/naga%20field%20recording/popular-tracks>, accessed 8 July 2022.

to Hutton's recordings.¹⁶ Issues like these demonstrate the difficulties of using the internet to make archival sound recordings accessible to non-academic audiences abroad.

I first thought of reconnecting Naga communities to Hutton's recordings in June 2018, when I visited the Pitt Rivers Museum together with two Indian colleagues from the Archives and Research Center for Ethnomusicology (ARCE). After completion of my PhD, I finally conducted the long-envisioned research project between January and March 2022. Funded by the International Association of Sound and Audiovisual Archives (IASA), it connected the Pitt Rivers Museum in Oxford, the ARCE, and the Highland Institute¹⁷ in Kohima as partner institutions. The central project aim was to reconnect community members, including descendants of Hutton's recording participants, with his recordings to evaluate their responses to the material. Using their input, we wanted to gather further information on the context and content of the recordings to enhance their documentation. Finally, digital copies and enhanced documentation would be transferred from the Pitt Rivers Museum to the ARCE and the Highland Institute to make the recordings permanently accessible to Indian and Naga communities and researchers.

The project had three phases. In the first phase (January 2022), I conducted my literature review and archival research at the Pitt Rivers Museum in Oxford, the Museum of Archaeology and Anthropology in Cambridge, and SOAS University of London in England. In the second phase (February 2022), I conducted fieldwork in Nagaland supported by staff of the Highland Institute, introducing Naga musicians, musicologists, students, and researchers to Hutton's recordings, documenting their reactions and responses on video. In the third phase (March 2022), I compiled the information gathered through archival research and fieldwork into a spreadsheet database that I shared with the three partner institutions. In addition, the ARCE and the Highland Institute received digital copies of the recordings. The project concluded with an exhibition at the Highland Institute (April–May 2022), which featured Hutton's recordings and more recent recordings of Naga traditional music, as well as contemporary visual art inspired by the changing soundscapes of Nagaland.

Phase 1: Literature review and archival research in England

I began the first project phase with a literature review of Hutton's publications, focusing on his monographs *The Angami Nagas, With Some Notes on Neighbouring Tribes* (Hutton, 1921a) and *The Sema Nagas* (Hutton, 1921b). While the brevity and positioning of the sections on Angami and Sumi songs in these works suggest that he regarded their performing arts as a rather insignificant part of his ethnographic fieldwork (1921a, pp. 282–7, 369; 1921b, pp. 362–70), it has to be taken into account that “the chapterisation and contents of these monographs were largely pre-set by the colonial government” (Wouters and Heneise, 2017, p. 4), who encouraged research on the ethnic minority communities of northeast India for an insightful and thereby efficient administration of the region. Thence, the structure of Hutton's Naga monographs should not be taken in consideration when trying to find an answer to the question of the extent of Hutton's research on Naga performing arts.

16 www.google.com, accessed 16 May 2022.

17 The Highland Institute is an independent research centre that engages critically with socio-political, cultural, historical, environmental, and developmental problems affecting communities in highland Asia (<https://highlandinstitute.org/about/>, accessed 21 June 2022).

A closer look at his monographs shows that he scrutinised Angami and Sumi songs and dances minutely and even attempted to derive conclusions about the mentalities of the two communities from the lyrics of their songs. For example, he closes the first part of his first monograph with a quote from a song about love and aging, to illustrate the supposedly melancholic disposition of the Angamis (1921a, pp. 39–40). Later, he quotes a song performed at the *thekrangi genna*¹⁸ to illustrate the “sentimental relations of the sexes” (ibid., pp. 173–4). In the same work, he describes festive singing and dancing in detail (pp. 205–8). The book also includes a brief discussion of different dance styles (p. 195) as well as four photographs of Angami dance groups (facing pp. 194, 196). *The Sema Nagas* (1921b) includes descriptions of communal singing and dancing (e.g., pp. 111–5, 215, 248), and two photographs of Sumi dance groups (facing p. 110). Furthermore, the song taxonomies of the two monographs indicate that Hutton must have spent considerable time studying the general characteristics of the songs of the two communities (1921a, pp. 282–3; 1921b, pp. 115–6). In some of his articles, Hutton also refers to Naga performing arts (e.g., Hutton, 1914, p. 478; 1922, pp. 67–8; 1965, pp. 27–8). Furthermore, there are many unpublished photographs of Naga musicians and dancers in the Hutton Collection of the Pitt Rivers Museum.¹⁹ Hutton also donated several Naga musical instruments to the Museum.²⁰ Overall, these facts indicate that Hutton had a considerable interest in Naga performing arts and spent a significant amount of time studying Naga songs and dances, arguably because he regarded these as an important aspect of Naga social and cultural life.

Hutton's research, like that of other administrator-anthropologists from his time, was influenced by the paradigms of evolutionary anthropology, which is reflected in the language that he uses to describe Naga societies and cultures. We find expressions that would be considered derogatory today, such as “primitive form of civilisation” (1921a, p. 37), “savage races” (ibid., p. 177), and similar terms. Unsurprisingly, his song notes also include colonial expressions and patronising statements:

The song was composed by the Lhota coolies who went as carriers on the Abor expedition that exacted punishment for [Noel Williamson's] death, and the first two stanzas run as follows, repetitions and meaningless sounds interpolated in singing being omitted[.] (Hutton, 1921a, p. 369)

Or:

A Sema song when well sung is far from unmusical, and though the melody has a monotonous effect and gives one the feeling of listening to half the verse of a song repeated and repeated without any proper finish to the tune, there is often something undoubtedly attractive and even haunting about the cadence. (Hutton, 1921b, p. 115)

18 The Angami term *genna* literally means “prohibited”. In the context of festivals, it refers to certain social restrictions that communities observe, e.g., not to work or not to receive visitors from other villages. The term is also used for the festivals themselves.

19 See, for example, Hutton's photos of an Angami man playing the monochord instrument *übo* (http://photographs.prm.ox.ac.uk/pages/1998_221_19_2.html), and of an Angami girl dressed for the *thekrangi genna* in Khonoma (http://photographs.prm.ox.ac.uk/pages/1998_221_26.html, both accessed 18 May 2022).

20 Amongst others, Hutton donated an Angami *übo*, a Chang *konkhin* (bamboo Jew's harp), and an Ao *tsangyu* (bamboo trumpet).

Hutton also refers to his cylinder recordings in his two Naga monographs. The first one includes the following footnote:

I am, unfortunately, no musician, and cannot give the notation of the singing, but one or two of the songs have been recorded on the phonograph and the records sent to the Pitt Rivers Museum at Oxford. These are poor illustrations of the real thing, as it has been possible only to get the effect of one or two voices on the instrument, whereas it is of the essence of most Angami singing that there should usually be a number of voices of differing qualities singing together. (Hutton, 1921a, p. 253)

This statement is significant in several ways. While Hutton acknowledges his own musical limitations, he points out that his cylinder recordings do not properly replicate the nuances of live performances (“the real thing”). In particular, he complains that his phonograph could not capture the consonance of voices with different timbres, which he considered a characteristic feature of Angami and Sumi singing (cf. 1921b, p. 114). Hutton’s complaints about the poor recording quality of his phonograph thus indicate that he regarded his recordings as inferior documentation of Naga aurality, arguably one of the reasons why he scarcely documented his cylinder recordings.²¹ A section from his second monograph, on the other hand, shows that he also applied his recordings in the field:

[I] once saw an old and, one would have thought, very hardened Sema interpreter – Khupu of Lazemi – burst into genuine tears on hearing a phonograph reproduce a song about his deceased friend Inato; the Sema is not at all the stony-hearted savage that one might suppose him to be. (Hutton, 1921b, p. 29)

Clearly, the statement reveals the racial biases that influenced Hutton’s research on the Nagas. But the account also suggests that he did not regard his recordings as isolated specimens of Naga performing arts, destined for solitary confinement in archival depositories abroad. Surprisingly, he also seems to have used them to evoke responses from Naga listeners, an approach reminiscent of modern applied ethnomusicology. Specifically, we learn that he involved one of his interpreters in listening to one of his cylinders, although it remains unclear whether this happened with the individual’s consent. Interestingly, Hutton chose for his listening experiment with Khupu a song about another interpreter, Inato from Lumitsami (d. 1915) (Hutton, 1921b, p. viii).²² This example shows that Hutton was creative in the use of his cylinder recordings, sought ways to apply them in the field, and thought about what they would mean to Naga listeners.

During my archival research in England, I surveyed several collections in England to find further information on Hutton’s recordings and fieldwork. I began with the Hutton Collection at the Pitt Rivers Museum in Oxford, which comprises Hutton’s cylinders,

21 Hutton was not alone with his critique of the phonograph. In the 1900s, debates raged among English folk song collectors about the usefulness of cylinder recordings (Yates, 1982).

22 Arguably, Hutton played to Khupu the song from cylinder no. 13, “Inato-no Likelio i-pfu-ghe” (“Inato killed and brought back the head of a Nankam girl”) (Hutton 1921b, pp. 177-8, 363, 370; <https://soundcloud.com/pittriversound-1/song-from-nagaland-assam-india>, accessed 6 July 2022).

manuscripts, tour diaries, field photographs, and correspondence. The fourteen cylinders in the collection were numbered consecutively on the lids of the cylinder boxes, presumably by Henry Balfour (1863-1939), curator of the Museum from 1890 to 1939.²³ In addition, thirteen lids carry short titles written by Hutton (e.g., no. 7: “Chang songs”, no. 8: “Sangtam”). One lid carries the note “Hutton” (no. 14), probably written by Balfour. Hutton wrote down the performers’ names by hand on two inserts (nos. 5 and 14) but only one insert carries a recording date (no. 5). None of the inserts clearly state the recording location, although we can make assumptions such as in the case of the recording on cylinder 5, for which Hutton noted down the home village of performers (Khonoma, Kohima district). Two other recordings (nos. 9 and 13) can be tentatively assigned to the village Kiyeshe (Zunheboto district), based on Hutton’s notes on the musical transcriptions of the two songs on these cylinders that his first wife Stella Eleanora (d. 1944) contributed to his second monograph (1921b, p. 370).

Of the fourteen cylinders, five and a half comprise Angami songs (nos. 1–5, and the second half of no. 6) and another five and a half comprise Sumi songs (the first half of no. 6, no. 9, and nos. 11–14). One cylinder features Chang songs (no. 7), one a Sangtam song (no. 8), and one a Lotha song (no. 10). Overall, the number of cylinder recordings thus reflects Hutton’s research focus on the Angami and Sumi Nagas. Six cylinder recordings include announcements by Hutton (nos. 4 and 6–10) and eight cylinders are accompanied by handwritten and typewritten paper inserts found in the boxes (nos. 1, 2, 4, 5, 7, and 12–14). Four of these inserts comprise transcriptions, translations, and explanations of song lyrics (nos. 1, 2, 4, 13), which closely correspond to the song descriptions that Hutton published in his two Naga monographs. Apart from this, one manuscript of the Museum’s Hutton Collection²⁴ comprises part of the song lyrics of cylinder no. 10 (“The Song of Mr. Williamson”).²⁵ Strikingly, the manuscript includes lines that Hutton omitted when he published the song in his first monograph (1921a, p. 369). This omission appears significant, as it suggests that Hutton not only left out “repetitions” and “vocal interpolations” in his song translations, as he concedes (1921a, p. 283), but also sometimes whole song sections he found unsuitable for publication.²⁶ Overall, we can summarise that the poor basic documentation of Hutton’s cylinder recordings (lack of performers’ names, locations, and dates) contrasts starkly with the detail of his published song transcriptions, translations, and explanations.²⁷ From this, we can deduce that he regarded his cylinders not as significant cultural objects in their own right whose contents needed to be documented precisely, but rather as a temporary means to transcribe and translate recorded songs for his publications.

23 https://history.prm.ox.ac.uk/collector_balfour.html, accessed 5 July 2022.

24 “Eulogy song for Noel Williamson” (Pitt Rivers Museum, Hutton Collection, Box 3, folder “Hutton Misc.”).

25 <https://soundcloud.com/pittriversound-1/the-song-of-mr-williamson-a>, accessed 6 July 2022. The song is a eulogy to the British officer Noel Williamson, who was killed on 31.3.1911 at Komsing village (now Arunachal Pradesh). According to Hutton, Lotha carriers composed the song during the Anglo Abor War of 1911-12 that was conducted to avenge Williamson’s death (Hutton, 1921a, p. 369).

26 The omitted lines have erotic connotations: “The women whom you loved are bringing *rohi* [“rice beer”] and coming to meet you. Williamson, youngest of the sons of the Sahibs, quickly, quickly rise and drink[.] O women whom he loved, though you cover your heads with your garments and stamp your feet upon the earth you cannot get back Williamson your beloved.” (“The Song of Mr. Williamson”, translation by Hutton; Pitt Rivers Museum, Hutton Collection, Box 3, folder “Hutton Misc.”).

27 See, for example, Hutton’s notes on the song “Nichu Nikri” (Hutton, 1921a, pp. 173-4, 285-6).

By aligning the inserts with Hutton's publications, I realised that transcription mistakes had been made during the *Reel to Real* project in 2012 and 2013. An example is the performers' names on inserts nos. 5 and 14, some of which were transcribed incorrectly during the project. When I studied the idiosyncrasies of Hutton's hand, I spotted the mistakes that had been made in the online documentation. Thus, I found out that he jotted down on insert no. 14 the names of five Sumi interpreters who sang the song together that he recorded on this cylinder: Vikhepu, Mithihe, Nikiye, Hoito, and Hezekhu (Figure 1).²⁸ The recording thus bears testimony to the fact that Hutton involved his interpreters not only as listeners, but also as performers in his recordings.

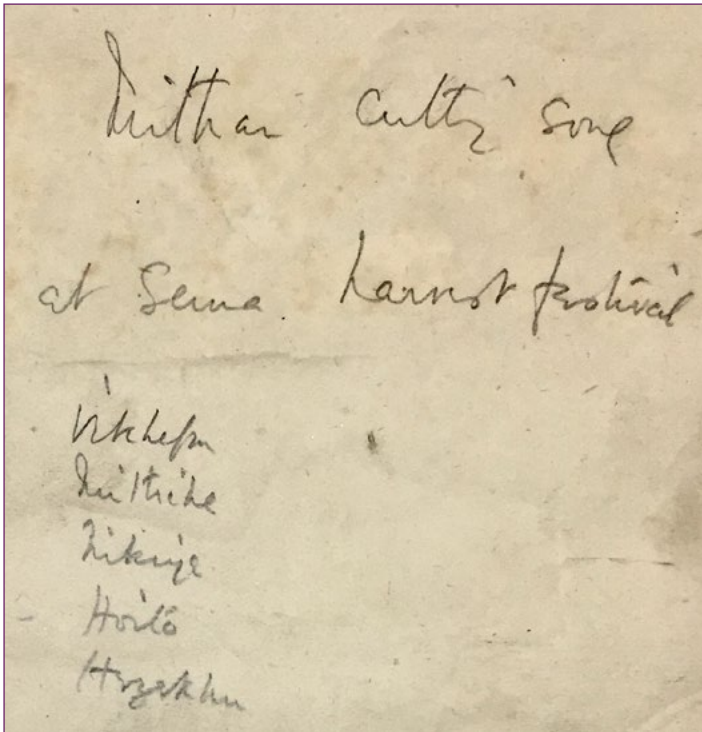


Figure 1. “Mithan cutting song at Sema harvest festival, Vikhepu, Mithihe, Nikiye, Hoito, Hezekhu”, insert for cylinder no. 14, Hutton Collection, Pitt Rivers Museum [photo: author].

In the preface of his second monograph, Hutton acknowledges the help of his interpreters in his administrative work and anthropological research:

Last, but far from least, I have to mention my Sema friends who have been the real means of my making what record I could of tribal customs – Vikhepu, Chief of the Ayemi Clan

28 Cf.: “Mithan cutting song at Sema harvest festival, sung by Vikhelpa, Huilthike, Likiya, Hoito, and Hrgekhu” (<https://soundcloud.com/pittriversound-1/mithan-cutting-song-from?in=pittriversound-1/sets/field-recordings-from-Nagaland>, accessed 22 February 2022). The Pitt Rivers Museum corrected the online documentation of the recording in the summer of 2022.

in Seromi,²⁹ Inato, Chief of Lumitsami, Khupu of Lazemi, Nikiye of Nikiye-nagami, Hezekhu of Sheyepu, Mithihe of Vekohomi, Hoito of Sakhalu, Ivikhu of Lizmi, Inzhevi of Yepthomi, Hoito of Kiyeshe, and many others, but the first five or six in particular. The first four mentioned, as well as Hoito of Sakhalu, are, alas! dead after years of the most loyal service to the Government – the others I hope have long to live, but my indebtedness for information to Vikhepu, four years my personal Sema interpreter at Mokokchung, was particularly great, and his death in the influenza epidemic of 1918³⁰ was a grave loss to the district. (Hutton, 1921b, p. viii)

The Hutton Collection of the Pitt Rivers Museum also includes Hutton's official tour diaries from the period April 1917 to March 1935, when he was Deputy Commissioner of the Naga Hills District and Census Commissioner in Delhi.³¹ However, none of Hutton's entries concern his cylinder recordings, arguably because he wrote the diaries in his capacity as administrator and not as documentation of his anthropological fieldwork. His entries thus deal with official matters like the demarcation of village boundaries and administrative regions, infrastructural work, payments of taxes, salaries, fees, and fines, the settling of disputes, hearings of court cases, etc.

The collection includes one letter that refers to Hutton's recordings, dated 22 October 1919. In the letter, K. M. Martindell of the Royal Anthropological Institute advises Hutton on possible depositories for his cylinder recordings, listing the India Office, Cambridge University, and the Society of Anthropology of Paris as potential recipients.³² Remarkably, the letter does not mention the Pitt Rivers Museum, which suggests that Hutton was looking for a different archive for his cylinder recordings in 1919. This, in turn, raises the question of why he would do so when he had already sent two cylinders to the Pitt Rivers Museum in 1915. Did he suspect that Balfour, then in his fifties and suffering from arthritis, had broken the first two cylinders because he did not handle them with the necessary care? Or was he perhaps concerned that his cylinder recordings would not receive sufficient attention at the Pitt Rivers Museum because of its focus on material culture? Whatever the reasons, the letter suggests that Hutton was not fully satisfied with the way his recordings were kept at the Museum. Nevertheless, he also left his second batch of recordings at the Museum, possibly because he could not find a suitable alternative during his home leave in 1919–20.

The Mills Collection and Balfour Collection of the Pitt Rivers Museum, the Hutton Collection of the Museum of Archaeology and Anthropology in Cambridge, and the Mills Collection of SOAS do not include any documents related to Hutton's recordings. Martindell's letter thus remains the only reference to Hutton's sound recordings in his correspondence, which is perhaps not surprising, considering the limited relevance he ascribed to his cylinder recordings as sonic artefacts of Naga performing arts.

29 See portrait and family tree of Vikhepu Ayemi (Hutton, 1921b, coloured frontispiece and second pedigree following p. 144). Today, the village is called "Surumi".

30 According to our fieldwork informants, Vikhepu Ayemi died in 1919.

31 The Hutton Collection of the Pitt Rivers Museum does not include any official tour diaries for the period 1914–1917 nor any personal diaries of Hutton.

32 Letter from K. M. Martindell to J. H. Hutton, Pitt Rivers Museum, Hutton Collection, Box 3, letter folder.

Phases 2 and 3: Fieldwork in Nagaland and sharing of recordings and documentation

We conducted our fieldwork in Nagaland in the second project phase. The central aim was to reconnect community members, including descendants of performers, with Hutton's recordings to evaluate their reactions to the material. We also wanted to hear their opinions on the content and performance contexts of songs to enhance the documentation. To this end, we conducted listening sessions with participants from different Naga communities, playing Hutton's recordings of the respective community.³³ During the listening sessions that took place at different locations, I was assisted by staff of the Highland Institute and interns from Kohima Science College and from different Naga communities, who supported me as subject experts, interpreters, guides, photographers, and recordists. Their support was essential for connecting with Naga communities in Nagaland and abroad.³⁴

We structured the listening sessions into three parts: First, we played back Hutton's recordings to participants without disclosing any additional information, except the community of the performers, to avoid influencing participants' responses. Subsequently, we discussed with listeners related documentation and song notes by Hutton that we believed could belong to the recording at hand. Lastly, we recorded an interview with participants about their thoughts on the recordings, documentation, and song notes, and their views on Hutton's research overall. We held most of our listening sessions in Kohima, where we could find musicians and music-interested individuals from most Naga communities. A few listening sessions took place at the Institute itself, which had the advantage of providing a controlled setting for video recordings. On the other hand, the somewhat formal surroundings clearly intimidated some listeners who hesitated to share their impressions on video. This issue was less pronounced during our listening sessions at other locations in Kohima and in other districts, although our camera set-up certainly influenced participants' responses at these locations to some extent, too. From the fieldwork phase onwards, we promoted the project via social media to support outreach among Naga communities. We posted fieldwork photos on Instagram and on the Facebook page of the Highland Institute to achieve this.^{35 36}

In the three weeks that I spent in Nagaland, we held sixteen documented listening sessions with nineteen listeners from seven Naga communities, aged between eight and seventy-eight years old. These included thirteen adults and six minors, with twelve males and seven females altogether. Most adult participants had college or university education, because the academic network of the Highland Institute was a significant source of our listeners. Most participants also had a strong musical background as professional or amateur musicians, music teachers, or music students. We usually had one participant per listening session, except on three occasions when two participants attended a session together due to time constraints. We held four sessions at the Highland Institute, nine at other locations in Kohima, two in Surumi (Zunheboto district), and one in Khonoma (Kohima district). Apart from these documented sessions, we had several informal listening sessions with staff of the Highland Institute and interns from Kohima Science College.

33 The only exception in this regard were our listening sessions at the Music Academy Kohima (see below).

34 My special thanks go to Lanuakum Aier of the Highland Institute, who greatly contributed to the success of the project.

35 https://www.instagram.com/naga_ancestral_voices/, accessed 20 May 2022.

36 <https://www.facebook.com/highlandinstitute>, accessed 4 June 2022.

To increase the regional outreach of the project, we shared links to Hutton's recordings with individuals who could not attend listening sessions in person. Towards the end of our fieldwork, we also shared links to recordings before on-site listening sessions to speed up the evaluation process of undocumented recordings. We followed this approach for Hutton's recordings of Chang and Sangtam songs. Unfortunately, this did not help much with the identification of Hutton's recording of a Sangtam song on cylinder no. 8.³⁷ We were more successful with the Chang songs on cylinder no. 7, which were evaluated with the help of Benjong Kokba, a Chang musician based in Kohima. Kokba used to perform with a traditional dance group during his student days in the Tuensang district, and is now the lead singer and composer of the Chang gospel band Onou Ngühläng ("Voice of Grace").³⁸ A few days before his listening session at the Highland Institute, we sent him the link to Hutton's recording.³⁹ He forwarded it to elders in his home district Tuensang, who then explained the lyrics of the songs recorded by Hutton to him over the phone. Thus, he could tell us the lyrics of the seven songs on the cylinder when we met him at the Institute.

We travelled to the village Khonoma as well, where we held a listening session at the house of the sixty-two-year-old farmer Krusalie Sophi (Figure 2). He was able to identify the song on cylinder no. 3, named "Hoiyi-olli" by Hutton.⁴⁰ After listening, Sophi showed us a version with slightly different lyrics that was published some four decades ago in a song anthology from Khonoma (Punyü and Yalie, 1982). He told us that the song is known under the title given to it in the anthology ("Lozorüü") and that it is still performed in Khonoma today. However, he was unfamiliar with the other song from Khonoma recorded by Hutton on cylinder no. 5⁴¹ and suggested it might be from a neighbouring village. After the listening session, we visited the Semoma Khel quarter of the village, where we asked a couple in their nineties if any of the performers' names noted down by Hutton were familiar to them, but unfortunately they were not.



Figure 2. Krusalie Sophi with intern Chathavizo Vakha, Khonoma, 15 February 2022 [photo: Khrienuito].

37 <https://soundcloud.com/pittriversound-1/sangtam-song-from-nagaland>, accessed 6 July 2022.

38 <https://www.youtube.com/c/OnouNgühlängVoiceofGrace>, accessed 15 June 2022.

39 <https://soundcloud.com/pittriversound-1/chang-songs-from-nagaland-2012>, accessed 6 July 2022.

40 <https://soundcloud.com/pittriversound-1/hoiyi-olli-angami-song-from>, accessed 6 July 2022.

41 <https://soundcloud.com/pittriversound-1/nichu-makroh-zekenyulanu>, accessed 6 July 2022.

We also travelled to Surumi, the home village of Vikhepu Ayemi (d. 1919), one of the performers of the song that Hutton recorded on cylinder 14. Before our journey, we telephoned inhabitants of the village to inform them of our arrival. We established contact with Qheniho Jakhalu (Figure 4), headman of the village, who unknown to us was Vikhepu's grandnephew. His relation to Vikhepu only became clear when we met him in Surumi, where he introduced us to his mother, Vikhepu's niece-in-law Heshevi Awomi (Figure 3). Although they knew from Hutton's monograph *The Sema Nagas* that Vikhepu had been a close associate of Hutton, they were unaware of the fact that Hutton had made a cylinder recording with their ancestor and hence astonished when they heard Vikhepu's voice on cylinder no. 14. After we had gave them a digital copy of the recording, they expressed their gratitude to us for informing us about the material. Before we left, they led us to a tree outside their house that Hutton and Vikhepu planted together as symbol of their friendship, before Vikhepu died from the Spanish flu in 1919. According to Jakhalu's accounts, Hutton spoke at Vikhepu's funeral.

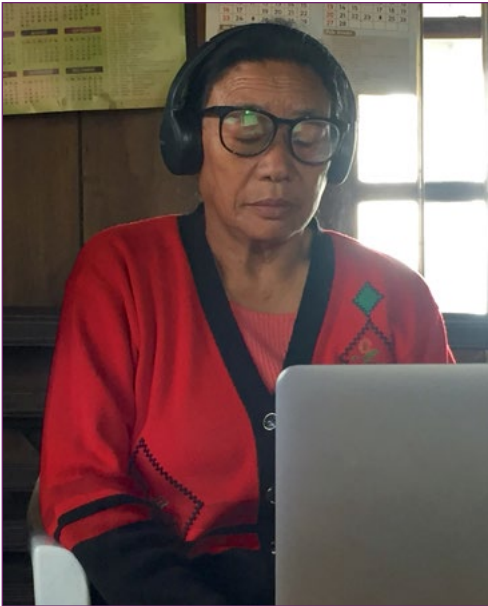


Figure 3 (left). Heshevi Awomi listening to Hutton's recordings.

Figure 4 (right). Qheniho Jakhalu with portrait of Vikhepu Ayemi, Surumi, 19 February 2022 [photos: author].

We held our final listening sessions at the Music Academy Kohima, an institution offering courses in Western classical, contemporary, and church musics.⁴² At the Academy, we held three listening sessions with adult music teachers and four sessions with music students from Angami, Ao, Lotha, Chang, and Rengma backgrounds (Figure 5). The music students were between eight and fourteen years old and studied violin, piano, and guitar. To teachers and students from communities not recorded by Hutton (Ao and Rengma), we played back his recordings of Sumi and Angami carrying choruses from cylinder no. 6,⁴³ as non-verbal work songs are common throughout Nagaland.

42 <https://musicacademykohima.com/curriculum/>, accessed 8 June 2022.

43 <https://soundcloud.com/pittriversound-1/carrying-choruses-songs-from>, accessed 6 July 2022.

Hutton's recordings were met with interest by the music teachers, whereas the reactions of the students were more ambiguous. An eight-year old violin student from a Chang family⁴⁴ found the Chang songs recorded by Hutton "weird". His ten-year old sister also could not make sense of the seven Chang songs at all. A twelve-year old Rengma guitar student giggled when she heard the carrying choruses. During her interview, she said that the recording sounded "funny". Her fourteen-year old sister found that the choruses sound "a bit ancient" and "not so much like a folk song". Others said that the recordings were "nice", or "not that bad", arguably out of politeness towards the research team. Like the listening preferences of many adult participants, the students' music tastes were diverse and included Western classical music, pop, rock, and rap, and more rarely Naga folk music. Some of them knew a few traditional folk songs or folk tales they had heard at home from their parents or on visits to their parental home villages, but this type of knowledge seemed to be incidental. The focus of their musical ambition was clearly the instrumental music courses of the Music Academy Kohima centering on Western classical music.



Figure 5. Music students listening to Hutton's recordings at the Music Academy Kohima, 25 February 2022 [photo: Kevide Lcho].

Throughout the course of our fieldwork, all but one or two listeners were unaware of the existence of Hutton's recordings when we introduced them to the material, which is remarkable as most of our participants were musicians themselves. Most of them struggled to identify the songs recorded by Hutton because they were unfamiliar with the archaic wordings of the traditional songs of their communities. This was even more so the case when the songs were in different dialects from where the listeners had grown up. The poor sound quality of the recordings certainly did not make things easier.

44 The boy had a Chang father and a Konyak mother. Contemporary Naga society is patrilineal, that is, children adopt the community membership of the father.

Yet, most listeners appreciated the opportunity to listen to the recordings, which many considered as important historical documentation of Naga traditional music. Notably, most of them refrained from criticising Hutton's song transcriptions, translations, and explanations, despite his colonial terminology and sometimes derogatory descriptions. Arguably, this reluctance to criticise was not only caused by listeners' difficulties in identifying the recorded songs aurally, but also because Hutton's writings to some extent still hold sway over minds in Nagaland today, as the first Western "scientific" account of Naga cultures that informs communities' cultural self-conception till today, despite contemporary critiques of his research legacy.

In the last week of my stay in Nagaland, I gave a talk on the project for lecturers and students at Kohima Science College. After my return to Kolkata, the third project phase began. I evaluated the information we had gathered on the recordings during archival research and fieldwork and compiled it into a spreadsheet database. After completion, I shared this database with the Pitt Rivers Museum, the ARCE, and the Highland Institute. In addition, the Museum provided digital copies of Hutton's recordings with defined usage conditions, allowing copying and further dissemination for research purposes, to the ARCE and the Highland Institute.

The exhibition

To further awareness in Nagaland about Hutton's research on Naga songs, we organised the sound exhibition *Naga Ancestral Voices: Songs, Stories, Beliefs* at the Highland Institute in Kohima, which featured his recordings and other exhibits revolving around the theme of the changing soundscapes of Nagaland. Planning for the exhibition began online in autumn 2021, as a collaborative effort involving fellows, staff, interns, and other individuals associated with the Highland Institute who were based in Nagaland, India, and abroad. Together, we were faced with the challenge of organising an exhibition that would feature sound exhibits, a first of its kind in Nagaland, where exhibitions are much rarer than in Indian metropolitan cities and hence not a significant part of cultural life. Religious, social, and community-related events like church services, family meetings, and communal gatherings play a far greater role in everyday life in Nagaland today. Furthermore, no companies exist in the state that could provide ready-made listening stations. In addition, we had the problem of attracting sufficient visitors to the exhibition venue, with the Institute not located centrally in town, but quite remotely in Kohima village, a forty-minute walk from the city centre. After deliberation, we scheduled the exhibition for 23 April through 7 May 2022, to avoid a clash of dates with Easter celebrations.

Considering the poor sound quality of Hutton's recordings, we decided to juxtapose these with more recent recordings of Naga traditional music made between 2004 and 2010 by the German recordist Thomas Kaiser, which were provided by the Ethnographic Museum in Zurich.⁴⁵ We had two sound boards built by a local carpenter to play back the recordings, each of the boards with a wooden frame, two stands and a large front panel. On the front panels, we attached vinyl prints with descriptions of the recordings. On the back of the sound boards, we attached MP3 sound players shipped from the UK, which we connected to trigger buttons on the front panel. On the sound board with Hutton's recordings (Figure 6), we printed the song transcriptions and translations from his two

45 Kaiser made the recordings before and during the research project "Material Culture, Oral Traditions and Identity of the Naga of Northeast India" (2006–2010) (<https://www.marionwettstein.ch/projects/naga-project-zurich/>, accessed 16 May 2022).

Naga monographs without major edits, to reflect the colonial context of his research through his own words. The only exceptions in this regard were cylinders nos. 7, 8, and 14, nearly undocumented by Hutton, for which we provided details uncovered during fieldwork. The second soundboard featured the recordings made by Thomas Kaiser with song transcriptions, translations, and notes provided by his recording participants, fieldwork informants, and himself. The two sound boards were accompanied by self-standing displays with background information about the studies of Hutton, Kaiser, and our team in the field of Naga performing arts.



Figure 6. Exhibition visitor listening to Hutton's recordings at The Highland Institute, 27 April 2022 [photo: Esther Kauffmann].

Apart from the two sound boards, the exhibition featured three sound recordings of Naga speakers from the Linguistic Survey of India (Grierson, 1903) provided by the British Library Sound Archive. These were accompanied by contemporary visual art revolving around the topics of Naga music, religion, and folklore, designed by the Lotha artist Mhao Aaron Odyuo of The Art Village Kohima.⁴⁶ His artworks included an oversized replica of a bullroarer, an ancient musical instrument to which the Nagas ascribed supernatural powers, and a painting based on the Bible parable of the Prodigal Son, a story that was used for recitations during the Linguistic Survey of India. To thematise the contemporary soundscapes of Nagaland, we set up a large pinboard with ephemera of modern Naga music, including band photos, CD covers, flyers, posters, and concert tickets. We advertised for the exhibition by hanging up posters in Kohima and surroundings and through social media posts. A press release ensured that local newspapers announced the event.

46 https://www.instagram.com/theartvillage_official/?hl=en, accessed 20 June 2022.

To attract visitors to the opening, we engaged the Tangkhul Naga musician and Padma Shri recipient Guru Rewben Mashangva for a performance.⁴⁷ The opening day also included a talk about the research project by the author, as well as contributions by Naga scholars and artist interviews. Connectivity issues unfortunately prevented our attempt to live stream the events of the opening day via Facebook. Nevertheless, the exhibition opening attracted a considerable number of musicians, composers, researchers, journalists, and other interested individuals from Kohima and surroundings. During the two weeks of the exhibition, we organised five workshops at the Highland Institute with students from schools and colleges around Kohima to reach out to the younger generation. These events comprised short presentations about the research project and Hutton's recordings as well as interactive elements, including a song quiz with recordings from different Naga communities and a task of sorting pictures of historical recording devices in the order of invention (Figure 7). Teachers and students appreciated the workshops as an opportunity to learn about the colonial past of Nagaland and its performing arts.



Figure 7. Workshop with students from Japfü Christian College at The Highland Institute, 29 April 2022 [photo: Esther Kauffmann].

The opening event and the workshops helped the exhibition to attract a considerable number of visitors. Although the daily footfall was not on the scale of metropolitan exhibitions in India or abroad, the exhibition and its accompanying events certainly raised awareness about Hutton's recordings and the research project in the wider Kohima region. Like our experiences during fieldwork, it became clear through our conversations with exhibition visitors that most of them were unaware of the existence of Hutton's recordings. This was reflected by the comments in the guest book, many of which highlighted the informative and educative aspects of the exhibition, apart from its creative originality.

47 <https://www.facebook.com/highlandinstitute/videos/528786898761895>, accessed 5 July 2022.

Conclusion

Although our project was rather short and its geographical scope and demographic outreach limited, it allows some tentative conclusions about the relevance of Hutton's recordings to the population of Nagaland today. Foremost, it is remarkable that most fieldwork participants and exhibition visitors were unaware of the fact that Hutton had made recordings of Naga songs when we introduced them to the material, although the recordings have been accessible online since 2012–2013. The fact that most of them did not know about his recordings is even more remarkable as most of our participants had strong musical interests and were hence more likely to know about the recordings than other listeners. We can surmise, then, that there is little awareness about historical sound recordings from Nagaland among the state population overall. Our project thus illustrates that it does not necessarily lead to community engagement in countries of origin when Western archives make collections of historical sound recordings accessible online. The results of our project suggest that such initiatives should be followed up by action on the ground in countries of origin, aimed at encouraging cultural heritage communities to engage with collections online. Organisations that have a strong community participation, such as the Highland Institute, are suitable project partners for such outreach projects abroad.

During our fieldwork, exhibition, workshops, and project presentations in Nagaland, we raised awareness about the online availability of Hutton's recordings through personal interactions, online communication, and social media engagement, sharing links with individuals who then accessed the recordings online and forwarded the links to others. These collective efforts likely increased community engagement with Hutton's recordings via the internet, although we did not have access to the streaming statistics of the Pitt Rivers Museum collections on soundcloud.com to verify this. It remains unclear if and to what extent the Museum monitors user engagement with its online collections. While large research libraries like the British Library do so on a regular basis, more research is needed on the development of efficient strategies and best practices of engaging cultural heritage communities with historical sound recordings that are available online.

Apart from this, more critical engagement with Hutton's recordings is required, particularly by Naga scholars familiar with the traditional songs and dances of their communities, to formulate a comprehensive critique of Hutton's research on Naga performing arts. With these considerations in mind, we are currently exploring avenues of exhibiting sound boards with historical sound recordings from Nagaland at a museum or research institute in the state on a permanent basis to reach larger audiences. Similarly, more research is required on the Nagaland recordings of H. E. Kauffmann once these are fully digitised, and on the Naga recordings of the Linguistic Survey of India, which are important sonic artefacts of Naga aural history that should be made accessible in Nagaland as well.

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IDENTIFICATION AND ASSESSMENT OF FILM APPRAISAL MECHANISMS AIMED AT THE IMPROVEMENT OF ARCHIVING AND PRESENTATION PROCESSES

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Abstract

Národní filmový archiv, Prague (the National Film Archive, or NFA) needs to update its core cataloguing system and potentially improve preservation processes to address new requirements related to (digital) content management. Since the NFA is also active in content digitisation and restoration, new digital tools were recently deployed for the purposes of supporting operation and management processes. In order to identify how the new system could improve the efficiency of both cataloguing and content management, the entire workflow has been investigated and analysed. Together with a standard process mapping, the extent to which these processes are aligned with the institution's key activities, strategies, (individual) roles and the NFA's goals was investigated. Drawing on concepts from cultural work appraisal and practical theories, techniques developed in ethnography and organizational studies were applied to examine the way in which the value of collected material is being constructed, understood and documented; and how its perception contributes to decision-making during the organisation's regular activities. The results were analysed and communicated using process diagrams and sets of recommendations. Along with gaining better insight into the NFA's operations, this approach allows for the enhancement of the new data model. There were also several mechanisms proposed which are aimed at enriching the retrieval of information related to film content origin, treatment, perception and community appraisals; as well as the improvement of strategic decision-making processes regarding digitisation, long-term preservation and distribution priorities.

KEYWORDS: film appraisal, film archives, value assessment, cataloguing, collection management

Introduction

Film archives have a relatively short history compared to other types of cultural heritage institutions, such as museums. Nevertheless, their role is already established within a range of professional associations, well-implemented preservation practices and cataloguing standards. Just like in other fields of cultural heritage preservation, a film archive's role in society and consequently its access to financial resources is in some ways linked with the perceived value of the cultural objects in its collections. As Brothman pointed out in his essay, archives also participate in value creation, since archivists both identify and create value when they attribute it to a document (Brothman, 1991). There is no doubt that underlying mechanisms, especially regarding value creation, are quite complex, but to a certain extent, an archive's activity both affects and is influenced by actual cultural preferences on global, and more specifically, national levels. This happens both in a long-term perspective, where some works become an important part of (national) cultural heritage, as well as in shorter periods of time that are identified as reflecting the momentary preferences of specific viewer groups. Digital production and distribution have simplified access to any film work available in this form and have made film consumption patterns more heterogeneous. However, widespread availability of most films is still significantly influenced by the practices of leading content distributors. Sophisticated recommendation mechanisms introduced by Netflix, among others, are changing the process through which an audience selects and consumes its content (see e.g. Hallinan and Striphos, 2016). New patterns of consumer behaviour are also altering the perception of cultural object value (see the literature review by Carnwath and Brown, 2014) and thus can contribute to more complex processes of film value attribu-

tion. Some film archives even directly monetize their content, usually in the form of digital copies or even using their own presentation/distribution channels, in order to at least partially cover their cost of operation. Therefore, at any given moment the perceived value of specific content can have a direct or indirect impact on an institution's income.

In such a situation, an archive can benefit from better insight into the existing appraisal mechanisms and the way perception of value is intertwined with preservation, presentation or monetisation processes, at least within the institution itself. This understanding can help to make decisions that are more consistent with the institution's strategy and to allow for setting priorities in multiple areas. As most processes in archives are now supported with electronic systems, user needs are repeatedly discussed whenever these software solutions are in need of being updated. Národní filmový archiv, Prague is currently facing such a situation where the outdated content management and cataloguing systems have to be replaced. Together with a relatively standard requirements gathering, the NFA took this opportunity to investigate mechanisms of content appraisal to better understand and potentially update its internal processes. These findings can help the NFA apply long-term cultural policies while also attuning presentation strategies in order to achieve more effective yet (in a cultural sense) still sensitive content monetisation. This is particularly important due to the fact that the NFA receives a subsidy from the national budget, but also has to finance approximately half of its operations from sales and licensing. We believe our research can also shed more light on film appraisal mechanisms and their practical consequences in general.

Appraisal process in film archives

The concept of value and how it can be constituted in the appraisal process has been discussed in archival literature relatively frequently, with more attention given to historical and intrinsic value identification rather than their broader consequences for preservation practice. From an operational standpoint, document appraisal in archives is often linked with selection processes, during which the decision about its preservation or rejection is made. Throughout history, theorists like Hilary Jenkinson argued for an indiscriminate approach where archives, in accordance with their role in society, should accept all acquired material. Even though archivists have often found the necessity of the selection process uncomfortable and controversial, for most archives this process is inevitable, at least to a certain extent. Therefore, an archive that is applying a selective approach should develop and implement some kind of appropriate mechanism that allows its staff to occasionally reject material in a consistent and justified manner. In contrast with archival value identification, monetary (or intrinsic value) appraisal is not associated with the selection process and there are more specific methods for how to do it, for example based on costs, replacement costs or revenues (see also Kula, 1995). In archival literature, intrinsic and monetary values are often discussed separately alongside corresponding appraisal mechanisms. These mechanisms can be linked together more closely, especially in cases when an archive can monetise its collection through presentation or even redistribution activities, as the NFA does to a certain extent. It means that a certain form of appraisal may be necessary for other activities as well, such as selective digitisation or promotion.

Although the decision of whether to accept a specific piece of material can be based on some purely technical criteria, e.g. whether the quality of a carrier is acceptable, a more complex approach is usually needed for the assessment of historical, informative, aesthetic or any other relevant qualities for an archive's goals. As stated by Kula in 1995, a finding that still holds true today, archival literature offers only limited concrete and practical guidance regarding appraisal (Kula, 1995. p. 24). Kula himself has devoted

a significant amount of effort to investigating and explaining various aspects of film (and video) value assessment. He has also mentioned important documents in this regard, including the *Recommendation for the Safeguarding and Preservation of Moving Images* (UNESCO, 1980) and *Recommended standards and procedures of Selection and Preservation of Television Programme Material* (FIAT-IFTA, 1996). Regardless of the conceptual framework in which the discussions are held, there is always emphasis on the necessity to define specific appraisal criteria and there are various suggestions on how to do that. For example, Harrison identifies three elements in audiovisual documents, which must be accounted for in the selection process: the information content, the artifact or carrier, and the aesthetic content (Harrison, 1995). From Kula's perspective, moving images can be categorised by 'provenance', 'function' and 'form' (Kula, 1995 p. 53). In his concept, 'function' is identified to apply different evaluation criteria to various mediums, e.g., feature films, documentaries or news, and together with 'provenance', to consider a specific document's context. This finding corresponds with a common practice where selection criteria reflect the archive or collection focus and emphasis can be put on a specific film's origin, for example.

By considering that moving images can be produced in various copies and versions, another aspect of appraisal needs to be considered. According to the FRBR conceptual model, and more specifically, the guidelines provided in the *FIAF Moving Image Cataloguing Manual* (FIAF, 2016), it is possible to distinguish a work from its versions, manifestations and items. This framework is used for structuring moving image records and is usually well understood by librarians, but could also help to deconstruct the appraisal process. When physical material (an 'item' in FRBR) is assessed, some qualities are tied to that particular copy and can be examined in a specific instance, e.g., during projection. In order to appreciate more complex aspects like the film creation process or its historical context, corresponding sets of information are needed, and these are investigated and documented in relation to the work entity. The perceived value of the work may also be less stable as new information is gathered or the historical perspective changes. It means that the assessment of the work is also related to the actual amount of knowledge available at the time of appraisal. If eventual re-appraisal is based on amended data, its outcomes can be different. For practical purposes, the selection process can include rules linking a work's value with an item's quality, e.g. if the historical value of a given work is high, the corresponding item is accepted despite being in worse condition and vice versa. This approach allows for the appraisal of other copies or different versions of the same work.

Although for the newly acquired or potentially discarded material, appraisal processes are generally established and understood, other activities can be identified where content value needs to be considered. A typical example is that of a situation where films are being selected for (digital) restoration. In this case, it isn't only the historical and cultural value of a work that matters—the potential for its direct or indirect monetisation can be taken into account as well. Almost all processes that include selecting or prioritising content involve a certain form of evaluation. Each decision that includes work-level appraisal needs to be informed by the relevant contextual knowledge and data. In an ideal world, all of the information needed for such decisions would be available in searchable form through information management systems, e.g. cataloguing or content management. Unfortunately, relevant knowledge may sometimes be distributed across documents created during different processes or even available only as the expert knowledge of individuals, like archivists, not existing in written form. Therefore, appraisal is usually linked with an archive's organisational strategy, ensuring that important decisions are made only by staff members with corresponding knowledge, compe-

tencies and access to relevant data. It also means that relevant processes, roles and responsibilities need to be well-defined, even when appraisal procedures are based on group opinion and their results are formulated and applied collectively.

Process analysis

Although content acquisition is usually formalised and supported with documented rules and/or organisational mechanisms, other instances of appraisal may be manifested through decisions made and their potential consequences alone. This is more probable in archives with a long history, whose operation is less likely to be informed by archiving theory and guidelines. If there are no established institutions or guidelines to follow, an archival institution's processes are usually based on community best practices and its own experiences, which can help to define standard workflows for a given content type. From a broader perspective, the main goals of a film archive show significant similarities across organisations worldwide. There are comparable film preservation processes established which have already been well-described in archival literature (see for example Gracy, 2007). Nevertheless, a particular archive may operate in a setup that was formed in a distinct organisational, social and cultural environment. Therefore, specific appraisal mechanisms that cannot be properly identified by studying and synthesizing general theoretical concepts have the potential to emerge. In this respect, a useful approach was proposed by Ivanov, as he tried to find continuity between recent archival theories and practice theory to identify the applicability of the latter for analysis of archival and record-keeping work. In his research paper, he demonstrates how practice theory could be applied to investigations of archival and record-keeping practices in order to analyse their common underlying features (Ivanov, 2017). In the case of the NFA, Ivanov's approach was found to be particularly promising, as methods from organizational studies could allow the examination of appraisal mechanisms and their relation to knowledge through the review of relevant processes.

Since the original intention of the NFA was to identify user requirements for the new content management and cataloguing system, we were looking for methods that could allow for both the investigation of the organisation's processes and its users' behavior/needs. After reviewing several methods, it was found that principles taken from the well-established Interaction Design (as described, among others, by Cooper et al., 2012) were the most suitable for NFA's purposes. By following this framework, qualitative data about users and their goals within archival processes were collected using ethnographic field study techniques—both observation and semi-structured contextual interviews. These interviews were conducted to cover all of the actors participating in key NFA processes, including content acquisition, record-keeping and digitisation. Based on data gathered and interpreted, process flow diagrams (Figure 1) were created and verified with heads of departments responsible for each area. Particular attention was paid to processes related to presentation, as these can have a direct impact on content monetisation.

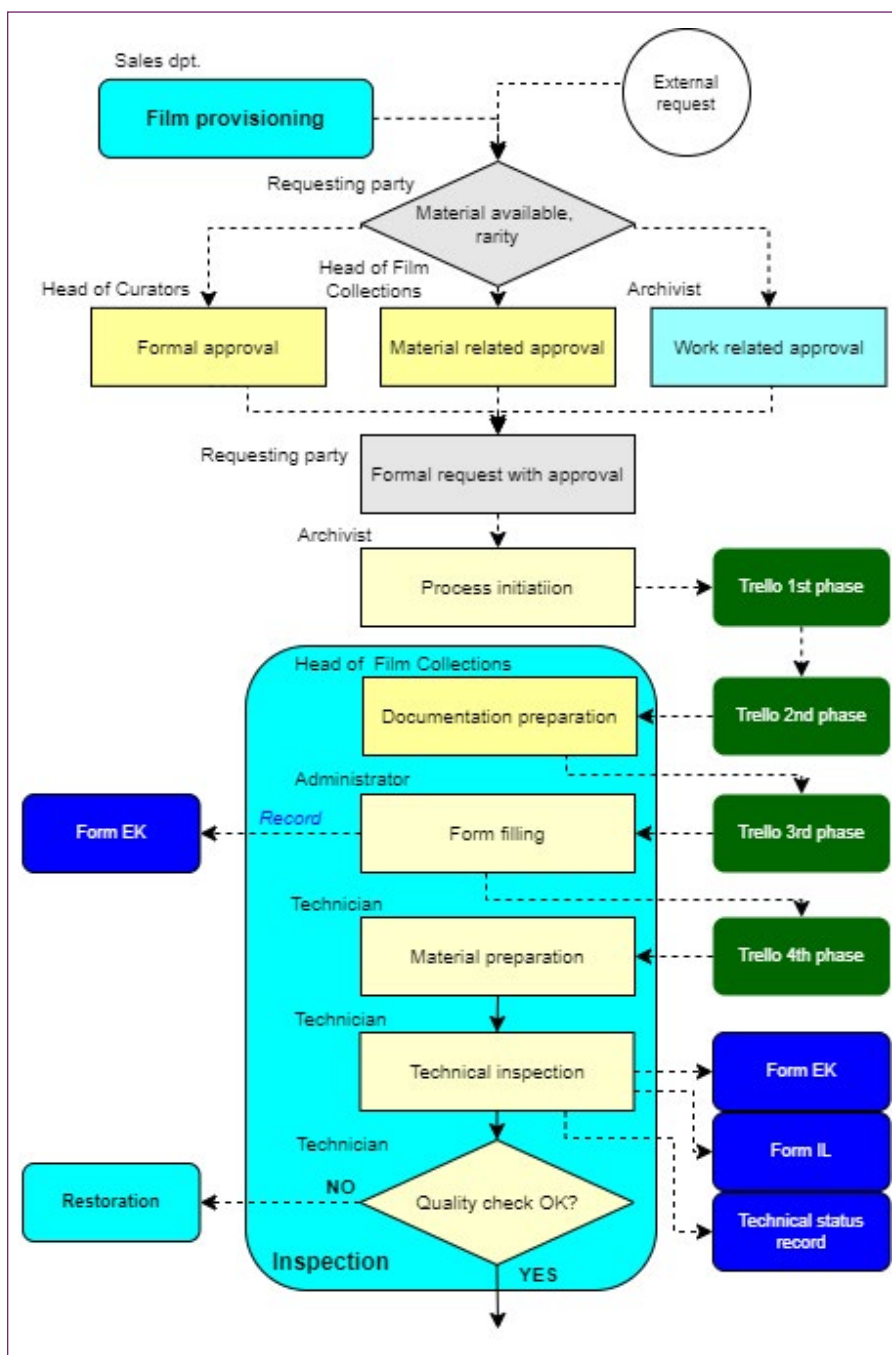


Figure 1. Portion of a process flow diagram created during NFA’s process analysis.

These processes are quite common for film archives in general and follow the film preservation activities described by Gracy (Gracy, 2007). Together with the main processes, supporting activities were also addressed to cover all important decisive points related to collected material acquisition, documentation, preservation and presentation, for both physical and digital items. Each process flow diagram contains the identification of roles, responsibilities, physical and digital content that was processed/managed, and documentation tools—both paper-based and digital—that were used. For decisive points, specific criteria are identified together with the roles and responsibilities of agents involved. After being validated by participating staff members and NFA management representatives, process flow diagrams were also used for the following purposes:

- to identify the way in which key decisions related to content acquisition, manipulation and dissemination are made
- to find the steps through which the content appraisal was applied—both through the use of specific criteria and/or individual knowledge and skills—to make decisions or to set priorities
- to learn if and what kind of knowledge was used to support appraisal/decision making, as well as how it was retrieved
- to examine the documentation of decisions or processes (if available) and to identify areas where there is room for improvement
- to find out how processes can be tracked and documented more effectively to support knowledge sharing and record keeping
- to identify external factors that can affect decisions leading to content selection or prioritisation.

Findings were formulated in the form of recommendations regarding improvements to processes, document management and process tracking tools. There were also some suggestions provided regarding the metadata structure update since the data model for film records was amended according to the EN 15907 standard.

Discussion of results

The NFA's activities and internal processes can be better understood within a historical context. The NFA was formed from the Film Archive of the Czechoslovak Film Institute after the split of Czechoslovakia into the separate Czech and Slovak Republics in the early 90s. Before that, the Film Archive was able to benefit from a rather unique situation where all film production was under the Czechoslovak Film Commission and there was a centrally managed system with uniform selection standards applied. Corresponding appraisal policies reflected this situation and were prescribed in a document called 'Definition of the Scientific Principles of the Selection of Film/Audiovisual Records' (for more details see Trnka, 2018). During the last few decades, due to the legal deposit of films becoming a part of Czech legislature and feature films being received in digital format, the acquisition process has become less formalised and there is almost no selection taking place; more specifically, the process is now related to special film categories like student films or raw footage. Despite this inclusive approach, a standard acquisition process was established and applied to each piece of film entering the NFA that involved dedicated committees. Our research shows that these committees were (and still are) formed mostly pragmatically, reflecting staff skills and knowledge rather than positions in the organisational structure or management. Nevertheless, this is a topic that is up for revision with the new generation of archivists and curators. Together with following a formalised acquisition procedure, committee members also decide on the removal of materials from the collection (a rare occurrence), and can initiate duplicating processes. Consequently, both decisions affect the accumulated value of specific

film work, as better quality and a greater number of copies means higher work availability both for researchers and more importantly for external audiences.

Another significant point is that committee members participate in various processes that involve other decisions related to content that mainly affect its presentation and monetisation. Since works in the NFA are not organised according to thematic collections, and a specific material's item-level history does not play a significant role in the collections and the way they are organised, the work's provenance usually does not affect its acquisition and it is documented quite briefly. The initial appraisal is more closely linked to the evaluation of acquired material at the item level, where, for example, a better copy of a film already included in the collection can be obtained. The amount, type (negative, positive) and conditions of material for each film are also important both for preservation and presentation activities. To facilitate this process, a special parameter called 'rareness' was introduced and expressed with a numerical value. The assignment of this parameter can be seen as a sort of value attribution, although it is rather technical and has several arbitrary purposes, for example it was also used to distinguish censored versions. Key technical parameters of the material are documented in an electronic form and linked with the work's filmographic records. These records are detailed, well-structured and contain a lot of information, including a work's historical origin, detailed credits, content of the picture and awards. The process flow diagrams show that although record creation is separated from most archival processes at the NFA, data in the main catalogue are used as a central reference point for many decisions, and there are well-established mechanisms for how to amend or update a record if needed.

Although other forms of film appraisal were not explicitly mentioned by staff members who were interviewed, there were several identified instances where content value had been considered. It was also possible to observe situations where value-related decisions in one process affected certain priorities in another one. For example, when a film is selected for screening, the approval process also implies a technical inspection of the film copy (item), which is normally done over a longer period. The NFA provides digitised content, the rights of which are cleared, to third parties for both nonprofit and commercial purposes (e.g., to illustrate historical events), promotes Czech films in festivals and initiates the distribution of digitally restored copies. These activities have a certain impact on digitisation process priorities and can also initiate further investigations necessary for identifying suitable content and contextual data supporting its relevance. The EN 15907 standard already provides corresponding metadata fields (Figure 2) for documenting content distribution activities, so its adequate implementation can help to provide more insight.

Field name	Suggested content
Publication	NFA publications referring to the work
Restoration	If and when the film was (digitally) restored
Home viewing publication	If and when the film was distributed on DVD or Blu-ray
Broadcast	Copy in broadcast distribution
Internet	Copy in Internet distribution (streaming portals)

Figure 2. Examples of EN 15907 fields that allow for the documentation of film content promotion and distribution activities.

Some NFA curators who participate in internal decision-making processes also actively contribute to both academic and popular publications. In this way, they can express their cultural preferences and influence public opinion regarding the value of films in the NFA collection. Moreover, their (filmographic) research in some ways takes part in the value attribution to a work, since they improve the contextualised knowledge stored both in the NFA's extensive library and also disseminated in publications and periodicals. The extent to which these activities affect the generally perceived value of a specific film needs to be investigated, but there are certain indicators, like festival awards for digitally restored films or redistributed content popularity, that can be monitored in this regard. Unfortunately, this growing knowledge is not often directly linked with records in the NFA's main catalogue, so its effective application during operational decisions still mostly depends on the participation of appropriate individuals. Also, data gathered to support decisions related to content monetisation are not formalised or centrally stored. This is where the process analysis allowed us to identify a significant amount of provisional documentation created by actors, such as archivists, which is not managed or included in the NFA's document management system. These documents contain valuable data that can, if more effectively shared and linked with records, help make various processes more efficient. Although some of the task management tools (e.g., Trello) have already been implemented at the NFA, the workflow analysis revealed a huge potential for improved process tracking and more automatic data gathering. The resulting knowledge can have significant value itself both concerning film works and for the purposes of archival practice in general, but only in the case that the relevant knowledge can be preserved and shared.

Conclusion

In situations where initial content selection is rarely applied, an institution can experience only a limited need for establishing complex work-appraisal mechanisms with documented rules that are informed by organisational goals and strategies. Nevertheless, there should be well-defined material evaluation procedures in place to allow for sustainable content preservation, at least at the item level. These procedures, together with digitisation, also affect the content availability in regard to its efficient presentation, possible monetisation and further research. Our findings indicate that during various activities, there is some form of content appraisal applied at least for defining priorities. When making curatorial, preservation or distribution related decisions, institutions should consider how these decisions might influence a film's cultural/historical and potential monetary value. Appropriate strategies can then allow a maximum increase

in all these values through the decisions made at key moments. A process flow analysis can help to identify these decisive moments, together with corresponding roles and responsibilities, and to recognise specific knowledge or data required. Correct and appropriately implemented decision-making mechanisms can in the long term contribute to an institution's success, e.g., in terms of reputation and sufficient funding. Therefore, it is also important to understand how and what kind of knowledge can support these mechanisms, how to collect the additional data required, how to store it efficiently and how to make it accessible whenever it is needed. The update of an institution's systems for content management and cataloguing provides a good opportunity for analysing and potentially revising its operations.

The NFA found itself exactly in this situation, since the new electronic systems need to support both the NFA's traditional preservation activities and its new services, which include digitisation and digital content exchange. The systematic approach taken allowed the NFA to examine all of its key processes, roles and responsibilities, as well as to pay attention to appraisal mechanisms. The results were used to identify key decisive points, improve documentation and knowledge sharing and introduce new tools for better content management. Our findings illustrate how an interdisciplinary approach to investigations originally limited to system upgrades can contribute both to understanding various mechanisms and to a discussion about content value appraisal in general. This approach also opens opportunities for the refinement of internal processes and the construction of new information systems that address the need for more efficient metadata management without making it too rigid and centralised; or more radically, it opens opportunities to consider a more innovative approach to recordkeeping, as proposed by Findlay (Findlay, 2017). With the growth of collaboration between archives and a tendency to be more open to the public, there can also be a more apparent 'participatory approach' introduced, as described in relevant literature (Huvila, 2008). This means that external actors can be invited to add relevant pieces of information and participate in the appraisal process, e.g. by creating their own selections of works with justifications for the purposes of knowledge enhancement. Overall, all of these steps can underpin an institution's position in society in a variety of ways.

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LISTENING WITH/IN CONTEXT: TOWARDS MULTIPLICITY, DIVERSITY, AND COLLABORATION IN DIGITAL SOUND ARCHIVAL PROJECTS

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Abstract

Despite increasing attention to the preservation and development of sound archives in academic research and cultural heritage institutions, they are yet to be more substantially embraced in larger theoretical debates on archival theory and practice. Fraught with contested histories through the legacy of ethnomusicology, rooted in the enterprises of colonial imperialism, now in the era of mass digitization and distribution, many sound collections are attempting to develop ethical and empowering methodologies that support community involvement and a vigorous remediation between sound and visibility. Addressing this confluence of concerns, this article considers the ways in which contemporary digital sound archival projects are encouraging an engagement with cultural history and memory in innovative and complex ways, mobilizing the affordances of digital tools and community-based support material with careful attention to the negotiation between its sonic and visual constituents. Through an analysis of two case studies – The Roaring ‘Twenties and Smoke Signals Radio Show Archive – this article examines how contemporary digital archival projects activate and remediate sonic documents and their contextual counterparts to invite a diverse, multifaceted, and multi-sensory encounter with history, memory, knowledge, and the past.

KEYWORDS: digital audio projects, community archives, cultural history, digital humanities

Steering away from the supposed novelty and emergence of sound in the humanities, which often reinforces the supremacy of vision and further perpetuates other dominant discourses, scholars are increasingly recognizing that sound is not just (or either) ephemeral object or event, but a key method of framing history. With the arrival of digital technologies, new questions and opportunities arise about how digital tools can contribute to a rigorous reconstruction of historical soundscapes, performances, and ways of knowing to re-establish and re-sound the complex, interconnected, and multifaceted relationships between histories, events, places, voices, and communities. Through two examples of digital sound archive projects, The Roaring ‘Twenties and Smoke Signals Radio Show Archive, this article examines how sound can be used as a method to situate cultural experiences and historical sonic events in a way that is more diverse and embodied for contemporary listeners through a methodology that is attentive to the contextual and situated aspects of the recordings as well as the necessary visual and textual components in their re-presentation online. The Roaring ‘Twenties is an extension of a book published by the project’s creator, Emily Thompson, titled *The Soundscape of Modernity* (2004), that historicizes the “intersection of the evanescent and the concrete,” meaning the interaction between the ephemeral vibrations of sound with the material world that attempts to control its vibrations (Thompson 2021). The website (<http://nycitynoise.com/>) dedicated to the sounds of New York City circa 1930 adds to the growing body of other similar projects utilizing historical sounds but is explicitly historically minded to “evoke the original contexts of those sounds, to help us better understand that context as well as the sounds themselves” (Thompson 2021). Smoke Signals Radio Show Archive is an ongoing collaborative archival project spearheaded by faculty and students at Western University in London, Ontario, Canada to digitize, classify, describe, and provide access to audio files from the long-running Indigenous radio broadcast called *Smoke Signals*, produced and hosted by Indigenous activists, educators, community leaders, and Elders Dan Smoke and Mary Lou Smoke. Beginning in 2019, the Smokes donated their wealth of cassette tapes to the project,

then co-led by Paulette Rothbauer, Associate Professor in the Faculty of Information and Media Studies, and Marni Harrington, retired Associate Librarian and former Library Director, where Indigenous students and Master of Library and Information Science students worked together to organize and transcribe the recordings, and develop the website on Omeka, an open-source web publishing platform for sharing digital media-rich collections. The content is unique, representing a distinct history, and the online digital repository highlights and honours this period, putting listeners in dialogue with this past in a multi-media format that directly involves Dan and Mary Lou. Careful consideration of the audience is paramount for both, as the project development and realization involves meticulous and detailed transcription of the radio broadcasts, and with The Roaring 'Twenties Thompson states, "we consciously kept multiple audiences in mind, and we aimed to speak to range of different groups through our design" (Thompson 2021). In uniting both projects, the aim is to elucidate the potential of the convergence of sound artefacts and recordings with digital methods and attention to context and audience, revealing how these contemporary digital projects activate and remediate sonic documents and their contextual counterparts to invite a complex, multifaceted, and multi-sensory encounter with history, memory, knowledge, and the past. A key influence for this paper is what Michelle Caswell and Marika Cifor (2019) designate as an ethics of care to digital archival collections where "digitization is more than a singular event, but rather becomes perceived as part of a larger series of steps to developing an ongoing ethical relationship between records' creators, subjects, users and communities" (160). An ethical feminist approach to digital archival projects then is culturally situated, mutually dependent, and involves an ongoing relationship between different stakeholders and participants (Caswell & Cifor 2019). Before turning to these case studies, first I will outline pertinent scholarly debates addressing the multifarious status and functions of sound archives, the various ontologies and characteristics of sound as a medium and modality that inform the preceding debates, and the exigencies and concerns with digital access, preservation, and tools, in order to articulate the contours and confluence of these subjects, and the myriad implications and stakes of these questions.

In turning to the small but mighty body of literature on sound archives, it's clear that although academic research and cultural heritage institutions have made measurable strides in the interest and development of sound archives, especially following the digital turn, they are yet to be more substantially embraced in the theoretical debates on the archive. According to archival studies scholars Kate Eichhorn (2009) and Anette Hoffman (2015), sound archives have received scarce attention, likely due to their disciplinary specificity and the hermeneutic form of many of the collections. More recently, in the anthology *Digital Sound Studies*, the editors argue that because of the fraught histories of early sound collections, many of the institutions now housing them are grappling with questions of how to preserve this material equitably in an era of mass digitization (Trettien et. al. 2018). Equitable preservation means asking what it might mean and look like to return digital sonic artifacts to their communities of origin as well as how to rightfully frame, activate, and engage with these digitized materials. For the editors, "digitization would seem like a promising way to ensure that communities have access to their cultural heritage, but because reliable internet is a rare and costly commodity in many parts of the world, and especially in the global South, transmitting data online is untenable" (Trettien et. al. 2018, 8). Furthermore, since audiovisual recording technologies are ever-changing, developments in format and deterioration mean that there is a greater imperative to safeguard, remediate, and mobilize these recordings in archives as time goes on (Seeger & Chaudhuri 2018). In Anthony Seeger and Shubha Chaudhuri's (2018) study of audiovisual archives, they focus on a form of "emerging archive" – community-based archives that specialize in audiovisual recordings for research and shared

community heritage is vital because “in some cases these recordings have been made possible for communities to renew traditions that were long abandoned and nearly forgotten” (4). Consideration of their longevity and future uses, in the form of digitization, activation, and potential remediation, is paramount in these varied but intersecting circumstances. As Rebecca Dowd Geoffrey-Schwinden (2018) writes, “a turn to diverse media in the presentation of audible history will encourage a vital rethinking of the performance of archival research as well as scholarly production and reception” (232). It is within this turn that I locate my case studies, where scholars, archivists, and collaborators have become encouraged to rethink their approach in working with sound recordings, opening alternative methods and opportunities for their collecting, hosting, and presenting materials to the public.

Nonetheless, the particularities and exigencies of sound, sonic artefacts, and audio recordings within an archival framework endure. Musicologist Peter McMurray (2015) argues that when archival objects surpass the sensory and media logics of the repositories that hold them, they exhibit a quality of “archival excess” delineating the margins and classifications that exclude their existence (264). They do not fit neatly into the catalogues, finding aids, and other archival inventories that support and maintain most collections and thus they exceed the capacity of the archive for order and containment while prompting questions of the classificatory logic of the archive based on strict guidelines of what kinds of materials get valued and saved. Even if sonic documents are acquired, the question then becomes how they get integrated into these systems of classification and made available for public audiences. But, as McMurray specifies, it is precisely because of their evasion that the archive can come into being. Archives exist because of their limit, because of what is not included, and on the other side. For McMurray, musical instruments, recording devices, and other sensory archival objects are often excluded from the collections, debates, and practices, and yet this exclusion is fundamental to its logic. As points of material rupture, these “boundary objects” are where the “enunciative possibilities” of an archive, discipline, or discourse can begin to break apart (265). By exceeding protocols and confronting complacent systems of record-keeping, organization, and presentation, these objects have the potential to radically extend how the archive can be studied, experienced, and understood. Thus, sound documents in the archive are disruptive and resistant, holding potential for otherwise experiences and encounters in archival contexts, and with history, knowledge, and the past.

Importantly, the characteristics of sound as a medium cannot be ignored when discussing sound archives. Artist and scholar Brandon LaBelle (2008) writes, “Sound is intrinsically and unignorably relational: it emanates, propagates, communicates, vibrates, and agitates” (ix). For many contemporary sound studies scholars, these relational aspects and propensities are what make sound and listening have political and ethical implications. Tara Rodgers (2018) suggests that listening bodies are sonic-political transducers whereby sound absorbs individuals and is then converted into kinetic and social modes of engagement with the potential to mobilize diverse forms of political activity. Rodgers states, “Sound enrolls the listening body in a web of material connections that transect boundaries of subjects, species, organic and inorganic matter, and bodily interiors and exteriors” (236). Thus, it is material, metaphoric, discursive, networked, and, indeed, contributes to our understanding and experience of the world, in the past, present, and future.

Yet, it is precisely this ephemerality and evanescence of sound as a medium that makes the sound archive “a compelling contradiction” Kate Eichhorn (2009) declares, that challenges the very promise and aims of the archive to order and preserve through its evanescence, ephemerality, and transience (185). As Eichhorn observes, “nowhere is the archive’s creative potential more apparent than at its limit, the point where it fails to fulfil its promise of preservation and order. A sound archive naturally approaches this limit” (185). In conjunction with this ontological paradox, of the archive striving to preserve something which can never be fully captured and contained, there is a problem that arises from the tension between aural information and metadata found within the files of many sound archives. What one hears and what one reads may differ in subtle ways or appear to be entirely incommensurable. This chasm is what motivates Anette Hoffman’s (2015) development of a method for listening to sound archives called “close listening” – an attempt to grasp as many audible features as possible of the audio recording (75). This includes all seemingly inconsequential details on the track, everything one can hear despite its lack of documentation in the metadata, for example, as Hoffman delineates, “the noise of a rotating cylinder or scratched record (which can deliver clues on how often the record has been played); the recordist’s announcement (the ‘acoustic tag’); the languages, performative, and musical genres documented on the recording; the features of the voice of the speaker and singer, together with accent, pauses, and background noises” (535). What this makes clear is that sound archives may be antithetical to what is noted or described in the descriptive metadata, revealing that archived sound material often speak or sound out beyond what has been designated or attributed to them by archivists. “Sharp contrasts between the audible and what was registered in the written documentation,” as Hoffman notes, “often announce the logic of archiving” (535). Hoffman decisively calls upon a change in terms of engagement that requires more than a theoretical re-conceptualization, but to sound out acoustic collections with new methods of listening to recordings that analyze acoustic files beyond their archival status as mere documents or specimens. An attempt to bridge this divide and consider sound recordings as part of their wider social, cultural conditions, also involves a reconsideration of the division in sound studies and the way sound is conceptualised and approached on a methodological level, largely between the ontological turn and auditory culture, and in considering sound as either object or event. Alongside “close reading” to sound archives, Hoffman (2020) draws on Rodney’s Harrison’s (2013) “reassembling” – which is a systematic reconnection of recordings with associated documentation that is often stored elsewhere, in other public repositories and holdings, and beyond the institutional confines. Hoffman says that these two strategies – close listening and reassembling – can substantially reframe engagements with sound archives. While this article does not directly enlist these approaches, the creators of the digital archival projects in the case studies enact consonant versions of both by identifying, mapping, registering, and attending to additional elements and extra archival materials to enhance the meanings of the recordings.

Acknowledging the consequences of the proliferation and acceleration of new media and digital technologies, Diana Taylor (2010) points out that the digital raises new issues about collective memory, knowledge production, and their transmission in the so-called era of the archive. Technologies provide new paths for our futures in the reshaping of the present and the past through different forms of access, preservation, and engagement with cultural memory material. In an earlier work, Taylor (2003) turns to the role of performance in the transmission of cultural knowledge and social memory, urging us to think more seriously and robustly about embodiment as an epistemological framework that complicates prevalent notions in Western discourse around knowledge production, preservation, and archives. By taking performance seriously as a system of learning,

storing, and transmitting knowledge, this framework allows us to expand what we understand as “knowledge” (16). Performance, here, functions as an episteme – a way of knowing, not simply an object of cultural and historical analysis. As many contemporary sound scholars articulate, sounding and sonic phenomenon can be a form of performance and event especially while listening is a multi-modal experience involving visual stimuli, haptic sensations, tactile perceptions, and kinesthetic responses. In Taylor’s critique of ethnographic representation, “The unidirectionality of meaning making and communication also stemmed from and reflected the centuries-old privileging of written over embodied knowledge (8). Writing’s link to colonial power is based on the way that writing separates the source of knowledge from the knower, separating knowledge from the body. While all transmitted knowledge is mediated in multiple ways, as Taylor makes clear, it is the forms that this mediation takes that can differ widely depending on the medium, original source, and context.

Some archival scholars agree that the digitization of archival documents is a force for good and a way for wider audiences to engage with the materials, mobilizing the recordings and moving them outside of the sequestered environment of the archive (McCarty Smith et. al. 2019). In other words, access should be prioritized, and digitization facilitates collaborative, transcultural research, which is one of the conditions of these multifaceted archival objects. However, as Hoffman maintains (2020), digitization does not automatically remove all the barriers, challenges and fallacies that are embedded within archival materials. Issues of searchability, language barriers, partial access, and racializing categories often continue to persist in these digitized contexts. For Perla Olivia Rodríguez Reséndiz (2014), if there is no access to the document, then the document is meaningless. As such, preservation and access are synonymous. Rodríguez Reséndiz also reminds us that for a long time, access to audio materials was highly dependent on the availability of playback equipment and the creation of copies for users. Despite the greater attention and increased access to these works, the systematic preservation and consultation of these recordings is complicated by their diversified nature. The data and larger insights contained within them offers a multitude of information on their cultural and artistic life, which goes far beyond their audio signals and the metadata articulated in the cataloguing process. These events are never a neutral operation, which means that more fulsome and complete access must involve the entanglement with wider contextual information, which is not often easily available or attainable, especially in cases of archival collections created under colonial conditions that are comprised of materials from multiple disparate communities.

Decisively, the collaboration between digital humanities and sound studies holds many possibilities for transforming silent and text-centric cultures of communication into rich multi-sensory experiences that accommodate fresh approaches and diverse ways of knowing. By joining sound studies in meaningful conversation with digital media, digital platforms can be harnessed to amplify underrepresented voices, produce new variations of academic research and outputs, as well as new modes of experience and knowledge transmission. Thinking with the aforementioned propositions – the disruptive potential of sonic objects and sensory artefacts within the archive and the potentialities of digitization and digital tools for mobilizing archival documents and generating collaborative engagement – by analyzing two case studies, The Roaring ‘Twenties and Smoke Signals Radio Show Archive, this article elucidates the ways in which these contemporary digital projects activate and remediate sonic documents and their contextual counterparts in ways that are politically resurgent, challenging dominant approaches to sound archives, and regenerating debates about public knowledge.

These two digital sound projects are especially distinct in their use of the affordances of digital infrastructures, technology, and tools in ways that are collaborative and comprehensive especially in comparison to other existing similar projects. For instance, while the online collection of poetry PennSound¹, which is comparable in scope to the parameters of the two case studies, provides basic descriptive metadata embedded in each downloadable MP3 file, endeavours to provide all the bibliographic information with accurate metadata, as stated in its online Manifesto (2003), a single poem can be separated from its environment. By divorcing the sound from its larger contextual setting and milieu, this approach has the potential to erase the multiple tangential but crucial relationships that formed the event and recording. The curators of SpokenWeb², another online collection of sound recordings, Annie Murray and Jared Wiercinski (2012), point out that while most digital sound archives foreground listening, their structure is typically multimodal, which means that the visual elements of online collections of digitized sounds need careful consideration. This includes the elements of site navigation, audio visualization, design, and other various functionalities. Both notions – ensuring the acknowledgment and reinforcement of social circumstances and relationships, plus a keen attentiveness to visuality, which is essentially another significant relationship – are foregrounded in the two selected case studies.

First, The Roaring ‘Twenties is described on its web interface as an “interactive exploration of the historical soundscape of New York City.” It was originally conceptualized and built by Emily Thompson, sound historian at Princeton University, and Scott Mahoy, design specialist at the University of Southern California in 2013 and produced through the multimedia journal *Vectors* of the Institute for Multimedia Literacy at the University of Southern California. It is a rich, complex, and densely layered project that constructs a digital collection of sound to deliver a wealth of historic sound recordings. The aim is not only to provide access to this sonic information, but to evoke the multitude of contexts and meanings of those sounds through multiple forms of engagement. Thompson and Mahoy explored the Municipal Archives of the City of New York, cataloging over 600 unique complaints about noise in the late 1920s while reproducing over 350 pages of these materials. The digital project also includes dozens of excerpts of Fox Movietone newsreels and early sound experiments that captured and remediated the sounds of New York City, as well as hundreds of other photographs and print materials that focus on noise. Using digital tools, the myriad conditions of these lost and forgotten sounds is recouped. As an assemblage of historical documentation on what New York residents considered *noise*, a socially contingent category, the historical acoustemology³ of these various moments in time is emphasized (Geoffroy-Schwinden 2018). Through this narrow curatorial focus, we are presented with a historical uncovering of how residents, at that time and place, heard, interpreted, reacted, and indeed contributed to their soundscape.

To organize and present these discrete materials, The Roaring ‘Twenties employs three complementary interfaces or sections to “plot a course through the content”: Sound, Space, and Time. These nodes are not merely thematic but offer rubrics and theoretical

1 <https://writing.upenn.edu/pennsound/>

2 <https://spokenweb.ca/>

3 This term comes from ethnographic research done by Steven Feld in the 1990s with the Kaluli people in the Bosavi rainforest region in Papua New Guinea. Combining “acoustics” and “epistemology,” the concept denotes a phenomenological understanding of the world through sound that fuses embodiment and relational ontology where connectedness via sound is a condition of being and knowing among human and non-human ecologies.

entry points from which to engage with the materials. A new version of the website is underway that will replace and improve the original Flash-based version, which is announced to viewers upon entering the current iteration. Currently available is a draft version-in-progress with a new team, revised, and recoded in 2019 by Emily Thompson and Ben Johnston, produced through the McGraw Center for Teaching and Learning at Princeton University.

Although this project brings together a vast array of materials, it does not deploy a distanced or cursory overview or presentation. Instead, Thompson's background as a historian largely informs this thorough and nuanced approach with what she calls a "historicized mode of listening" in the online Introduction – invoked in her gathering and reassembling, and in the subsequent visitor's experience. Thompson's approach thus is attentive and attuned to differentiated audiences. Amassed through detailed mining and care, the material is presented using a stylized multimedia interface and common Internet tools that allow visitors to linger with the artifacts, following different routes and crafting their own connections and conclusions. Visitors are granted agency to participate in the work of re-historicizing sound, implicating them in the replication and re-enactment of sonic artifacts. According to Rebecca Dowd Geoffrey-Schwinden (2018), this process is significant for "transforming historical audition for modern listeners from a mere sonic event to a sonic experience" (238). Furthermore, this online format mimics the experiential, nonlinear process by which we experience sound and accrue sonic knowledge in real life across axes of physical experience and psychological interpretation (238). Not only does Thompson offer detailed introductory notes contextualizing the project, methodology, and different tools users may come across in their journey, but book-ending the triad of Sound-Space-Time is an Info section that provides background and links to additional resources. The Historical Narrative item in this section links to a chapter excerpt from Thompson's *The Soundscape of Modernity: Architectural Acoustics and Culture of Listening in America 1900-1933* (2004), a key influence that forms much of the foundational research for this digital project, as well as one of the first extensive studies on acoustic cultures. Users can also access a digitized copy of *City Noise: Noise Abatement Commission New York City* from 1930, another primary resource for the project. The About the Noise Complaints page states, "The collection offers a unique view into the city's past. It documents not just the noises of New York, but also the attitudes and language of its citizens. These letters help us to recover the texture of daily life on the streets and in the dwellings of the seven million people who called the New York City home at this time." For instance, turning back to the Sound page, which features a visual representation of the different categories from the Noise Abatement Commission of 1930, the groupings range from Traffic, Transportation, Homes, Streets, and more; each then with its own sub-categories. As another example, Collection Deliveries, Garbage, includes both noise complaint documentation and digitized film reels, where the former were mostly made in Manhattan about the disposal trucks. The videos depict a single shot of street cleaners, a civic campaign enactment with two little boys to clean up the streets, and a clean-up drive on the Lower East Side. We are presented with a range of material, audiovisual and text-based, broadly related to the thematic of garbage, sketching out the different ways in which were people were hearing, thinking, feeling, and engaging with garbage in 1920s New York City.

In the Space category, links to various newsreels, newspaper clippings, and city documents are plotted via two versions of a New York City map, both a digitized historic version from 1933 and a contemporary Google map, whereas the Time section organizes the historical information using a timeline structure and graphics. These two nodes present both a spatialized representation and a chronological history, re-inscribing the

social and historical complexity of these sounds as more than objects, but as interconnected events in time and space. This encourages a novel way to listen to the archive – one that is more historically minded – and a way to recontextualize online audio content. The merging of vintage stylings with contemporary markers of the Google map with its bright, colourful standardized design of highways, land masses, and bodies of water serve as reminders that the past is always mediated and incomplete, filled in through the technologies and methodologies of the present. Through its diverse structure and form, including hundreds of buttons, drop-down menus, items, and paths, this digital sound archive project foregrounds slowness and attention, encouraging intimacy, entanglement, and discovery at one’s own pace and direction.

In the Introduction to the project, Thompson writes, “The best work in aural history is as much about listening as it is about sound, recovering the meaning of sound as well as the sound itself. To recover that meaning we need to strive to enter the mindsets of the people who perceived those sounds, to undertake a historicized mode of listening that tunes modern ears to the pitch of the past.” This digital space, then, dedicated to marrying these worlds – sound and listening, visual with audio, past and present – attempts to recreate and more fully understand and situate sonic cultures through a diversity of digital tools, archival documents, and sonic artifacts.

Formally launched in 2019, the second case study is the Smoke Signals Radio Show Archive, an ongoing collaborative project to organize, digitize, describe, study, and provide access to the audio recordings from the long-running Indigenous radio broadcast called *Smoke Signals*, produced and hosted by Indigenous activists, community leaders, educators, and Elders Dan Smoke and Mary Lou Smoke. It features nearly 35 years of radio shows featuring interviews with notable Indigenous artists, musicians, writers, scholars, spiritual leaders, and politicians. The project involves many team members, primarily out of Western University in London, Ontario, whose Faculty of Information and Media Studies (FIMS) and the FIMS Graduate Library provide ongoing support. As stated on their online website, the goal of the project is to provide an open-access database and repository of these rich and historically significant materials for the public to read, listen, and engage with.

In many ways, the Smoke Signals Archive project works in tandem with the material itself, and the contexts from which the radio show worked out of and within, including notions of responsibility, reciprocity, interrelationship, and community, providing an entry point into invaluable knowledge and an Indigenous grassroots worldview. Project lead, Paulette Rothbauer, has said that ultimately the project is an “act of reciprocity” and a way to “honour the many contributions Dan and Mary Lou have made over the years – not just at Western but across and beyond southwestern Ontario as activists, storytellers, teachers and community leaders” (Ferguson 2022). Now the longest-running Indigenous radio program in Canada, the Smoke Signals Radio Show started in the 1990s on CHRW, the campus radio station at Western University in London, Ontario to explore the nuances of Indigenous culture, customs, and beliefs by featuring guests with diverse worldviews and stories. In 1990 Dan and Mary Lou Smoke were asked to host a

short guest segment on the Oka Crisis.⁴ Within a year, they were offered their own recurring timeslot on the station, and Smoke Signals has continued ever since. Dan Smoke, a member of the Seneca Nation, Killdeer Clan, Six Nations of the Grand River Territory; and Mary Lou Smoke, a member of the Ojibway Nation, Bear Clan, from Batchawana Bay on Lake Superior; have carved a space for meaningful discourse to showcase the multifaceted and diverse forms of Indigeneity for widespread audiences in local, national, and international communities (Rothbauer et. al. 2021).

Making this content publicly accessible, faculty and students from Western University have been working with Dan and Mary Lou to create a digital archive to showcase selected episodes from the 1990s to the 2000s. The themes that arise in the episodes cut across issues of activism and social justice movements that are still extremely relevant today. The archive also functions as a celebration and a form of remembrance of the work and legacy of the Smokes in and beyond the community thus becoming an act of reciprocity to honour their contributions.

Importantly, this digital project emerges out of direct consultation with the creators of the sounds and community it involves, and therefore is deeply collaborative, which is where the throughline and emphasis on context emerges – context through collaboration, marking entanglements in and through this digital space. For instance, when first arriving on the site, visitors are presented with a welcome note from Dan and Mary Lou Smoke in the form of an embedded YouTube video where they offer a few words of welcome and background information on the radio show. This video not only functions as a framing device for the archive and grounds the material in the embodied voices of the radio show hosts, but also sets the tone for the kind of archive that they created – highly personalized, informal, and friendly. The ability of communities to create and manage their own audiovisual heritage enables possibilities for these communities to participate in negotiations and awareness around cultural ownership, previously neglected land rights, local social issues, and the revival of certain cultural traditions. As a thoughtful, humble, relaxed, activist archive, it functions as a memory bank for many members of the Indigenous communities that the radio show seeks to serve, entertain, inform, and support.

The collaborative methods the research team uses to transcribe, describe, and contextualize the digitized recordings is a crucial aspect of this project. For archivist and archival theory scholar Gracen Brilmyer (2018), archival descriptions are sites embedded with power structures and often where complex histories are under- or misrepresented, and, thus, carry potential for political re-framings, nuance, accountability, and transparency (96). In the Smoke Signals digital archive, well-researched and contextualized descriptive notes and comments are provided with the digitized audio, and transcribers are credited on each document, highlighting the importance of their work and what Caswell and Cifor (2019) call the feminist ethics of care in archival digitization: “care might take the form of active listening, acknowledgement, and compensation” (166). Each episode is broken into its constituent segments, and each segment contains a PDF transcript, along with basic metadata. Within each transcript, words in boldface correspond to the

4 In 1990, a dispute over the proposed development of a golf course on Kanien’kéhaka (Mohawk) lands in Oka, Quebec led to a historic 78-day standoff between protesters, Quebec police, and the Canadian Army. Eventually, the protest ended, and the golf course expansion was never built, but the land was purchased by the federal government. They did not establish the land as a reserve or organize a transfer of the land back to the Mohawks of Kanesatake.

system of tags used to organize the website content. Culturally specific meaning is provided via the tags which include proper names and concepts richer than those typically found in standard library authority files or subject headings, for example: Inuk, Ann Arbor Powwow, Haudenosaunee, Killdeer Clan, Robert Mirabel, Pine Ridge Reservation, Coalition Against First Nations Genocide, plus many more titles, phrases, keywords, and locations. While transcripts and tagging are common practices in oral history collections, the significance and novelty of these approaches here lies within the degrees of collaboration in developing and realizing these different elements, which as mentioned, involved a team of Indigenous students and Library and Information Science students, totalling 18 different members over the years. The tags provide correct names of people and places that were often misspelled, wrongly identified, or altogether absent from traditional colonial archives. This web of detail and precision is brought to fruition through the careful and meticulous process of transcription, where the team members were able to think through the importance of these materials and make ethical decisions about how to approach the information, demonstrating what Brilmyer (2018) calls “archival assemblage,” whereby an assemblage approach to records creation and description politicizes archival material and offers a more nuanced entry point for records description. In this way, transcription also becomes a form of care, labour, close listening, observation, and attunement. The Smoke Signals Radio Show Archive thus is a site for learning and reflection on Indigenous media production and broadcasting, critical community voices and listening, which is especially important when contextualized against colonial and racist ideologies, and with the rise and recognition of autonomous Indigeneity.

These case studies show us that by (re)historicizing sound through collaborative methods and digital tools that enable contextual webs of understanding and relation, sound collections can become intimate, interactive, and accessible, inviting us to listen and learn through diverse paths, temporal and spatial frameworks. While they each approach sound, sonic material, and creating media-rich collections differently, they present versions of digital sound projects where visitors can configure their own relationships to sonic documents, and their wider social, political, and historical threads, in unique and intricate ways, because as Thompson (2015) states, “Simply clicking a ‘play’ button will not do” (95). Movement through the recordings and information is not linear or prescribed. The crucial and necessary focus on context when it comes to sound archives forms the central principle to enact a more embodied and diverse engagement which accounts for the ontological complexity of sound.

In The Roaring ‘Twenties, sound is presented as part of a web and network of relations in time and space. In Smoke Signals, the sound of Dan and Mary Lou’s embodied voices and the additional sounds and aural textures of the radio show create a sense of familiarity and connect us to different events and issues through firsthand accounts and perspectives. In aestheticizing and narrativizing the archive through an approach that serves the material and acutely represents the cross-cultural and trans-historical intersections that are so crucial to these specific collections, they produce sites of multiple interpretations across not only time and space, but between multiple subjects, objects, and texts, creating systems in which both content and context engages the visitor’s historical imagination. Transcribing the audio works becomes a form of ethical labour and care involved in the process of remediating these aural documents and bringing to life their crucial contributions to history and alternative forms of knowledge. While accessibility is not a direct or explicit consideration in these projects, the diverse contextual information that is provided alongside the audible sonic artefacts offers an engagement across numerous modes of access. The multiplicity that each one is both grounded upon and produces elucidates the potential of digital sound collections to transform

archival modes and models into rich multisensory experiences that endeavour to re-establish, re-build, and re-thread the intricate and complex relationships between different sites, times, places, and communities. Due to their emphasis on multiplicity and diversity, digital sound projects such as these engage in alternative modes of knowledge production that resist dominant narratives and reopen debates about what constitutes as public knowledge and how we can present, re-present, and engage with its vastness.

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ETHICS OF SOUND QUALITY IN ONLINE TEACHING, LEARNING AND CONFERENCING: PERSPECTIVES GAINED DURING THE COVID PANDEMIC

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Abstract

Recent developments in using audiovisual software for teaching and learning are very challenging in terms of achieving a minimum of audio and visual quality. This article will focus on the correlation between visibility and audio quality of content transmission, as well as ways of making specific experiences in choosing tools and publicly accessible methods preservable.

Each expert provides their personal and professional experiences concerning audio processing applied to an online learning environment, the challenges of teaching singing online, and the audiovisual preparation of online conferences.

The experts work in the audiovisual archives field and are all connected through their work advocating for small-scale archives in Asia. They are frequent contributors to the IASA Journal. In this article, their most recent perspectives with ethics in sound quality will be the centre of the exchange of ideas.

KEYWORDS: ethics, sound quality, social practice, online learning

Audio Processing Applied to an Online Teaching Environment

Ahmad Faudzi Musib

As a Senior Lecturer in the field of Audio Engineering and Sound Preservation, the author has observed the difficulties that students and teachers have encountered in adapting to online learning due to the pandemic. The sudden transition to fully online learning at Universiti Putra Malaysia (UPM) has had a significant impact on educational approaches and experiences, particularly in the field of audio engineering and sound preservation. Students and teachers had to suddenly cope with education in a home environment which could be disruptive and distracting, and many students also faced technological limitations that further exacerbated online classes. Courses that rely heavily on audio and video materials faced additional technical challenges due to the introduction of another layer of technology: videoconferencing software.

This section aims to explore the challenges faced by both students and teachers in adapting to this new mode of education and to suggest potential solutions to mitigate the negative effects of online learning. The specific aim is to answer the research question of what factors should be considered in determining whether an audio format is suitable for use as a means of transmission and streaming for online teaching to achieve at least a minimum desired level of audio and visual quality. By investigating the various technical aspects of audio formats, such as dynamic range, clipped samples, and DC offset, the effectiveness of different file types, including wav, mp3, and aac, are examined in the specific context of online learning. Ultimately, this research aims to provide a better understanding of the optimal audio formats for online teaching to ensure that students and teachers can have a seamless and productive learning experience.

In the 2020-2021 academic year at UPM, I taught the course “Studio Recording Techniques,” which has been part of the required curriculum for students in their fourth semester of the Bachelor of Music programme for over 20 years. However, due to the COVID-19 pandemic, the course was shifted to online instruction, which presented specific challenges.

One of the main technical considerations in planning the online shift was lecture materials. Sound quality was a major concern, as pre-production of class materials, which were mainly in multitrack stereo format, needed to be converted to a suitable file compression for online distribution. Additionally, recording demonstrations presented a challenge as they were recorded via line-in, for example demonstrating an audio recording of an electric or acoustic guitar using various stereo microphone techniques, such as the Mid-Side technique, which involves very close placement of two microphones.

Another technical consideration was transmission issues. Stable connections and sufficient bandwidth were required for uploading and live streaming with the students. Audio streaming presented a challenge as the signal was streamed from several different places, which required suitable blending between audio and visual. These issues impacted the overall effectiveness of the online instruction of the Studio Recording Techniques class, which prompted the need for further analyses of the data.

Internet speed test profiles were collected by the students from various cities in Malaysia during the COVID lockdown. The tests were run to determine the quality of the internet connection in different locations, and to identify potential issues that may arise during online learning. Some of the internet speeds recorded were fast, while others were slow (Figure 1). Slow internet speeds caused by unstable connections and low bandwidth can result in stuttering and bubbly sound during online lectures. With such a range of internet speeds, it is important to consider the file format used for transmission to ensure a smooth delivery of online lectures and streaming of sound files.



Figure 1: Speed test profiles available to the students (Ookla Speedtest: <https://www.speedtest.net/>).

One lecture from the course focuses on the electric guitar. Peripheral equipment connected to the use of an electric guitar is addressed, including the stomp box and multi-effects pedal, and guitar technique. In addition to describing some fundamental aspects of the electric guitar and its electronics, the lecture includes sound examples derived from the five types of pickup selectors:

The pickup selector switch is used to turn several pickup combinations on and off. For instance, a dual-pickup guitar’s selector switch would enable both simultaneous use of both pickups as well as individual control of each pickup. This switch is found on electric guitars that have five different pickup configurations. The pickup selector can be used to turn on the neck, middle, and bridge pickups individually or in various combinations. On a Fender Stratocaster, there are two tone controls that regulate the tone’s brightness. The center pickup is adjusted by the lower tone control, while the neck pickup is adjusted by the top tone control. The tone produced by the pickups depends on where they are placed. Pickups placed closer to the guitar’s bridge produce a bright, snappy sound, while pickups placed closer to the neck produce a mellower, warmer sound.

Sound quality issues can affect the demonstration of different pickup configurations and their respective sounds. Similarly, transmission issues can lead to sound streaming problems, which would further affect the perception of the different pickup configurations and their respective sounds. Important aspects of the electric guitar sound may be lost. By analyzing the sound samples with an amplitude statistic, the differences in dynamic range, DC offset, and clipped samples can be identified and used to determine the optimal file format for the desired listening experience. Figure 2 illustrates the results of the analysis of three different file formats: wav, mp3 and aac.

		WAV		MP3		AAC	
		Left	Right	Left	Right	Left	Right
1	PEAK AMPLITUDE:	-1.92 dB	-1.92 dB	-1.96 dB	-1.96 dB	-1.94 dB	-1.94 dB
2	TRUE PEAK AMPLITUDE:	-1.92 dBTP	-1.92 dBTP	-1.96 dBTP	-1.96 dBTP	-1.92 dBTP	-1.92 dBTP
3	MAXIMUM SAMPLE VALUE:	26258	26258	26140.95	26140.95	26199.00	26199.00
4	MINIMUM SAMPLE VALUE:	-16180	-16179	-16165.98	-16165.98	-16525.00	-16525.00
5	POSSIBLY CLIPPED SAMPLES:	0	0	0	0	0	0
6	TOTAL RMS AMPLITUDE	-15.09 dB	-15.09 dB	-15.12 dB	-15.12 dB	-15.06 dB	-15.06 dB
7	MAXIMUM RMS AMPLITUDE:	-12.56 dB	-12.56 dB	-12.55 dB	-12.55 dB	-12.54 dB	-12.54 dB
8	MINIMUM RMS AMPLITUDE:	-87.75 dB	-87.63 dB	-88.79 dB	-88.78 dB	-85.83 dB	-85.78 dB
9	AVERAGE RMS AMPLITUDE:	19.44 dB	19.44 dB	-19.52 dB	-19.52 dB	-19.34 dB	-19.34 dB
10	DC OFFSET:	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
11	MEASURED BIT DEPTH:	16	16	32	32	16	16
12	DYNAMIC RANGE:	75.19 dB	75.07 dB	76.24 dB	76.23 dB	73.28 dB	73.24 dB
13	DYNAMIC RANGE USED:	75.00 dB	74.95 dB	76.20 dB	76.20 dB	72.95 dB	72.95 dB
14	LOUDNESS (LEGACY):	-13.89 dB	-13.90 dB	-13.86 dB	-13.82 dB	-13.97 dB	-13.97 dB
15	PERCEIVED LOUDNESS (LEGACY):	-8.10 dB	-8.10 dB	-7.03 dB	-7.03 dB	-8.05 dB	-8.05 dB

Figure 2: Class demonstration materials in three file types were compared and analyzed (Table by the author).

The wav, mp3, and aac Adobe Audition file types were contrasted and examined. All 15 points of examination were subjected to an amplitude statistical analysis, which reveals that values were varied. An amplitude statistic, which shows dynamic range, spots clipped samples, and records any DC offset; was used to assess the sound samples. The wav and the mp3 had negligible value differences (yellow), but the loudness analysis revealed the average amplitude (red), with a + 0.03 to + 0.08dB difference between the two.

DC offset refers to a constant voltage offset that is present in an audio signal. This offset can result in the signal not being centered around zero, which can cause issues with processing and playback. Clipped samples occur when the amplitude of an audio signal exceeds the maximum level that can be represented by the bit depth of the audio file format. When comparing the sound of an electric guitar in different file formats, the presence of DC offset and clipped samples can affect the perceived quality of the sound.

According to the analysis in Figure 2, the aac audio in the visual sample (blue) has a perceived loudness of + 0.05 in both the left and right channels, which accounts for the human ear's preference for middle frequencies and is acceptable for live streaming. The dynamic range values change slightly from the aac. The differences between the amplitude reading and the wav values are caused by visual compensation for the variations.

It is necessary to determine whether an audio format is suitable for use as a means of transmission and streaming for online teaching to achieve at least a minimum of the desired audio and visual quality. With the above-mentioned internet speeds of my students, I will continue to stream AAC with audiovisual samples and MP3 at 192 kbps with audio-only samples.

At 128-160 kbps, good encoders provide acceptable quality, and at 162-192 kbps, extremely good quality is attained. One major aspect of mp3 is that it is lossy, which means that it removes information from the input to save space. By modelling human hearing features such as noise masking, mp3 algorithms, like other modern encoders, ensure that the noise they remove are not detectable by human listeners. The significance of this is that it can result in significant storage space reductions while incurring little, if not non-existent, fidelity losses¹. Prior to all these preparations, files of the best quality are also delivered to the students via Google drive link. These files are shared in order to preserve their full sound qualities.

Face-to-face learning has now given way to nearly 100% online learning in Malaysia, except for some necessary face-to-face meetings and hybrid forms of teaching. Online instruction is likely here to stay, and teachers will need to get familiar with its routines. Classes that heavily rely on audio and video demonstrations present unique challenges. Balancing streaming requirements and audiovisual quality can be difficult, but using publicly accessible tools to inform a data-driven approach can enrich online learning experiences. Now that we've had a few years to adjust, lessons learned from the initial lockdown period might be applied in a systematic way when teaching online in the future.

1 For more on this topic, see Gomez, G. and Sanchez, R., 2005. End-to-end quality of service over cellular networks. England, John Wiley and Sons, pp. 281-282.

Teaching Singing Online: Missing Vibrations and Missing Memory

Chinthaka Prageeth Meddegoda

Since 2010, I have been a lecturer on the theory and practice of Hindustani vocal music at the University of the Visual and Performing Arts (UVPA) in Colombo, Sri Lanka. I myself learned Hindustani music in North India, living there on and off for ten years and working as a school music teacher in international schools in Varanasi for two years. During my education in India and my first ten years of teaching at UVPA, I never experienced online music education as I do today, nor am I aware of any contemporary vocalists who were taught online. In order to articulate some ideas about the experience of online teaching, I will draw upon my own subjective experiences over the past three years.

The COVID-19 pandemic rapidly increased the normalization of virtual teaching environments, and educators had no opportunity to fully investigate or understand the pedagogical implications of this shift. Secondary and tertiary education systems in South Asia have adopted online teaching as an alternative method to teaching Hindustani music in person, hoping eventually to get back to 'offline normality'. Teaching and learning Hindustani vocal music online remain extremely challenging endeavours at present. Role models within the Hindustani music market and artistic arena like Rashid Khan, Kaushiki Chakraborty and many others have been learning how to adapt their teaching methods to this new online environment, which previously did not play a role at all. They issue many short clips and explain their approaches in micro steps.

IT experts and software vendors tout myriad technical strategies to make online teaching successful even in areas such as music, dance, cooking, sports, or in clinical surgeries—subjects that were traditionally not taught through online means. But in actual practice, the pandemic has prematurely forced a digital turn to education, without regard to the loss of nuance in fields where oral tradition and physical cues are vital to knowledge transmission. Tech companies also fail to recognize digital divides: not everyone has equal access to the full technology of online videoconferencing platforms. Due to low bandwidth and economic concerns about data usage, many of my students do not have the luxury of turning on their cameras during instruction. Thus, nearly 90% of my teaching happens through audio transmission only.

From a teaching perspective, online teaching makes it difficult to monitor whether the student has learned the material correctly, if the student has listened to recordings of the work seriously, or even whether the student was mentally present during lessons. When I sing a particular raga, I recall how the teacher taught it to me, and remember his gestures and facial expressions. I was encouraged when I witnessed the satisfaction on the teacher's face when my performance improved. This emotional attachment to the teacher played a big role in increasing my motivation, and fostering this kind of relationship is inherently difficult in online learning environments. Teaching online with audio only, I am not able to show appreciation or dissatisfaction to the students through movement or facial expression. Lately, my students seem to be more concerned with passing an examination rather than enjoying interactions with me or savouring the experience of learning new music. How can a teacher be a role model to a student in an online environment?

An integral and historic premise of the Hindustani music tradition is that knowledge transmission is only possible from teacher to student in their immediate presence. In Sanskrit, this concept is expressed as *guru mukhi vidya*, which can be loosely translated

as “the science transmitted through oral teaching.” Missing visuality makes it impossible to learn the facial and gestural expressions that are associated with feelings of the vocal renderings. The usual way of teaching this artistry includes moulding the way the student should behave, including posture, breathing support, physical gestures, and facial expressions. The artistic expression of a raga is deeply connected to the physicality of its performer. How can a student feel and transmit the artistic expression of a particular raga that the teacher meant them to feel? The expressions and gestures of raga singing are not fixed and cannot be explicitly taught, but individuals develop their instincts by emulating the teacher, whose delivery of sound together with body movements is inseparable.

Unfortunately, I have postponed refining the process of teaching musical nuances online, instead hoping for a return to in-person teaching. Online teaching is not widely liked or accepted by my students or by other teachers I know, as the flow of teaching is often disturbed, and it is difficult to achieve refinement of performance. However, online teaching is not likely to disappear completely, so it would be wise for teachers to explore potential improvements to their methods. The best approach currently is to incorporate high-quality recordings of fine performances into teaching materials, and to encourage frequent and attentive listening.

Online instruction of course has some benefits: namely time and money saved by not having to travel to a physical classroom. I have also explored the benefits of using sound and audiovisual materials in my class to enhance the students’ understanding of Hindustani music. I have learned that sending recorded material can be very useful to my students, in addition to meeting them virtually. The students learn to train themselves by hearing recordings of the teacher’s voice. I learned to be very careful while preparing recorded teaching material of my own singing, correcting myself when I realized some mistakes that I was making. I would then ask my students to record the music pieces that they learned through hearing my recordings, and to send them to me for evaluation. Students learned that hearing recordings of their own voices can prompt reflective learning. Thus, the extensive use of recorded material helped both parties. This basic method was convenient and effective without having to learn many complicated IT strategies.

Yet, choices in replay quality are a must. There is no way of choosing mono or stereo or high or low resolution in the online applications we are currently using. Many people—students, teachers, researchers and musicians alike—simply accept this bad quality design and lower their expectations. I feel that this is a step back in the history of recorded sound and that it can harm proper preservation. Therefore, I call for more research and affordable applications in this matter.

In this process, students and teachers produced many recordings, and more than 50 percent of them are going to be deleted. Mostly, the deleted recordings are various trials which they believed were not well done. To my knowledge, the finally chosen recordings have not been archived in any systematic way. Recently, I found that the uploaded recordings on the university’s Learning Management System (LMS), are still retrievable. The LMS is a virtual server provided by the university to support teaching. It is basically an internet storage platform maintained by the University and it is highly insecure since the university management does not care about intellectual property status or the quality of the recordings that have been uploaded. Most learning materials including audio recordings have been uploaded to the LMS. There is also no assurance for the safety and sustainability of the uploaded materials, as the platform may be shut down

on short notice. Therefore, the LMS is not a suitable platform for the long-term storage or preservation of student recordings or teaching materials.

At the University of Visual and Performing Arts there is also the C. de S. Kulathilake Research and Archival Unit, which contains a collection of sound and audiovisual recordings displayed on shelves in the Faculty of Music. It is conceived as an archive, but it functions more like a listening room, and students and the staff are allowed to enter the room and listen to any recording after signing into the logbook. Recently the staff made a catalogue listing all recordings available in the room, but the catalogue lacks shelf locations of individual recordings, which makes them difficult to locate. Many of the original recordings are not digitized, so they cannot be used as part of online instruction. The management is not able to proceed with getting support from outside sponsors or donors; and it is an arduous and complicated process to change any university procedure or policies. The collection contains CDs and cassettes of popular songs, classical music, movies, documentaries, recorded television programs, and some fieldwork materials. However, copyright rules in using or referencing the latter mentioned materials are not clearly defined. Thus, the archival unit does not significantly strengthen any online teaching methodologies.

Another problem in online teaching is the administration practical examinations. Real-time student examinations via online tools were not allowed to staff or teachers. This is because some students may have bad internet connections which could affect the evaluation process, possibly causing further issues such as receiving student complaints. Therefore, the students simply upload their performances as recordings. Mostly the students use mobile phones to record and upload. The recordings may be in any available video format, so long as the teacher can visually identify the student. However, it is difficult to monitor whether the students perform compositions by looking at notations or by recalling or improvising. This uncertainty may lead to further restrictions, which is not an encouraging prospect.

Based on experiences during the COVID pandemic, Hindustani musicians in the future will surely be trained using sound and audiovisual materials and online instruction. However, I believe that in-person meetings will still be needed (Figure 3 shows the complex connections in this regard, illustrating the progression over time from those orally trained to those trained fully online). Nowadays, after the pandemic, teachers must work with classes composed of students with disparate levels of experience and training, which presents another striking pedagogical challenge.

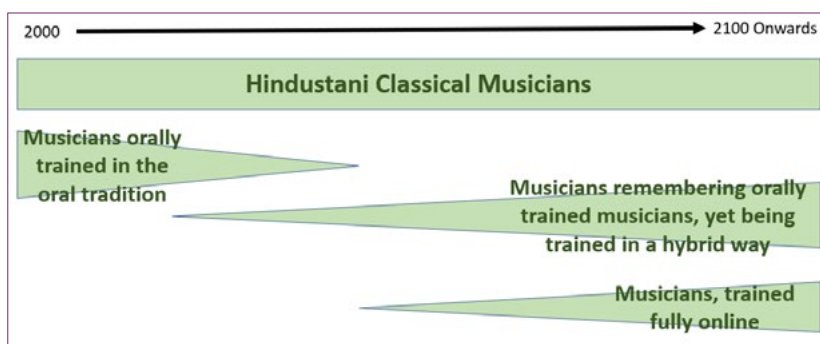


Figure 3: Prediction on the future training and education of Classical Hindustani musicians (illustration by the author).

Audiovisual Preparation of Online Conferences in Chinese Tertiary Education Institutions

Gisa Jähnichen and Xiao Mei

Attending online conferences is a vital part of tertiary education in China. Students are expected to contribute to and learn from other presenters, and they are required to attend conferences in both their primary and adjacent academic fields. Teachers must also attend conferences to fulfil continuing education requirements. In some academic fields, conference attendance even replaces lectures or readings. While it is commonplace in the West for universities to host conferences, there are also many other professional organizations, corporations, and specialized institutions that fill this role. In China, however, tertiary education institutions are the primary organizers and hosts of academic conferences. For several years and predating the Covid pandemic, these conferences have been also held online in China.

Chinese tertiary education institutions hire staff and admit students to academic programmes based on their professional expertise or qualifications in a specific field. Scholars in musicology or performing arts disciplines are not hired based on their proficiency with online technologies like videoconferencing software. However, it is undeniable that the organization of a successful online conference depends not only on knowledge of one's own academic field, but it also requires specific technical skills that range from managing streaming audio and video content; producing on-screen subtitles and translations for multilingual events; ensuring reliable and equitable conference access; providing ways for the audience to engage; and dealing with countless technical issues that arise during the event.

Conferences have traditionally been organized and run by post-graduate students, who are learning by doing and are, therefore, inexperienced as event managers. Online conferences add a layer of complexity that is difficult to manage with limited time and resources. There is usually insufficient time to consider aspects of video or audio quality, although these factors can have an enormous impact on the conference experience. When the Covid pandemic began and teaching, working, and conferencing were all forced to shift to a completely online environment; the awkwardness and lack of efficiency caused by technical issues became a familiar experience. There was even a humorous meme that was shared beginning in September and October of 2020, comparing virtual meetings to seances (Figure 4).



Figure 4. “Zoom meetings are modern seances” meme. Burgess Watson, Tom [@Tburgewatson]. Twitter, 19 October 2020, <https://twitter.com/Tburgewatson/status/1318259532993355776>.

Technology has advanced rapidly, and even in remote areas of China, internet speeds are very fast. Therefore, it is difficult to blame low bandwidth or poor connectivity on technical problems that occur during online conferences. If a strategic distinction between conference “content” (the spoken papers, slide presentations, or panel discussions) and the production of the online event itself is made during planning, organizers can learn to avoid much of this technical fumbling. The selection of experienced and competent chairs and moderators is even more important for an online event than for in-person conferences: staying on topic and on schedule is vital. Assigning separate conference workers to focus on managing the technical side of the online conference is also a good strategy that will allow smoother online conferencing. Finally, students who organize conferences should be trained not only on their academic subjects, but should be trained by their institution to prepare and deliver online conferences successfully.

Recordings and/or slide decks of conference presentations are deposited into the institutional repository of the host institution. Conservatories, performing arts programmes, and musicology departments at Chinese educational institutions often present original research via presentations, which are then referenced by other scholars in their own research. This makes the quality of the archived presentation even more significant, as it can be used as the basis of further academic study and research.

Problems arise when audio and video examples are of poor quality or are not formatted properly. During a live presentation, students might miss important details and consequently suffer academically. There should be clear requirements for archiving conference presentations to ensure the transmission of knowledge for future viewers.

Audio and video clips should always be embedded directly into the slide deck. A link is not sufficient, since the content could disappear and then leave a gap of context. If referenced audio and video content is important, it should be carefully preserved along with the words of the delivered paper. Auxiliary audio and video content that is part of a presentation should also be presented, and later saved, in formats with high fidelity, so information is not lost.

Finally, whenever audio and video are referenced in an online conference presentation, credit must be given to the authors or creators of the source material. This is often overlooked in Chinese online conference presentations, and also when presenting abroad. It is poor scholarly practice to ignore issues of intellectual property, but it can also hamper anyone trying to use the material later for academic research or study.

Participation in international conferences

In addition to the aforementioned issues, Chinese participants in international online conferences face another set of problems that are due largely to geopolitical issues. These concerns merit separate mention, particularly as international professional associations like IASA have a growing membership in China. In order to fully include all members in online conferences, certain technological challenges need to be navigated.

Due to the “Great Firewall,” China has no legal access to any Google product. Other countries, including Iran, face similar restrictions. Google products are often used as elements within other videoconferencing platforms. Though it is currently accessible in China (as of June 2023), Zoom has been restricted several times in the past and may be again, based on decisions made by various states. These technological divides force Chinese participants to make an uncomfortable decision between following the law and participating in an important conference. Even if someone is willing to try to

sidestep the firewall, VPNs do not always work. In the event of worsening diplomatic relationships, Chinese participants could face isolation from the international scholarly community, which could lead to gaps and compartmentalization in knowledge dissemination and discourse across the globe. International conference presenters should strive to locate technologically neutral platforms that do not force participants to supply personal data, which could jeopardize their standing in their home country, or make attendance unduly difficult or complex.

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