

International Association of Sound
and Audiovisual Archives

Internationale Vereinigung der
Schall- und audiovisuellen Archive

Association Internationale d'Archives
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Umberto Eco, the Italian author of the brilliant book *The Name of the Rose*, and well-known Umberto Eco, the well-known Italian semiologist and author of the brilliant book *The Name of the Rose*, once remarked:

A book is a fragile creature, it suffers the wear of time, it fears rodents, the elements, and clumsy hands. So the librarian protects the books not only against mankind but also against nature and devotes his life to this war with the forces of oblivion.

Now, you may well ask, what that has to do with the preservation and consequent migration of audio-visual records? Everything: Both the book and the audio-visual record consist of information embedded on a physical carrier. The only difference between the printed medium and audio-visual record is that we need auxiliary, specifically technical means such as a turntable, a film projector, or a tape recorder, to give meaning to the audio-visual information, whereas we can read the text of a book without any technical aid. It is exactly this physical nature of audio-visual carriers that makes the information on them much more volatile and vulnerable than printed information. So, if the librarian sets out to go to 'war' every day, so much more so does the audio-visual archivist. In addition, the audio-visual archivist also braces herself daily for the total onslaught of new technologies, increasingly obsolete carriers and playback equipment, new formats and standards, and ever more records. And, in addition, one now has to look at strategies for migrating content in pursuit the noble calling of preservation.

Digital migration! What does it mean for us?

Digital migration is an extension of the preservation tasks archives concern themselves with. It is perhaps comparable with the change we experienced when we 'migrated' from pen and paper to desktop computers. Desktops have established themselves as an integral part of our lives. Desktop tools are integrated across our workplaces and influence our workflows, with the added 'advantage' that the so-called 'archiving' has become the new buzz word to 'store' files and documents on our desktops or on servers, but mostly in an unorganised fashion. Despite its randomness, this 'archiving' has enhanced the sharing of information, accessibility and quick retrieval, to mention but a few advantages.

The same is happening in the formal archive environment, where archive collections are becoming digital, forcing other stakeholders to follow suit. The demand on us to capture digitally-generated content automatically is growing, and this will force us to manage our collections from an asset-centric point of view. This is fundamentally different from the way our collections were viewed previously, when they were generally regarded as overheads. To make sure we stay abreast with these developments, we need to plan strategically how to migrate our analogue (and even some of our digital archive collections) to an online central storage facility, from where we will deliver. It is up to us to take advantage of this new environment.

In the previous Editorial (January 2008) we said that digital migration had opened doors to exciting initiatives that we should exploit. In this Journal we further explore the challenges posed during the 2007 IASA Annual Conference held in Riga, Latvia. *Building an Archive for the Future*, as the theme of the conference, brought a variety of interesting projects to the fore. Martin Jacobson from the Swedish National Archive of Recorded Sound and Moving Images, spoke directly to the migration challenge with his report on the migration of 1.5 million hours of audio-visual material. Pio Pellizzari talked extensively about a new concept



being implemented at the Swiss National Sound Archives in Lugano, Switzerland, making use of the reference model for an Open Archival Information System (OAIS). The OAIS model is gaining world-wide acceptability as a standard or basis for the long-term archiving of digital documents and their use.

Virginia Danielson and Bruce Gordon from Harvard and Indiana Universities showcased their Sound Direction project and reported on this initiative in their article: *Sound Directions: A Program in Digital Audio Preservation*. This project produced three major outcomes: the report of their findings to the field; preservation software tools; and the preservation of critically endangered, valuable recordings. The software tools are freely available on their websites.

And talking about opportunities and initiatives: Music or CD libraries are usually restricted by copyright from opening up their collections to the public in digital formats. However, DigiLeen (Digital lending) from Centrale Discotheek Rotterdam, The Netherlands, did just that. By winning the support of the record companies, as well as the copyright protection organisations in the Netherlands, they were able to open their music library to the public, who can download the music via a digital management key for a period of seven days!

The National Phonoteque in Mexico City embarked on another exciting and innovative concept when they decided to try to create a listening culture by developing a series of enabling activities and strategies. They designed a **Sound Explorers'** book with the intent of forming a listening culture with young children. Perla Olivia Rodríguez Reséndiz's article explains what was done to achieve this goal, and gives examples of the work that went into the project.

Ted Urnes from the Norwegian Broadcasting Corporation, Norway, gave a fascinating overview of how archival film footage was being re-used in movies to reconstruct historical events. But to his surprise he discovered that the use of periodic equipment was not always correct. However, film archives are becoming increasingly important sources for reuse and are being credited nowadays on the credit lists of major films.

This year's conference in Sydney, Australia, has chosen its theme to be '*No Archive is an Island*'. We hope to see a continuation of 2007 conference theme of innovation as the way in which to put our archives on the map. Indeed, no archives can afford to be an island in the new world of converging media and technologies, and the advent of wide-scale digital content sharing and countless new publishers on the web and elsewhere. For more information about the 2008 annual conference, please visit the IASA website (www.iasa-web.org).

After six very challenging and rewarding years, I am handing over to Janet Topp-Fargion from the British Library. I wish Janet all the best in her new role as Editor. It was a privilege to serve IASA as editor. Apart from learning so much more about IASA, I have made friends across the world. I wish to thank Dorothy van Tonder who did the language editing for six years without any remuneration. This was a challenge in its own right, especially since so many papers had to be translated to English from a variety of other languages. I also would like to thank the IASA Board and membership for all the support over the years. It has been a most gratifying experience with the role of the editor slowly changing as new ways of communication emerge.

Early in June I gave a paper at the annual conference of the Canadian Association of Music Libraries, Archives and Documentation Centres. Initially my focus was on the evolution of the digital universe in the sound and AV world over my time with IASA. As I started to write, I found I was deviating into another theme, changes in IASA itself, many which have happened as a by-product of digitization.

I compared four IASA conferences, with the 1992 Australia conference as a starting point. Why Australia? Partly because it tied in with this year's conference, making a nice circle, but also because Australia '92 was one of the first conferences to look at what digitization and digital networks might mean for sound archives, particularly in a paper by Albrecht Häfner that, looking back, seems very farsighted. As I looked at the programmes for the other conferences I had selected, Aarhus (2002), Barcelona (2005), and this year, and the notes from the various Board meetings, it seemed to me that each conference programme was trying to address current questions in the archival world and each Board meeting was trying to deal with the challenges that were confronting IASA as an organization. For each year, I tried to determine the key questions on the AV and IASA agendas. The last of my questions for the 1992 Canberra conference was, "Where's the bar?"

Now I meant that to be humorous, because if anyone can locate the nearest bar in an unfamiliar location, it is a IASA member, especially the cigar smoking IASA types. I was also suggesting that in 1992 it was pretty much a business as usual for sound archives and for IASA. IASA's membership was stable and the expectations of our members were pretty consistent. Times were good. But, in a dry run of the presentation, one of my more astute colleagues pointed out that, "Where's the bar?" has a double meaning in English. It can also mean: What is our level? Where do we set the bar? How high can we jump? - a bar in this case being a long piece of wood or metal that is placed at a certain level such as for a high jump.

Looking back over on my involvement with IASA, including the six years that I have been on the Board, it is very clear the "bar" has been continually raised.. The three years of this Board's life has seen many bar-shifts. These include an increasing interest in our annual conferences by those inside and outside IASA. Our conferences are recognized as an important venue for discussing the broad impact of contemporary technological and organizational changes. IASA conferences have moved beyond sound to address the convergence of technology as represented by the now consistent inclusion of AV-wide topics in the conference programme. This Board has worked internationally with our colleagues on the CCAAA, with UNESCO, and on projects like the European Digital Library and the JTS. We have participated in or supported IASA members in training and education sessions in Latin America, Asia, Europe, and Africa. We have re-established the Training and Education Committee. The Journal, Bulletin, e-bulletin, and web site have been consistently interesting and regularly reporting on the growth of the digital world. The Board has not shied away from often difficult issues such as providing funding and assistance to Board members and members from the developing world, raising the membership fees, adapting to the growing interest in IASA on the part of commercial operations including the emerging impact of public-private partnerships, and adapting conferences and publications to the changing nature of the AV world.

Raising the bar over the last three years would have been impossible without the dedication of the Executive Board. I have been extremely fortunate to have had the assistance and

cooperation of Ilse Assmann, Kurt Deggeller, Per Holst, Gunnel Jönsson, Anke Leenings, Pio Pellizzari, and Jacqueline Von Arb. I should also like to acknowledge Anke's assistant, Cornelia Hellborn, an invaluable IASA supporter. My heartfelt thanks to you all!

For the incoming Board, we have left completion of a IASA ethics document started by the Research Archives Section, putting our sponsorship opportunities together on a well-planned professional basis, the distribution of a new bigger and better edition of TC-04, the preparation of TC-05, planning for the next JTS in 2010 in Oslo, ongoing commitments to the CCAAA including the introduction of a Joint Management Symposium being spearheaded by SEAPAVAA, the European Digital Library, and the continued broadening of IASA's membership base and participation internationally.

Of all the upcoming challenges facing IASA, and other international organizations that rely on institutional support, I personally suspect that the biggest will be adapting to the shifting priorities of our member organizations. They have, without notice, and perhaps unintentionally, adjusted the bar. Partly as a by-product of the digital revolution, institutions are evolving, mutating into something that tries to meet perceived, anticipated, and real governmental and societal shifts and expectations. Senior managers of our institutions are no longer career archivists or librarians, and are usually not knowledgeable on sound and AV issues. They no longer personally participate in IASA nor do they see the need for their staff or their institutions to involve themselves on an ongoing basis. IASA needs to reach out to this community. This is a considerable challenge but is also an opportunity to restate, clarify, and communicate IASA's aims, its shared vision, and its dedication to working internationally to assure the long-term preservation of our shared AV heritage.

As usual the new Board will deal with unexpected topics that seem to arise when one least expects them. Each new Board faces a new reality. I expect though, that at the end of the day, incoming President Kevin Bradley and his Executive Board will be asking that ongoing IASA question – "Where's the bar?"

Richard Green
Ottawa, Canada
July 1, 2008

Mapping of Estonian Cultural Heritage: Attempts and Challenges

Piret Noorhali, Estonian Literary Museum, Estonia

Presented at the IASA-BAAC 2007 Conference, Riga, Latvia

This paper attempts to follow a survey of a few on-going projects in Estonia I have been involved in. These have been launched realising the need to have a record of all the archival collections of the Estonian cultural history to guarantee their preservation and accessibility, and their State funding. Productive action can result from reasonable and calculated action plans only. These can be drawn once we know our present situation. This is why different mapping projects have been launched – to estimate the situation. But as these do not include the Estonian cultural heritage in its entirety, they could be treated as just the groundwork for assembling information on the Estonian cultural heritage.

Where is the Estonian Cultural Heritage Preserved?

In museums. At present, there are 256 museums in Estonia, including 13 central museums, 14 county museums, and 4 municipal ones. See the homepage of the Information Centre of the Estonian Museums and the Estonian Museum Association <http://www.muuseum.ee>.

The Ministry of Culture collects information on the museums under its jurisdiction.

The cultural heritage – and not only the printed matter – is also preserved in libraries. In 2005 there were 1 106 libraries in Estonia: 70 academic and professional libraries; 562 public libraries; 474 school libraries. Information on libraries is collected by the National Library, and its homepage gives the facts:

http://www.nlib.ee/html/rkogud/statistika/stat/2005/rmtkstat_2005.html

<http://www.nlib.ee/832>

The **National Archives** under the State Chancellery is an institution on its own, including the State Archives, the Historical Archives, the Estonian Film Archives, and the regional archives (10). The National Archives collect information on archives and keep the Archives Register. See: <http://www.ra.ee/>

<http://arhiiviregister.ra.ee/>

One should not forget the **media archives**. The radio and TV archives of the public **Estonian National Broadcasting** are among the most often used archives, as they take part in the continuous process of programme production. The Broadcasting Company is under the supervision of the National Archives. Private channels and press publications produce cultural archives as well, and should guarantee their preservation and later accessibility in a wider cultural context; the latter has unfortunately not been legislatively regulated.

As has been said, there is statistical information available on museums, libraries and archives. This, however, is not exhaustive. The reason is the administration of these institutions by different Ministries and State bodies.

Even more complicated is the case of the **Estonian Diaspora** scattered all over the world. It is a historical fact that at the end of the World War II tens of thousands of people fled Estonia. In their new countries of residence they have been pursuing a cultural life of their own, creating archives in this way. The ideal map of the collections of our cultural

heritage should reflect this geography. The voluntary institutions working abroad are not administered by Estonian Ministries, and for a long time any interest in them, as well as contacts, have been the concern of only a few institutions and persons.

I. The Programme of the Ministry of Education: 'Collections of Humanities and Natural Sciences'

As there is still no State strategy for the preservation of cultural heritage in Estonia, not all collections are under uniform legal protection – unfortunately it concerns primarily many research collections. So, in 2004 the State programme '*Collections of Humanities and Natural Sciences*' was launched to support the national research collections financed either entirely or in part by the development projects of the humanitarian and scientific collections preserved in the R&D institutions administered by the Ministry of Education and Research.

The State programme was terminated in 2008, having fulfilled its task: many collections could grow and develop, others maintained their *status quo*. Those responsible for the welfare of the collections are concerned with what happens next. In future, the collections will need continual financing based on clear principles. To fund collections of importance for the national culture from temporary projects endangers their consistency. Therefore, the expert group attached to the programme decided to get a survey of the collections and to use the data as an argument in applying for the further funding of the collections.

Questionnaires were sent out with the aim of mapping (first and foremost) those collections at research and development institutions, obtaining a survey of the results of the programme to date, and of the needs of the collections in the future. From the humanities section the following national collections were examined: **bibliography** (books, printed matter), **cultural history, linguistics, ethnography, folklore, archaeology and sociology**.

The mapping could be treated as a pilot project that has to be continued, in co-operation with the Ministry of Culture and the National Archives, in order to map exhaustively all the collections of the Estonian cultural history.

As I am the expert on collections of the cultural history, I will give a survey of them as an example. The collections of cultural history preserve **manuscripts, photos, and sound and film records**.

The questionnaire was sent to the following financed projects:

- 1) The Estonian Literary Museum (KM), the Estonian Cultural History Archives (EKLA, project 'The Collections of the Estonian Cultural History Archives', leader Piret Noorhani, funding for 2004–2008)
- 2) The Estonian National Museum (ERM, 'The Arrangement and Presentation of the Archives of the Answers of Correspondents', Tiina Tael, 2006–2008)
- 3) The Under and Tuglas Literature Centre of the Estonian Academy of Sciences (UTKK, 'The Research Collections (Collections of Cultural History) of the Under and Tuglas Literature Centre', Eha Rand, 2004–2008)
- 4) Tallinn University (TLÜ), the Estonian Pedagogical Archives-Museum (EPAM, 'Collections of Education History in the Estonian Pedagogical Archives-Museum

- and Their IT Mediation', Ilmar Kopso, Mare Torm, 2005–2009?)
- 5) The Art Museum of Tartu University (TÜ P5KL, KMM, 'The Preservation and Conservation of Old Graphic Sheets, Paintings, Coins and Ancient Originals', Inge Kukk, 2004–2008)
 - 6) The Museums of Tartu University (TÜ P5AM, ÜAM 'Mapping the Collections of the Humanities and Science at Tartu University', Lea Leppik, 2006–2007)
 - 7) The Museums of Tartu University (TÜ P5AM, ÜAM, 'The Preservation of the 19th Century Collections of Natural Sciences of the History Museum of Tartu University and Their Scientific Description', Leili Kriis, 2005–2006, collections of the humanities and science in the history of research)
 - 8) The Department of History of Tartu University (TÜ FLAJ, 'The Arrangement and Modernization of the Collection of Photo and Glass Negatives of the Chair of Art History of Tartu University', Kaur Alltoa, 2005–2009)
 - 9) The Library of Tartu University (TÜR MKK 'The Systematization and Digitalization of the AV Archives of Tartu University, Establishing Its Electronic Data-Base', Kristina Pai, 2005–2008)
 - 10) The Library of Tartu University (TÜR, 'The Restoration of the Manuscript Collection of the Library of Tartu University, Producing Its Backup and Use Copies and the Modernization of Its Usage Possibilities', Mare Rand, 2005–2008)
 - 11) The Library of Tartu University (TÜR, 'The Improvement of the Collection of Graphic Sheets in the Library of Tartu University, Producing Its Backup and Use Copies and the Creation of the Linked Access', Moonika Teemus, 2005–2008)
 - 12) The Faculty of Social Sciences of Tartu University (TÜ ESTA, 'The Development of the Data Base of the Archives of Estonian Social Research and the Modernization of Its Usage', Rein Murakas, 2005–2008)

There were FIVE institutions funded: the Estonian Literary Museum, the Estonian National Museum (the only one administered by the Ministry of Culture but specified as AN R&D institution), the Under and Tuglas Literature Centre of the Estonian Academy of Sciences, Tallinn University, Tartu University. Twelve projects were funded.

The questionnaire was also sent to some collections that were not financed by the programme but are of interest in terms of the cultural history anyhow:

- 1) The Library of the Estonian Academy of Arts (TE, manuscripts of research)
- 2) the Library of the Estonian Academy of Music and Theatre (EMTA, music collections)
- 3) the Estonian National Library (TLÜ AR, archival collection, collection of rare books, collections and archives of persons, art collection)
- 4) the Academic Library of Tallinn University (RR, the collections of baltica and of rare books, the collection of the Estonian exile literature, general collection, the archival collection of pedagogy)

The results of the questionnaire are available on the portal of the Estonian research collections: <http://www.teaduskogud.org/>.

The answers give a good survey of the present state of the collections. At the same time they reveal the need for harmonisation. In order to compare and draw conclusions, the basis has to be common. The statistics have been drawn from different grounds caused by

historically different principles of arrangement and description, and the different construction and structure of the collections.

While most of the answers concern information on all the collections possessed, some of them were limited to those financed by the programme. There is no doubt as to the need to continue collecting and specifying the information.

General Data on the Collections

Numbers are given in items, if not stated otherwise.

Manuscript Collections

EKLA	165 143
KHO	35 744
ERM correspondents	1 107 volumes / 50 000 contributions
UTKK	13 089
EKA	546
EMTA	214 919 (including books, notes)
TLÜ EPAM	31 800
TLÜ AR	12 shelf-metres
TE	407

Photo Collections:

EKLA	185 942
KHO	40 388
KAF	21 200
ÜAM	14 325
UTKK	6 759
TLÜ EPAM	43 700
TÜ FLAJ kaf	21 200
TLÜ AR	12 shelf-metres

Art Collections:

EKLA	3 926
KHO	14 797
TÜ P5KL, KMM	28 371
ÜAM	732
UTKK	1 150
RR	26 000
TLÜ AR	13 shelf-metres
TÜ P5AM	732

Film Collections:

EKLA	170
DA	686
UTKK	14

Sound Collections:

EKLA	1 616
UTKK	411

Technical Devices Used in Research and Teaching and Compiled Collections; Objects of Cultural History:

TÜ P5AM	16 679
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Artifacts

UTKK	505
ÜAM	16 679

Dataset

TÜ ESTA	300 data files (questionnaires), 800 fails (reports, code books etc)
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Mixed Collections

ÜAM	31 685 (printed matters, documents)
EMTA _r	214 919 (books, notes, periodicals, tapes, videos)
RR	10 000 (manuscripts, photos)
EPAM	43 700 (photos, artifacts)

As the data show, these are the manuscript/document and photo collections that are the most voluminous. Of considerable size are also the art collections. The sound and film collections are much smaller.

It has to be stressed that a lot of AV material is also in the national collections of **language, folklore and ethnography** preserved by the following institutions: Estonian Folklore Archives, Institute of the Estonian Language, Department of Estonian and Finno-Ugric Linguistics of Tartu University, Estonian National Museum (although they did not present data on their AV material).

The questionnaire gave a survey of the present state of the collections; the preservation conditions; rooms, data bases and the general IT developments; it also described the staff, their qualifications and refresher studies, and the funding of the collections.

The Major Challenges Facing the Research Collections

These concern the collections in general, but in particular the AV collections. As none of the research collections is primarily for the AV material these, as a small and marginal part, are shadowed by the big collections of publications and documents, withdrawing their needs in favour of the bigger collections. But the AV collections require more resources and contemporary treatment. Indeed, those AV collections actively used by researchers are much better off. The demand conditions the supply.

The Major Challenges

- Shortage of resources, insufficient funding of collections.
- Lack of space.

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- Inadequate conditions for preservation. It concerns mostly small collections for it is often impossible to meet their specific requirements.
 - Scarcity of personnel. The AV collections do not have staff with the required professional training.
 - Need for refresher studies. Some have taken part in courses but there could be more of them. Evidently, under the scarcity of resources, it is the labour cost that comes first and training comes only after that.
 - Technical equipment. With the AV collections the necessity to follow the advancement of digital technology cannot be avoided, while the old analogue technology has to be provided and maintained too.

Finally, the Estonian AV collection has been the field of study of our young colleague Maarja Savan, the assistant of the AV collections of the Estonian Cultural History Archives. This year she submitted her BA thesis on the typology of AV collections and their conditions in Estonia. Hopefully she will present her paper at the next BAAC conference. I am glad that the AV collections have become an academic field of study for young researchers. It can be taken as a sign of the recognised importance and significance of the AV collections.

2. Estonian Archives Abroad

As has been said, at the end of the World War II 70 000 – 90 000 people fled from the Soviet occupation and left Estonia. Their decades' long cultural engagement has produced voluminous collections of records. In many places, even independent archives were founded, working mostly on voluntary principles, and maintained primarily by the Estonian community. These archives are:

- The Estonian Central Archives in Canada (Toronto, established 1961)
- The Library and Archives of the Tartu Institute in Toronto (1972, <http://www.tartuinstitute.ca>)
- The Estonian Archives in the US (Lakewood, New Jersey, 1969, <http://www.eausa.balther.net>)
- The Estonian Archives in Australia (Sidney, 1952, <http://www.archives.org.au>)
- The Baltic Archives (Stockholm, 1966)

Material on Estonia/Estonians can be found also in the archives, libraries and museums of the countries of residence. A lot of material has not reached the preserving institutions yet. These are possessed by associations, organisations, or individuals, and decisions on their fate have to be made. Scattered geographically, the work with these collections is especially complicated.

The archives mentioned contain a remarkable number of publications and archival documents, but also photos and audiovisual material. In some places the photos are being digitised. Sound and film collections are waiting their turn, with one outstanding exception: the Club of Cultural Heritage in Toronto declared recently in a paper that their collection of video interviews is all digital. This club is engaged in recording the Estonian life story interviews. On my last trip to Toronto this summer I tried, with my colleague Andris Kesteris, to find a solution to the fate of the World War II newsreels kept for years in an Estonian archives in Toronto.

All these collections have turned out to have numerous separate problems that have to be solved. The general trouble is that a lot of material has not been systematised, arranged or described. Or, even if it has been, the information or the material itself is unavailable. As has been said, the archives work on the voluntary basis and as a rule they are open just once a week – the day the voluntary staff comes to do their archival work. Often the repositories do not meet the requirements for an archive. The staff is not professional and their knowledge is insufficient. And so on. Although the problems are numerous, the enterprising spirit of the Estonians in exile has to be acknowledged – the amount of the material stored is awe-inspiring; a lot of invaluable work has been done.

As soon as it became politically possible, since the late 1980s, the memory institutions in Estonia have been actively involved in collecting, arranging, researching and publishing the cultural heritage of the Estonians in exile, collecting at the same time any information on the subject. Estonian memory institutions have also tried to help the archives in exile with their capacity and know-how, going on longer and shorter research and archival trips to the bigger Estonian communities in exile.

In order to improve co-operation, in March 2005 an expert team on the Estonian archives abroad was convened with the aim of elaborating on the action plan for mapping the Estonian archives in exile; to spread relevant information; to appraise the conditions and the needs of the archives in exile; to determine the possibility of helping the archives; to take them, if necessary, to Estonia, to make the archival collections accessible to the public; to develop the research in the field; and to make proposals for funding all the mentioned activities. The team includes experts from all the major institutions collecting and researching the Estonian material abroad: the Estonian Literary Museum; the National Archives; the Estonian National Library; the Estonian National Museum; Tartu University. The team has close contact with the bigger Estonian communities.

We would like to hope that it was the interest and pressure from the part of the team that helped to obtain, for the projects on the exile archives, State funding through the Compatriot Programme established to support the Estonian Diaspora.

The first earmarked support came in 2006. It was used to organise the following:

- On March 19 the archival information day was conducted in the Stockholm Estonian House. The workers for the Estonian memory institutions talked about their specifics and strategies of collection. The joint discussion concerned the preservation problems of the cultural heritage of Swedish Estonians looking for possible solutions.
- From June 27 to July 1, 2006 the Estonian Literary Museum in Tartu hosted the International Conference on the Baltic Archives Abroad. There were 120 participants from 10 countries: Australia, Canada, Finland, Germany, Latvia, Lithuania, Sweden, Russia, the USA and Estonia. This summer the conference papers were published on the Internet in Estonian, English and Latvian:
http://www.kirmus.ee/baltic_archives_abroad_2006
- The possibility of such meetings is especially important for nations scattered all over the world: an immediate contact is needed, not only for the exchange of information, but also to have trust without which there cannot be co-operation. So it was decided that although the next bigger conference would be only in 2009,

there would be annual smaller summer schools and information days/seminars in the different countries of residence.

- In 2007, the Compatriot Programme dispensed almost 5 million Kroner to support different projects of archives abroad. This is the first substantial State support ever in the field.

The public competition received **44 applications in all, and 33 of them were funded**. There were projects for both archives at home and abroad.

The **team for the Estonian archives abroad** also got a grant for its activities.

- On March 17, 2007 there was the Language Day in St Petersburg, organised together with the Ministry of Education and Research. It gave the Estonians living in St Petersburg information on archives. There were about 70 participants, and papers were read by people from the National Archives, the Estonian Literary Museum, the Estonian National Museum, Tartu University, and the Institute of the Estonian Language.
- From 21–25 August 2007, there was the summer school called “The Estonian Cultural Heritage Abroad” in Koke, Võrumaa. The summer school included lectures, refresher courses and practical training, discussions and seminars. The subjects were collecting; description of collections; their arrangement, preservation, and use in various IT possibilities. There were more than 40 participants from 10 countries: Estonia, Finland, Latvia, Russia, Sweden, the USA, Canada, Australia, Great Britain, and Germany.

We are planning to continue the information days in the Estonian communities. We are now preparing for the event in **Hamburg, Germany, in January 2008**.

Under the supervision of the team, the homepages for the Estonian archives in the US and Canada, as well as the **Baltic Heritage Network**, are being compiled (<http://www.balther.net>). This is a multilingual electronic gateway to inform about the Baltic/Estonian archival collections abroad, with the aim of ensuring access to relevant information; developing an international co-operation network on Baltic/Estonian archives abroad; covering the memory institutions, research institutions, diplomatic and other institutions in the homelands and abroad; as well as the worldwide Baltic ethnic communities, societies, organisations, and individuals.

The portal is being designed. While developing it, we hope to co-operate with the interested parties in the Baltic States as well as abroad, in the countries with the Baltic exile communities. The portal has been planned to be in Estonian, Latvian, Lithuanian and English, which would be possible, of course, only with the help of our Latvian and Lithuanian colleagues, and the Latvian and Lithuanian Diaspora.

In the summer of 2007, the expert team sent the questionnaires adapted to the exile archives also to the archives abroad. We got answers at the end of October, and will make the information available later in the information portal.

Conclusions

Exchange of information, networking, and co-operation has been a vital need in an information society. This is not only about satisfying our personal or professional curiosity – though this matters, too. Networking and co-operation is important for the preservation of archival collections because, if you are not on the map, you don't exist for the rest of the world. If nobody knows anything about you, nobody will consider your needs. The aim of the above actions has been to map the current state of the most valuable collections of Estonian cultural heritage and to identify the needs connected with their preservation, but also to inform the general public and decision-makers of these problems. People working with cultural heritage need to learn how to use more efficiently the opportunities and mechanisms provided by a democratic State for influencing the process of decision making and law making for the preservation of cultural heritage. The initiatives described are just a few steps in that direction.

The Archival Concept of the Swiss National Sound Archives

Pio Pellizzari, Swiss National Sound Archives, Lugano, Switzerland

Paper presented at the IASA-BAAC Conference 2007, Riga, Latvia

This paper is based on a seminar held in Mexico two years ago. At that time a new concept for the Swiss National Sound Archives (SNSA) only existed on paper and in our minds. Meanwhile we have realised the whole concept, and implemented the technical part.

The reflection on a new concept grew from the need to develop a new collection and archiving concept for the SNSA. This work and its practical implementation are now almost complete.

Why did we need a new concept?

Not so long ago the SNSA was organised like many other archives, and its setup was for the most part based on 'acquisition and collecting ordering' and 'preservation and archiving' of physical sound documents. This can be represented in a clear linear way:

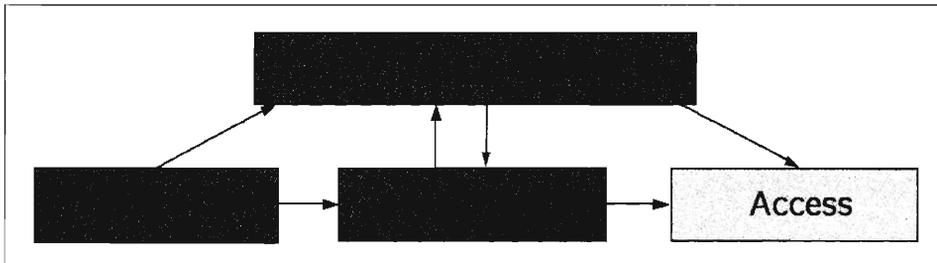


Figure 1: A very simple Representation of a Traditional Concept.

But, the various developments over the past 10 to 20 years have vastly changed the demands on sound archives:

1. New sound carrier formats have appeared and disappeared. These new formats are constantly becoming shorter lived (see the DAT format), and that raises new problems for preservation, and consequently for documentation;
2. User demand has increased greatly. It is no longer enough to provide an audio document when demanded; it has to be accessible rapidly and in different formats – electronic, if possible. On top of that, the archives have to maintain an active policy on presenting and suggesting the use of their collections, which means they have to provide an active dissemination of their materials;
3. The most important reason for new concepts is the great upheaval and radical change that the 'digital' document has brought with it, signifying a whole series of innovations in the administrative, the organisational and, in addition, the technical areas. Backups, archival and user copies are created in file formats; the corresponding archive is a mass storage medium; archiving and preserving means digitising too.

The explosive growth of digital information, combined with the shift from analogue documents to digital formats, present the archives with enormous new challenges. The requirements and duties are more complex, the needs are greater, the technology ever more sophisticated. But, digitising alone cannot solve the problems just mentioned. On the contrary, electronic formats are changing more frequently and they are shorter lived than ever. Digital information can be easily lost, changed or corrupted. The means we have in use – that is, the hardware and the software – usually become obsolete in a just few years, and

constant change can have a significant influence on the data structures and how they evolve, which in turn influences the desired presentation, the completeness, and the authenticity of the information.

A new concept must live up to this fundamental change, and may look something like this:

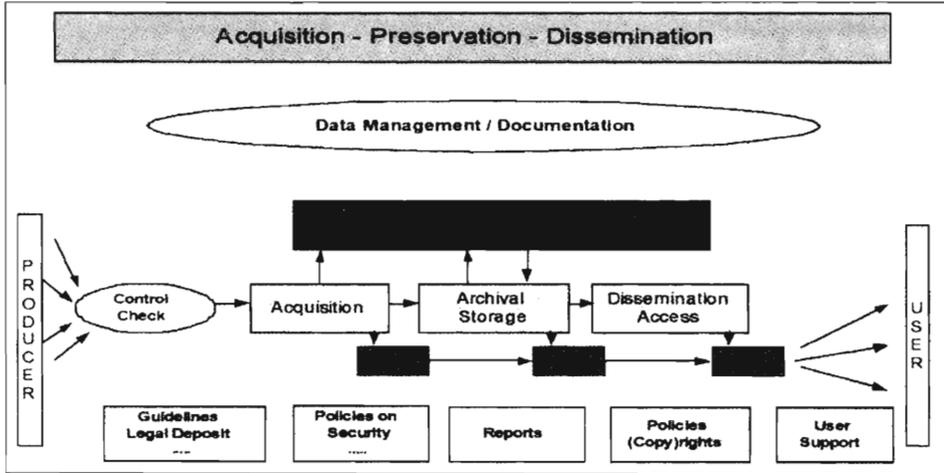


Figure 2: A New Concept

We have based our concept mostly on two documents. Both are available online, in addition to our own reflections, experiences and discussions with other sound archives, the national library, and the colleagues of the broadcasting archives.

There is the **reference model** for an Open Archival Information System (OAIS - <http://ssdoo.gsfc.nasa.gov/nost/isoas/>). The aim of the OAIS model defines an ISO standard (International Organisation for Standardisation) and gives general guidelines that every kind of archives can apply. Most importantly, it contains technical recommendations for long-term archiving of digital documents and for their use. Currently there are numerous archives using the OAIS model as the basis for developing their own concepts.

The other document was written by Ray Edmondson and published by UNESCO: *Audiovisual Archiving: Philosophy and Principles* (<http://unesdoc.unesco.org/images/0013/001364/136477e.pdf>). This document deals specifically with audiovisual archives and is rich with deep reflections and recommendations for institutions such as ours.

Finally, there is our own preparation for a digitisation project and the implementation of a mass storage system, plus the associated thoughts on, and solutions for, an across-the-board National Sound Archives concept, which includes various talks we've had with partner institutions and other national sound archives.

There are several suggestions offered on digitising and digital archives. Most of them, however, are purely technical in nature, offering solutions for implementing a technical infrastructure, but unable to solve all the problems on their own. The reflections we made tried to develop **all** the elements for a global but comprehensive concept, including physical documents, as well as digital ones, and respecting the whole workflow, from the acquisition to the dissemination. Conceptualisation is a means of thinking through all the functions of an

institution; of understanding how to arrange the duties according to the departments; and of avoiding arbitrary or incoherent decisions.

I will now discuss the main functions of our SNSA. These can be summarized as:

- Acquisition and collection of audio documents
- Archiving and preservation
- Dissemination, use and access

'The aim of any archives is to store documents – in whatever form – for a certain circle of users over an indefinite period of time' (Ray Edmondson). That means to collect and create information, to store, and to make available in different formats. I will only refer to a 'national' sound archive. It should be noted that there could be differences between the various kinds of sound archives (scientific archives, broadcasting archives, etc).

Acquisition

The duty of a National Sound Archives is to collect and store audio documents that reveal the cultural, scientific, economic and social events of a nation, and which are part of its history – its cultural memory; in our case we call it 'audiovisual heritage'. The term can be understood differently, depending on the context. This is important to a national sound archives, because its duty, its *raison d'être*, is based upon this term. A clear definition of 'heritage' is first and foremost part of a whole concept that manages not only collections as such, but the entire obligation of archives, from acquisition to long-term archiving, and access to the audio documents.

Many countries have a *dépôt légal*, a legal deposit, that lays down the general guidelines for the collecting institutions. Frequently, however, these legal principles are kept very general and are not precise when it comes to the definition of heritage - and mostly they are limited to published documents, that is, commercial sound documents. Often, documents that were created before a law was passed, or scientific and research documents, are not accounted for. An additional regulation or guideline ought to specify the definition of heritage.

I have to stress this important point because what we collect today will later be regarded as the nation's audio heritage. Everything that was not collected, or was forgotten, will probably never be included in it.

Thus, we developed guidelines for acquisitions, which define what should belong to this heritage. In our case, these guidelines are fundamental because we don't have legislation on legal deposit in Switzerland, and so every sound archives has to define its own guidelines in correspondence to its mandate.

Now, in order to be able to store audio documents properly, an archive must essentially collect more information than just the document content itself. We need this information for describing the creation, the environment, and the history of the audio document clearly and meaningfully. We have to create a **context**.

Every document has a certain level of potential information, meaning the entirety of the information existing in one object or sound carrier, a so-called information package. Sound documents consist of two equally important components: the content, or information itself; and the carrier the content is kept on. Both must be accounted for in this information package. This includes, for example:

- the content (i.e. the essence)
- the structure
- the form
- the material
- the physical condition
- the creation/origin
- information about the producers
-

The OAIS model refers to this first information package as an **SIP** = Submission Information Package.

It contains all the information that describes the path of the sound document from the producer to the acquisition, based on Submission Agreements.

Should any part be missing, the information content of the object in question would decrease. Furthermore, the SIP includes all the material accompanying a sound carrier or file, be it on paper or in any other form such as a booklet, an enclosure with text and images, or any other information.

This first part of the concept includes collecting other information that is deemed necessary for understanding and correctly interpreting the audio documents. This also includes catalogues, discographies, biographies, history of the sound recording, specific encyclopaedias, and so on.

Furthermore, it has to include the acquisition of all equipment, appliances and technical means of reproduction of the content; together, of course, with the appropriate documentation, device descriptions, instructions for use, and further technical data.

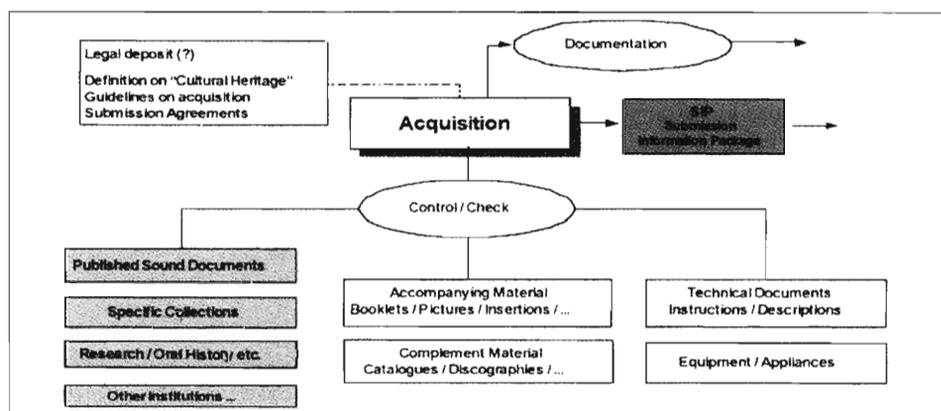


Figure 3: A Graphic Representation of Acquisition.

This illustration represents the ideal situation. At the SNSA the implementation of this concept is not completed yet; only the technical part, as well as the workflow has been realised. We are still working on some definitions, policies and documentation, which explain the complete concept in complete detail. For instance: what exactly has to be checked during the acquisition? How can we realise a systematic acquisition and follow-up of technical material, etc?



Before we talk about archiving, I would like to mention an essential point that could, in contrast to radio archives, for example, be of considerable importance to national sound archives. It is the diversity of sound carriers combined with the often lacking technical standards for certain collections. Besides the commercial sound documents, which usually meet a technical quality standard and adopt generally prevalent formats, there is a whole bunch of collections – from science and research, or of private origin – that were not created to any standard at all. The storage materials mostly fall short of professional demands, and the technical execution is often faulty. But these audio documents sometimes count among the most important parts of our heritage, because they are unique and contain important information. However, they are endangered and must be treated with special care, often needing special technical equipment to play them back, or to digitise them. Accordingly, the appropriate technical options for digitising such documents must be examined closely in the concept.

Archiving and Preservation

Archiving digital audio documents, or digitising originally analogue audio documents, are certainly the big challenge that sound archives face today. The number of existing genuine digital file formats that comply with the requirements of long-term archiving is still small, yet must be included in the archiving concept – not forgetting the completeness of descriptive information; an audio file existing on its own can hardly be used in a meaningful way. The main duty of sound archives, however is to digitise analogue audio documents. A suitable concept of digitisation should take several elements into account.

Firstly: the stocks of analogue audio documents are usually so extensive that a national archive could hardly digitise them within a reasonable time; we simply do not have the means. Therefore, the concept must define priorities within the collections, as to when and which audio documents can or must be digitised, and in what time frame. There are pointers on priority settings, given in a document published by IASA: *Task Force to establish selection criteria of analogue and digital audio contents for transfer to data formats for preservation purposes*. This document is also available free of charge on the IASA website.

Secondly: from the circumstances just described, it follows that the archiving concept must account for two forms of archiving: the archiving and preservation of physical sound carriers and respective accompanying material; and, the archiving of audio documents and accompanying material in digital form. It cannot be forgotten, however, that the analogue originals, once digitised, must also be integrated into the preservation concept for the physical sound carriers.

Some thoughts on a concept for preserving analogue or physical sound recordings: The preservation concept should slow the ageing process as much as possible, in order to keep the level of potential information as high as possible, which means it is necessary to preserve the entire object. The concept defines measures such as storage and climate control, protection, and handling. A security concept is just as essential as a catastrophe concept – a disaster recovery - and a concept for its use. These measures are a consequence of, among other things, the state of preservation and physical condition of the carriers; the frequency of use, and the cultural value of these sound documents. An analogue archive, however, demands constant care, even if the individual documents are well stored and kept under optimum conditions. The concept should include regular checking of the condition of the documents. But it must be said that to preserve is always financially more advantageous than to restore, and that restored documents must continue to be preserved at any rate.

The SNSA security concept for analogue audio documents includes the spatial separation of two identical copies of each sound document. We are also now looking for decentralised storage facilities with optimum conditions for archiving analogue audio documents that have already been digitised, or which are scheduled for digitisation later, because they are physically stable and only seldom used.

The OAIS model delivers a complete concept for archiving digital documents. It includes all the services and functions for the storage, maintenance, security, and reuse of the individual information packages. This also includes error checking and correction; a general security concept by doubling the digital information on a second system; and a concept for recovery following a disaster.

The information package has to be completed with the information concerning preservation and archiving. The SIP becomes an **AIP** = Archival Information Package.

In addition to the SIP, an AIP can contain information and objects such as:

- the description of a sound carrier
- a WAV file
- an MP3 file
- logs in XML format
- images in, eg. JPG format
- reports and protocols
- text files in various file formats, such as PDF
- other material

The following diagram is an attempt to illustrate the preservation and archiving part of our concept.

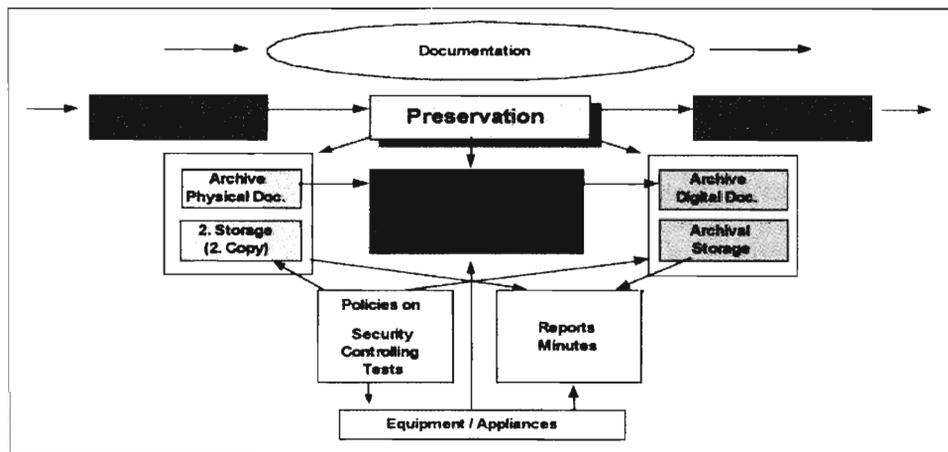


Figure 4: A Graphic Representation of Preservation and Archiving

In our technical concept we tried to realise a modular solution – an archiving system for our digital documents that can grow – which means it must remain possible to introduce new archive media, or new storage elements, and to transfer the existing information onto these new media without having to renew the entire system at the same time. Such a modular solution also allows adaptation of a digital archive to the size and possibilities of the institute,

and to distribute parts of the financial investments over the years of growth.

Preservation, however, is not an end in itself. The term 'preservation' covers all the activities that are supposed to make it possible to guarantee access for a long time. However, the duty of long-term archiving can conflict with the aim of quick and widespread use.

Access/Dissemination

Making audiovisual collections available is the observable aspect of a national archive's duties, and often provides the political incentive for funding from the State.

The expectations of our users have risen dramatically. Accustomed to the possibilities of electronic information for quick and more or less complete services, they have come to expect the same of sound archives. This applies not only to the still existing rich offer of descriptive documents – such as databases and discographies – but also to the sound itself, and additional information such as images and text.

Again, the information package concept we mentioned at the beginning offers a viable solution that attempts to meet the expectations as fully as possible.

The **AIP** now becomes a **DIP** = Dissemination Information Package, taking information from the archives to the users. In an access and dissemination policy we have to decide which information we have, and what we will give our users.

These can be:

- the description of a sound carrier
- the Mp3 file or part of it
- images (such as photos of the artists, or the front page of the booklet)
- text files in various file formats, such as biographies
- links to discographies
-

The DIP provides the users with services and functions in their search for information stored in the archiving system. It allows them to query information; co-ordinates and prepares the results; and delivers all the elements contained in an information package. Yet it also controls the access to certain protected information, or parts of it, and can manage particular user circles.

The current state of laws, however, makes the management of audiovisual documents and access to them by different users complex, and in some cases downright difficult. Demands for free availability are coming up against increasingly stringent protective measures. In most cases, solutions can only be found in co-operation with the respective copyright holders. The SNSA has planned for and realised such a solution within this concept, and we are now setting up a kind of 'extranet' for our users. This we have done by installing remote reading-places/workplaces for them in other public institutions, such as the National Library, and other archives or universities, where we can give online access to our digitised audio-documents; fully respecting the rules of copyright.

But as we don't have all the sound documents in digital format yet, we have also to find alternative solutions. When providing access to audio documents, the use of analogue sound documents should be barred. Wherever there is no alternative, a copy must be made onto

a physical carrier. The concept should perhaps provide the option of online access by on-demand digitisation. Even if such solutions require more effort from the internal organisation, and more patience from the user, it seems the only short-term solution. On the other hand, this difficulty can be largely anticipated by a well thought-out concept when planning priorities, digitisation and archiving.

Besides the use of audio documents on demand, and upon access from outside, the concept should also provide options for the institution itself to prepare individual documents or collections for dissemination, so that they can be offered in various forms for public use, research and so on.

The following is a graphic representation of access and dissemination.

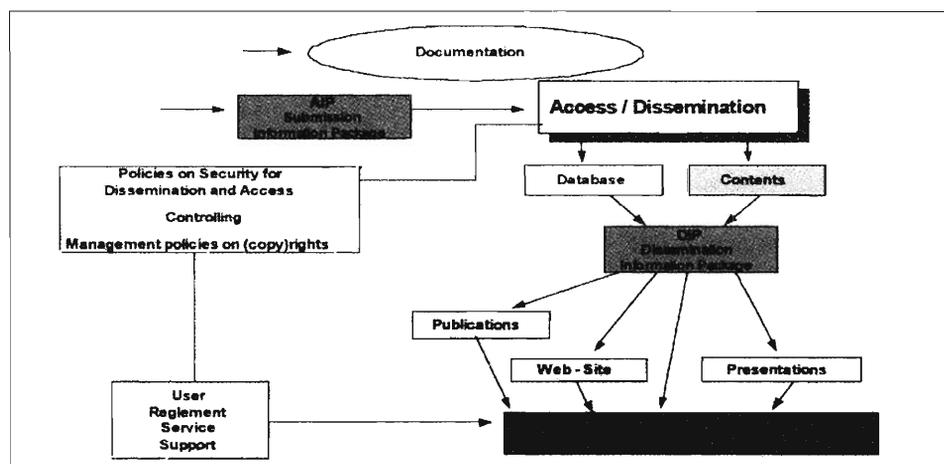


Figure 5: A Graphic Representation of Access and Dissemination

Conclusion

These explanations are not exhaustive by a long way, but they point out different elements that we have taken into account while developing the concept for our national sound archives. Much still needs to be elaborated upon, such as different policies; the integration of existing activities; or a list of the skills that will allow longer term personal planning, training, and further education of employees.

Our experience has demonstrated that a significant amount of time must be spent on developing a concept. Models such as the OAS are ideal starters for technical solutions, but they are not sufficient on their own – they must be integrated into the considerations of a comprehensive concept of a national sound archives, with the appropriate principles and definitions.

Audiovisual documents are a part of our cultural memory. Keeping them is not only important for documenting our history, it also contributes significantly to the identity of a social community.

The following is a graphic summary of our whole concept:

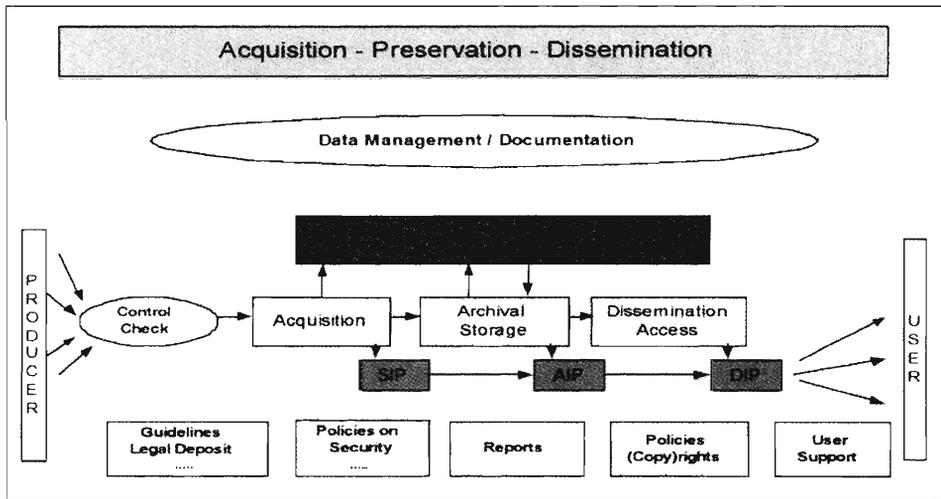


Figure 6: A Graphic Summary of the SNAS Concept

Migration of 1.5 million hours of audio-visual material

Martin Jacobson, Swedish National Archive of Recorded Sound and Moving Images (SLBA)
Adapted from a presentation made at the IASA-BAAC Conference 2007, Riga, Latvia

Abstract

SLBA has established an infrastructure for mass-digitisation of substantial parts of its analogue audio and video collections to digital files. A number of 'unconventional' methods were used such as high-speed transfer together with automation using robotics and a suite of custom scripts that automatically process the digitised files. The infrastructure includes an in-house developed migration asset management system that handles both physical and logical material logistics including metadata, final storage, and linkage to the description database records. The SLBA is digitising 500 000 hours per year through the infrastructure.

Introduction

The SLBA's audiovisual holdings amount to about 7 million hours, and reside on some 50 different formats. As with so many other audiovisual archives, large parts of the collections are at risk of deteriorating beyond recovery, if not migrated to new physical media in the very near future. The much improved access possibilities that digitisation affords is also an impetus to transfer the content to directly searchable and accessible files.

For decades, the SLBA has performed migration of both complex and undemanding media. The difficult and/or rare material has been transferred with a high level of technical expertise, and often through the use of craftsmanship during the transfer to condition the media, tweak or repair the playback equipment, and manually process the resultant files. The problem, of course, is that this type of work is very demanding of resources, creating the risk of leaving few or no resources for digitising the remaining bulk of the collections.

The SLBA's approach was to continue the highly specialised transfers, where necessary, but to step up the process by securing financing and allotting enough resources to create an infrastructure that could automate the digitisation processes wherever possible. The goal was to mass-digitise the bulk of the collections at a suitable quality level, and as inexpensively as possible. But what is a suitable quality level – and who decides that? Each institution/entity must set these parameters themselves, and hopefully they will be in tune with the present and future needs of users. Such things as assessing the urgency of the situation, and the ability to finance the whole chain, are also in direct relation to choice of quality level. The SLBA does have a role as a national archive serving the Swedish population as a whole, but the institution's primary role is to function as a library for academic researchers. With this mission in mind, careful consideration was given to the users' present and future needs, but also to the uniqueness of the original. Quality level suggestions were eventually sanctioned by the institution's managing group before going ahead with the creation of information processes, pre-processing, transfer techniques, format choices, bit rates, post-processing, etc. So certain losses in quality were accepted in exchange for the continued preservation of millions of hours of material that would surely have been lost otherwise.

Establishment Project

The first selection, consisting of nationally broadcast public service radio and television material, was identified and deemed suitable for mass-migration. A 19-month project was run between November 2005 and May 2007 to create an infrastructure to migrate 250 000 hours of video and 1.25 million hours of audio. Twenty-one people in the SLBA were involved at differing levels of participation. Average man-hours per month were 516, totalling 9 800 (or 6.1 man-years) for the whole establishment project.

Some of the actions taken and questions asked were these:

- Assessment of carriers, both physical and their content
- Selection of carriers to be transferred (Besides content considerations, which carriers would lend themselves well to an automated process... physically good, but also rather homogeneous technically)
- What are the technological demands for transferring these selections?
- What quality levels do we want or need?
- Could the transfer be automated?
- Could the transfer be done faster than real time?
- If so, are there any negative consequences, such as loss of quality or portions of content?
- Is equipment available, and if so, what condition is it in?
- Could equipment be refurbished or reproduced?
- Are there companies offering migration services? What would that cost?
- Do we have the in-house knowledge and resources to do this ourselves? What would that cost?

Some of these could be checked off more easily than others; some, such as if the transfer could be automated or not, had to be proven through development and many tests. One thing that helped very much in the establishment project was that the project group members and steering committee were very flexible in the development phases. In some cases they needed to accept that the assumed paths were off the mark, and that the approach to the problem needed to be done in a completely different way.

The system that was finally built contained the following functional entities

- Preparation
- Playback
- Preprocessing
- Recording
- Metadata generation
- Logistics
- Monitoring
- Quality Control
- Archiving
- Linkage to house database
- Administration

Figure I shows a general overview of all the processes.

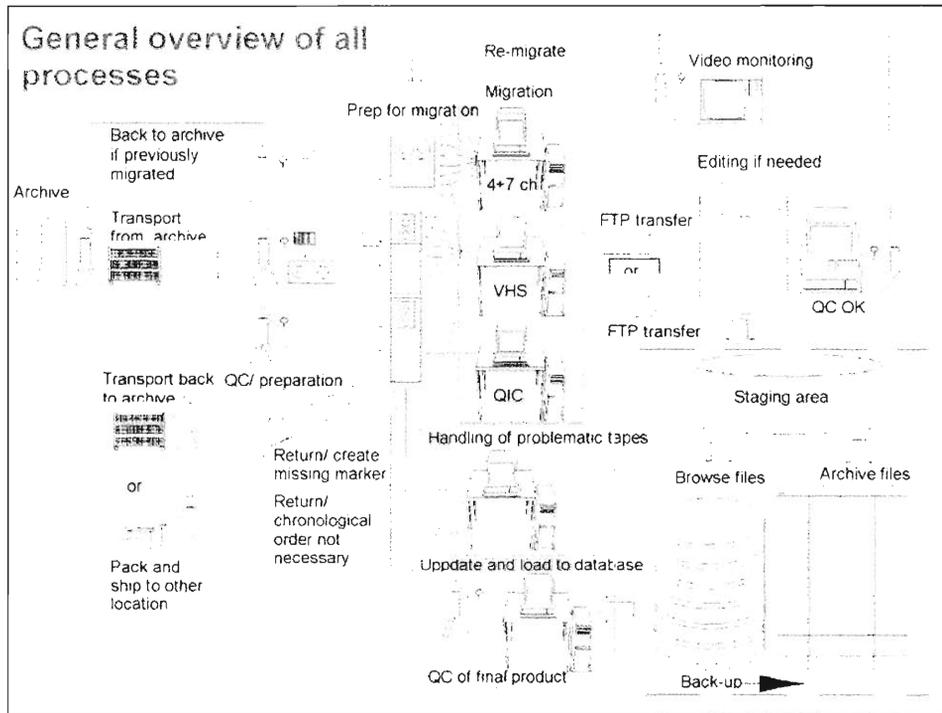


Figure I: General Overview of all Processes

Production

Asset Management

A digitisation asset management application was developed and provides workflow structure and communication between all the entities within the infrastructure (see fig 2). It communicates currently with four production lines to register batch or individual jobs, extract technical metadata, transfer files, post-process, generate fault flags, archive, and to couple the final audiovisual and metadata products to the institution's user database. Figure 3 shows a search interface, which gives status information during the digitisation process. This is also useful for the research desk that takes orders from end-users in the event that the material ordered is in the digitisation process. Figure 4 shows a more detailed view of files in the process. This is one view used by quality control operators, in which the files can be accessed directly. When suspected or actual faults are registered during the transfer, time and duration information is given so that manual checks can be performed, with direct indications of where the fault may have occurred.

The workflow tools in the asset management application have a number of user interfaces for operators and supervisors. Media batches that are selected to be digitised are registered in a digitisation cue by a supervisor. Archive personnel then bring up the media from the archives and register them, either individually or in batches. Preparation is then done in the form of bar code labelling, removal of loose original labels, and rewinding. Almost no media needs to be cleaned or baked in the present selections.

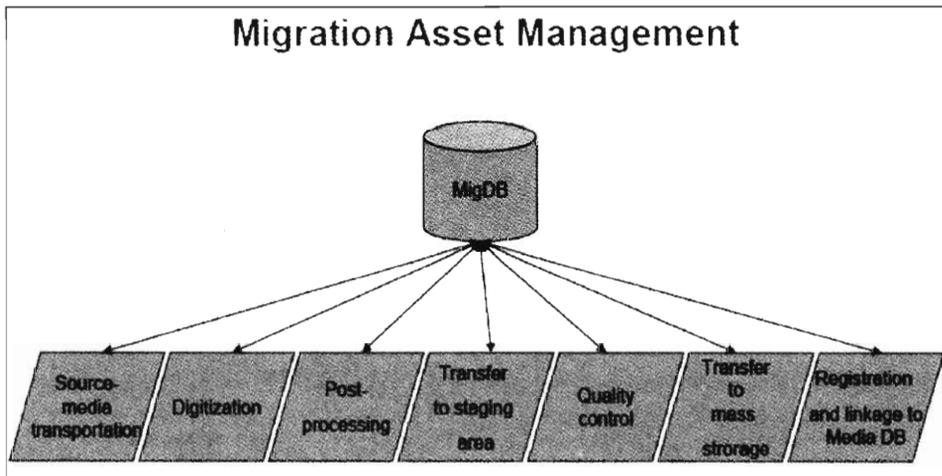


Figure 2: Migration Asset Management



MigDB

SLBA:s flödesapplikation

Skapa 7-kanal (bulk)

Skapa 4-kanal (bulk)

Skapa Vhs (bulk)

Skapa QIC (bulk)

Lista band

Lista filer

...

Filtrera lista

Alla format

Alla tillstånd

Alla kommentarertyp

Visa antal

Alla

...

Sök

...

Sort

...

Utfästas

Format i produktion	Driftstatus	Datum	Tid
7-kanal: 1978-06-30 -- 1978-07-30		2006-10-18	18:32
4-kanal: 1979-04-09 -- 1979-05-01		2006-10-18	18:32
QIC: 1993-01-19 -- 1993-02-10		2006-10-18	18:32
VHS: TV84-0001 -- TV84-1000	Stopp	2006-10-18	18:32
Tillgängligt via Sesam			
7-kanal: 1978-06-30 -- 1978-07-02		2006-10-18	18:32
4-kanal: 1979-04-09 -- 1979-04-15		2006-10-18	18:32
QIC: 1993-01-19 -- 1993-02-01		2006-10-18	18:32
VHS: TV84-0001 -- TV84-0600		2006-10-18	18:32
Total antal klara ljudfiler: 100 st		2006-10-19	19:30
Total antal klara videofiler: 200 st		2006-10-19	19:42

User Mikaelj

Created by Linus Sjöberg

Figure 3: Search Interface

Lista alla filer

<input type="checkbox"/>	Id	Filnamn	Arkiv id	Format	Status	Tillstånd	Kommentar
<input type="checkbox"/>	116	YS sr p1 1979-04-11 0000 0600.mp3	1979-04-11-1	MP3	OK	Kodning klar	
<input type="checkbox"/>	117	YS sr p1 1979-04-11 0600 1200.mp3	1979-04-11-2	MP3	OK	Kodning klar	
<input type="checkbox"/>	118	YS sr p1 1979-04-11 1200 1800.mp3	1979-04-11-3	MP3	OK	Kodning klar	
<input type="checkbox"/>	119	YS sr p1 1979-04-11 1800 2400.mp3	1979-04-11-4	MP3	OK	Kodning klar	
<input type="checkbox"/>	120	YS sr p2 1979-04-11 0000 0600.mp3	1979-04-11-1	MP3	OK	Kodning misslyckades	
<input type="checkbox"/>	121	YS sr p2 1979-04-11 0600 1200.mp3	1979-04-11-2	MP3	OK	Kodning misslyckades	

Markerade Granskad, ok

Editera markerade

Figure 4: Detailed View of Files in the Process

Production Lines

Four legacy media formats are currently being digitised in the mass-digitisation facility:

- ¼- inch 4 channel open reel audio
- ¼- inch 7 channel open reel audio
- Quarter- Inch Cassette (QIC)
- VHS SP

¼- inch 4 channel open reel

The first selection of 500 000 hours of radio broadcasts is being transferred at 4 times the original speed. Figure 5 shows an overall view of the workflows involved. Both the open reel audio lines are the least automated as far as handling of the original tapes is concerned. The original tapes were recorded at 4,75 cm/s (1.87 ips) and are now transferred at 19 cm/s (7.5 ips) using 16 Studer A 807 machines with 4 channels each totalling 64 channels. These are broken down into two stations with one operator each. Each station has 8 players and one 32 track ProTools HD system. A number of original tapes were tested for frequency components and S/N levels. This selection has a 3-6 db roll-off at around 10 khz. So new heads were designed and manufactured to suit the need for lower impedance levels at the higher frequency range generated by high speed transfer, and new circuitry to compensate for the change in bandwidth and frequency response. Considerable coarse and fine adjustments needed to be administered in order to get an acceptable frequency response, which was in the end nearly flat. S/N levels unfortunately increased by about 1-2 db at primarily high

frequencies, but this was deemed acceptable by groups representing end users.

Once the BWF 192kHz 16-bit files are created and QC is complete, processing and logistics are all done automatically using scripts, to:

- down-sample from 192 to 48 kHz
 - reverse some tracks
 - normalise
 - remove silence
 - filter according to batch specifics
 - create browsing files
 - move files and metadata, and couple to automatically generated catalogue records in user database

An average of 1261 hours per day is digitised from this format.

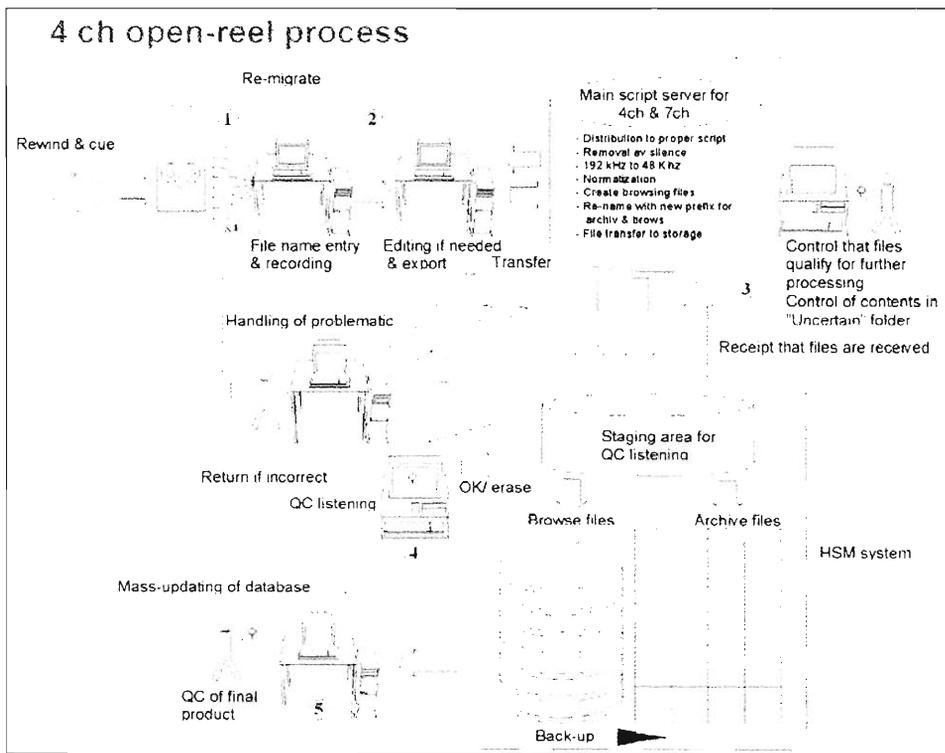


Figure 5: Overall View of Workflows

¼-inch 7 channel open reel audio

The original 25 000 hours of radio material residing on this format were recorded on thinner tapes at 2.37 cm/sec (15/16 ips). This allowed 12 hours per track to be 'logged' onto a small (20 cm) reel. The sound quality, of course, corresponds to this slow speed and the thin tracks needed to facilitate 7 tracks on a ¼-inch tape; 3 kHz of bandwidth and high noise levels are the result, but much of the material is unique and important for research.

The original logging machines were not dependable enough for daily operation. So transfers are made via two modified Revox B77s, in which two 4 channel heads were mounted in tandem to read the 7 tracks, and the capstan axle was lathed to allow such a slow speed. The tandem spacing did not pose a timing problem inasmuch as the recordings are made on individual mono tracks. Play-out is done at the original speed, since the thinner tapes are somewhat brittle, and the changes in frequency response from faster than real time playback were not correctable in an acceptable manner. Recordings and editing are done on a ProTools LE system before the resultant 48khz/16bit Broadcast Wave files are automatically post-processed, archived, and linked to a new automatically generated catalogue record in the institution's user database. An average of 77 hours per day are digitised from this format.

Quarter-Inch Cassette (QIC)

Some 700 000 hours (27 000 tapes) of radio material is recorded on the data backup longitudinal tape format QIC (Quarter Inch Cassette), which was developed by 3M. The recording system was developed by the Norwegian company Tandberg Data in collaboration with the Norwegian broadcaster NRK, the Swedish radio broadcaster SR, and the SLBA. It was developed as a logging system for radio broadcasts to be delivered to audiovisual archives. Each QIC cartridge can hold 2.5 GB of data allowing 24 hours of MPEG-I layer II to be recorded in stereo at 112 Kbits/s. One problem in finding a way to migrate this material is that the recordings are interlaced between left and right channels. The channels are recorded in succession in separate data blocks. This is, however, not a technique that is supported today, which presents difficulties regarding continued access. The desired path for migration would be to extract (rip) the raw digital data directly from the MPEG-I layer II format and repackage it as one or more archive files. Unfortunately, the recorded streams need to be de-interlaced, a process that first requires decoding to linear baseband.

The transfer is performed using a Tandberg data tape robot that holds 40 tapes and 4 drives. 40 tapes are read per day, and batch processing is automatically done afterwards in order to de-interlace the original layer II streams, and to create new MPEG layer III files (MP3) at 48khz/16bit 160 kbit/sec stereo. See figure 6 for a general view of the processes. Original software development for migration was done by the Norwegian National Library and served as a guide for the SLBA's own development. An average of 785 hours per day are digitised from the QIC format.

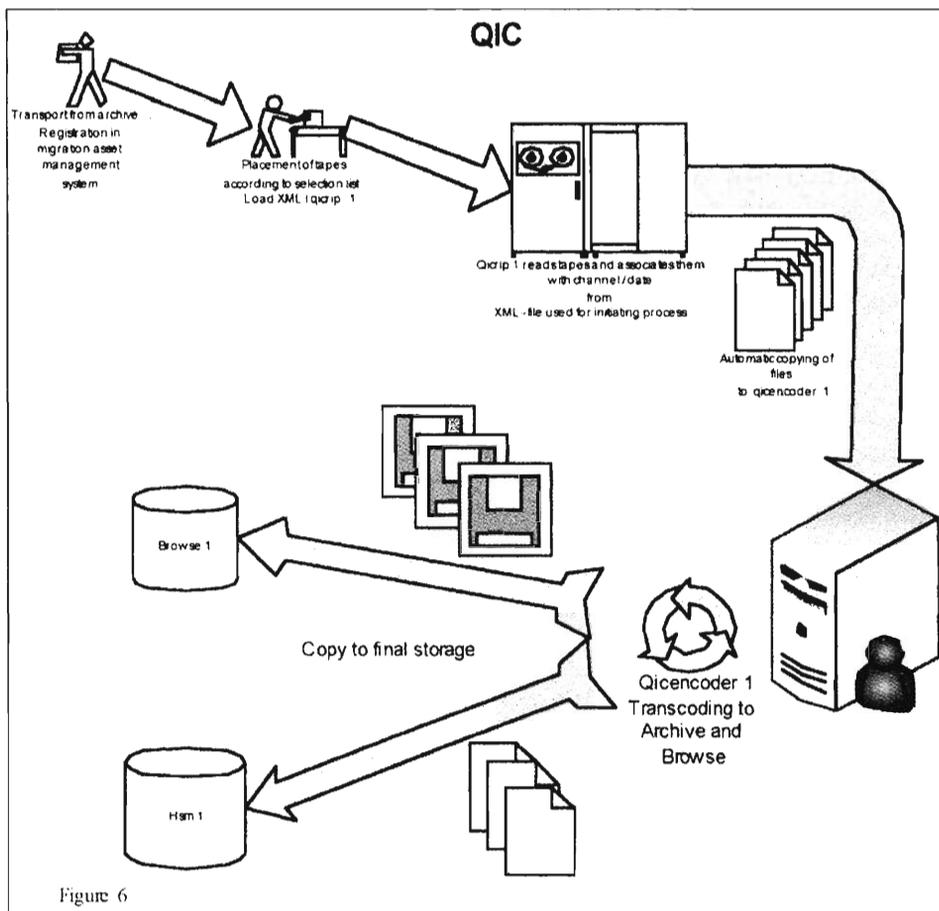


Figure 6: General View of Processes

VHS

The first selection of 250 000 hours of television broadcasts is being transferred from VHS standard play tapes averaging 2.7 hours per tape. The Swedish productions in these broadcasts exist in parallel on higher quality formats. What is unique about the VHS tapes, and gives them particular value, is that the entire broadcasts from each day were recorded, giving researchers an exact representation of what a television day looked like at any particular time.

In order to get through this large first selection efficiently, and most likely continue with further selections from the remaining millions of hours of video recordings, automation was a must. After receiving tenders that gave a clear indication of what it would cost to outsource the work, the SLBA decided to develop their own system aiming at much lower costs. An ADIC AML/J data tape robot was used as a foundation for the system and the robot was physically modified to handle VHS. The decision to build upon the AM/J was made after considering cart machines. The SLBA had in-house expertise on data-tape robots, even the ADIC with all its peculiarities. The SLBA has stocked up on four reserve AML/Js and may

obtain more, either as reserves or to start up another video line. 12 Panasonic VHS AG-7350 decks are mounted in the robot. Since these professional machines do not have automatic tracking, such new circuits needed to be developed and mounted in each of the total of 20 machines. The MPEG encoders are Digital Rapids running on HPs. The pre-processing hardware is from Snell & Wilcox. The software for quality control information extraction is made in-house. SNMP traps are used to capture information from pre-processing hardware about video noise levels and audio levels. This information is processed through algorithms to determine which automatic action to take:

- Pass
- Generate extra technical metadata about acceptable quality deficiencies
- Generate flags for manual control with indexes to suspected sequences
- Abort migration

Control software was written to communicate with the robot, VHS players, pre-processing equipment, fault detection modules, MPEG encoders, and migration asset management application. It was a conscious decision to isolate this software and all others specific to delimited production lines from the more universal migration asset management application. This yielded a modular system architecture as a whole, allowing easier interchange of functions when needed, and more robustness, since one failed module will not bring the whole system down. The 12 simultaneous streams are pre-processed (Time Base Corrected, low-pass and slight recursive filtered) and encoded in parallel to archive and browsing files. MPEG-2, 6Mbit/s long GOP program streams for archive files, and VC-1 (SMPTE 421M) for browsing files. The system is built to run 24/7. In reality it produces files about 5 500 hours out of the 8 760 hours available per calendar year, owing to scheduled and unscheduled maintenance, workflow balancing, and weekly unloading/loading. An average of 264 hours per day are digitised from the VHS format.

Spot checks are performed on both the technical quality and the content to make sure that it matches the database description, but most of the technical QC is done automatically. Once migrated to a file and quality controlled, the files and their metadata are moved and linked automatically by the migration asset management application.

Digital Betacam and DVC-PRO are two other formats held by the SLBA that will most likely be suitable for automated digitisation in the system after modifications, or the creation of additional video lines.

Storage

Approximately 1.6 TB per day is generated by the digitisation systems, and a total of about 1.1 Petabytes will be generated from the first selection. Staging, post-processing, and final storage is handled using the components listed below.

- Dual, redundant 4 Gbps SAN fabrics
- Multipathing with DMP as well as MPXiO
- Veritas Storage Migrator HSM system
- Veritas Cluster Server
- SUNFIRE, Dell, and HP servers
- Solaris I0 with ZFS
- IBM RAID storage DS4800 as well as DS4700

- Hitachi Thunder 9500/9200
- IBM tape library 3584 currently with 2121 storage slots distributed over 4 cabinets
- 8 IBM LTO-3 fiber attached drives

The final storage components are part of the institution's mass-storage system to handle all the storage, including direct digital ingest from presently over 40 radio and television channels. A hierarchical storage management (HSM) system eases much of the administration of data logistics by facilitating the use of rules for what, where, and when data should be moved automatically to different storage areas. Scripts that monitor watch folders automatically initiate and execute processes such as browse file generation, or detection and removal of silence from files with certain pre-specified IDs.

Workload balance was key to achieving such a high throughput. All 24 hours of the day need to be used by machinery and software processes. If a problem does occur, resulting in a bottleneck, it must be resolved quickly so that other processes can continue. Segmenting or batching the media according to traits in the recordings has allowed better use of scripting to post-process certain media automatically in very specific ways.

Costs and Personnel

Costs per hour and media are shown in figure 7. All the costs incurred associated with the digitisation have been included.

Costs for the first selection, broken down per area and year, are shown in figure 8. In full production, an average of 5 full-time equivalent staff members are dedicated to the endeavour. During the development phase, careful attention was paid to minimising both human involvement and the need for special or rare knowledge later in the production phase.

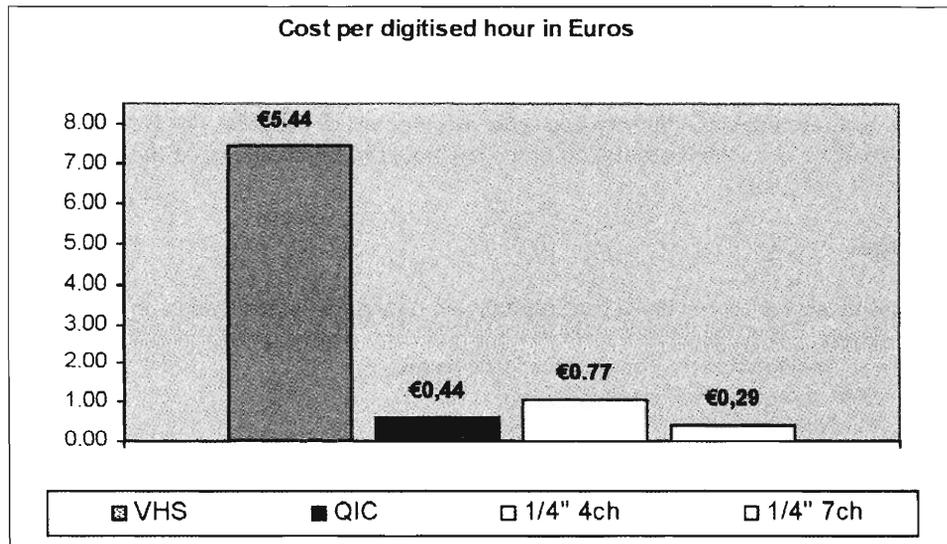


Figure 7: Costs per Hour and Media

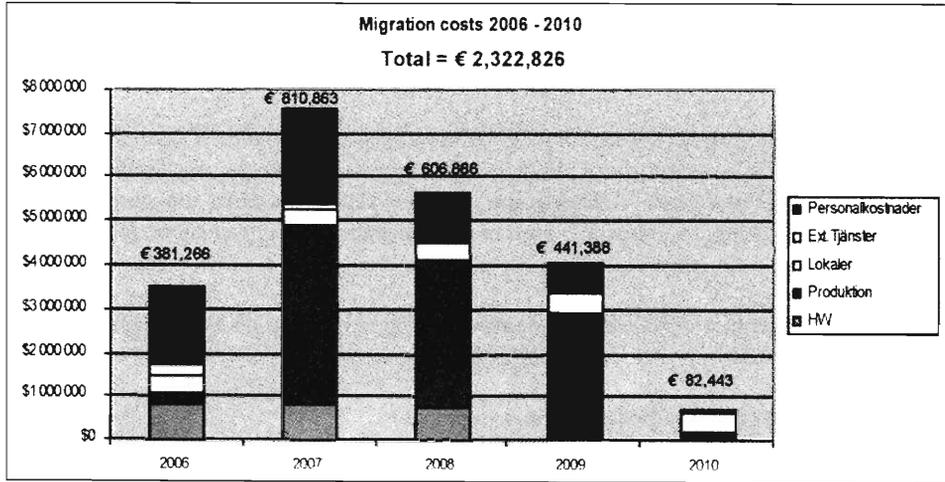


Figure 8: Migration Costs

When Archives go Digital

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Paper presented at the IASA-BAAC Conference 2007, Riga, Latvia*

The digital domain not only means a new format family to deal with, it also changes the possibilities of how to treat the content of the archives. It changes the usability of the archives; it changes the tasks; it changes the workflows. It might affect the position of an archive suddenly being an important part of a production chain. It changes the required competence.

Having the content in a digital domain demands taking advantage of expanding the access to it.

The appearance on the web becomes more important.

In this presentation I want to talk about the changes archives undergo by dealing with digitised material. This aspect changes our work and even our aims.

As a second point I would like to speak about the responsibility of the archives, not only for their own collections.

The third item touches on questions of the security of our new and expensive storages.

What I'm going to tell you is not based on scientific studies. It does not claim to be the only truth. I will speak about personal experiences during seven years of developing and performing a concept starting with digitising of several audio formats owing to preserving the files in a mass storage system. Maybe, for some of you, my findings are nothing new. But I think they should be discussed on such a platform as IASA.



I take it as an accepted fact that audio and video recordings have to be digitised to follow preservation aims. I suppose we all know the advantages of doing this and the disadvantages of not doing it.

I'm not sure we all agree on the need for digitising in high quality, depending on the claim that all the information we lose during the step of digitising will be lost forever, because I assume that in most cases we won't touch the analogue originals again.

If you want more basic information about digitising, I recommend the IASA website publication (www.iasa-web.org/) and the website of the European project Prestospace (www.prestospace.org). There you will find not only information on digitising, restoration and archiving; you will also find lists of service providers and – very useful – tools for calculation and planning of preservation projects.

Change in Handling



Before we started thinking of digitising anything, the OEM was an archive in the traditional sense, with shelves and shelves, and shelves... Then we developed concepts and workflows for digitising. We bought equipment. Knowledge and infrastructure grew.

Now, seven years after starting all these plans, we are mainly the same crew but fulfilling hi-tech based tasks. The same people who learned to deal with racks and catalogues find themselves sitting for most of the day in front of a PC handling bits and bytes. From one year to the next, completely different knowledge was recommended.

In our archive we had the advantage that most of us actively chose this way.

I learned that digitising followed by automatic migration seemed to be the only way to preserve the audiovisual material.

Therefore, all the members of archives – not only the hi-tech freaks among them – will be forced to follow this change in equipment and handling, even if they are able to outsource the digitising jobs and the administration of the storage. They have to handle files instead of carriers.

Having the recordings digitised means forgetting about procedures of operating analogue machines. It means opening applications on a computer; making any editing or signal changes with a mouse and a keyboard. Of course, dealing with files means to copy and paste instead of play and record. The next logical step in making a copy is burning a CD or DVD. That means probably learning the use of additional applications. Being so far allows the demand to use some nice tools and improve/restore the signal? This requires experience in signal processing.

Having sudden easy access to the material forces an institution to put it into action.

The Web is calling.

It is one thing to have a website, but it is more complicated to offer a representative online catalogue.

The real difficulty starts when you try to offer online access to your recordings: organising the access to a catalogue demands some technical features and, of course, special input. You have to create and provide browsing copies. You need a server and a net that will be able to manage the expected amount of data. You have to deal with player applications that serve your files' characteristics.

After all, even if these obstacles were overcome somehow, the actual status of copyright forces a lot of archives to keep main parts of their collections without public access. For a small institution it is not just hard, but often impossible to get the rights to recordings that won't be asked for frequently. Even if they find the right owners and are willing to pay for it, their petitions in many cases seem to be not even worth answering.

The idea of access over the Internet is getting pushed nationally and internationally. But from the same quarter comes the restriction of user rights. This contradiction must be clarified somehow.

Meanwhile, the habits of users become established. They get used to finding what they want on the Internet. The value of being printed in the so-called yellow pages decreases. Nowadays, for an institution, the quality of presence seems to depend on the presence on the Internet. The appearance in the web becomes more and more important. It is not enough to give access to your content: it must be offered in a designed way, with added descriptions and illustrations. One starts to think about extending your web performance with things such as newsletters, and e-shop.

The conclusion is that changing the analogue storage into stored files leads to the situation that people whose former task was to manage boxes and lists, find themselves working with computers; learning to handle dedicated applications; and doing jobs that used to be done by audio specialists, publishers, designers and/or IT professionals.

Collaboration of Archives

To do a good job of digitising demands a lot of experience and professional equipment. Both have to be updated in astonishingly short periods. For later reference, responsible documentation of the workflows, parameters, and analysis prove to be essential. All this makes digitising expensive.

There are two ways to get files with high quality resolution. One is to find a serious service provider. The other is to bring know-how and equipment into the institution. Both ways mean investing money in preserving content. Later I will make some remarks about the additional and fluctuating continuing costs for archiving the files.

Outsourcing does not free one from learning the basic know-how of digitising. This is because you have to decide which quality and features you are looking for, and which service provider is offering it in a serious way.

Moreover, to me it seems to be irresponsible not to check the incoming results. To do so requires a minimum of knowledge.

If for any reason you decided to digitise your content yourself, at some point you will come to the stage when the work is done and you still have the infrastructure. At least then the idea of offering digitising services to third parties arises. It might be a good chance to earn money with it. On the other hand, this capability imposes responsibility to those who are not in that position.

Those archives that are unable to afford funding for their digitising should try to find a way of collaborating with those who have the infrastructure and capacity. If not, their collections will be lost. The urgency does not just depend on the condition of their carriers, instead it is increased by the limited availability of the playback machines.

Such collaboration must be a kind of win-win game for both sides: For instance, an addition to the collection of the one archive and a cheap or even free digital copy to the other.

If there is no common ground for a deal, the decision to preserve these collections becomes at least a public responsibility. I suppose governments have to set up funds for those cases. If not, it means a 'natural' decrease of possibly rare collections.

Of course, there also are redundant contents. However, I assumed that clarifying this is part of filtering the worthwhile recordings before planning to digitise at all.

At least institutions such as IASA should act as a lobby to force some public decisions.

Storing

I'm not sure whether we all agree that dealing with digital files has the aim of no longer counting on any carrier that should contain the information for as long as possible. Even if the carrier lasts a long time (which I doubt regarding some, such as DVD and CD) the change of systems with increasing frequency forces us to migrate earlier than expected.

Often it is said to be about five years. However, the short but very concrete statistic on the storage system of the Austrian Mediathek tells me the period is three to four years. That is the period when both the old and the new systems must run parallel.

The problem on the software side is that we realise the change only because of the frequent updates, which often don't tell us about the vanishing compatibility with older files. So there is the need always to check it before doing any update.

The other aspect of digital preservation is the migration to future file formats without losing information. As long as the files are uncompressed there will be an application that can convert from the old to the new format. This is the outstanding advantage of creating digital files.

In the administrative area there will be tasks such as checking, reorganising, migrating and converting the files. Those tasks will concern all the files, not only the popular ones.

Therefore more data means more cases of handling. The immediate access probably also prompts increasing usage. These administrative uses in addition to the daily business require more frequent access to the recordings than was the case in times of analogue storage.

If the digital collection exceeds a specific number of recordings, it makes no sense to keep it offline, because the instances of needing access become too frequent. Therefore, a mass storage system is needed. It is a system that gives computer access to the whole store. From that point on, nobody has to crawl between the shelves. All the required access can be achieved automatically.

Whether you have a mass storage system or not doesn't make any difference to the fact that you have to change your equipment and software with rapidly increasing frequency. That causes a new situation: Once digitised or digitally created, the recordings force us to change continually just to keep them. I dare say that rarely has any one of us here ever tried to calculate this aspect.

In our budget plans at the Austrian Mediathek, this will become an important part.

As long as we had only some gigabytes of data, we had the possibility of storing them temporarily in another place, if we had any problems. But as soon as you get an amount that justifies the installation of a mass storage, you depend on the reliability of the system. In most cases, you depend on the company that built the system. When business decisions rule concepts and reliability, this is a situation we can't afford for a long time. And don't forget, we have to keep our collections 'forever'. While companies, or at least their proprietary development concepts, often have a short lifespan, the archives face the effort of digitising and storing in order to preserve their content for a very long time.

In fact, it happens to be not enough to have the files, the carriers (hard drive, tape etc), power supplies, etc redundant. To work seriously, we should also hold the content as redundant on a completely different system supported by another company. That doubles the prize.

The other way would be to become independent from those companies and build the mass storage system with standard hardware components and open source software (if it is available). But this requires a lot of know-how. I guess Kevin Bradley will have more to say about this in his presentation. I think it is worthwhile investing in this direction, rather than in profit oriented companies.

Conclusions

The archivists' work is going to change from the moment they have to deal with digital files.

We (the archives) should improve our collaborations and use the time window as long as it is affordable to digitise analogue records. We shouldn't feel responsible for only our own holdings.

Those institutions that have the infrastructure to migrate their content must be aware of the responsibility they have to others who don't have, and may never have it. Archives have the

task of preserving content. But to what extent does this task include the content of other collections that might never migrate without any external help?

The government must also take responsibility and set up funding.

The act of keeping digital files alive and accessible forces continual investment in equipment. Security demands major solutions. Many small archives have neither the budget nor the competence.

This must be taken into account by the archives themselves, as well as by the institutions that make the decisions about the yearly budgets.

Digital storage is not just insecure because of possible unsteadiness of the carriers or the systems used. The merchandising plans of the companies can also shorten the life expectancy of the systems. This increases the cost.

We need centres of competence that make knowledge of technical and logical standards, as well as of financial solutions, accessible. We also need centres of competence that are able to build a lobby for arguing the need for preserving work. That includes the user rights situation, as well as the need to push the market to offer real archive solutions and not just adapted hi-tech storage for insurance companies. They also need to insist on the responsibility of governments.

Sound Directions: A Program in Digital Audio Preservation

Virginia Danielson and Bruce Gordon, Harvard University and Indiana University

(Funded by the National Endowment for the Humanities)

Presented at the IASA-BAAC 2007 Conference, Riga, Latvia

The Sound Directions project began after a number of meetings in the US designed to draw attention to the urgent need for audio and video preservation. These meetings included 'Folk Heritage in Crisis', sponsored by the Library of Congress's American Folklife Center and the American Folklore Society (December 2000), and several smaller colloquia sponsored by the Center for Library and Information Resources in Washington DC. Part of these discussions involved the desire by US granting agencies to have work standards against which requests for funding could be measured.

In addition to the Library of Congress and its American Folklife Center, American universities and colleges serve as important repositories for audio and video collections and have significant responsibility for preservation. At the above meetings, Daniel Reed, then Director of the Archives for Traditional Music at Indiana University, and Virginia Danielson of the Loeb Music Library at Harvard University, realised their planning for digital preservation was moving in very similar directions. Both were familiar with the IASA guidelines, and with European and Australian initiatives in media preservation. Both were able to build on-site facilities. Both universities could provide technological support for systems development and consulting on metadata. Both had immediate needs for audio preservation and the ability to act on them.

The questions before them were: Can we build preservation programs that will be in step with international efforts and that will co-ordinate well with the planning invested in the National Audio and Video Digital Conservation Center being built by the Library of Congress? Can we bring together existing and emerging standards, such as AES31-3, AES-X89-B and AES-X98-C, and test practices such as IASA-TC03 and IASA-TC04, from beginning to end of the preservation chain to arrive at recommended practices that other institutions could use and that granting agencies could consult for their own purposes? Better still, recognizing that each institution must necessarily operate with different equipment, staffing models, and physical settings, could we articulate different steps towards audio preservation that would serve best practices equally well? Further, could we develop interoperable submission information packages that would permit the exchange of audio files with all their descriptive, structural and administrative metadata such that they would be completely usable in the long run by more than one institution? Sound Directions began as a research and development project to address these questions.

To ensure that our results are broadly applicable to the field, and to broaden our base of expertise, we engaged an advisory board of prominent experts in audio preservation and digital library issues, who offered initial advice and extensive comments on our work at various stages. In alphabetical order they are:

- **Peter Alyea**, Digital Conversion Specialist, Moving Images, Broadcasting and Recorded Sound Division, Library of Congress
- **Adrian Cosentini**, Audio Preservation Manager, The New York Philharmonic Orchestra
- **Carl Fleischhauer**, Project Coordinator, Office of Strategic Initiatives, Library of

Congress

- **Chris Lacinak**, President, Audio Visual Preservation Solutions
- **Clifford Lynch**, Executive Director, Coalition for Networked Information
- **George Massenburg**, President, GML, LLC

As a research and development project, the first goal of Sound Directions was to develop best practices and test emerging standards for archival audio preservation and storage in the digital domain and report our findings back to the field. While best practices have been and are being developed for the initial digitisation process, they did not exist in many areas of the preservation chain. Some of the areas that we explored included the collection of technical metadata; development of preservation packages following the Open Archival Information System model; exchange of these interoperable packages between institutions; ingestion and storage into a preservation repository; quality control, and the production of derivatives.

The Sound Directions Project conducted research aimed at bringing IASA TC-04 more centrally into the American preservation picture and adding our own work to it. We sought to develop best practices in areas in which standards did not exist, and to meet both existing and emerging standards. The project also conducted research aimed at providing greater specificity to existing high-level best practices in a number of areas. This research included developmental work to test practices at a number of points along the preservation chain.

The Sound Directions Project has produced three major, tangible results: the report of our findings to the field; the preservation software tools developed at Indiana and at Harvard; and the preservation of critically endangered, valuable recordings.

The Sound Directions Report is an extensive document detailing the results of the work performed at Indiana and at Harvard. It was designed as a user-friendly document for the curator and the technologist alike. Each major section contains a general overview aimed at the curator, followed by the best practices for the topics of that section. Rationales are given for those best practices, followed by background material, and then the details of the work for the rabid technologist and the very curious curator. There are appendices for the essential but otherwise unwieldy information, and the whole is downloadable as a .pdf document. The sizable collections of our two institutions, the vast quantities of metadata required for preservation, and the complexity of building deposit packages led us to develop software tools to aid in the task of selection for preservation; documentation of original objects; process history metadata collection; data integrity; and overall workflow automation.

Prior to the Sound Directions Project, Harvard developed Audio Object Manager and Audio Processing XML Editor (APXE). Audio Object manager is a java-based application for the collection of original audio object technical metadata. It presents a configurable template for the documentation of various types of physical and digital file-based media. Audio object metadata is stored as XML data utilising the AES-X98-B standard in its draft form. APXE is a Mac OS based application designed for quick documentation of the work history in the audio preservation process.

The work history, or digital provenance metadata, is documented across a series of steps referred to as processing events. Each event contains a signal path or data path from one

device to another, as well as the input media and output media. The audio process history is stored as XML data utilising the AES-X98-C Process History Metadata Schema in its draft form. Both of these tools are vital parts of our workflow.

When we began work on Sound Directions, our workflow was almost entirely a manual process carried out by audio-engineers. Only the building of batch deposits for the Digital Repository Service was automated. The preservation process for one physical item, from transfer through to deposit, might take from three to eight hours or more. In order to streamline the preservation workflow and reduce the potential for human error, our lead engineer, David Ackerman, and programmer Robert la Ferla, designed and developed a suite of forty open-source, scriptable, command line interface, audio-preservation software tools called The Harvard Sound Directions Toolkit. The toolkit was designed to consist of a large number of tools, each targeted at a very specific application, but which are very regular in design so that they may be pieced together into multiple configurations to accommodate different workflows. These tools have revolutionised our workflow and liberated our audio engineers from repetitive tasks, so that they may now focus their attention on getting the best playback, and on evaluation of the object for preservation.

Since Indiana University has such vast collections to consider for preservation, they logically designed the Field Audio Collection Evaluation Tool referred to as FACET. FACET is a point-based, open-source software tool for ranking field collections by their level of deterioration and the amount of risk they carry. Indiana also developed the Audio Technical Metadata Collector, or ATMC. ATMC is used for collecting and storing technical and digital provenance metadata for audio preservation.

Both Harvard and Indiana are making their software tools freely available from our website to the preservation community, beginning with the release of FACET and the Harvard Sound Directions Toolkit.

For further information about the project, visit <http://www.dlib.indiana.edu/projects/sounddirections/index.shtml>

Data Infrastructure for Ethnomusicological Archives – Current Situation and Future Perspectives

Polina Proutskova, Department of Computing, Goldsmiths College, University of London, UK
Paper presented at the IASA-BAAC Conference 2007, Riga, Latvia

Abstract

This article is devoted to all the aspects of data infrastructure in ethnomusicological archives, its current deficits and possible solutions:

- Retrieval strategies – how to find music in an ethnomusicological archive. Possible developments include social tagging, automated indexing, and adapting modern Music Information Retrieval strategies to non-Western musics
- Access to holdings and its political aspects – ‘Why can’t I have a copy of that song from the archive?’
- Digitisation and online visibility of catalogues and holdings – the ‘digital gap’
- Interoperability and metadata standardisation – what is needed to search archives simultaneously. Metadata standards and controlled vocabularies are discussed; advantages of, and perspectives on, a common ontology are shown.

A vision for future development of the operation of ethnomusicological archives is given.



Figure 1: Ethnomusicological Archives - Musical Memory of the World¹

Introduction

Ethnomusicological archives build a systematic, often very well documented repository of music recordings, covering geographically all the regions of the world, and historically reaching in some cases as far back as the end of the 19th century. The core of their holdings is original audio and video recordings made by ethnomusicologists during their field trips. Many of the archives also collect published or commercial music recordings relevant to the subject. Trying to capture as much of the social context of music traditions as possible, ethnomusicological archives also preserve still images, field notes, books and publications on music cultures, musical instruments, cultural and domestic objects brought from field trips.

¹ Picture credits Alan Lomax Archive, Library of Congress

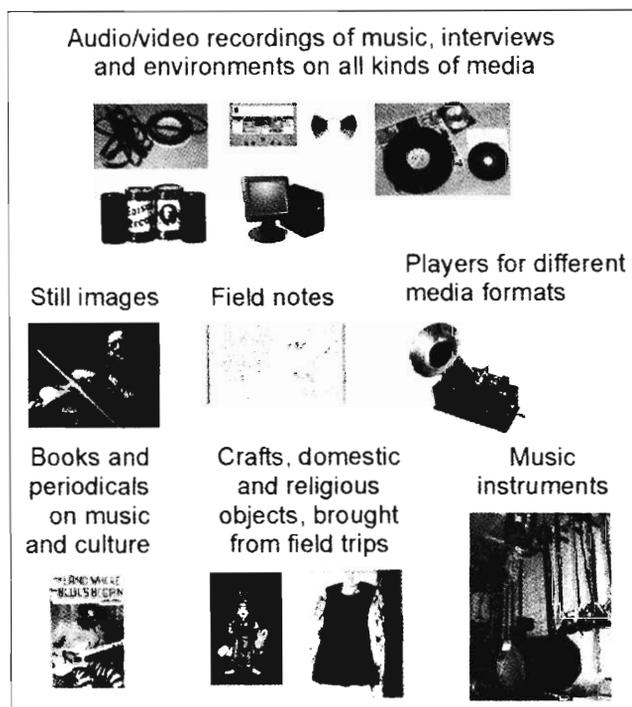


Figure 2: What Ethnomusicological Archive Preserve²

The label 'ethnomusicological archive' is a category describing the 'cultural' content of an archive, not the type of data. This is in contrast to the category 'sound and audiovisual archives' that is used, for example, by IASA. Nevertheless, the main part of their holdings is audiovisual data, thus they are naturally part of IASA.

At the same time, because of their cultural content and the diversity of archived object types, they have much in common with public institutions of the cultural heritage sector, such as museums, libraries and general archives.

We don't know how much music has been recorded generally by ethnomusicologists, nor how much music is preserved in ethnomusicological archives. The research archives section of IASA, where many of these archives are represented, is now collecting representative statistics about its members' collections. Please refer to **Table I** for the figures I could collect so far on some of the most influential archives.

² Picture credits: Wikipedia

	Items	Hours (incl. commercial)	Original collections
Berlin Phonogram Archive	Over 150 000	18 000	Over 1 000
Library of Congress, Archive of Folk Culture		Over 100 000	Over 4 000
National Sound Archive of the British Library, World and Traditional Music section	300 000		370
Archives for Traditional Music, Indiana University	128 550	Over 250 000	2 000

Table 1: Number of Recordings in Ethnomusicological Archives

Anthony Seeger [Seeger 1986] describes the significance of the archives for the field of ethnomusicology.

Retrieval Strategies

In contrast to recordings of classical or popular music, recordings in ethnomusicological archives cannot be retrieved by composer name, simply because no composer exists, or is known. Similarly, performers are not always known. The main criterion for searching for an ethnomusicological recording is the cultural origin of the music [ethnoArc D4]. It may also be the geographic place where the recording was made; the language; the name of the collector; a social function or context (such as a specific ritual); etc. Often the searches are performed combining several criteria [ethnoArc D4].

Finding recordings in an ethnomusicological archive remains mostly the domain of an experienced archivist, who knows their archive by heart. To enable users to search archives more effectively on their own, extensive, reliable annotation must be provided together with effective search tools and browsing interfaces.

The work of annotating ethnomusicological recordings is very time-consuming and requires deep knowledge of the recorded material and its cultural context. Practically all the ethnomusicological archives contain recordings where annotation is missing. Some archives report that only 50% of their holdings are annotated appropriately.

One way to deal with the shortcomings of annotation could be the principle of social tagging: an online editorial system allowing registered users to add, edit and negotiate information on catalogue entries, which then becomes available to all the users. Naturally, people who are interested in particular recordings might be better informed about their cultural context than the archivists are. The process could be supervised by an archivist or, if the number of participants is high, it might become self-regulated, as the experience of Wikipedia³ shows. In any case, it must be clearly cited who added particular information and when, and what their sources were.

Another way to cope with the lack of annotation would be to introduce tools for automated and semi-automated annotation, based on probabilistic classification algorithms. These

³ www.wikipedia.org

tools would identify some basic musical features of audio recordings automatically. An archivist could then decide what of the generated metadata to retain, and whether to make it public. The features may include: whether a recording contains singing or instrumental music; solo or choir; male or female singing; types of played instruments; the scale; whether it has specific features, such as drone or yodelling, steady beats or rhythmic variation. A rough geographic affiliation of the recordings could probably be added automatically.

To extract features automatically from audio, and to attach tags to even a huge collection of recordings, is usually done within several hours. This would improve usability of audio content immensely and make non-annotated or poorly annotated collections searchable straight away. At the same time, automated annotation would rarely give absolutely reliable answers, thus it is no substitute for the work of an archivist or a researcher and must be clearly distinguished from reliable human annotation.

In my PhD I work on extracting these features automatically with sufficient accuracy from ethnomusicological recordings. To date I know of no tools capable of doing it generally for such a variety of musical material as is the case in ethnomusicological archives. Current solutions often depend on characteristics that are present only in certain styles of music, such as major and minor scales in Western popular and classical music.

Bridging the gap between the low-level features, such as audio spectrum, and the high-level musical semantics such as genre, melodic analysis, and musical perception, is the main challenge of the Music Information Retrieval (MIR) research today. OMRAS2, of which I am a part, is a UK national research project aimed at creating a comprehensive high-level MIR system for musicologists⁴. In this framework, I create and adapt MIR tools to work with non-Western musics, including huge collections such as those of ethnomusicological archives.

OMRAS2 will offer these tools as web services to external users. It means an archivist, or software, could send audio recordings to OMRAS with a service request; the tools would be run on the OMRAS server and the result (metadata) returned. This is impractical for big archival collections, or collections containing recordings that are not publicly available. To address this issue, I envision working with archives directly, and deploying these tools to archives' internal servers. In this case, audio recordings wouldn't leave the archive's servers in order for annotation tools to be run, and no access from outside to the archive's or institution's internal system would be necessary. Another advantage is that classification algorithms could be adjusted to specific collections held by a given archive.

Future research might allow us to train statistical methods to detect distinctive musical features specific to a music tradition, or a given collection, automatically. We might also be able to classify recordings according to their cultural origin, integrating ethnomusicological knowledge about specific cultures into the classifiers.

Entirely new retrieval strategies might evolve, if modern algorithms from the field of music information retrieval were to be adapted for non-Western musics. These algorithms have been developed for classical and pop music, and allow basic content search of audio recordings. They include searching for music similar to a given fragment, extracting the most significant parts from a music performance (thumbnailing), dividing a collection into groups

⁴ www.omras2.com

of related music fragments (clustering) [Downie 2003].

Finally, since editorial metadata such as cultural origin and social context are essential to ethnomusicological recordings, retrieval strategies combining both metadata and audio content search promise the best results. Such retrieval strategies would introduce entirely new search and research scenarios. They would enable data-driven research into music, relying on archives' holdings as corpora. This would provide the basis for such areas of computational ethnomusicology as large scale quantitative research and study of music evolution.

Access to Data and its Political Aspects

In present-day ethnomusicological archives, the main obstacles restricting access to recordings after they have been successfully located in the catalogue are the lack of manpower and of an effective infrastructure facilitating fast processing of users' requests. Still, there are other obstacles of a political nature, specific to ethnomusicological archives.

1. A possessive attitude of some collectors and archivists. It is sometimes hard for a field researcher who went through every possible difficulty to obtain a recording, to give it generously to others without expecting even a 'Thank you!'.
2. A State or administrative policy. If, for example, an archive holds recordings of local music traditions that are considered an important part of the national identity, the State sometimes puts restrictions on the use of its content. If the archive is part of a large institution, general restrictive access policies of the institution are likely to affect the work of the archive.
3. The main reason for restricting the access to recordings is a complicated proprietary rights situation [Seeger 1996], [Seeger 2004]. The rights status of many of the recordings in ethnomusicological archives is not clear. On one hand, ethnomusicological recordings are part of cultural heritage, often produced and maintained with public money, which implies that they should be accessible for at least the common needs of society, such as research. Ethical considerations make it necessary to provide access for the communities that were recorded. On the other hand, we are talking about music recordings, for which the proprietary rights of the producers are closely guarded in the West. The songs are often traditional, thus there is no composer, and the performers live far away from the Western law space. The right to play and reproduce the recording usually remains with the collector. Unfortunately, field researchers are often reluctant to make their recordings accessible in general without their being asked for permission each time they are used. In many cases the ownership is unknown (orphan works), or the owner cannot be located, which also restrains archives from making recordings accessible. These complications lead to the sad situation that the recordings can neither be used for commercial goals, nor in an educational context, nor for research purposes.

Online Access and Visibility – ‘The Digital Gap’

Our behaviour of acquiring knowledge and information is changing very rapidly, thus only those recordings that can be retrieved easily via digital systems will be used in the near future. Think of Google claiming to make all printed knowledge searchable online⁵, or of the EU i2010 program, which aims at digitising millions of entities of European cultural heritage until 2010⁶. If ethnomusicological archives won't make their holdings visible online, they will lose their significance much faster than has been the case even in the last few decades. The wonderful recordings would then be practically non-existent for anyone but the archivists.

Though many archives catalogue their holdings electronically today, most of the catalogues are still not online, the most prominent example being the Berlin Phonogram Archive⁷. Yet there have been some promising developments in the past few years.

The WebFolk Project of the Bulgarian Academy of Sciences seems to have been the very first online ethnomusicological catalogue, launched before 1997⁸.

Some bigger archives' catalogues are now available in the online catalogues of the enclosing libraries: The UK National Sound Archive, which is part of the British Library,⁹ and the Archives for Traditional Music at Indiana University¹⁰. Recently the Archive of Folk Culture of the Library of Congress published its online catalogue on the Library's website¹¹.

While catalogues are usually maintained in electronic form, and making them accessible online brings no proprietary rights complications, the situation is very different with the actual recordings. The rate of digitised holdings varies greatly between archives [ethnoArc D4], p40. In academic ethnomusicological archives, the percentage of digitised analogue materials is seldom higher than 50%. The amount of attached metadata is even significantly lower than that.

Digitising analogue recordings is an important part of the preservation work of ethnomusicological archives today. Multiplication and recovering strategies have been developed by the IASA Technical Committee to guarantee preservation of the content [Schüller, IASA-TC-03]. To facilitate the digitisation of analogue recordings, MIR instruments could be useful, such as segmentation tools that distinguish between music, speech, other non-musical background, and set marks where a new song begins or a new musician joins in. All these methods exist (see e.g. [Berenzweig 2001], [El-Maleh 2000], [Saunders 1996], [Scheirer 1997], [Nwe 2004], [Vembu 2005]), but probably none of them have ever been tested with, or adjusted to, non-Western musics. Tools from speech and vocals processing could also be used to annotate the language [Muthusamy 1994], [Schwenninger 2006], [Wang 2003], [Tsai 2007].

5 Google Book Search: http://en.wikipedia.org/wiki/Google_Book_Search

6 European Commission: strategic policy framework for the information society and the media in the years up to 2010, <http://ec.europa.eu/i2010/>

7 It is planned to make the electronic catalogue of the Berliner Phonogram Archive available online within internet portals of the EU projects DISMARC and EthnoArc

8 <http://arts.brs.bg/EN/Default.htm>

9 <http://academia.bl.uk/cgi-bin/webcat>

10 <http://www.iucatiu.edu/authenticate.cgi?status=remote&select1=WEDSERVER>

11 <http://leweb2.loc.gov/digitalibhas/html/ccards/atccards-home.html>

Few archives that hold distribution rights for their collections dare to offer online access to their recordings. One model is set up by the Smithsonian Global Sound portal. It offers all the songs from the Folkways Recordings collection for downloading for 99 cents – a kind of iTunes model for traditional musics¹², with the largest part of the benefits going to the artists who were recorded. The Alan Lomax Archive allows downloads of mp3 samples of their recordings free of charge¹³. The Global Music Archive at the Vanderbilt University's Blair School of Music offers streamed audio for listening¹⁴.



Figure 3: Fragment of Smithsonian Global Sound Homepage
Interoperability and Metadata Standardisation

Since the founding of the first sound archive in Vienna in 1899, ethnomusicological archives have been established in many countries, typically using different documentation strategies, focusing on different aspects of the recordings. There are no widespread standards. Metadata structures often grew historically, reflecting documenting policies and types of media a specific archive once used for cataloguing. An ethnomusicological archive is often part of a bigger institution and is obliged to apply the standards of the institution, which are not always well adapted to non-Western musics.

The diversity of archive histories, types of archived objects, and metadata structures makes networking among archives and data integration a great challenge.

Current metadata standards and best practices in related fields, such as sound archives, cultural heritage sector, digital archives, etc may suggest practical solutions. Some of the current standards provide well organised, abstracted high level structure (ISAD(G), SIDOC Concept Reference Model, Dublin Core, EAD). Others suggest encoding schemes and vocabularies (ICAT for sound documents, MARC for books and published materials). Unfortunately, none of them can describe all the data and object types sufficiently in

¹² Smithsonian Global Sound: <http://www.smithsonianglobalsound.org/>
¹³ Alan Lomax Database: <http://www.lomaxarchive.com/index.html>
¹⁴ Global Music Archive: <http://www.globalmusicarchive.org/>

ethnomusicological archives, providing both the main focus on original recordings and controlled vocabularies for musical and ethnological content.

There is no consensus among ethnomusicological archives about cultural groups, geographic locations, and ethnographic or anthropologic taxonomy for cultural context and objects. For musical instruments, the Hornbostel-Sachs classification is sometimes used, but since it is almost 100 years old, it has often been modified for the needs of a particular archive. For languages, Ethnologue¹⁵ [Gordon 2005] is a frequent choice, but many institutions have their own tables and labels for languages.

The need for exchange and integration of metadata from different ethnomusicological collections makes a certain level of metadata standardisation inevitable. Straightforward solutions such as flat data exchange, or forcing participating archives to use the same metadata structure, may be useful at some stage. There is a tool being developed in an EU project, ethnoArc, which should help to browse different archives without having to reduce their metadata structures to a single common metadata scheme¹⁶.

But these solutions very soon reach their limit. A sustainable, flexible and scalable solution is sought for a semantically rich integration of larger networks.

A common ontology for recordings of non-Western musics would be a way to overcome these obstacles. It would allow deep catalogue metasearch and browsing, or data exchange and linking between the archives using it, even if they apply different metadata schemes. The Ethnographic Thesaurus project might have the potential to suggest a basis for a common ontology in the near future¹⁷. It could then be developed further via an online editorial system according to the Wikipedia model. If standards for digital archiving such as the Dublin Core and OAI are supported, an integration of the catalogues and associated digital sources into the Semantic Web will be possible, making its resources available for ethnomusicological recordings.

Owing to modern technology, there is no need to be bound by one «true» common ontology for everyone today. Even if several standards emerge, interoperability could still be achieved by defining mappings between them, given that these standards are consistent to a certain degree and have comparable logic. In contrast, today every archive maintains its own solution, making the problem of common interoperability unresolvable.

To collect lists and thesauruses used by ethnomusicological archives at the IASA Wiki and to make them available to other archives could be a start for the standardisation process. This website may then develop into a place of discussion about content description and of its further development. There are examples of similar processes in the cultural heritage sector, e.g. Museumsvocabular.de¹⁸.

15 <http://www.ethnologue.com/>

16 <http://www.ethnoarc.org/>

17 <http://www.afsnet.org/thesaurus/>

18 www.museumsvocabular.de

Archives Reinventing Themselves – Outlook and Conclusions

My vision of the future of ethnomusicological archives is of a decentralised network of digital archives sharing their recordings. The rate of recordings lacking any annotation has decreased to zero, owing to automated annotation tools. There is a single metadata pool with multiple gateways for different purposes and user groups. A common ontology for the domain of traditional musics has been established, metadata enrichment based on social tagging. International regulations on proprietary status of traditional musics have been achieved, possibly in conjunction with the UNESCO intangible heritage convention. Recordings are delivered online on demand with flexible licensing models, according to the use purpose and legitimising of the user, or a commercial agreement between him and the archive.

This will make valuable recordings from ethnomusicological archives available to a variety of different interested parties: descendants of the recorded ethnic groups, musicians, journalists, teachers, the scientific community - in other words, every interested person.

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Why are these Treasures Hidden? The Place of Audiovisual Archives in a Strategic Framework for the Preservation of the National Documentary Heritage

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Paper presented at the IASA-BAAC Conference 2007, Riga, Latvia

Why Are These Treasures Hidden?

The idea for the title of this article comes from a study released in 2004 by the UK Audiovisual Strategy Steering Group: 'Hidden Treasures'. It begins with the statement: 'The rapidly expanding audiovisual world touches virtually all aspects of our lives in one form or another providing a unique contribution to our heritage', and continues: 'However, despite (or perhaps, because of) the familiarity and all-pervasiveness of audiovisual culture, the status of moving images and sounds as heritage assets remains insecure'.¹⁹

My aim is to investigate the reasons for the situation the audiovisual cultural heritage finds itself in, based on a study carried out in Switzerland. The study's perspective is unusual, because its authors do not stem from the archive segment, instead they work with procedures used in public administration. Since 2005, Peter Knoepfel and Mirta Olgiasi of the Swiss Graduate School of Public Administration (IDHEAP) have been devising, for the federal government, principles for a policy for the preservation of the collective national memory.²⁰

National Memory Building Process

National memory is considered to be the sum of information accessible to citizens in the form of records of all kinds. In this sense, it is a common good. One of the specific characteristics of the common good is that it provides services which, for political reasons, cannot be limited to a specific user group.

If we look at the audiovisual cultural heritage under this aspect, it brings with it an initial problem: published material – not just the audiovisual – is also the private property of various holders of rights: authors, actors, publishers and producers. At the same time, many of these records are meant to be available to the general public as part of national memory. One way out of this dilemma could be clear regulations on exceptions and limitations to copyright, so that the non-commercial use of these records could be permitted without restriction. Unfortunately, we are a long way away from that solution.

So, which services does the common good 'national memory' provide? We all know that knowledge of our history is vital for us to orient ourselves in the present and in the future, and that this ability for orientation contributes much to the stability and consistency of a country's society. Politicians and other decision-makers also like to praise this achievement in their official speeches, but when it comes time to make the necessary financial means available to preserve national memory, this concern is shifted to the nice-to-have column. The problem for the audiovisual cultural heritage that arises in this area is twofold: until recently, images and sound were evaluated as an expression of the entertainment industry and therefore ranked at the bottom of the hierarchy of historical sources and rarely

¹⁹ Hidden Treasure: The UK Audiovisual Archive Strategic Framework, UK Audiovisual Strategy Steering Group, March 2004, p.2 ([pdf: www.bufo.ac.uk/af/publications.htm](http://www.bufo.ac.uk/af/publications.htm))

²⁰ Peter Knoepfel, Mirta Olgiasi: National Memory building process; the Emergence of Institutional regimes for collective resources in the field of Sustainable Management of the Documentary Heritage, IASCP Europe Regional Meeting, Brescia 2006 ([pdf: http://dlib.indiana.edu/archive/00001746](http://dlib.indiana.edu/archive/00001746))

recognised as part of the collective memory. The fact that their preservation is coupled with much more complex problems than that of the traditional cultural heritage strengthens the tendency to exclude them from the canon of elements of the collective memory.

Like many other common goods, national memory develops from a collective production process that takes place in several steps. It is interesting to note that the description of this process is very similar to that of the Open Archive Information System (OAIS), running through from production to the records' use.²¹ Each of the four steps contains a series of criteria, which lead to the selection of the material: memorability, worthiness of memorisation, actual memorisation in the form of storage, and accessibility of the stored data to the public.

Memorability

The decision on whether information should be preserved depends on whether it can suitably be recorded for long-term storage. As is generally known, the recording method for images and sound has not yet fulfilled this criterion, and it is only thanks to the pragmatism and innovation of the audiovisual archive – and often even thanks to chance – that older audiovisual records have even been preserved. On this subject, the authors of the study, which is not limited to audiovisual records, remark: 'New media are increasingly effective, compact and light but tend to be less resistant to the effects of aging'.²² By this they imply that in the area of traditional written information, digitisation causes problems that have been common to audiovisual records for a long time.

Worthiness of Memorisation

Probably the most difficult phase in the evolution of national memory is the decision on which information is to be preserved. For audiovisual information, we come up against various obstacles: image and sound recordings are often considered to be somewhere between art and record; the contents may fulfil the entire range between commercial entertainment and higher scientific relevance. Academics in art history, in media, information, and social sciences, historians, linguists and ethnologists are seldom in agreement on the significance of an audiovisual record. Producers such as radio and television broadcasters see the worthiness of memorisation in yet another completely different aspect: for them it is important to preserve images and sounds for later commercial use. This decidedly shows that audiovisual records, in comparison with written records, are in a relatively young category.

Actual Memorisation in the Form of Storage

As in the OAIS model, in this phase the aim is not only to make the necessary storage capacities available, but also to offer the ability to administer the stored materials. In this case the metadata play a decisive part.

Storing audiovisual records on conventional media, such as magnetic tape or optical storage media, is already no small task, owing to different climatic conditions necessary for the long-term preservation of every medium. In the digital age, this problem has become worse

²¹ See: sdooc.gsfc.nasa.gov/nost/isoais/ref-model.html

²² Knoepfel, Oligati: National Memory Building Process, p.7

for two reasons: the long-term administration of the volume of data produced is full of unanswered questions, technically and as far as costs are concerned. The generation of the additionally necessary technical and contextual metadata can often not be carried out in times of reduced personnel resources, and then the information is untraceable.

Accessibility of Stored Data to the Public

Accessibility is the basic purpose of any archive. In the case of audiovisual records, we come up against two well known problems: one is conservation-related and the other legal. Since playing sound and image recordings in many cases leads to deterioration of the medium and often requires technical skills that average users do not possess, access copies must be created to protect the originals. Since this requires great expenditure of time and financial effort, many audiovisual records are not available to users. Although this problem has been slightly alleviated through digital technology, which makes it possible to make records available online in a suitable format, these new options have also mobilised the guardians of copyright and have already resulted in many toughened copyright regulations.

Conclusion

Using the production process of the common good 'national memory', we have demonstrated the special problems that may be responsible for the fact that audiovisual records still do not have the status they deserve. This makes it possible to derive several priorities for action in the area of audiovisual archiving, nationally and internationally:

Memorability

The digitisation of records, whose lifespan is short or mid-term owing to media decay or obsolescence, will not solve the problem of long-term preservation for good, but will move it to a technological area where the records have a much greater community of users. This should accelerate the search for sustainable solutions – although the audiovisual archives should make sure these solutions are adaptable to digitised images and sounds, as well as their financial opportunities. Obsolescence may be compensated for with the preservation of operational player technology, but in the long run this solution will not prevail.

Worthiness of Memorisation

The ability to evaluate audiovisual records for long-term archiving will only improve if these materials are also used more often in scientific research, education and schooling. Therefore, the archives must actively promote the use of their collections by the above target groups. In addition, preservation must be supported legally by matching archiving and legal deposit Acts.

Actual Memorisation in the Form of Storage

In addition to building up central storage infrastructures that are able to preserve, long-term, audiovisual records not only on various media but also in file format. A semi-automatic indexing technology must be developed so that the generation of metadata may keep up with digitisation.

Accessibility of Stored Data to the Public

In this area, the copyright problem will probably be at the top of the agenda in the next few years. Only when it is possible to regulate the non-commercial use of records through copyright exceptions and limitations, will audiovisual information – but not only audiovisual information – be able to complete its important task as part of national memory.

CDR: A Music Library on the Internet

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Paper presented at the IASA-BAAC Conference 2007, Riga, Latvia*

A Brief History of the CDR

The CDR (Centrale Discotheek Rotterdam) was founded in 1961, and began collecting LPs, and later CDs and DVDs, in its capacity as a public music record library. Over the 46 years that followed, the CDR has evolved into one of the largest music record libraries in Europe. Our collection currently consists of more than 370 000 CDs, nearly the same number of LPs, and about 15 000 DVDs. Everything that is available via Dutch distributors is obtained, and supplemented with a selection of CDs only available elsewhere. We are also occasionally approached by music lovers who want to donate their private collections to the CDR. This has resulted in a number of sub-collections of LPs, 78rpm records (about 1 200), and wax cylinders (about 800).

All these sound carriers (apart from historical objects such as cylinders) are available to the general lending public. However, only the most recently released CDs can be browsed physically; by far the largest part of the collection is stored in archives, where only staff are admitted.

Since its inception as a public music library, the CDR has naturally concentrated on unlocking its collection; archiving and conservation were never intended to be its purpose. At the moment, the CDR is especially busy, cataloguing its CD collection in great detail. The aim is to describe every CD down to the last individual track. Apart from the usual information (composer, performer, label, etc) one can also see the duration of every track. For the classical music collection, we needed to work our way back through the stacks to recatalogue older CDs. In a few years' time, all our CDs will have been catalogued in this kind of detail. As for our collections of LPs and wax cylinders, a preliminary inventory has been made of both our 78rpm records and wax cylinders (neither, however, is available to the public).

More and more people prefer digital services, instead of borrowing an actual object. Therefore, in recent years, the CDR has researched ways of lending music in a manner more in line with current music listening habits. This has resulted in an experiment called DigiLeen, 'Digital Lending'.

DigiLeen: Digital Lending

In November 2005, the CDR started a digitalisation project for its CD collection. The primary goal was to be able to lend music digitally via the Internet. A number of labels have granted permission for their catalogues to be included in this experiment; among the first of these were Naxos, Challenge, and Harmonia Mundi. We started with about 3 000 CDs containing only classical music and jazz. The public has been able to borrow these CDs via the Internet free of charge, by downloading the tracks. These tracks are protected in such a way that they can be played for only seven days. It's become a very popular service: more than a million tracks have been downloaded in two years. But why did we start this experiment in the first place?

In recent years, we have wondered how to cope with the new listening habits that have developed since the global explosion of Internet usage. These developments made us wonder how a public music library could still be relevant today – and this brought us face to face with the question of what our initial intentions were back in 1961.

Looking back, those intentions were surprisingly simple: to expose our public to as much music as possible in an easy and affordable way. Nowadays, there is an undeniable demand for music on the Internet, and in the light of our original intentions, it seemed obvious to try to meet this need. As a public library, permanent digital availability is out of the question – but temporary availability is logical. To succeed, we made use of a Digital Rights Management key (see below). But first, we needed to find support within the music business.

Permission for Digital Music Lending

For the physical lending of CDs and LPs, one does not need permission (see below), but to lend music digitally, we needed to get permission from both the record labels and Buma/Stemra. (Buma/Stemra is the organisation that takes care of music copyright in the Netherlands.) We have been able to get support from both Buma/Stemra and a series of labels, because we have been able to convince them of the added value of digitally lending the music they are responsible for.

Buma/Stemra was willing to grant us an experimental licence, because it was interested in our development of new digital services. From the record label's point of view, our experiment seemed similar to certain commercial methods of stimulating interest in a particular product. Just as the public can often use software for a predetermined trial period, we now proposed a method of giving the public a trial period for music, as well.

The customer can 'try' the music for 7 days. If they really like the music, they will want to listen to it again. That is why we offer links to websites (the record label decides which) where the music can be purchased. In addition, we issue a special code with which a company can keep track of how often songs have been borrowed digitally, and what the (anonymous) profile of its listeners is. It might be interesting to know, for example, the average age of listeners for each product.

It might come as a surprise to some that we were able to get permission from a number of companies in the music business, as the relationship between libraries and the music industry has been quite hostile in the past. The music industry has often tried to discourage the lending of music, and music libraries in turn reminded them of the fact that copyright law explicitly permits lending. Unfortunately, most libraries did not actually try to explain why lending isn't necessarily a bad thing for the industry. The CDR did make this effort, and found that many misunderstandings could be resolved – on both sides.

Some years ago, research was done in Rotterdam's cultural sector, which revealed that the CDR attracts mainly young, well-educated people. The researchers labelled this group "not credit worthy". This is precisely the group that used the library to borrow and copy CDs in the past. Most of these users would disappear off the books after a while, until finding a paying job. And they then spent their money on buying CDs, and lots of them. It turns out that avid music borrowers become avid music buyers! This is especially relevant for little

known musicians and bands, as they do not get the airplay that mega-artists get. The music library could be a good 'testing ground' for music one does not know.

Digital Lending: How Does it Work?

Some people asked us before our digital lending experiment started: when you borrow music digitally, you don't need to return the digital files to the library, do you? Well, no. But how does it work?

First, the lender needs to download a special application developed by the CDR. With this application the listener can browse through the music that is available digitally, after which they can borrow single songs, or entire album. The application takes care of downloading the music, together with a DRM (digital rights management) key. This key allows one to play the music for seven days.

For the DRM key, we have chosen to work with (and were able to acquire permission to use) the Windows Media Audio (WMA) format (version 10), as most PCs are able to handle it. In addition, it has proved itself sufficient to our lenders' needs: most commercial downloading services use the same format. In their case, use is usually limited to a certain number of PCs, and one is allowed to burn the music on a CD-R. In our case, you can only listen to the music on the PC to which you downloaded the files, for a period of seven days.

Our choice of WMA excludes an important group of potential users: those who use Apple iTunes and iPod. Apple has his own DRM system, called "Fair Play", but Apple does not allow third parties to use their DRM.

New Opportunities: Towards Public Music Distribution

It is interesting to see that a music library like ours, not originally in the least bit interested in 'archiving' or conservation purposes, has come to digitise large amounts of audio data. Soon after we started the digital lending project, we understood that digitising CDs has its own merits, apart from lending purposes. Therefore, we decided not to simply transfer the audio to mp3, or comparable formats, but to rip high quality wave files (.wav) from the CDs instead. The data are then stored on a series of hard disks.

These digitised CDs soon turned out to be of interest to the Netherland's classical music radio station, Radio 4. In this case, the audio data are not publicly accessible, but only for the use of this radio station. In addition to the audio, we also had the sleeve jackets and/or booklets digitised. Together with the metadata from our catalogue, Radio 4 will be able to have immediate and easy access to large amounts of music, together with the information enclosed in the sleeve jackets/booklets.

At present we have digitised 150 000 tracks for DigiLeen, and more than 5 000 CDs, including jackets/booklets, for Radio 4. Owing to the quickly growing number of digitised CDs, and considering the size of our collection, we are now investing in Mass Storage Systems. The aim is to be able to offer our complete collection to the general public through the terminals located on our premises. Since it would be too costly to digitise the entire collection to wav files, most of it is digitised to high resolution mp3 files. Nevertheless, an important part of

our collection will be digitised to wav files.

The CDR is an example of how a public library, faced with the ever growing role of the Internet in music consumption, can develop into a digital music library. Not an archive with the purpose of preserving audio carriers, but a digital music library with the aim of unlocking as much content as possible from these carriers, and making it available to listeners at home. Thanks to digital opportunities, we can reach more people than ever.

Visit their website at <http://www.muzykweb.nl/> - *Ed*

The University of the West Indies (UWI) Library of the Spoken Word: Public Education Catalyst

*June P Barbour, Tutor/Co-ordinator, Radio Education Unit and Frances C Salmon, Head, West Indies and Special Collections, University of the West Indies, Mona, Jamaica
Paper presented at the IASA-BAAC Conference 2007, Riga, Latvia*

Background

The Library of the Spoken Word (LSW), a division of the Radio Education Unit (REU) is located at the University of the West Indies, Mona Campus, Jamaica. It houses the archival collection of the Radio Education Unit, which consists of tens of thousands of sound recordings. The collection comprises material recorded mainly at the Mona Campus over almost sixty years, as well as items from the Caribbean that are relevant to the study of regional issues. This qualifies it as a unique audio library in the English speaking Caribbean. The LSW has taken its responsibility seriously, as part of an Education Unit, and has therefore been consistent in diligently collecting historical and heritage material from the region. It is also a major source and resource that assists students, staff and researchers in understanding and analysing issues in the region.

A major challenge that has faced the University of the West Indies since its inception as a regional institution, is the need to serve a culturally diverse population and to reach and cover the wide geographical area with its programmes and information.

Radio stations were established in the English-speaking Caribbean a few years before the start of the University College of the West Indies (UCWI). These stations were established from the 1930s, following trade union uprisings that erupted in the region. These uprisings were spurred on by young, ambitious men from the colonies who had returned from the war in defence of the British Empire. They assumed leadership roles in their countries, and began to mobilize their people to seek changes in the governance of their territories.

The radio stations were set up in the territories by the British government, as extension stations of the British Broadcasting Corporation (BBC), to monitor the unrest. One of the requirements for the operation of the stations in the territories was the provision of two hours of local programme content, while the BBC provided most of the programmes for broadcasting. At that time, radio was used to connect the colonies in the English speaking Caribbean to what was referred to at that time as the 'mother country'. As time went on, radio evolved and became very influential in motivating change in Caribbean communities (Clarke, 1987).

The University College of the West Indies (UCWI), recognising the importance of fulfilling its mission, set up the Radio Education Unit in 1954. It was from these early years that efforts were made to validate its existence through careful recording of its programmes and activities.

The Radio Education Unit (REU), as part of its mission, developed an archive to safeguard valuable heritage programmes and recorded material. The unit's main function is to 'serve as the pivotal link in the University's communication infrastructure' (REU). It is also mandated to be the 'voice of the university', and to connect the territories without campuses with the

university, its activities and programmes. The archive has therefore become pivotal in the execution of the university's service to its member territories.

The university serves the English-speaking Caribbean islands of Anguilla, Antigua/Barbuda, Bahamas, Barbados, British Virgin Islands, Cayman Islands, Dominica, Grenada, Jamaica, Montserrat, St Kitts/Nevis, St Lucia, St Vincent and the Grenadines, Trinidad and Tobago, Turks and Caicos Islands and Belize, a Central American country. Initially, the region was served from the campus in Jamaica, with University Centres in the other member territories. In 1962, when its special relationship with the University of London ended, it became the University of the West Indies, with two additional campuses, one at St Augustine in Trinidad, the other at Cave Hill in Barbados. The distance covered by the contributing countries is over 2 500 kilometres, from Belize in the north to Trinidad in the south.

In 1948, when the university admitted its first students, there were two departments: The Faculty of Medicine and the Extramural Department, which was the department mandated to implement adult education programmes.

Professor, the Honourable Rex Nettleford, Vice Chancellor Emeritus of the University of the West Indies, in one of his early works postulated that the original proposal for the establishment of the university had envisaged a strong adult education role (Nettelord, 1). It was felt that the university should aim at narrowing the gap between the non-campus territories and the campus territories. The first Vice-Principal of the University College of the West Indies, the late Sir Philip Sherlock, who was entrusted with the task of implementing the adult education programmes, came to the university with a wealth of experience in adult education

The Library of the Spoken Word: Role and Collection

The library was first established as a receptacle for recorded material generated by the Radio Education Unit. Since then, the collection has expanded rapidly and has now evolved as a documentation and research facility designed to preserve the collective memory, historical and cultural patrimony of the Mona campus, and, to a lesser extent, of Jamaica and other territories in the Caribbean through audio recordings. So far, it contains material from various sources, with the focal areas of collection being health and wellness, politics, communication, language, culture and sport, all stored on various media from CDs and digital audio tapes (DAT) to audio cassettes and reel-to-reel tapes. These are high quality audio recordings dating back to 1954, when the collection started.

The library functions as a key player in the thrust for change, through its generation of programmes and in capturing, via audio recordings, history and heritage material generated not only on the Mona campus, but across the region. The Library of the Spoken Word therefore represents an audio collection hub, which supports the university's focus on providing the people of the region and the Caribbean Diaspora with a solid base for knowledge generation and acquisition, as well as the thrust towards sustainable development. The collection also represents a true picture of the collective oral memory of the English speaking Caribbean, which is not documented in any other single institution in the region.

Access

In most institutions in the Caribbean, while efforts may be made to ensure that the collective memory is recorded, very little effort is made to document their contents systematically and make them readily available to the public. This results in a major difficulty in facilitating public access to what is available, as members of the public do not know what is available and where. On the other hand, some do collect and record material, but lack the structures necessary to make it available to the public, as they operate a closed system to which the public has no access. Access therefore becomes a major issue. The Library of the Spoken Word makes its collection available to the public, even though it operates with some weaknesses. Among these are a lack of full documentation services, abstracts of all content, and search tools. However, measures are in place for identifying the content of each item and its location, and searches are conducted manually. One must note, however, that the information it houses is strictly for non-commercial purposes.

The Library of the Spoken Word, with the wealth of audio material collected daily, has been facilitating for over fifty years a substantial amount of information for use by students, researchers, media personnel, and members of the public. This information has been used in various activities and programmes in Jamaica and the wider Caribbean. These recordings have played, and continue to play, a very important part in reconnecting the present and the past, as well as in initiating behaviour change in the English speaking Caribbean. The facilitation of access to the collections has enhanced the role of the Library of the Spoken Word as a catalyst for social change.

The Library as a Resource Centre

The library also functions as a source and resource that is promoting respect, awareness and appreciation for the diversity with which the Caribbean region is endowed. The contents, which cover social, cultural, health, political, economic and other areas, facilitate the explanation and understanding of the history and cultural diversity of the region, and contribute to the vitality and cohesion of its people.

It has served to increase the knowledge of the people of the region by its communication of real life issues that concern them and have an impact on them. The programmes and material have fuelled changes in the attitude of the people to a situation or topic, and strengthened and promoted academic discourse. Its existence and function have therefore contributed to learning (knowledge generation) and informed various discussions and debates, especially in the areas of civic participation, interpersonal and group communication, and policy making.

The mission of the Library could not have been effective without collaboration with other organisations and institutions. It has therefore worked with a number of these organisations and institutions in expanding and extending its message, and at the same time provided networks across the physical borders of the territories. Collaborations were established over the years with, among others, the Resident Tutors in various territories; the Diabetes Association of Jamaica; the Caribbean Family Planning Affiliation; Caribbean Food and Nutrition Institute (CFNI); the Pan American Health Organisation (PAHO); the Trade Union Education Institute and the Institute of Caribbean Studies; UNESCO, and radio stations across the region.

Entertainment-Education: The Vehicle for Change

Education is likely to be more effective if the communicator is seen as one who can be trusted, who is an expert, and who has prestige among the intended audience. Singhal and Rogers (1999) note that Entertainment-Education refers to 'the process of purposely designing and implementing a media message to both entertain and educate, in order to increase audience knowledge about an educational issue, create favorable attitudes, and change overt behaviour'. Entertainment-education, also referred to as edutainment, is concerned with the use of entertainment – ie the use of drama, songs, music and sound effects – to bring about social and/or behavioural change at individual and community levels. It is therefore part of the vehicle used to transmit information that can result in positive social behaviour.

The use of entertainment to achieve development objectives is not new. Entertainment-education draws on the fact that populations round the world are widely exposed to entertainment media content. The heavy consumption of media messages suggests that the media, more than any other channel, can effectively influence how people think, feel, and behave.

In the health sector, entertainment-education is a strategy that has been applied to maximize the reach and effectiveness of messages through the combination of entertainment and education. These assumptions are drawn from socio-psychology and human communication theories. Entertainment-education can fall into the modernization/diffusion theory area. Like diffusion theory, it is concerned with behaviour change through the dissemination of information. It is influenced by Bandura's (1977) Social Learning theory, a framework currently dominant in health promotion. Entertainment-education is anchored on the idea that individuals learn behaviour by observing role models, particularly in the mass media. Imitation and influence are the expected outcomes of intervention. Entertainment-education programmes are based on Bandura's model of cognitive sub-processes: attention, retention, production, and motivational processes that help producers to understand why people imitate socially desirable behaviour. This process depends on the existence of role models in the messages: good models, bad models, and those who change from bad to good. Besides social learning, entertainment-education strategies are based on the idea that expected changes result from self-efficacy; people's belief that they can complete specific tasks.

While some institutions have used entertainment programmes to promote or highlight negatives in the social realm, the Radio Education Unit and the Library of the Spoken Word have been using these strategies to communicate positive messages that can help people solve their problems, instead of glorifying antisocial themes.

One of the first programmes from the unit was the 'Citizens' Listening Post', which targeted farmers in isolated communities in rural Jamaica. A major strategy of these programmes was to facilitate small group discussions and understanding of farming and farming practices through designated listening points. There were 57 listening post groups in Jamaica. In addition, the programmes were dispatched to the other contributing countries for rebroadcasting in those islands. This programme lasted until 1956.

Initially, the unit rebroadcast lectures and interviews from the lecturers/professors and visiting academics at the university. However, the staff realised that the programmes were

too pedantic for the typical listener. This method was changed and skits were introduced to impart the same information in a more user friendly manner. These later evolved into dramas to support Seipmann's view that: 'Radio drama is perhaps unrivalled in the intensity of its popular appeal' (351). The unit used these serials to disseminate research results and information to the public and initiate social change. These programmes were sent to the other islands, where they were rebroadcast.

Sample Productions

To illustrate the work of the Library of the Spoken Word, over the years, a few samples of its productions are highlighted below.

From the Archives is a series of programmes drawn from material collected by the library, which were developed into programmes for broadcasting. For example, excerpts from Harry Belafonte, Martin Luther King Jr, Nelson Mandela and other international personalities.

'Fathers of the Nations' is a series that aired the views of Caribbean nation builders and pioneers in the 1950s and 1960s. Among them were the late Dr Eric Williams, the then Premier of Trinidad and Tobago; the late Norman Manley, the then Premier of Jamaica; and pioneers in the trade union movement, the late Albert Marryshow and Uriah 'Buzz' Butler.

'Folkways of the Caribbean' is a series of programmes highlighting the richness and variety of the folk culture of the Caribbean islands that were under British rule. The programmes emphasized the extraordinarily powerful use of imagery contained in musical games, peasant wit and wisdom (including proverbs), and songs. The songs were mainly from the folk tales, Negro spirituals, and work songs. The series was produced by the late Trinidadian Playwright Errol Hill in 1956, and was aired from mid-1957.

'Kowaiti Bay' is a series of programmes that uses drama to promote the active monitoring and management of diabetes. The series was developed from research conducted by the Diabetes Association of Jamaica (DAJ). The main collaborators were Professor Errol Morrison, one of the founders of the Diabetes Association of Jamaica and an internationally recognized specialist in the treatment of the diabetic and research in the field of diabetes; and Alma MockYen, then Tutor at the Radio Education Unit. The programmes were developed and produced in collaboration with the Diabetes Association of Jamaica and aired throughout the Caribbean. The series served to inform and educate diabetics and the public how to monitor and manage the disease and enjoy wellness.

This collaboration between the DAJ and the REU/LSW in teaching and building awareness of diabetes and its treatment have motivated diabetics to take charge of their situation and has resulted in interactive interchanges. It has also influenced the development of branch activities for the Diabetes Association and improved knowledge and awareness of the public across the Caribbean.

A media survey conducted by renowned Jamaican pollster the late Dr Carl Stone revealed that the diabetes programmes reached an audience of 500-thousand regular listeners and 400-thousand casual listeners in Jamaica alone. At the time of the poll, Jamaica's population was estimated at 1.9 million.

Another series that has had a great impact in the region is '**Science Serving Us**', which addresses how science is applied to everyday living. The series was developed in the early 1980s and produced by Alma Mock Yen and Martin Henry, who was at the time National Science Project Co-ordinator, Jamaica. The production was a follow-up to work done in seminars/workshops on Science and Technology by Radio in Malaysia and the Caribbean. Henry, in his 1997 research paper states that the programme was designed 'to present basic scientific information which would be useful, interesting and relevant to a general radio audience characterized by low scientific literacy ...' (86).

The series covered many topics, and simplified the complex science topics for the listener. Some of the topics addressed included the generation of electricity, the composition of water, germs in it, refraction and lenses, sugar and sugar technology and were specifically aimed at audiences with low science literacy. The fifteen-minute programme was first broadcast in September 1991.

The audience size was estimated between 39-thousand and 129-thousand. Expressed as a proportion of listenership, this translated to 65%; 22% on public radio and 50% on commercial radio (87-88). Henry found that data on neighbouring listenership suggested that the listeners actively selected the programme (89). One episode 'The Flame of Life', which dealt with respiration and surviving oxygen deprivation, won the 1995 Pan American Health Organization (PAHO) Award for Health Education. Other topics covered included lead poisoning, genetics and cloning, aerodynamics and featured members of the teaching staff and researchers discussing these topics at a level that was pitched at the general population.

Henry concluded that success of the programme 'confirmed that there was a substantial market among radio listeners for the transmission of "hard data" scientific information in "soft packaging"'.

Conclusion

The Library of the Spoken Word, through the facilitation of access to information for research and learning and the dissemination of radio programmes, packaged as entertainment education, has been at the forefront of efforts to motivate positive changes among Caribbean people. As it continues to facilitate access to information and produce programmes for the media, it reinforces and sustains the relevance of the University of the West Indies to Caribbean development. The REU/LSW has, therefore, succeeded in bridging the knowledge and awareness gap in the English speaking Caribbean. The unit has also been instrumental in breaking down barriers to communication by adopting and applying to its productions, formats of oral communication that strengthen and ensure understanding among its target audiences on issues pertinent to the well-being of people and the development of the Caribbean.

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'Harim gut, lukautim, na iusim'

'Catch sounds, keep them and use them'

The Creation of a Modern Sound Archive at Papua New Guinea's National Broadcaster

John Spence, Australian Broadcasting Corporation, Sydney, Australia

Presented at the IASA-BAAC 2007 Conference, Riga, Latvia

This paper outlines a PNG aid project, Media Development Initiative (MDI), that the ABC has been involved in for the last two years.

Papua New Guinea is a primitive tribal land whose inhabited history goes back 50 000 years. Australia started administering the southern half of the country in 1884 – Germany had control of the north. After World War I Australia was given a mandate to administer the German sector as well. And after World War II the two territories were combined, still under Australian control. The ABC managed the NBC as an ABC outpost until PNG itself was granted independence from Australia in September 1975. The present head of the library, which houses the radio archives and the record library, was actually trained in Australia at the ABC.



The MDI project began in January 2005 and the current phase will end in December 2007. Broadly, the project is aimed at improving the output and overall effectiveness of the NBC as the national radio broadcaster for PNG. The project is based on the premise that public broadcasting is extremely important for populations too poor or too geographically dispersed to have access to media services (including print) other than radio, and that media services are essential for development in a democracy. The aim of the project is to improve the quality of programming and transmission and to extend the reach of the NBC, especially to people with little or no access to media services. AusAID approached the ABC directly about undertaking the project, because of the long history of association between the two broadcasters, and the unique needs of Papua New Guinea.



The main focus areas of the project are:

- Organisational Development
- Delivering Quality Programmes
- Strengthening the Kundu, or regional radio, Network
- Digitising the NBC Archive – this involves digitisation of the existing audio collection and setting up a database to catalogue archival material



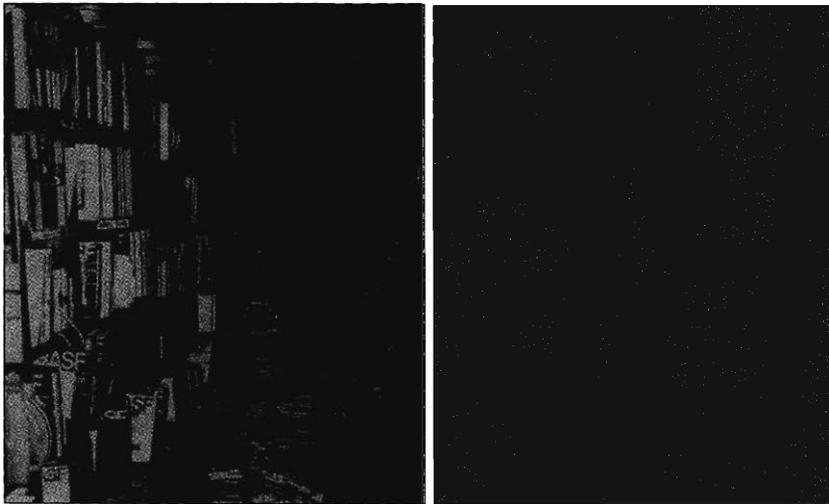
In summary, the project has assisted in:

- Establishing two new programmes, Kunai Strit (a serial drama) and Maus Bilong Ples (Voices from the Village) as well as new programmes produced specifically to alert people to the dangers of HIV/Aids transmission
- Beginning the process of digitisation and reviving the NBC archive; this is the part of the project I was working on
- Building managerial capacity at the NBC, including devising a new corporate plan and a comprehensive set of editorial guidelines
- Undertaking ambitious but successful coverage of the 2007 national election that gave PNG people unprecedented access to real-time results
- Improved content, presentation and style for a number of programmes

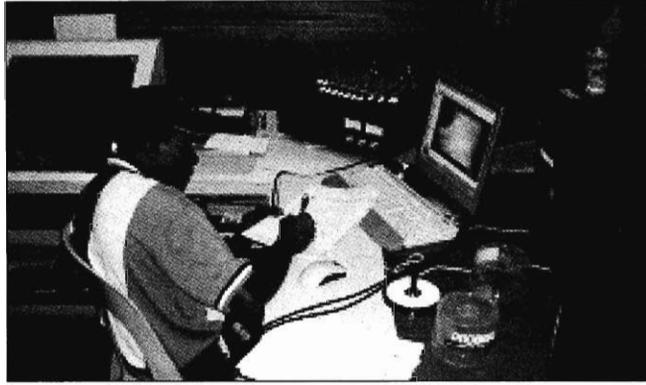


Initially my ABC colleague Ben Whitten and I took on the archival task. As a technical specialist, Ben looked after the technical side of digitisation, while my responsibility was to develop a database into a catalogue and then train staff to use it. Both Ben and I conducted training sessions in archival principles with NBC management, programme makers and library staff.

It is not an understatement to say that the library was in a state of disarray. It had been set up 30 years before, and little had changed since. Very few resources had been poured into the department, and it was going to take an infusion of aid money to get the library off its knees.



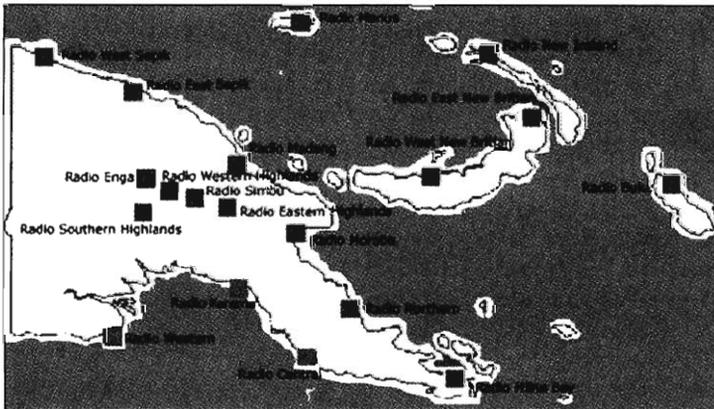
Before I set the digitisation part of the project aside, I'll tell you that a studio was redesigned and equipment purchased.



Two technical staff members were allocated to the project and we began the process of digitisation. This project gave the library 'street cred' in the corridors of the NBC – programme staff had always considered the library a bit of a backwater. Part of our brief was also to raise the profile of the library and present it as integral to the job of making radio programmes. One of the by-products was to raise the image of the committed staff who worked there and heighten their motivation, which had always been a problem. It's difficult to run an archive if staff come and go as they please.

The most important part of my little corner of the project was the catalogue. Now there are plenty of good databases around that are suitable for libraries and archives. The trouble is they cost plenty, too. Some are so good they need an IT department to maintain and service them. Neither NBC nor the MDI aid project had this sort of money.

National Broadcasting Corporation



Let me tell you a little about the NBC. There are two networks in the country. Karai is based in Port Moresby and serves the greater metropolitan region – it is relayed in part to most of the regional stations. The Kundu service – which comprises 19 regional – broadcasts local interest programmes on shoestring budgets.

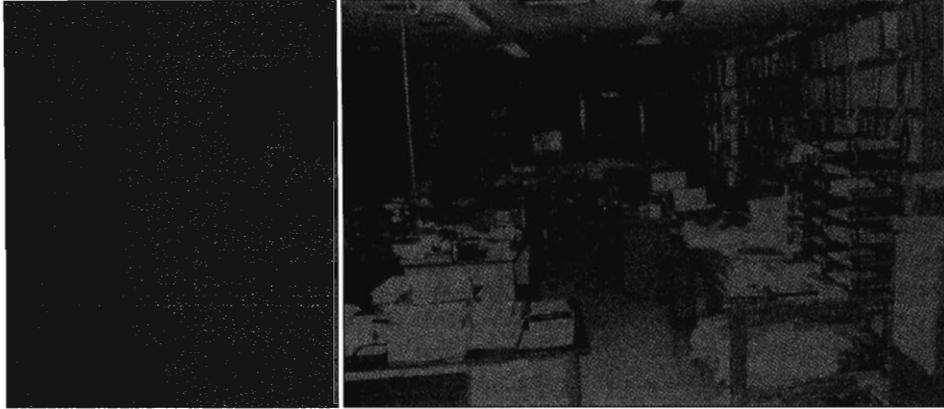


At Karai the programmes are not dissimilar to those of national broadcasters the world over: news, current affairs, programmes for schools, programmes about environment and agriculture, women's issues, religious programmes and sports broadcasts – Papuans love their sport, particularly rugby league.

While these programmes are similar to the output of the ABC, the BBC, or any of your national broadcasters, it is fair to say that NBC programmes are less sophisticated. PNG is a very Christian country, so religious programmes contain Bible readings, sermons etc – the church is brought into the radio studio. The agriculture programmes are instructional – as practical as you can get over a tinny radio with sometimes inadequate reception. The health programmes are often instruction manuals on the avoidance of Aids (which is a big problem in PNG), while current affairs is very pragmatic – it's all about presenting the stories in a straightforward, unadorned manner. Not much room for archival input there. I found that the practical no-nonsense nature of their programmes did not allow for much archival input at the best of times. Oh, and by the way, a lot of the time they broadcast in three languages – English, Pidgin and Motu.

One of the first things I did in PNG was to educate the managers, programme makers and library staff about the value of archival management and its potential as a programme resource. The value of the library was not fully understood because it was not viewed positively, or as an asset. It was, rather, a place to get a tape they could recycle and record a new interview on – and that was how many past programmes had been lost. It was also a place to send problematic or excess personnel – hindering the establishment of a dedicated and professional staff. There was a lot of programme material in the library, but how could you find it? There was virtually nothing that could be called a catalogue – except for the music.

The library was a place to come for a chat and look at the chaos that was 'the collection'. Programme makers didn't know how they could use it. I make it sound primitive – but really it was under-resourced, undiscovered, and in need of a good make-over. The library – and the NBC – operated according to Melanesian time – relaxed, laid back, perhaps a bit antiquated, and with a mood of, 'Yeah, things could be improved'... some time in the future.



Papua New Guinea

New Guinea is a fascinating country. More languages are spoken there than in any other country in the world – about 800 in all. Most of the population lives in isolated communities, maintaining a lifestyle that hasn't changed for centuries. There are hardly any significant roads in the country – you can't travel from the south to the north by road – you have to fly. Port Moresby, the capital, is also one of the world's more dangerous cities.

CDS/ISIS



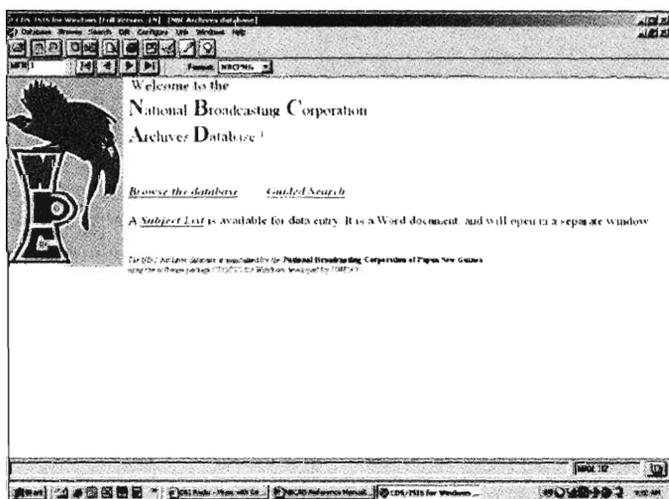
The main part of my job was installing a database. Following some confirmatory investigation, it was decided that CDS/ISIS was to be used. CDS/ISIS was developed by UNESCO but there was no developed version that could be plugged straight into an archive. It was a bit like a blank canvas – with frame and stretched canvas – waiting for the creative part of the process to begin. A consultant in Sydney was contracted to do the developmental work, but first I had to ascertain exactly what the NBC needed. This was my own personal journey into the heart of darkness. It is not easy to divest one of preconceptions about what a broadcasting archive should do, and how it should operate. In my journey down the river I had to learn as much about PNG culture as the way the NBC operated, and to shed my own personal baggage in the process.

A case in point was the implementation of a subject thesaurus. After a search for an appropriate existing thesaurus proved fruitless, I decided to use the ABC's and just simplify and adapt it. Out with the Australian-relevant place names and in with the PNG ones. But which other countries did they have relationships with? There were also terms that were unknown in PNG – various concepts were often known by different names. I had to ask my hosts: Do you know the word X? Which term of two similar or identical terms is the one in common usage, eg jail, gaol or prison? Is there any need for a domestic term, if the concept doesn't exist, eg 'Unemployment Benefits', if there is no such thing? On the other side of the coin were concepts that didn't exist in our culture but did in PNG – for example, black magic. But what was the local term for it – voodoo, cursing, pointing the bone, spell casting, sorcery, witchcraft? After much discussion – the latter was chosen. The music thesaurus was another adventure. Music is not as varied as it is in western music but there are very specific music types, particularly under the broad heading of 'string band', the country's most popular music style.

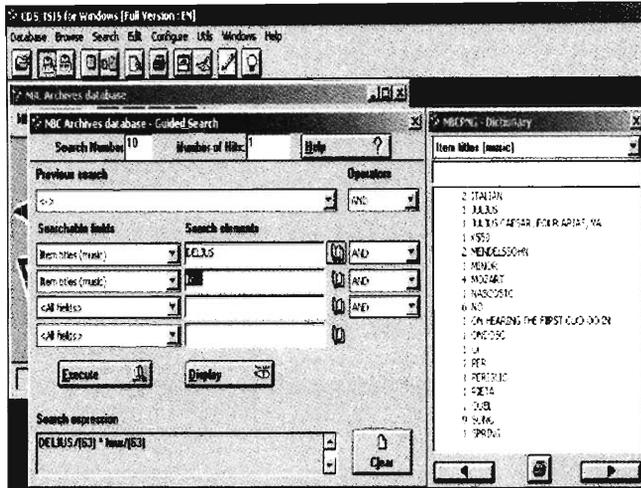
Once I had worked out the NBC's needs, the next challenge was to see how CDS/ISIS could accommodate it. Data entry is not simple if you want terms to be indexed. To do so, you need to code each string of letters by inserting a two-character code before the words to be indexed. You need this to be able to find a shelf number, a speaker, a subject etc. Since data entry was never going to be simple, I wanted to be able to use as many pick-lists as possible – to reduce the number of necessary keystrokes. Pick-lists would work with a relatively small number of options, but not where there were a lot (such as with the subject thesaurus). So Type of Music, Music Genre, Location, Language and Technical Data could sit within the database. Unfortunately, the thesaurus had to reside in Word form outside the database. We had a hotlink to the Word file, and cataloguers were encouraged to copy and paste the terms into the database. Obviously, updating the Word document was easy, likewise editing the master pick-list in CDS-ISIS.

This is the boring part of the presentation, so I'll keep it mercifully brief.

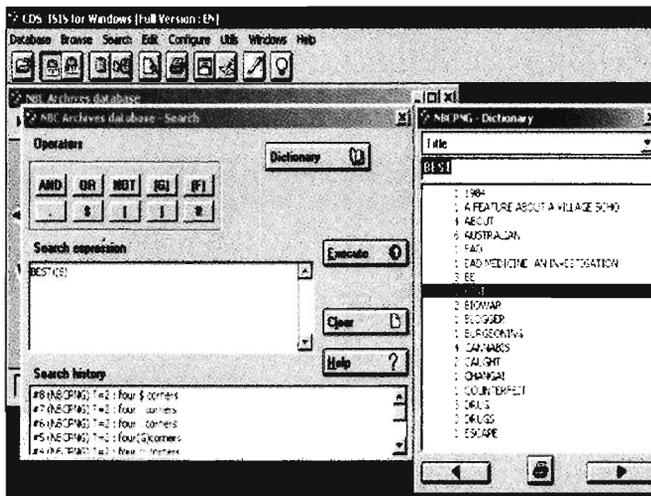
Here's what you first see when you log in.



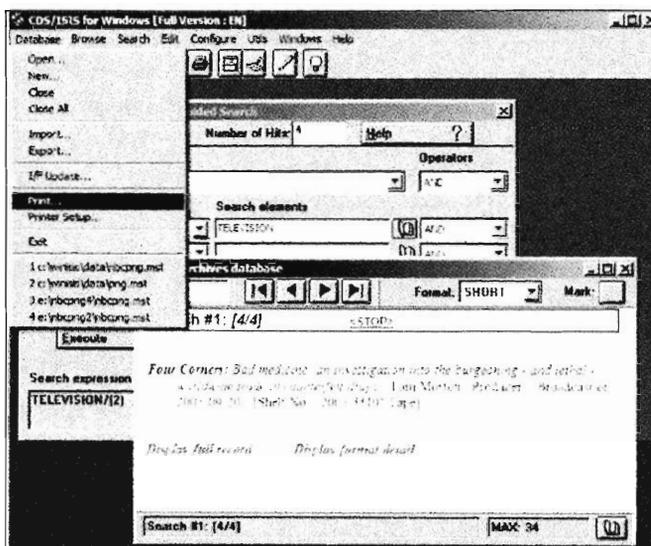
You can choose to browse the database or go straight to the guided search window.



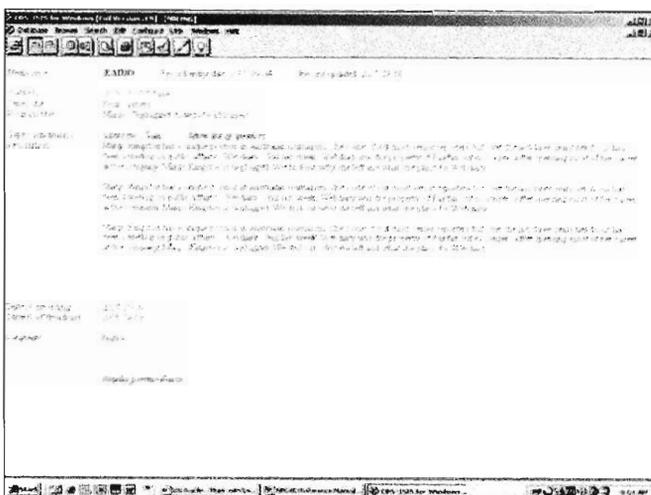
Or you can choose the Expert search option, which is less attractive as it requires a better memory than mine. You need to remember the field number as well as its name.



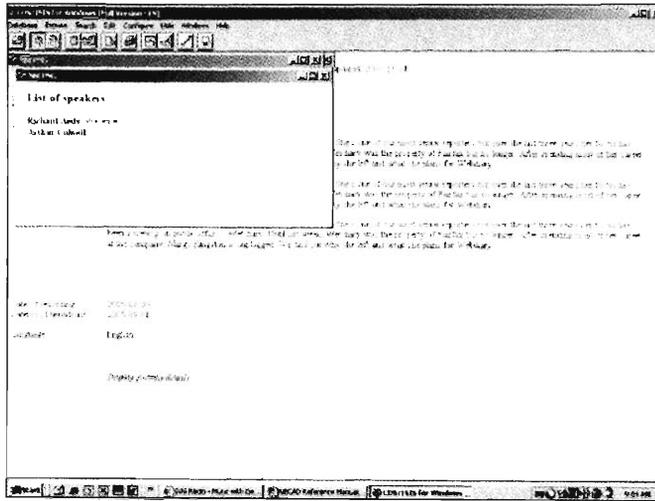
In this example you're looking for the word <Best> in field number 8, the Title field. As you will see, there are buttons that allow you to do Boolean searches. You will also see that the Dictionary lists all terms in the Title field. Your result set will look something like this. The fourth record is displayed in short form. You have the option of choosing the full display or the format details. In this case the researcher is choosing to print the result set.



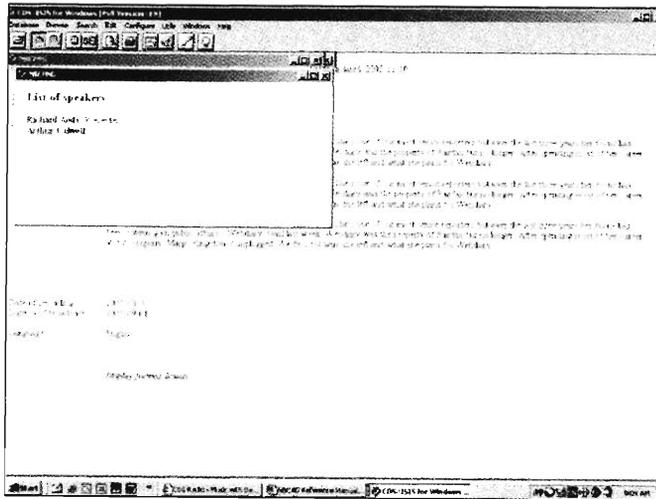
A full display looks like this:



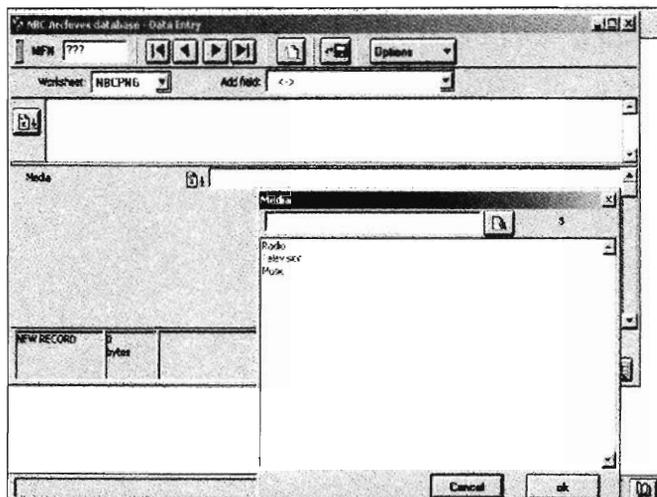
Note the two hyperlinks that will display the list of speakers or the format details:



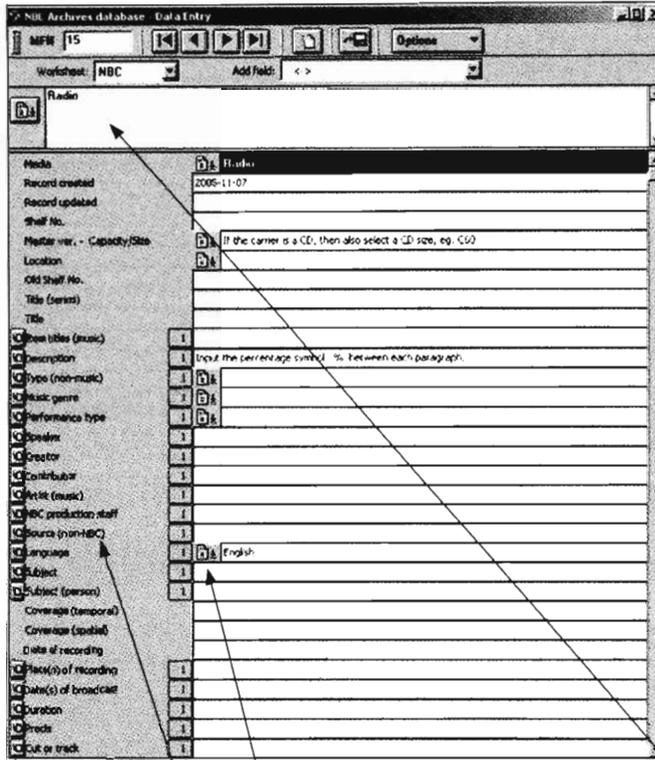
A music record looks a little different.



Now all that looks very beautiful and we researchers can glory in our skill of composing the perfect search query and displaying just what we need to see and no more. Clever, aren't we? Well, yes. But the researcher would founder if not for the skilled cataloguer. This is what greets the cataloguer when he logs on with tape or disc in hand.



Choose radio and you populate the screen with a multitude of empty fields. Choose music and you get a different set of empty fields. Choose TV and you'll be accused of dreaming. (There is no National TV station.)



Repeatable field
All available Fields

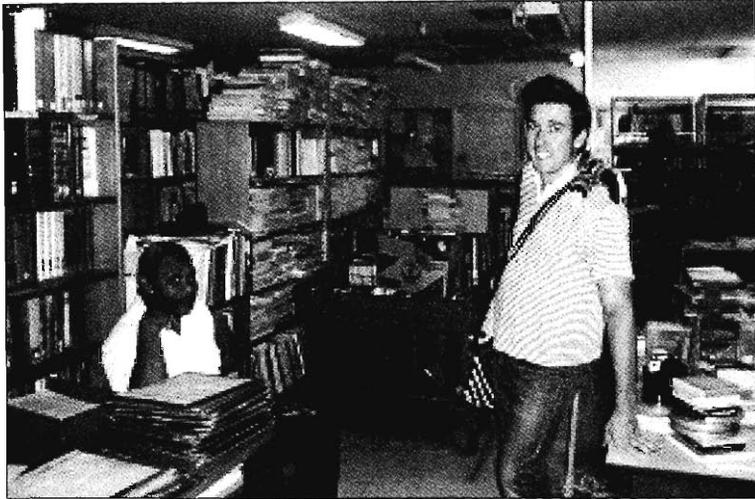
Pick-list available
Edit Window – displays data in selected field

Classification	
Review date	
Kill date	
Digitisation date	
Comments	1
Documentation available	1
Master ver. - Carrier	Select TWO items from the list - a carrier format eg 1/4" Tape/A and a carrier material eg Pol
Master ver. - Speed	
Master ver. - Format standard	
Master ver. - Digital encoding	
Master ver. - Channel	
Master ver. - No. of copies	
Master ver. - Notes	
Access vers. - Carrier	
Access vers. - Size	
Access vers. - Capacity	
Access vers. - Speed	
Access vers. - Format standard	
Access vers. - Digital encoding	
Access vers. - Channel	
Access vers. - No. of copies	
Access vers. - Notes	
Preservation vers. - Carrier	
Preservation vers. - Size	
Preservation vers. - Capacity	
Preservation vers. - Speed	
Preservation vers. - Format standard	
Preservation vers. - Digital encoding	
Preservation vers. - Channel	
Preservation vers. - No. of copies	
Preservation vers. - Notes	
6 bytes	

I mentioned before that terms have to be coded so that they are indexed properly. If I wanted to index <John Spence, presenter> so that I could find <John Spence>, <Spence> and <presenter>, I would have to enter it thus:

`^aJohn^bSpence^cpresenter`

Where ^a = first name
 ^b = Last name
 ^c = description



But there is some promising news from PNG.

- Current management is behind the project
- Many of the staff are committed to making better programmes and preserving programmes for the future
- And what a rich culture they have to preserve
- Radio is such an important part of communication in the country – the NBC has a captive audience
- Locally engaged staff are now being used to continue the archival project, a major management task of which is to ensure that the sizeable collections held in provincial stations are also digitised and placed in secure storage
- An archivist has been appointed, and a part-time Australian resident in PNG is currently overseeing the progress of the project
- An air-conditioned shipping container has been ordered for overflow storage

Conclusion

In a country such as PNG, where the oral tradition is so strong, it seems appropriate to put some effort into developing a sound archive that will preserve the stories, sounds and language of this diverse land. Yet there is an argument that the concept of a Western-style broadcaster – a ‘modern sound archive’ with a disciplined management – runs contrary to the natural state of the nation. Is it yet another example of a Western, developed country imposing its version of what is right on a country that does things differently? The history of the world is littered with paternalistic and arrogant acts by powerful nations; acts that will have the ultimate result of making the world homogeneous, bit by bit stripping away what makes them different and, in the case of PNG, unique. The great challenge is to make sure PNG broadcasting retains its own native character.

The South African Truth Commission's Audiovisual Records and the Great Access Illusion

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Paper presented at the IASA-BAAC Conference 2007, Riga, Latvia

Abstract

The South African Truth and Reconciliation Commission was started by the post-apartheid government to hold apartheid human rights violators accountable. The commission produced records in all the mediums and made specific reference to their management for access and accountability. This paper, based on research carried out at the national archives of South Africa, concerns itself with the South African TRC's audiovisual records. It argues that even though the national archives of South Africa has been excellent in the preservation of this great heritage, it still needs to do more to make its audiovisual records accessible to the majority of its citizens.

Introduction

The South African Truth and Reconciliation Commission was established by an Act of Parliament in 1995.²³ It was the twenty-first²⁴ in a series of truth commissions that had characterized nations in transition from repression to democratic rule. Its actual work started in 1996 with Archbishop Desmond Tutu as the chair.²⁵ The commission²⁶ had five main objectives intended to promote national unity and reconciliation.

- The first objective was to establish as complete a picture as possible of the causes, nature and extent of gross human rights violations committed from March 1960 to May 1994.
- The second main objective of the South African TRC²⁷ was to facilitate the granting of amnesty to persons who made full disclosure of acts associated with politically motivated crimes.
- The third objective of the South African truth commission was to establish the fate and whereabouts of victims of apartheid.
- The fourth objective was to compensate victims, and
- The final objective was the compilation of a report providing as comprehensive an account as possible of the activities and findings of the commission, so as to prevent future violations of human rights.²⁸

A Narrative of the Archive of the South African Truth Commission

The question of what constitutes the TRC archive is a complex one, which has been discussed at length in the first ever global conference dedicated to 'Archiving Truth Commission Records' by Yale University from February 22-24, 2006.²⁹ Madeleine Fullard has conceded that in the case of South Africa confusion arose concerning the borders of the

²³ Johnny De Lange, "The Historical Context, Legal Origins and Philosophical Foundation of the South African Truth and Reconciliation Commission," in *Looking Back Reaching Forward: Reflections on the Truth and Reconciliation Commission of South Africa*, eds. Charles Villa-Vincencio and Wilhelm Verwoerd (Cape Town: University of Cape Town Press, 2000), 14.

²⁴ Deborah Posel and Graeme Simpson, "The Power of Truth: The South African Truth and Reconciliation Commission in Context," in *Commissioning the Past: Understanding South Africa's Truth and Reconciliation Commission*, eds. Deborah Posel and Graeme Simpson (Johannesburg: Witwatersrand University Press, 2002), 2.

²⁵ Priscillar Hayner, *Unspeakable Truths: Facing the Challenge of Truth Commissions* (New York: Routledge, 2001), 41.

²⁶ Truth and Reconciliation Commission is usually abbreviated as TRC and South Africa is abbreviated as SA. So, the South African truth and reconciliation commission will be abbreviated as SA TRC throughout this dissertation.

²⁷ TRC as explained in the above footnote to denote Truth and Reconciliation Commission.

²⁸ Truth and Reconciliation Commission of South Africa Report, Vol 1 (Cape Town: CTP Book Printers, 1998), 55.

²⁹ Transcripts for the Yale/Artemis Project: Managers of Truth Commissioners Conference, Proceedings of a Conference on "Archiving Truth Commission Records," Yale University, February 22-24, 2006.

South African TRC archive.³⁰

However, according to a SAHA produced *Guide to Archival Resources Relating to the Truth and Reconciliation Commission*³¹ the archive of the South African truth commission is made up of all the record types that resulted primarily from the three TRC statutory committees: for Human Rights Violations, Amnesty and Reparation, and Rehabilitation.³²

A leading voice in the South African truth commission discourse, Piers Pigou, sees the TRC archive as records directly related to the commission in terms of its operation and mandate, and those kept by NGO's.³³ In his taped words, Pigou says the TRC archive is:

*'... the material of the administration of the institution itself and the content of the material that was generated during that process...However, SAHA would include as a broader sort of next layer materials relating to the broader mandate and produced by non-governmental organisations.... There is specific material that came out of the commission and housed by the commission, and there is a lot of material that relates to the contributions to the commission which should also in theory be in the TRC archive, but which is not always there because of the concern about what should have been captured...'*³⁴

It is important to understand that what comes out of these viewpoints is the definition of the TRC archive as delineating records coming from three basic sources. The first source is records flowing directly from the work of the commission itself; the second is records coming from the NGOs; the third source of the TRC archive is records that are still being accumulated from secondary sources.

The Nature and Characteristics of the South African TRC Archive

In her report on managing truth commission records in South Africa, Trudy Peterson has described the general nature of South African truth commission records as, 'A wide variety of physical types, from paper to audiotape and videotape, photographs and electronic documents and databases'.³⁵

According to the *Guide to Archival Resources Relating to the Truth and Reconciliation Commission*³⁶, the South African TRC produced multimedia and multi-genre records³⁷ documenting all the processes entailing the commission's functional structure.

The Audiovisual Records of the South African Truth Commission

A *Guide to Archival Resources Relating to the Truth and Reconciliation Commission* has highlighted the fact that

'... as the national broadcaster, the SABC was tasked with televising, recording and broadcasting all the public proceedings of the TRC. SABC radio broadcast all the hearings in each of the eleven official languages, thereby ensuring that the people who did not have access to the print

30 Madeleine Fullard. In *Transcripts for the Yale/Artemis Project: Managers of Truth Commissioners Conference. Proceedings of a Conference on "Archiving Truth Commission Records,"* Yale University, February 22-24, 2006.

31 *Guide to Archival Resources Relating to the Truth and Reconciliation Commission (SAHA: 2004)*, 9.

32 *Ibid.*, 9.

33 Piers Pigou, interview by author, Johannesburg, March 9, 2007.

34 *Ibid.*

35 *Ibid.*, 77.

36 *Guide to Archival Resources Relating to the Truth and Reconciliation Commission (SAHA, 2004)*.

37 *Ibid.*, 12.

*media would not be denied access to information about the TRC.*³⁸

Also, the SAHA TRC audit has established that the national archives of South Africa has 245 videotapes, totalling 334 hours of special hearings records.³⁹ These cover areas such as the activities of the armed forces, business, labour; the former regime's biological and chemical weapons programme; political parties; the position of women and children under apartheid; and the activities of the State Security Council.⁴⁰

The same source has also unequivocally confirmed that the national archives has Human Rights Violations hearings tapes constituting 435.5 hours of testimony recorded on 308 videotapes, starting with the first open public hearing in East London on 15 April 1996 and ending in the city of Cape Town on 11 June 1997.⁴¹

The guide further states that of the three statutory committees of the TRC, the amnesty videotapes recorded by the SABC are the most comprehensive and the most extensive hearings,⁴² starting with the first amnesty hearing, held in Pietermaritzburg on 23 July 1995 and ending in Durban on 12 May 2000.⁴³ The amnesty videotapes referred to here also include:

*'...the amnesty applications of Eugene de Kock of Vlakplaas, of perpetrators in the Bisho massacre, of perpetrators of the likes of Craig Williamson, for various crimes such as the bombing of the ANC diplomatic mission in London and in Lusaka; the murder of Ruth First, Jeanette Schoon and her daughter. They include amnesty applications for "third force" destabilisation, such as the Boipato killings, the murder of the Gugulethu 7, the Motherwell 4, Pebco 3 and Cradock 4.'*⁴⁴

The Commission's Recommendations Regarding the Management of the TRC Audiovisual Records

The recommendations of the South African truth commission regarding the management of its audiovisual records were the same for other TRC records types. The Truth and Reconciliation Commission of South Africa Report, Vol 5⁴⁵ states that the key recommendation made by the commission regarding its records was that they be kept and managed by the national archives of South Africa for access.⁴⁶

For instance, the codicil to the final TRC report, or Volume 6, recommended: 'That the TRC electronic database be owned, managed and maintained by the national archives and records services of South Africa'⁴⁷. These must take responsibility for ensuring that the database forms the cornerstone of an electronic repository of historical materials on the work of the commission; is enriched by electronic multimedia facilities to support audiovisual and other graphic material; and that it is in a format that allows for distribution to schools, other educational institutions, and the general public by means of CD-ROM or other portable electronic format, and that it uses language accessible to the majority of South Africans.⁴⁸

38 Guide to Archival Resources Relating to the Truth and Reconciliation Commission (SAHA: 2004), 146.

39 Ibid., 68.

40 Ibid., 68.

41 Ibid., 69.

42 Ibid., 69.

43 Ibid., 70.

44 Ibid., 70.

45 Truth and Reconciliation Commission of South Africa Report, Vol 5, 344.

46 Ibid., 344.

47 Truth and Reconciliation Commission of South Africa Report, Vol 6, 729.

48 Ibid., 729.

The Preservation of the South African TRC's AudioVisual Records

In line with the above recommendations, the preservation of TRC records started in July 1997, when the National Archives of South Africa and the South African Broadcasting Corporation (SABC)⁴⁹ entered into an official agreement by which, upon completion of the TRC operations, the SABC would make betacam and VHS copies of all the hearings it had recorded available to the national archives. The agreement was approved by the then Group Chief Executive of the SABC, Zwelakhe Sisulu, and in line with this agreement the national archives received betacam and VHS copies from the SABC. However, it is important to point out that the SABC has still to transfer all the TRC tapes to the national archives.

When the tapes arrived from the SABC, they were all stored in the same strong room with other TRC records. Ideally, separate preservation storage areas would be designed for audiovisual, photograph, and paper records. However, Mary Ritzenthaler reminds us that:

'...such practice is not feasible in most repositories...thus compromises must be made balancing such practical considerations such as building design and structure, energy costs, budgetary constraints, and human comfort against the nature, use and storage requirements for collections'.⁵⁰

The instructional guide of the National Archives and Records Administration of the United States of America on managing audiovisual records suggests that audiovisual records should not be stored where the temperature exceeds 72 degrees Fahrenheit and the relative humidity is higher than 50 per cent. Cooler, drier storage conditions that are relatively free from harmful gases⁵¹ are desirable to increase the life expectancy of audiovisual records.

The room temperature for TRC records at the national archives of South Africa ranges from 13 – 21 degrees Celsius which, when converted, falls below 72 Fahrenheit. It is evident from this that the archive has been able to meet at least the temperature requirements for audiovisual records.

It would seem from this that in terms of the preservation of the TRC audiovisual records the national archives of South Africa has done extremely well, given their budgetary and staff constraints. However, preservation demands more than just the right storage conditions. This brings us to the issue of access to TRC audiovisual records.

Access to the Audiovisual Records of the TRC

The South African truth commission report authoritatively commands the South African national archives to make all the commission's audiovisual records accessible to the public. The subsection on Archiving Commission Material and Public Access⁵² instructed that:

'...all commission records be accessible to the public, unless compelling reasons exist for denying such access, bearing in mind that the individual's right to privacy, confidentiality and related matters must be respected. In this regard particular attention needs to be given to the release

49 SABC stands for the South African Broadcasting Corporation.

50 Mary Ritzenthaler, *Preserving Archives and Manuscripts* (Chicago: SAA, 1993).

51 "Managing Audiovisual Records An Instruction Guide" Available at: <http://www.archives.gov/records-mgmt/publications/> 10/10/2006.

52 Truth and Reconciliation Commission of South Africa Report, Vol 5, 343.

or withholding of details of human rights violations statements in cases where individuals feel their safety is prejudiced'.⁵³

Besides the above recommendation, access to TRC audiovisual records is also guaranteed by the Constitution of South Africa, the National Archives Act, and the Promotion of Access to Information Act. Actually, Section 32 of the South African Constitution of 1996 states that everyone has the right of access to any information held by the State, and I would add that this information includes the TRC audiovisual records.⁵⁴

However, despite these pronouncements, and notwithstanding the great preservation measures that the national archives of South Africa has put in place to manage the TRC audiovisual records, access to the South African truth commission records remains an illusion as long as the majority of South Africans have no access to these tapes.

In *Audiovisual Archiving: Philosophy and Principles*, Ray Edmonson reminds this audience that:

'...preservation and access are two sides of the same coin. For convenience they are considered separately....but they are so interdependent that access can be seen as an integral part of preservation. Indeed, the widest definition of preservation embraces almost the totality of an archives functions'.⁵⁵

Ray Edmonson further states that, *'Preservation is necessary to ensure permanent accessibility; yet preservation is not an end in itself. Without the objective of access it has no point*'.⁵⁶

Conclusion

The South African National Archive has done extremely well in terms of the technical aspect of preserving its truth commission records. However, the greatest challenge that is facing it right now is to develop a clear cut outreach programme that would target the majority of its uneducated citizens who have no access to the hardware and software technologies that make access to audiovisual heritage a reality.

53

Ibid., 344.

54

The Constitution of the Republic of South Africa, Act 108 of 1996. Also available at <http://www.polity.org.za/govdocs/constitution/saconst.html> 10/15/2006/

55

Ray Edmonson, *Audiovisual Archiving: Philosophy and Principles* (Paris: UNESCO, 2004), 19.

56

Ibid., 19.

From the Sound Archives to the Listening Culture: A Sound Stimulation Programme for Children

Perla Olivia Rodríguez Reséndiz, Director of Promotion and Diffusion of the National Phonoteque, Mexico

Presented at the IASA-BAAC 2007 Conference, Riga, Latvia

World-wide, the sound archives are an important cultural heritage. They take part of the memory of the world and constitute an important legacy of the historical heritage of humanity. To conserve and preserve this memory are high priority tasks.

UNESCO recognised it almost three decades ago, when the establishment of the **Recommendation on safeguarding and conservation of moving images**, approved on 27 October 1980, took place. The international organisation put the accent on the cultural importance of the audiovisual memory as a unique and invaluable witness of human happenings. Since then, many countries have designed strategies, and have actions that guarantee the permanence of the sound heritage. Important international forums, such as the IASA Conference and the Baltic Audiovisual Council, have as their main purpose the interchange of knowledge and experiences for protection of our sound and audiovisual heritage.

Nevertheless, as you know, the position of sound archives throughout the world is unequal. Whereas there are phonoteques that use sophisticated systems to guarantee the preservation of this intangible heritage, there are nations with archives that don't have minimum conditions for the conservation of sound documents. In addition, the sound archives don't take part in the main public policies.

The sound archives constitute one of the most forgotten patrimonies in many countries. We have a long and complex way to go, because society in general has not become aware that the loss of our sound recordings means an attack on the world sound heritage. Next October we will celebrate the **World Day of Audiovisual Heritage**, an initiative that has the objective of raising awareness of the culture of recognition of the value of the sound memory. At this point, I want to focus on the importance of constructing a social conscience that recognises our sound heritage.

Protection of the sound heritage is a social task, not only a job for the experts. As all you know, we are setting up the National Phonoteque of Mexico, a public institution that will be responsible for compiling, conserving, preserving and to giving access to the sound memory of Mexico.

In addition to these tasks, the National Phonoteque wants to offer new possibilities for promoting academic, artistic and cultural activities aimed at creating awareness that sound is part of our identity, heritage and legacy.

One of our aims is to call the attention of new generations to their sound heritage. To this end, we began with a sound stimulation programme for children. The first step is to contribute to creating a culture of listening.

What are the principles of the culture of listening?

To listen is a natural function of human beings. Nevertheless, the capacity for listening is modified by cultural factors. We can say that more than hearing, we listen in a cultural way. The listening capacity can be transformed so that a person can explore new possibilities and extend their perception in two simultaneous dimensions: 1) perceptual listening, and 2) intellectual listening.

Perceptual listening means developing abilities that offer more complete and sensitive perception of the sounds.

Parallel to that, intellectual listening works by identifying concepts and categorising the sounds, exhausting all the possibilities of perception.

Sound is movement. Something sounds because something moves, something changes and something flows. Someone who is willing to listen can appreciate the form and nature of the movement. For that reason, in a culture of listening one becomes more conscious of the environment and the way it behaves.

In the creation of a listening culture it is also important to consider one of the less explored elements of the sound language: silence.

Silence doesn't mean the absence of sound. If we are conscious of silence, we can appreciate the most delicate characteristics of sound.

To create a listening culture implies establishing activities that put in motion the natural hearing capacity of people, with the purpose of reinventing the way they listen. In addition, conscious listening is a powerful resource that contributes to the pleasures of aesthetic and artistic contemplation.

The listening culture that promotes the National Phonoteque implies development of a series of activities, resources and strategies to affect the population of our country in a direct way. The Phonoteque is not only a place for preserving sound treasures. In the National Phonoteque we want to contribute to the formation of new generations that are sensible to the value of sound documents; new generations that are likely to appreciate their importance and contribute to their care.

One of the first projects we began in this regard was research and design of the Sound Explorers' book: didactic material directed at fomenting a culture of listening and to get children used to the sound world. This project attempts to support teachers and parents.

Sonidín is the character who guides the children on this route to the sound world. The sound exploration begins with three basic tools: the ears, the memory, and the imagination. In this book the children can write about their sound trips. Through 25 missions they can identify value and take care of their sound environment.

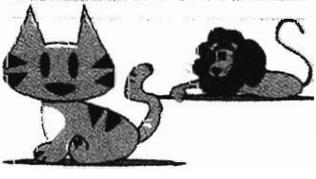
The structure of this book was conceived in four main areas:

1. Exercises for sound stimulation

Designed for children to know their ears and learn to use them in a creative way, they can develop their perception, capacity for concentration, analysis and acoustic synthesis.

<p>Misión 1.</p> <p>Imagina que tienes en tu Cabeza un casco espacial, dotado con instrumentos que te permiten detectar todos los sonidos que te presentan a tu alrededor.</p> <p>Séntate en un lugar cómodo. Cierra los ojos y descubre con tus Oídos todo lo que escuchas.</p> <p>Tu misión es percibir todos los sonidos posibles.</p> <p>Ahora aquí los sonidos que escuchaste:</p> <ul style="list-style-type: none">••••••••	<p>Mission 1</p> <p>Imagine that you put a special helmet on your head, equipped with instruments that let you detect all the sounds around you. Sit down in a comfortable place. Close your eyes and discover, with your ears, everything that you are listening.</p> <p>Your mission is to perceive all the sounds as possible. Write here all the sounds you have found</p>
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2. Exercises in Sound Memory

<p>Misión 2.</p> <p>Ahora descubre de dónde provienen los sonidos que escuchaste. Notarás que algunos se encuentran atrás, otros arriba, otros a tu lado y otros más lejos.</p> <p>Anota todas tus observaciones:</p> <p>.....</p> <p>.....</p> <p>.....</p> 	<p>Mission 2</p> <p>Now you must recognize the source of all the sounds you have heard. You will notice that some of them come from behind you, others from your side and others from a more distant source. Write all your observations.</p>
---	--

Once the children understand how their ears function, we try through exercises to teach them to analyze, represent and classify the sounds they listen to.

In this area we pretend that the children can exercise their sound memory, remembering the sounds they listened to that day.

Misión 8.

Los **sonidos** se pueden clasificar, de acuerdo con su **origen**, en producidos por la **naturaleza**, la **tecnología** o bien el **ser humano**.

Clasifica la siguiente lista de **sonidos**.

Escribe una **T** si se trata de un sonido que proviene de la tecnología, una **N** si es de la naturaleza y una **H** si es de un ser humano.

PINGÜINOS
AMBULANCIA
RANA
DELFINES
ABEJA
APLAUSO
ESTORNUDO
CASCADA



Mission 8

The sounds can be classified according to their origin as: sounds from nature, sounds from technology and sounds from human being.

Classify the next list of sounds. Write an **N** if it's a sound from nature, a **T** if the sound comes from technology and **H** if it's a sound produced by humans.

Penguin, Ambulance, Frog, Dolphins, Bee, Applause, Sneeze, Cascade, Serpent, Cell phone, Rooster, Feet walking, Whale sings, Storm, Shout, Sea, Kitchen mixer, Snore

Misión 11.

Vamos a continuar la expedición por el planeta de los sonidos, ejercitando tu **memoria sonora**. Hay al despertar déjate por el primer **SONIDO** que recuerdes?

Activa tu **memoria sonora** y escribe ese sonido.

Repasa en tu memoria el sonido que escuchaste.

¿el voz de la **VOZ** de la mamá, el reloj despertador o el **PÍLIDO** de la regadera?

ESCÚCHALO y escribe.

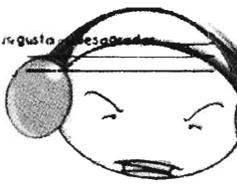
¿Cómo es?

¿Distingues cómo **empieza** y cómo **acaba**?

¿Lo escuchas muy **CERCA** o **LEJOS**?

¿Es un ruido **fuerte** o **débil**?

¿Te gusta **desagradar**?



Mission 11

We are going to continue with our expedition in the sound planet, exercising your sound memory.

When you woke up today, What was the first sound that you listened to? Switch on your sound memory and describe that sound.

Can you recreate that sound?

Maybe it's your mother's voice, the clock, the sound of the shower.

How is that sound? Can you distinguish how it starts and how it finishes?

Is that sound close or far away? Is it strong or weak?

Do you like it or not?

3. Exercises in Sound Creation

When the children are able to recognise the sounds they listen to, focusing on each new sound they store in their memory, the following step invites them to recognise themselves as sound creators.

Misión 21.

Hay **sonidos** que **cambian** o **desaparecen** con el tiempo

Como **explorador** sonoro tienes la misión de **preguntar** a los **adultos** qué **sonidos** escuchaban cuando eran niños y qué **sonidos** ya **no** escuchan ahora.

Haz una **lista** de los **sonidos** que ya **no** se **escuchan** y que se han **extinguido**



Mission 21

There are sounds that change or disappear with time.

As sound explorer you have the mission to ask your parents what sounds they used to listen to when they were kids and what sounds they don't listen to anymore.

Make a list of the sounds that people can't listen now because they have been extinguished.

Misión 22.

Cada persona tiene **sonidos** que los identifican y lo distinguen, por ejemplo, la **VOZ**, la **RISA**, la forma de **roncar** y hasta el sonido de los **pasos** al caminar.

¿Te has **escuchado** con atención alguna vez?

Describe cómo son tus **sonidos**?



Mission 22

Each person has particular sounds that identify them and distinguish them from other people, for example, the sound of the voice, the sound of laughter, the way people snore and even the sound of steps on the grass.

Have you listened to yourself with attention?
Describe how you sound

4. Exercises in Sound Preservation

The final goal of the Sound Explorers book is just for children to recognise the importance of sound as part of their culture and their heritage.

<p>Misión 23.</p> <p>Así como cada persona tiene sonidos que la diferencian, cada Cultura posee sonidos que la distinguen. Esos sonidos son parte de su identidad como pueblo y además son su patrimonio sonoro. Escribe los sonidos que distinguen a tu país.</p>	<p>Mission 23</p> <p>As each person has sounds that make them different, each culture has characteristic sounds. Those sounds are an important part of their identity as a country and establish its sound patrimony.</p> <p>Write the sounds that distinguish your country.</p>
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However, the importance of the preservation of sounds goes further. We want children to start to be conscious of the importance of the phonoteques as places where sound documents are preserved.

<p>Misión 24.</p> <p>Todos tenemos ciertos tesoros favoritos, las cosas que más nos gustan y que mejores recuerdos nos traen a la memoria. Juguetes estampas discos y memorias fotografías de las vacaciones.</p> <p>Procuramos conservar estos objetos por mucho tiempo así que los cuidamos con esmero y carino.</p> <p>Los sonidos también son parte de nuestros recuerdos.</p> <p>Con los sonidos te ayudamos a conservar.</p>	<p>Misión 24</p> <p>Te proponemos que con la ayuda de los adultos grabes los sonidos de la calle así voces de tus familiares y amigos, tu canCIÓN favorita y tu voz.</p> 
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Mission 24
All of us have our favorite treasures: the things that we like more, things that bring us the best memories.

Toys, stamps, cd's and even photographs of vacations

We try to preserve these objects for a long time, so we keep them carefully.

Sounds are also a very important part of our memories. Which are the sounds that you would like to preserve?

With the help of your parents, record the sounds of the street where you live, the voices of your family and friends, your favorite song and your voice.

Misión 25.

A través de los años se han grabado voces y
sonidos de valor social,
cultural e histórico, como la llegada del
hombre a la luna,
grabaciones de música,
programas de radio, paisajes sonoros,
voces de artistas, políticos,
Aportantes y científicos, entre otros.

Estos sonidos son un tesoro de la
humanidad, su patrimonio sonoro
y por eso, es necesario **CONSERVARLOS**

... 25

Las fonotecas son los lugares donde se
preservan en condiciones adecuadas
los sonidos que forman parte de la
memoria sonora de un pueblo.
¿Qué sonidos guardarías en una
fonoteca?



Mission 25

Through the years, thousands of sounds with social, cultural and historic value have been recorded, as the landing of the man on the moon, music recordings, radio programs, soundscapes, and voices of artists, politicians and scientists among others

These sounds are the treasure of humanity, a sound patrimony and it's important to preserve them.

Phonoteques are places where a country's sonic memory is preserved in the right conditions.

Which are the sounds that you would preserve in a Phonoteque?

This printed book will be accompanied by a series of short radio programmes we are preparing, and will be given to the children in public schools who come to the National Phonoteque for guided visits.

With this project we try to teach children that we live in a world surrounded by sounds; sounds that we have kept as part of our individual memory; sounds that could disappear if there are no places where they can be conserved; sounds that, once conserved, can be listened to again.

The fight to protect our sound heritage must also take into consideration the formation of new generations of listeners who recognise that sounds are an important part of our identity, our culture, our heritage.

Facts and Fiction- Archival Footage Historical Events and Television and Film Productions

Tedd Urnes, Senior Adviser, Norwegian Broadcasting Corporation (NRK)

Workshop presentation made at the IASA-BAAC Conference 2007, Riga, Latvia

" ... You can fool all the people some of the time, and some of the people all the time, but you cannot fool all the people all the time..."

Abraham Lincoln (1809 – 1865)

Media Archaeology

Movies and television productions are released and transmitted every year dealing with historic events, or public personalities such as politicians, military leaders, revolutionaries, and people with a record of special achievements.

The aim of this article is to make you aware of different possibilities for reusing archival footage in movies. It is my intention to inform you about the importance of the audiovisual archives and how to reuse transmitted programmes or real shots of life in new productions.

It is not my intention to evaluate real shots in historical movies and to report about facts and fiction in those films. The subject is dealt with in the book called: *Past Imperfect. History According to the Movies (1995)*, and my own paper on the same subject, *HISTORY AND MOVIES: An evaluation of the information of historic events, of internationally known personalities and of famous sites and buildings described in movies.* (<http://www.baacouncil.org/> or office@fiatifta.org for copy of the paper)

Television companies should be proud of their collections of transmitted programmes.

Since I have worked in television archives for about 29 years, I have viewed a lot of television programmes and movies. Some years ago I started to question the reuse of transmitted television programmes, and the active reuse of news in new productions.

I was surprised to see that the use of real shots is more common than I was aware of. The use of reconstructions of historical events is a must to make a documentary about actions taken place before the invention of photos, moving images; television and radio and movies. The reconstruction of a well known event has to be as realistic as possible. I think we all may agree on the demand for a true description of what went on. To my surprise I see that fiction and facts, and the use of equipment of the time the event took place, are not correct. That is because those who are interested in old equipment expect to see the correct use of the tool in the film.

Reuse of Radio News, Stills and Equipment- Archival Footage

Let me give you an example: The Norwegian soldiers in 1940 used the Norwegian made rifle called the *Krag-Jørgensen* rifle. Let me show you a reconstruction of an important military action in 1940 in Norway to prevent the Germans capturing the Royal Norwegian family and the government. An image of Vidkun Quisling (1887-1945) is shown and the voice of Vidkun Quisling. It is a historic speech given by Vidkun Quisling to the Norwegian people

after having occupied the Norwegian radio station in Oslo in 1940. At Midtskogen - a site not far from Oslo, the capital of Norway - a reconstructed battle takes place. One soldier is using an American rifle called the *M1 Garand* rifle. A small detail to most of you - but an irritation to those who work with military history.

Movies: Facts, Fiction and Drama – Selection Policy

The issue of using real shots in movies was brought to my attention when I was watching an American movie called *The Hunters*, during a short stay in the city of Trondheim on duty. I was watching TV in my hotel room in the evening, and I was surprised to discover that an explosion of an aircraft was not the same aircraft shown earlier in the movie. I could not forget the film. Finally I managed to buy a VHS copy of the film in Australia because it was impossible to find the film on the video market in the USA. Viewing of movies in a small room is not what a film is made for. All details are shown and revealed. My intuition was correct: An F-86 Sabre is making an attempt to land at the airfield and it is an F-100 Super Sabre which explodes. The film had used real shots of an accident that took place.

Primary Sources

I made a selection of videos of historical movies for my private collection. The number of titles of my video and DVD collection is about 845. I have viewed a lot of films searching for real shots. Films dealing with wars and political issues were my first target for searching, but also drama and fiction were examined.

The Aim

The aim of the research was to find out if the use of real shots in movies was just an isolated instance, employed by some film producers. I was surprised to see that real shots were often used in movies. It is not frowned upon in secret by some filmmakers.

Let us take a look at the titles of the movies and the year of productions where you will find real shots hidden between fiction and drama:

Title	Year of Production
A Yank in the RAF (The Eagle Flies Again)	
<i>About American pilots in RAF before USA joins the Second World War</i>	1941
Casablanca	1942
Objective, Burma!	1945
Zakazane Piosenski (Polish feature)	1946
The Desert Fox	1951
The Snows of Kilimanjaro	1952
Malta Story	1953
The Glenn Miller Story	1953
Retreat Hell	1954
The Unknown Soldier (Tuntematon Sotilas)	1955
Reach for the Sky	1956
KONTAKT	1956

The Hunters	1958
The Young Lions	1958
The Naked and the Dead	1958
The Guns of Navarone	1961
The Heroes of Telemark	1965
Un homme et une femme (A Man and a Woman)	1966
Soylent Green	1973
Dillinger	
<i>The story of the American bank robber and gangster, John Dillinger (1903-1934) and his gang</i>	1973
Coming Home	1978
<i>The Amazing Howard Hughes Biography: The career of the American director and aviator Howard Hughes (See also: The Aviator, 2004)</i>	1977
From Hell to Victory	1979
The Kidnapping of the President	1980
Belønningen (The Reward)	
<i>Norway, Oslo, 35 years after the end of the Second World War. Two former friends in conflict about the war</i>	1980
Robert Kennedy and his Times (part I & 2)	1984
Forbidden	
<i>The movie tells the tale of a wealthy German countess who hid her Jewish boyfriend in World War II</i>	1984
Wild Geese II	
<i>An American television company is practising "yellow Journalism". News has to be made by the TV company. The German Nazi war criminal Rudolf Hess is imprisoned in Spandau Prison in Berlin.</i>	
The TV company wants to get him out of prison	1985
LBJ: The Early Years	1987
Walker	
<i>The life story of William Walker, an American adventurer who invaded Mexico in the 1850s and made himself President of Nicaragua</i>	1987
Onassis: The Richest Man in the World (TV) (2 episodes)	1988
Mississippi Burning	
<i>Two FBI agents arrive in Mississippi to investigate the disappearance of civil rights activists. The year is 1964</i>	1988
Pancho Barnes	
<i>Movie portrait of the pioneering female aviator Florence 'Pancho' Lowe Barnes (1901-1975)</i>	1988
Hemingway (Part 2)	1988
Scandal	1989
The Legendary Life of Ernest Hemingway	1989
Margaret Bourke-White	1989
The Kennedys of Massachusetts (Part I, II, III)	1989
Casablanca Express	
<i>The year is 1942. Winston S Churchill has to be protected from being kidnapped by the Germans</i>	1989

Patton	
<i>The story of General George Patton's commands during World War II</i>	1989
Bethune: The Making of a Hero	
<i>Based on the true story of the Canadian doctor Norman Bethune (1890-1939)</i>	1990
One Against the Wind (I ørnens skugga)	
<i>The story of Countess Mary Lindell, who helped allies in occupied France during World War II</i>	1991
L'Accompagnatrice	1992
Citizen Cohn	1992
Ruby	1992
Marilyn & Bobby: Her Final Affair	
<i>A fictional account of the alleged romantic relationship between Marilyn Monroe and Robert Kennedy</i>	1993
Nixon	1995
Lust och Fagring stor	1995
Hamsun	1995
Alfred	
<i>The life of the Swedish engineer Alfred Nobel (1833-1896). How he invented dynamite and founded the Nobel Prize</i>	1995
Land and Freedom (A story from the Spanish Revolution)	
<i>Tierra y Libertad (En la guerra Civil Espanola, David, un ciudadano Ingles, se enrola en el ejercito popular)</i>	1995
Michael Collins	1996
Rasputin	
<i>The story of the Russian mystic Grigori Rasputin and his work for the last Tsar of Russia, Tsar Nicholas II</i>	1996
Flynn	
<i>A biographical movie of the Australian film actor Errol Flynn (1909-1959)</i>	1996
The English Patient	
<i>The love story between an archaeologist and a married woman during the Second World War</i>	1996
Winchell	1998
The Rat Pack	1998
Holy Smoke	1999
RKO 281 (The Battle Over Citizen Kane)	1999
Thirteen Days	2000
Enigma	2000
Pearl Harbor	2001
The Gathering Storm	2002
Live from Baghdad	
<i>The Gulf War 1991. About the work of a group of CNN reporters</i>	2002
The Pentagon Papers	2003
IKE – Countdown to D-Day	2004
Head in the Clouds (Juegos de Mujer)	2004
The Aviator	

<i>Biography: The earlier years of legendary director and aviator Howard Hughes' career from the late 1920s to the mid-1940's.</i>	
<i>American eccentric and billionaire</i>	2004
<i>Goodnight and Good Luck</i>	
<i>A film enacting broadcasting journalist Edward R Morrow's televised criticisms of the Joseph McCarthy hearings of 1953 –54</i>	2005
<i>Otoko-tachi no Yamato (English title: Yamato)</i>	
<i>The last battle of the Japanese battleship Yamato in 1945</i>	2005
<i>Fidel & Che</i>	
<i>The film is based on historical research into the life of Fidel Castro and the revolution he led</i>	2005
<i>The Last King of Scotland</i>	2006
<i>The Queen</i>	
<i>About how HM Queen Elizabeth II struggles with her reactions after the death of Princess Diana in 1997</i>	2006
<i>Pedersen: High-School Teacher</i> (Norwegian title: <i>Gymnaslærer Pedersen</i>)	
<i>A drama focused on Norwegian society in the 1970s – an era dominated by Marxism and Leninism</i>	2006
<i>Bobby</i>	
<i>The movie is a fictional account of events at the Ambassador Hotel on the day Robert F Kennedy was assassinated, 5 June 1968</i>	2006
<i>The Good German</i>	2006

The Real Shots: The Subjects Selected

Real life docu-dramas

It is not my intention to give you a detailed description of the reuse of real shots used in all the movies listed above, but only to evaluate some of the films.

The Norwegian movie called *KONTAKT* was produced in 1956. The film is based on the story of the Norwegian pilot and agent Oluf Reed Olsen. He went to Canada for pilot training and later he was trained for secret agent work in Norway. The film starts with German news. Hitler is speaking and we watch real shots from the Second World War. The real shots and fiction are mixed together. Nils R Muller made the film. I asked him about the use of fiction and real shots, two weeks before he died in 2007. There was no philosophy about the use of real shot. The audience accepted the use and so we did it – that is all.

The movie called *Holy Smoke* was produced in 1999. It is a film about the meaning of life. Religion is a topic in the movie. A young lady is searching for the meaning of life. Her family makes an attempt to get her out of the influence of the region of a certain group in India. Real shots about different societies of religions are shown as TV programme to tell the girl about the danger of the religion. A list of film archives is published at the end of the film. The producer has made no secret about using archival materials.

Events selected to be described by using real shots are mostly news. When Paris is occupied by the Germans in 1940, the information about the fall of Paris is told by using radio news and excerpts from newsreels. In movies about wars, you find real shots from the battlefields

like the movie called *The Desert Fox* and in *The Naked and The Dead*.

The filmmaker Oliver Stone is even making further use of real shots: He mixes fact and fiction in the real film in his movie about the late American president Richard M Nixon.

In some movies the news – archive footage - is used to give one a correct and realistic picture of the time and of the events described in the movie. Take a look at the film about the late American president Lyndon B Johnson. In *LBJ: The Early Years* American newsreels are used to portray the political situation in the USA when Johnson was fighting for his political life. The killing of President John F Kennedy is presented by using the real shots from Dallas where he was killed, and then later the scene gradually changes into drama and fiction.

The making of a mixture of fiction and real shots is also used in the movie *IKE – Countdown to D-Day*. The story is about the allied invasion of Europe in 1944 and about General Dwight D Eisenhower.

In the film *The Hunters* excellent shots of the fighter plane the Sabre is used and also a real shot of an accident called *Sabre Dance*.

In the film *Soylent Green* archival footage of the fjords of Norway, and Norwegian classical music, are used to describe how life used to be. The American actor Edward G Robinson is playing a death scene and the archival footage is used to describe a better life.

The famous shots of the forty-fifth birthday of President John F Kennedy at Madison Square Garden, May 19, 1962 where Marilyn Monroe sings *Happy Birthday, Mr President* is used in the movie *Marilyn & Bobby: Her Final Affair* (1993).

President John F Kennedy gave a speech on television to the America people after the conflict between the USA and Cuba in 1961. Excerpts of the television news of Kennedy is used in the movie about Ernest Hemingway released in 1988. The archival footage is spliced into the film to give some of the reasons why Hemingway left Cuba after having lived on the island for many years.

Some filmmakers have edited the film in such a way so that it is almost impossible to know when real shots are used and when fiction is used. This takes place also by presenting the events with the use of historical photos. In the movie *The Big Brass Ring*, 1998, photos have been changed by adding an actor to the photos.

Combat footage is used in the film *Reach for the Sky* about the Battle of Britain (1940). The film splices actual RAF WWII combat footage with fiction. The use of combat footage in air battles is mentioned by viewers later on with a positive approach to the issue of using real life shots.

The movie *Walker* uses archival footage is a special way. At the end of the film the archival footage is added to the film to show that the American military policy on Latin America has not changed since 1850. It is a historical film about William Walker, who invaded Mexico and later made himself President of Nicaragua. The American policy of President Ronald

Reagan is presented by archival footage at the end of the film. The film makes a move from the 1850s to 1980s.

Archival footage from the Spanish Civil War (1936–39) has been used as an introduction to the story in the movie *Land and Freedom – Tierra y Libertad*.

"... *Featuring actual aerial footage...*" information was published on the cover for the film *A Yank in the RAF*. It is not common to inform the public about archival footage used in films.

The movie *The Queen*: after the death of Princess Diana HM Queen Elizabeth II struggles with her reaction to a sequence of events nobody could have predicted. "...*Frears (Director Stephan Frears) combines archival footage of a grieving public and newscasts with intertwining splices of historical recreations of fictionalized riffs on what it must have been like inside the Royal Chambers...*" (Author David H Schleicher, New Jersey, USA).

Footage of movies – not real shots, but fiction - is also used in movies. When Howard Hughes is watching rough footage in the movie *The Amazing Howard Hughes*, he is not watching excerpts of his own film *Hell's Angels* but excerpts from the film *The Blue Max* (1966). The crash footage shown in *The Amazing Howard Hughes* is actually taken from the film *Ace Eli and Roger of the Skies*.

The Norwegian film *Pedersen: High School Teacher* uses archival footage of the political riots in China and in Europe during 1968 – 1970.

The candidate for President of the United States Senator Robert F Kennedy was killed on 5 June 1968 at the Ambassador Hotel. The movie *Bobby* is a fictional account of the lives of several people present during the final hours in the life of the late Senator Robert F Kennedy. The title role is not played by a professional actor but by RFK himself. A patchwork of archival footage, radio broadcasts, photos and media clips from the 1960's is used. Robert F Kennedy alive was better than any actor making an attempt to play the late senator!

Two important movies have been released using archival footage: *Fidel & Che* (2005) and *The Good German* (2006). Both films make no secret about using archival footage. Russian archival footage from the archives of the RGAKFD, Krasnogorsk Archive and additional material, CORBIS, are used in the film *The Good German*. Fiction and reality are mixed so well that it is difficult to make a statement when real shots have been used and when a reconstruction of events takes place.

The movie about Fidel Castro and Che Guevara, *Fidel & Che*, is based on the book titled *Fidel Castro* by Robert E Quirk, and the book *Guerrilla Prince* by Georgie Anne Geyer. The film is based on historical research into the life of Fidel Castro and the revolution which he led. The archival footage used in the film: Shots of a fighter-bomber in action. Shots of the president's palace in Havana and of people gathered of the palace. Archival footage of the Bay of Pigs, 19 April 1961. Prisoners of war captured by Cuban soldiers. The American President John F Kennedy gives a speech about the invasion of Cuba. Shots of Nikita Khrushchev (1894-1971) and footage of John F Kennedy who reveals the Russian rockets on Cuba. The name of the stock footage researcher is Andrea Scharf, Total Research. Stock footage is provided

by: Archive Films, Best Shot, Inc, CBS News Archive, CNN Image Source, Educational & Television Film Ltd, Film Bank, Historic Films, Moving Image Library, NBC News library, Paramount Pictures Stock Library, Producers Library Service, UCLA Film and Television Archive and Wolfson Media History Center.

The film was shot on location in Mexico and The Dominican Republic. The actors speak English – not Spanish.

Copyright

On the credit list for movies produced during the last 20 years film archives have been credited. RKO 281 (*The Battle over Citizen Kane*) was released in 1999. Director Richard T Heffron uses news footage of the World War II in his film called *Pancho Barnes* produced in 1988. The credit list of RKO 281 published the names of searchers for archival footage and the names of the archives are also on the credit list. Movies made earlier do not mention the archival footage at all and not the names of the archives or the professional footage researchers. On the credit list for the movie called: *Pedersen: High School Teacher* the archival footage is reported. The Norwegian Broadcasting Corporation (Nrk) is on the list of companies that have supplied the film with archival footage. The most comprehensive list of film and video archives contacted for footage so far, is the list made for the film : "FIDEL & CHE" (2005).

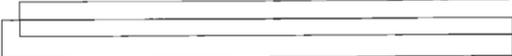
Conclusion

Those of you who are working in audiovisual archives of television companies or corporations are asked why you keep all the programmes transmitted. Why not make a strict selection of the collection for future use? The old programmes have no value.

Let us get rid of the old stuff. I disagree. I even disagree with the question. I have showed you that even famous movies are using archival footage to make the story a good one.

This means you can return to the movies to find historical films of a time past and lost. It is also thrilling to search for forgotten films by viewing movies. I think we are now approaching what Pelle Snickars, Swedish National Archive of Recorded Sound and Moving Images, and Professor Jan Olsson, Stockholm University, Sweden are calling: *Media Archaeology*. The collections of archival footage of news and home films and videos – non-movies – stored in film institutes world wide need to be evaluated as an important part of the collections of the institutes.

Most of the archival footage used in movies is news. Information about events of the Second World War dominates the subject among shots used. The story of the American Senator McCarthy and his struggle against communists in the USA is also a subject dealt with in movies such as: *Good Night and Goodbye*, *Winchell* and *Citizen Cohn*. Real shots from the television transmissions of the programmes are used. (The official hunt for so-called communists in the USA is also dealt with in the film *Robert Kennedy and his Times*. No archival footage of the events is used but professional actors and reconstructed television news about the official meetings.)



Archival footage is used in the movie *The Kennedys of Massachusetts* to tell about the social and political changes in the USA and the world in connection with the story of the Kennedy family.

What about public speeches of official persons? Speeches made by politicians are also used to tell about the time presented in the movie. Excerpts of speeches given by Winston S Churchill during World War II are used in the movie *One against the Wind*.

The late French minister of culture of France Andre Malraux reflects on the subject of making notes or taking minutes of conversations between men of history in his book *Les chenes qu'on abat* (1971). The English title is *Last Conversations with de Gaulle*. Andre Malraux is surprised to realise that we do not know much about the talks between Alexander and thinkers of his time. He is also concerned about the fact that Voltaire never wrote about his conversations with Fredrik II. For historical reasons, only conversations of great importance were recorded on paper. The situation today is different if we want to make use of modern technology by using audio recording and film and video recording. Andre Malraux, who was interested in film productions, understood the importance of film and video productions made for historical reasons. Women and men who made history should be recorded to be used for future historical studies.

What about the future and archival footage and real shots? In the digital world you may make a good reconstruction of any event. Anyway, American soldiers are equipped with a small camera placed on the helmet to shoot the real action. What about the shots stored in the military audiovisual archives? Archival footage for sale in future to be published in new movies? The camera can take pictures for at least an hour. The cost of the camera is about NOK 1 200 and the weight is about 200g using a 32 MB secure digital card.

Television stations in the Baltic countries should be proud of the collections of transmitted television programmes. The challenge is to make it possible to reuse the programmes to make new programmes, or to make a movie where the content is real not fictional but also a mixture of drama, real shots and fiction. Those who are working with university studies should also profit from this policy. Take care of your collections.

Multiple Roles of a Small-Scale Archive in Indochina

Gisa Jähnichen, University Paderborn, Berlin, Germany

Presented at the IASA-BAAC 2007 Conference, Riga, Latvia

The Archives of Traditional Music in Laos (ATML) was founded in 1999 by the Ministry of Information in co-operation with the Culture of the Lao PDR and the German Association for Technical Co-operation (GTZ). Eight years after zero, I look at the development of the Archives of Traditional Music in Laos, which is a media section of the National Library in the capital Vientiane. Special focus is given to the different roles of the archive, which are constantly changing. The profile of training and education with regard to media and music in the country is changing as well. These shifting situations brought about a new social consciousness of audiovisual archiving.

The ATML is an telling example of AV archiving in a low budget environment. This example should encourage other small scale archives in the world under similar conditions to find a productive and a progressive way for their future.

Introduction

When I first heard that I was to establish an audiovisual archive of traditional music in Laos, which was organised by the University of Applied Science in Emden, Germany, I was excited and started to imagine what could be done – but there were many fears as well. As I learned through my experience in Vietnam, I had to pre-empt unforeseen difficulties that seem typical of all assistance efforts in the region, but which I didn't want to experience in Laos again. For example, the lack of inter-institutional co-operation, restrictions on recording material from one jurisdiction to another, supply problems, and time-consuming financial proceedings and so-called commercial resources.

In Laos, I experienced the following: although I had to carry out project work I could not take decisions on things such as acquiring archiving equipment, audio and video equipment - that was the task of the German management; I had to train the staff but I could not take decisions on training contracts or recruitment conditions - that was the task of the institution in Laos and the German management; I had to do research on acquiring new material but I could not decide how much time should be spent to get the material - that depended on other factors.

I had no choice but to trust that everything would be solved within two years. It might seem that I was in a awful situation, but I wasn't. In fact it was the same everywhere else.

Even in Germany, as a Professor at the University, I cannot take decisions other than for myself. So I didn't have to change my personal attitude to work. Perhaps this was the most productive condition for me, because it forced me – and the staff - to press on and make sure that all would end well.

Some Comments on Motivation

The common European thinking about projects such as this - looking from a remote perspective without deeper insights - is that the most problems are of technical nature.

Good quality equipment, enough money to undertake field recordings and safe storage facilities will achieve the desired results automatically. I learned that in principle it isn't wrong to think like that, but it is wrong enough to put an end to significantly archiving.

Being involved in a project such as this to establish an archives in a so-called "under-developed" country it is easy to feel like "little princes from a rich star". It needs time to understand that one is not a prince and that the star is the same world and is not rich. In Laos, however, I never felt advantaged, but rather like somebody who needs help.

I think the first realisation that is needed to create useful and productive archives is a deep understanding of the sense of archiving. Therefore the most important initiative should be to persuade people to share this challenge, to be creative in linking individual knowledge of different cultures from the past with the present needs for a better future. We have to understand the word "better" in this context.

We need to know how to persuade people to be good co-workers, but also to get involved in what we are doing.

All the other issues about technical equipment, training and storage standards depend on this philosophy. The most unsatisfactory situation is a technically perfect audio archive with staff and official visitors who are not interested in archiving and who treat the material with no respect.

Contexts and Roles

Let me take you on a very short virtual tour through the development of the archiving context in which we were and still are working:

Storing

First of all there was no doubt that all the wonderful recordings and additions had to be stored safely. Initially the term "safe" did not mean the stored material but the safety of the property. Nobody should get access to the buried treasure of tapes and documents. It took more than a year to make it clear that safety of all the recorded material, including the sound and video information on the carriers, was the first priority, and including data integrity and regular inspection of the physical carriers.

It was urgent to bring the message home. Traditionally written literature on palm leaves can be restored hundreds of years later, and is very different from the comparatively very young recordings. If a palm leaf manuscript is stolen, not much is lost in terms of value. But when a sound recording on a digital audio tape is stolen, something must be done to prevent deterioration and to invest in the playback equipment. Seen through the eyes of audiovisual archivists, many of our administration teams did not understand this.

We slowly turned the safety issues round in a useful direction, especially with the help of our colleagues from the film and video institute, which is a member institute of the SEAPAVAA. So, we started to be known as a department which stores very special material.

Authorising

The second step was to convince musicians and collectors of the necessary documentation and descriptions of their collections and recordings. Undocumented and publicly inaccessible recordings and documents have no value to future cultural developments, including individual representation. Any single musician cannot testify to his authorship without an entry in an official archive. The notion of “you give to get it” needed time to be implemented. Thanks to national workshops and meetings, and thanks to a consequent policy concerning intellectual properties – even if not really successful in terms of national economy - we could accomplish a better understanding among our partners.

This success solved another problem, too: After Laos opened its doors to mass tourism, many amateur ethnographers were active in the region. They recorded traditional music and dance and avoided official registration by underhand payment to the musicians and dancers. When the Lao staff would request recordings afterwards, it was very difficult to record musicians for less than the last payment. However, the main problem was that the musicians were not interested in playing for their own poor communities any more. A thorough study of those appearances resulted in the conviction that only officially registered recordings would protect the rights of the authors and that this value was higher than a single payment.

Memorising

Finally all the data entries, especially video material, serve as a memory of the communities. Most of the visitors from remote areas are searching for pictures and video recordings of technological interest.



Figure 1: Documentation on khen construction and use in the Lao language, edited with the help of the ATML, which visited and invited all khen players to exchange their experiences

As an example of mouth organ construction, we selected two different types for illustration. After watching video material, some of the workshops resumed their work. Now new mouth organ workshops exist in Xiengkhuang, Huaphan and Bolikhamsay areas where this kind of mouth organ is played by the Lao. Transfer of knowledge through audiovisual material replaces direct learning from living teachers and craftsmen. In an orally conditioned learning context of this society it seems to be easier to learn in this way than in highly developed cultures of writings and abstract codifications.

Educating – Activating – Motivating

The next step was the general change of the archive's role as a place for educating, activating and motivating culturally working people. At the last ICTM conference in Vienna, I was able to present some of the surprising results in the development of dance traditions, which are of great national and religious significance. Without the activities of the few archivists in the ATML these achievements could not have been realised.



Figure 2: The National School for Music and Dance in Vientiane is working with additional teaching material from the ATML

Changing Views – Awakening Public Conscience

Thanks to international interest and the growing internal acceptance of audiovisual documents as knowledge transfer tools, the work of the archive changed the views of the public administrators on their cultural outcomes, their history, their current situation concerning their social and ethnic values. There is not one meeting or festival without recalling important events, which the organisers observed indirectly through our audiovisual documents. The archive is frequently asked for support of different ministries and institutions, and it is creating a kind of public conscience which cannot be avoided any more.



Figure 3: Presenting music and dance at the That Luang Festival 2004 according to recovered local traditions of various areas

Creating Resources – Recovering Knowledge

Finally, after seven years, the archive found its place in the cultural and political landscape, and established a place for creating resources and recovering knowledge. But we need to defend and develop it continually on a daily basis.

We now have to focus our skills on digitisation and a new kind of public access through the intranet of the National Library. This technical development will surely create a new context and further the role of this small-scale, but big spirited, archive in the small country of Laos, to rise as an example in the region.

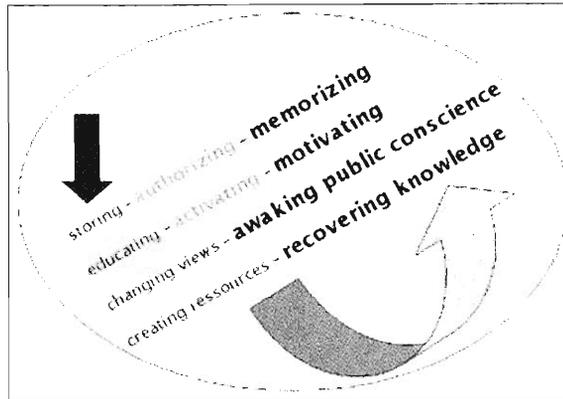


Figure 4: Contextual framework of the ATML in Vientiane, Laos

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Polish Discography

Katarzyna Janczewska-Sołomko: *Dyskopedia poloników do roku 1918, tom 1 – 3*. Biblioteka Narodowa, Warszawa 2002. 1664 pages, illustrated.

Tomasz Lerski: *Syrena Record, pierwsza polska wytwórnia fonograficzna. Poland's first recording company. 1904-1939*. Editions Karin, New York – Warsaw, n.d. 848 pages, illustrated.

Reviewed by Pekka Gronow, YLE Radio Archives, Finland

Poland has long been a blank area on the European discographical map. Little has been written about Polish recordings, and they seldom turn up in foreign archives, or on the collectors' market. Now the situation has been remedied with two important publications which, together, cover a large part of Polish record production up to the Second World War. They have actually been available for a few years, but it has taken me a while to obtain copies. They are highly recommended to anyone with an interest in Polish music, or in the history of the European recording industry. Even readers who have only a rudimentary knowledge of the Polish language will find them useful.

The '*Dyskopedia poloników*' is a publication of the Polish national library. The aim of these volumes is to document all the recordings of Polish interest ('Polonica') up to 1918. It will be recalled that at this time the Polish State did not exist; Warsaw was politically part of the Russian empire. The book aims not only to cover recordings made within the geographical area of modern Poland, but also recordings by Polish artists and/or of works by Polish composers, regardless of the location. Not surprisingly, the music of Chopin recurs frequently. Artists whose names are well known from other contexts include Olimpia Boronat, Jan Reszke, Władimir de Pachmann, Ignacy Jan Paderewski, and Marcelina Sembrich-Kochanska. Cylinders and piano rolls are also included.

The book has a 90-page introduction in Polish and brief summaries in Russian, German and English. It includes an extensive essay on Polish musical life during the period covered. There was a close relationship between Polish opera houses and the recording industry: the author lists 757 operas and operettas that were presented at the opera houses in Warsaw, Lwów and Lublin during this period, and featured on contemporary Polish recordings. The list includes *Aida* (41 Polish recordings); *Carmen* (44) and *The Merry Widow* (70); but the most frequently recorded opera was Moniuszko's *Halka* (231 recordings). The same composer's *Straszny dwór* is also represented by 67 recordings. There was also a rich output of Polish popular music. A typical artist in this genre was the actor Antoni Fertner, whose comic sketches were recorded by all the companies.

The layout of the volumes follows the bibliographic tradition. Each title, corresponding to a recorded side, is presented as an individual document, which means that two sides of a disc are listed separately. The entries are first arranged alphabetically by artist, and for each artist, alphabetically by composer. There is a great amount of data that is normally not found in discographies, such as references to the sources of the listings, and to collections where the recording can be found. There are also separate indexes according to titles, artists (including accompanists), record labels and catalogue numbers, and biographies of artists and

composers. All in all, this is a rich source of information, but it is to be hoped that one day it will be made available online as a database, which would make searching much easier.

The list of record companies includes all the usual suspects. The majority of the records listed are produced by Gramophone, Columbia, Pathé, Beka, Favorite, and Odeon, as well as several smaller Russian and German companies. However, it is interesting to note that before 1918 there were several local companies active in Polish territory, including Eufon, Melodija, Pelcz, Sphinx, and Syrena.

The Syrena Company was founded in Warsaw in 1904 by the Polish industrialist Juliusz Feigenbaum. Until 1917 it marketed its products largely on the huge Russian market, but in independent Poland it was a leading company until it was closed by the Nazis in 1939. Tomasz Lerski's book is both a label listing and company history. Although the bulk of the text is in Polish, there is an English summary of 25 pages. It is not only homage to one of the pioneers of the European record industry, but also an impressive document of Poland's rich musical life during the period between the two world wars.

Like all the other record companies of this era, Syrena produced a large amount of dance music and popular songs, but the output also includes an impressive amount of classical and folk music and recordings for Poland's Jewish and Ukrainian minorities. The company's achievements include a complete recording of Moniuszko's opera "Halka" on a 14-disc album; live recordings of Polish symphonic music; recordings of the 1932 International Chopin Competition; recordings with David Oistrakh during his visit to Warsaw in 1935; and a government commission to record the country's greatest actors. Altogether about 14 000 recordings are documented, but the author estimates that about 35 per cent of the company's total output still remains unknown.

Lerski is a private collector and researcher. The layout follows the model of well-known label discographies. The entries are organised numerically and chronologically, by catalogue number. The company's archives and recording ledgers have not survived, but the author has been able to document and date the records to a remarkable degree. In some cases the published information has obviously been derived from secondary sources, such as printed catalogues or advertisements, as some matrix numbers are missing. There is also a title index and 900 artist biographies, with cross-references to the listings.

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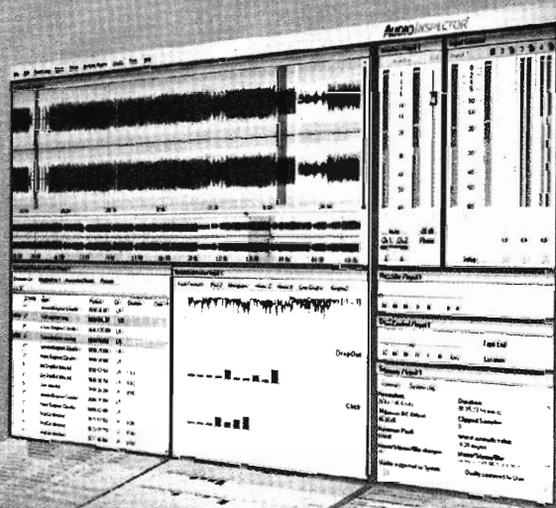
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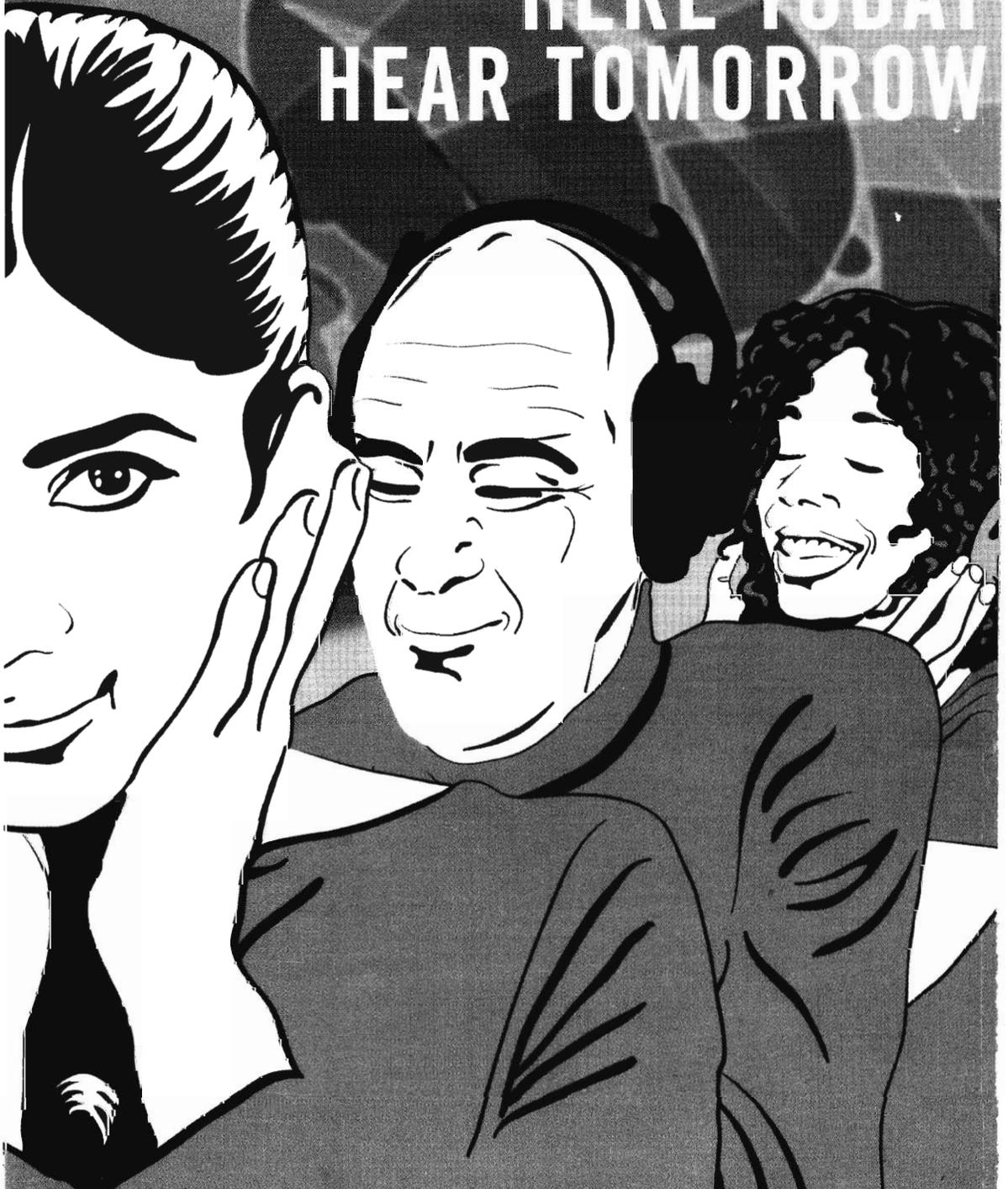
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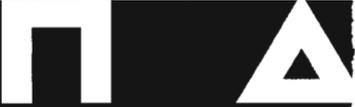
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