44RD ANNUAL CONFERENCE OF THE INTERNATIONAL ASSOCIATION OF SOUND AND AUDIOVISUAL ARCHIVES (IASA)

ASA / BAAC JOINT CONFERENCE
OPEN DOORS: NEW IDEAS, NEW TECHNOLOGIES

Vilnius, Lithuania
6 – 10 October 2013

The 2013 conference is exploring the tools, the people, legislation, ideas and technologies that enables constant, open and unmediated access and discussing the consequences of such openness on the collections, the collection owners and the managers. What does Access for All mean to our mission and curators and careers for the world's sound and audiovisual heritage?

Open Doors: New Ideas, New Technologies, the 2013 conference theme, is pertinent to today's environment of information availability, where openness is the expectation. But does "Open Doors" mean unlimited entry rights? Is that appropriate when we offer open access? Is complete openness always ethical, or even legal? Or are constraints to access just a limit on the individual's right to information? Are archivists gatekeepers, or facilitators? Where does ultimate responsibility lie, with the collections owners, users or managers? How do we manage a variety of access conditions, from closed to open? Can an online description be a breach of confidence? Are the users' rights paramount?

No matter what kind of Openness we need for our particular archive archivists must manage access. Is technology the solution to the growing management problem, or does technology create a new burden? In the face of innovative technology, new possibilities and the ever looming budgetary constraints, we need to be open to new ideas and gain the knowledge to evaluate new solutions for our collections and archives.

Let's all head to Lithuania… with an Open mind!

Please see the Call for Papers at:
http://2013.iasa-web.org/call-presentations

Please find all conference information on the conference website at
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For any further information or questions please contact the Organising Committee and the conference administrator through enquiries@iasa-conference.com

International Association of Sound and Audiovisual Archives

Internationale Vereinigung der Schall- und audiovisuellen Archive

Association Internationale d'Archives Sonores et Audiovisuelles

Asociación Internacional de Archivos Sonoros y Audiovisuales

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Dearest Members,

Please pardon the lateness of this journal issue. The lateness of the conference, holiday, and flu season all wrecked havoc on the journal schedule. Speaking of the conference, I truly had a magnificent time meeting up with old friends and making new ones. India was such a beautiful venue for the conference and the wonderful Shuba is such a gracious host. We would all love to keep a running visual reminder of each conference. Please email any pictures you have of the India conference to a member of the board so that we may place them on the conference website. India gave us all a chance to see the problems our field faces through a different lens. The musical content of Indian collections is vastly different from many Western/European styles and consequently the problems associated with archiving and preserving this beautiful audio are complicated to say the least. I learned so much from the presenters at this past conference. I'm excited to share with you a few of these presentations both in this issue and the Summer 2013 issue.

During my time spent as IASA editor, I have learned so much about the audio and audiovisual preservation field. I have also learned a lot about myself. IASA showed me that I have the strength within myself to travel to the other side of the world all by myself, the courage to interact with leaders within our field, and the ability to believe in myself. When I took on the position of editor I fully intended to fulfill my term however, due to various personal reasons, I will be unable to continue as editor. I encourage anyone who is interested in the position to contact a member of the executive board. This is an interesting and great opportunity for someone to get more involved with IASA. Any interested persons are welcomed to contact me with any questions on the position.

Yours truly,
Cassandra Gallegos
Editor IASA

Dear IASA and AV-colleagues,

I am very pleased that IASA is holding its 2013 conference "Open Doors: New Ideas, New Technologies" in Vilnius, Lithuania 6-10 October 2013. In 2004, the first Riga Seminar was held in Latvia with the help support of IASA Nordic, and quickly grew into an annual event with participants from the surrounding Baltic and Nordic countries. As a splendid example of mutually beneficial cooperation this became the foundation of the Baltic Audiovisual Archival Council (BAAC), which, in turn welcomed IASA to hold a memorable joint conference in Riga. Since then, the seminar evolved into an annual conference rotating between the 3 Baltic States, with a guest appearance in Finland.

This year will be the 10th conference, and to celebrate this Anniversary, the BAAC invited IASA to Vilnius, Lithuania to celebrate the Anniversary, which also marks IASA Nordic's involvement in the Baltic Area. Vilnius is perhaps not among the most known capitals of Europe, but it deserves to be as it is a jewel of the Nordic region: its old Town is listed as a UNESCO World Heritage Site (http://en.wikipedia.org/wiki/UNESCO_World_Heritage_Site) and in 2009, Vilnius was the European Capital of Culture (http://en.wikipedia.org/wiki/European_Capital_of_Culture), together with the Austrian city of Linz (http://en.wikipedia.org/wiki/Linz). Vilnius also excels in more modern technology, claiming to have one of the highest internet speeds in the world! We will be welcomed by the Lithuanian Central State Archive and the Lithuanian National Radio & Television. These institutions are access gates to digitized collections, hold a significant part of the Lithuanian national AV heritage and have been participating in prestigious European projects.

Please join me in Vilnius this October for the 44th IASA Conference in this fantastic location!

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As was the case in the Baltic Region, IASA was there to help the AV community. IASA is also a member-run organization, and now it seems it is time to ask not what IASA can do for you, but what YOU can do for IASA… IASA needs your help to keep running smoothly. The influence of IASA extends much further than its size and resources might indicate. We are a significant force for sound and audiovisual archiving because of the hard work of our membership, supported by the commitment of the board. Now the Executive Board of IASA is looking for some extra and unexpected contribution from the members.

The positions of Treasurer and Editor have sadly become vacant, in spite of the dedication of the incumbents: if you (or someone you know) has a penchant for finance and accounts, or an aptitude in assembling interesting articles into a great publication, do not hesitate to contact me at president@iasa-web.com, or any of the board members. Yes, there are hours involved, but the rewards of participating at an international level, and the benefits in expanding your network within the field, both for yourself and for your institutions are significant!

Sound regards,
Jacqueline von Arb
President

SOUND RECORDS: GENRE AND POPULAR MUSIC IN RULES FOR ARCHIVAL DESCRIPTION

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Abstract

Genres play a significant role in how popular music is located; however, they are subjective and their use needs qualification. As a result, archivists working with popular music need to engage with genres to improve access and explain how they have been used in archival description of popular music. Drawing on genre theory, this article will explain its relationship to popular music and introduce two of its key aspects: production and discourse. The *Rules for Archival Description* 2008 updates for general guidance and sound recordings will be used to represent a collection of popular music to demonstrate this standard's strengths and weaknesses. Finally, this article identifies the Scope and Content data element as the most appropriate area for genres' qualifications.

Introduction

Genres play a significant role in how music is located. They are perhaps most familiar as labels or categories - blues, rap, metal, folk or house - that offer a frame of reference and help listeners navigate the wealth of available music, but attributing music to them "is not a neutral and objective procedure. There are no undisputed maps of the system of genres in any medium" (Chandler 2011, the problem of definition). As a result, genres can be problematic; without them, it can be difficult to find music, but their applications are not universal. Popular music, which is both musical and social, is identified by its compositional elements, the song writing conventions used to assemble them as well as how they are received by listeners. The challenge of identifying genres is a result of the dynamic relationship between these musical and social contributors, but nevertheless genres remain a vital tool to navigate popular music. Archive catalogues, the repository's finding aid, should provide the appropriate access for the material they describe, otherwise the material becomes less accessible to users. For popular music catalogues, genres are a crucial part of their success as a navigation tool. However, genre labels need qualification because they are not explicit or undisputed. This article applies the Canadian Council of Archives' descriptive standard *Rules for Archival Description* to a collection of popular music and focuses analysis on its Scope and Content data element. Finally, it will argue that in this element, archivists should use production and discourse aspects of genre theory to qualify genre labels.

What is popular music?

The term 'popular music' is not limited to the twentieth and twenty-first centuries (Middleton 1990, p 3). By the time it was bequeathed to us, it was associated with inferiority, otherness, sociability and mediation (Birrer 1985, p 104 cited in Middleton 1990, p 4). Richard Middleton argues that such associations with popular music are unsatisfactory because respectively they base criteria on value judgements, fail to establish firm enough boundaries, solely focus on context and undervalue the effect that mass distribution – from the printing press to the internet - has had on all music (Middleton 1990, p 4). Disciplines like sociology, musicology and cultural studies have all produced work that informs how popular music might be defined yet no single, unifying definition exists. So what then is popular music? Perhaps some of the difficulty comes from the word 'popular.' Roy Shuker points out that when "used as an adjective, 'popular' indicates that something… is commonly liked or approved of by a large audience or the general public," but how is this popularity measured (Shuker 2001, p 3)? Sales figures? Radio plays? This type of definition often seeks to quantify and commodify popular music, but "the reliability of sales figures, record charts and airplay statistics is notoriously suspect" because they are generated and thus influenced by record companies and radio stations (Middleton 1990, p 5). 'Popular' might then "[mean] something much more grounded in or 'of' the people," but to whom (Shuker 2001, p 3)? You? Me? "Popular music defies precise, straightforward definition"

because of the multitude of academic, personal and commercial interests in it (Shuker 2001, p 5). Each discipline contributing to the field of popular music studies will have its own agenda and thus its own definition. To some, it is a product; to others, it is a form of communication. Shuker's solution to "a satisfactory definition of popular music [is one that] must encompass both musical and socio-economic characteristics" (Shuker 2001, p 7). We should take note of Shuker's use of the word "satisfactory," which implies any definition will not be perfect or universal. His hesitation to ascribe fixity is echoed in Middleton's final argument about the definition of popular music and its criteria: "'popular music' (or whatever) can only be properly viewed within the context of the *whole musical field*, within which it is an active tendency; and this field, together with its internal relationships, is never still – it is always in *movement*" (Middleton 1990, p 7).

We should be aware of the various interests in popular music and let the work of Middleton and Shuker inform our understanding of it. This article recognises popular music's commonalities like commoditisation, technology and mediation as a starting point for identifying it, but ultimately it not only adopts but also recommends a common-sense approach to identifying popular music, which is not simply an attempt to "slide over the question of definition" and take "the term for granted" (Shuker 2001, p 5). On the contrary, it acknowledges that archivists engaging with this material are not interested in defining the term in the same way as sociologists and musicologists and suggests that popular music's musical and social criteria as well as its motion within the wider musical *oeuvre* allows us to form a working definition that suits both the repository and its users.

The challenge of genres

> The British Library Sound Archive refuses to use genres in its popular music catalogue: We do not categorise individual recordings by genre – there would be too many arguments and it would be too time-consuming. (British Library n.d.)

This bald statement immediately begs two questions: "why would there be arguments?" and "why would it be time-consuming?" Although not explicit in the British Library's response, the most likely answer to both is that genres are not fixed. Jim Samson describes musical genres as conventions "based on the principle of repetition. They codify past repetitions and they invite future repetitions," but he says nothing of them being identical or indefinite (Samson 2001). This article adopts Samson's perspective of genres as conventions – frameworks formed by mutual agreement and established by custom, but recognises its limitations. Familiar but not guaranteed, genres provide a touchstone for composition, identification and consumption of music. Yet while a useful point of reference, genres can easily change or become generalisations. Expressing the tension between words and the concepts they represent, Friedrich Nietzsche remarks:

> Every word immediately becomes a concept, inasmuch as it is not intended to serve as a reminder of the unique and wholly individualized original experience to which it owes its birth, but must at the same time fit innumerable, more or less similar cases – which means, strictly speaking, never equal – in other words, a lot of unequal cases. Every concept originates through our equating what is unequal (Nietzsche 1971, p 46).

Genres, like all concepts, are tools for people to interact with the world. In the case of popular music, they are general enough to inform the language used to speak about it and specific enough to locate a release in a larger body of music.[1] However, people and the world change, which means genres could change and as a result, the ability to use them to organise popular music, at least over any meaningful period of time, is open to question. Consequently, this article does not engage with genre as a system of arrangement. Even more tenuous than definitions of popular music, genres' boundaries change almost as soon as they are identified.

As necessary and sufficient criteria for musical membership, genres would certainly cause arguments and as rigid musical categories, their upkeep would definitely be time-consuming if not impossible. If this is what the British Library Sound Archive had in mind, then it is no wonder that genres are given a wide berth. Rather, this article will explore the value of genres as a frame of reference for searching, locating and then finally accessing content. Genre labels are not persistent or exact because genres dip, swell, appear, disappear and mutate according to use; genres have different importance at different times to different people (Wittgenstein 1968, §43 p 21). Their value generally to popular music and specifically to description does not come from their abilities to categorise but from their abilities to establish connections between artists, their music and its listeners.

Production and discourse

The following section introduces two aspects of genre theory – production and discourse - because "genre study usefully moves us beyond the music as a pure text," an autonomous work, and "[alerts] us once again to the value of context and consumption" (Shuker 2001, p 141). Focusing on the textual elements of popular music, production encompasses compositional elements as well as the processes used to create music and is only one aspect of genre. For example, in the 1970s in New York City, DJ Kool Herc pioneered two turntable vinyl mixing. His new technique focused on the 'break,' typically eight or sixteen bar snippets of records, that he repeated and then layered using the two turntables. This technique found its home in street and club parties because DJs like Herc and his successors Grandmaster Flash and Afrika Bambaata used it to isolate high-energy sections and create non-stop dance music (Hermes 2006). Breaks also supplied extended instrumentals that afforded DJs the opportunity to use a microphone and 'hype' or excite the crowd. Two turntable mixing, breaks and hyping are significant production contributions to the genre of hip hop. However, these or any other production techniques should not be considered determining features and should not be the sole means of identifying genres. "[Attempting] to define particular genres in terms of necessary and sufficient textual properties is … theoretically attractive" but in practice, production resists absolute assignment; guitars belong no more to rock than breaks do to hip hop (Chandler 2011, the problem of definition). In spite of its varied use, production does contribute to textual conventions that help identify genres. It is one part of a network that helps identify genres as labels "that refers to a particular kind of music within a distinctive cultural web of production, circulation, and signification" (Holt 2007, p 2).

Focusing on the social elements of popular music, discourse, the second aspect of genre, highlights the relationships between music and listeners. It explores genres not as closed concepts but how they are "developed, sustained, and reformed by people, who bring a variety of histories and interests to their encounters with generic texts" (Walser 1993, p 27). Phillip Tagg suggests "music, as can be seen in its modes of 'performance' and reception, most frequently requires by its very nature a *group* of individuals to communicate either among themselves or with another group" (Tagg 1982, p 40). Likewise, Robert Walser builds on the previous discussion of production and argues that genres make it "possible to specify not only certain formal characteristics … but also a range of understandings shared among musicians and fans concerning the interpretation of those characteristics" (Walser 1993, p 28). For example, in 1988 N.W.A. released the album *Straight Outta Compton*, which included the single "Fuck Tha Police" (N.W.A. 1988). This song, created amid escalating racial tensions, accused the Los Angeles police department of harassment and arguably promoted violence against them. The law enforcement's reaction was such that Assistant Director Milt Ahlerich of the Federal Bureau of Investigation wrote to Priority Records, N.W.A.'s record label, condemning its violent message.[2] N.W.A. and contemporaries like Ice-T and Above the Law were heavily criticised by both liberals and conservatives for their unabashed use of violence, drugs, sex, misogyny and homophobia in their music to depict ghetto life in southern California. These artists have left a long legacy of abrasive interactions and inflammatory relationships with authorities and non-listeners; 'gangster rap' is an apt name for this genre. Genres are part of the "language in which value judgments are articulated … and the social situations in which they are appropriate" (Frith 1996, p 94). They are a form of communication, but just as caution and

care should be taken when ascribing production criteria to a genre, so should it be taken with discourse. N.W.A.'s music is not the first to incite violence or provoke condemnation. Popular music is open to interpretation, indeed it may be received in as many different ways as people who listen to it, but reception conventions offer some insight into how listeners use genres to identify and locate music.

RAD and popular music

This section explains why *Rules for Archival Description* (now referred to as *RAD*) was selected, establishes a methodology and offers initial observations about its application to popular music. In 2004 the national library and national archives of Canada were combined to form Library and Archives Canada, one repository responsible for the preservation of the cultural and governmental heritage of the nation. Its Music Division uses the descriptive standard *RAD* to catalogue its *fonds* and collections, which include printed and recorded material as well as manuscripts (Library and Archives Canada 2003). The allure of this standard is its claim to "provide a consistent and common foundation for the description of archival materials;" to accomplish this aim, it offers comprehensive general guidance as well as twelve chapters that cover a wide range of special formats and materials including sound recordings (*RAD* 2008 0.1). Its depth and breadth should make it an ideal archival tool and the "basis for the description of uncommon material and material yet unknown" (RAD 2008 0.1). *RAD* defines a collection as "a grouping of documents of any provenance intentionally assembled on the basis of some characteristic" as well as "a level of description" (*RAD* 2008 Appendix D). As long as the principle of provenance and the practice of *respect des fonds* are followed, *RAD* can be used on aggregates like collections because its authors recognise that "[they] must apply to material created by, and acquired from, a variety of sources" (*RAD* 2008 P2.0). The standard's general guidance and sound recordings chapter, which were last updated in 2008 and employed in the course of this article, make *RAD* the most current and most suitable archival descriptive standard to test against a collection of popular music.[3] Based on its claims of universality and flexibility and accommodation of both collections and sound recordings, this article does not ask "why use *RAD*?" Rather, it asks "why not?"

The four figures included in the appendix are visual representations of a lengthy textual description and are intended to summarise and identify the standard's weaknesses when applied to popular music. In each figure, *RAD*'s data elements are listed along the x-axis and collection, artist and release characteristics are listed along the y-axis. If a characteristic can be expressed in one of the data elements, then it is marked with an "x." Data elements that do not apply are filled with black; elements that have no characteristics are filled with grey crosshatch. Figure 1 shows collection description. Avoiding redundancy, it separately presents the highest level data and should be read in conjunction with all other figures. Figures 2 – 4 present both series and file description. Respecting the correlation between artist and release, each figure is split into two parts: series (artist) data on the left and file (release) data on the right. The artists and releases were selected for the range of characteristics they demonstrate, but they should not be considered a comprehensive survey of popular music in general or the collection in particular.

It will suffice to summarise briefly the collection, series and files description. I assembled this collection based on the common characteristic of music and physically arranged it by artist name. Complied from circa 1995 to the present, it is made up of over 5,000 releases that reflect my changing personal tastes and my professional interest while working as a sound engineer, which makes its content both varied and substantial. Its original order has been preserved and the collection has remained in my custody (see Fig. 1). The first of three series from the collection is the UK-based collective The Imagined Village and the release considered is their debut album *The Imagined Village* (The Imagined Village 2007) (see Fig. 2). The second series considered is Dusted, the UK-based producer duo Mark Bates and Rollo Armstrong, and the release considered is a set of vinyl discs comprised of four remixes of the song "Always Remember to Respect and Honour Your Mother Part 1" (now referred to as "Always Remember") (Dusted 2000a), which featured on Dusted's first and only album *When We Were Young* (Dusted 2000b) (see Fig. 3). The final series con-

sidered is the American artist Jimmy Buffett and the release considered is Buffet's second live album *Feeding Frenzy* (see Fig. 4).

There are two general observations that can be made about the description. First, the custodial history of the collection is known. As a whole, it has remained in my care since I began collecting music, but custodial history cannot be established at any other level. Re-establishing the path releases took from wherever they were manufactured to my possession would be impossible. For example, I bought "Always Remember" at a second hand music shop in Greenwich, London. My aunt had duplicate copies of *Feeding Frenzy* and passed one on to me. A friend gave *The Imagined Village* to my partner as a birthday present, but I liked it so much I have permanently 'borrowed' it. While these details start to establish custodial histories, they are patchy at best. Moreover, it seems almost inappropriate to construct custodial histories for releases because they are published material, one of many, and only rarely do a few have lives that stand out from the rest. Autographs or limited editions help raise the profile of some, but there are far more copies than distinct instantiations. Archives traditionally identify the material they manage as unique aggregates, so popular music may not seem an obvious candidate for archival preservation; yet my collection, a one of a kind grouping of music, qualifies as archival material and is given the same descriptive attention as a *fond* of business records. However, due to the ubiquity of the material within the collection, custodial history is only considered at collection level.

Second, the guidance for the Scope and Content data element produces mixed results. At series and file level, *RAD* recommends that Scope and Content describe characteristics like activities that produce documents, time periods, names, subject matter and geographical areas covered in the documents as well as explain any internal structure or arrangement (*RAD* 2008 1.7D2, 1.7D3 and 8.7D). However, this approach would produce bizarre release descriptions. Song lyrics contain some names and places - the British supermarket Tesco in *The Imagined Village*'s "Hard Times of Old England" and Paris, France in *Feeding Frenzy*'s "Last Mango in Paris" - but their appearances in lyrics does not necessarily mean that the song is about these places. Due to the literal description of content recommended by *RAD*, the Scope and Content area is limited to the number and order of songs contained within the release – its track list - and provides no information about subject. All of *Feeding Frenzy* and eight singles from *The Imagined Village* have no content description because they do not offer the type of information sought by *RAD*; "Always Remember" and three songs from *The Imagined Village* simply have no lyrics to consult. Scope and Content has the potential to provide information about the content and the processes used to create it, but this element is drastically under used and therefore unable to assist access.

Scope and Content and genre qualification

Considering production, discourse and *RAD*'s Scope and Content data element, the final section will propose how genre labels should be qualified in archival description of popular music. As mentioned previously, the aim of archival description is to provide access to material. If successful, then a catalogue is an inter-connected, textual representation of documents that gives a sense of their size, condition, content, context and relationships with other documents. The Scope and Content data element plays a significant role in these representations because it specifically addresses information contained within documents, the processes and methods used to create them or the transactions they represent. It allows focused searching because the areas covered by this element help refine "music" into "Jimmy Buffett's music" and "Jimmy Buffett's music" into "Feeding Frenzy," but song lyrics alone can be an unreliable source of the information sought by *RAD*.

The Scope and Content data element, currently underused when applied to releases, is, however, an appropriate space to qualify genre labels. Whether discussion about instrumentation, song lyrics or the processes used to create music, production can express content in a way that a literal reading of song lyrics cannot because it provides a broader representation of the information contained within each release. By populating Scope and Content, production

is already partly qualifying genre. Discourse also finds its place here. Part of the element's role in description is to create an understanding of the transactions documents represent. Transactions are dynamic and express the relationship between two entities; discourse illustrates the relationships between releases and listeners.

Qualifying genre labels in this way in the Scope and Content data element could have a profound impact on all three releases' descriptions and as a result, enhance access offered to listeners. Production is particularly pertinent to *The Imagined Village* and the "Always Remember" remixes. The Imagined Village formed to explore their "musical roots and identity as English musicians and music makers" and accordingly, they view *The Imagined Village* as a contribution to "the debate passed down to [them] by the late Victorian collectors of English song, dance and stories" about English identity (Home n.d.). Drawing inspiration from the Dorset Iron Age settlement of Pilsdon Pen and reinterpreting "Cold Haily Rainy Night" and "Hard Times of Old England," The Imagined Village provide one answer to what it means to be English in the twenty-first century. They frame their answer through production that includes the use of landscape imagery, traditional songs and instruments as diverse as the group's members and the nation's population; production is a prominent feature in creation and should be in description. Likewise, the "Always Remember" remixers - Deep Dish, Rollo, Paul van Dyk and Ibi Tijani - draw on Dusted's previous work. It is fairly easy to explain how a remix is made. It "is a recording produced by combining sections of existing recorded tracks in new patterns and with new material" (Fulford-Jones 2001). Sometimes the change is subtle; other times it is drastic and these four remixes are no exception. However, it is not as easy to explain what a remix is. Is it a version of the original? Or is it an original in its own right? Without side stepping into an ontological discussion, it is clear that these remixes are in conversation with the original and with each other, that the way these remixes are made enables that conversation. These remixes and *The Imagined Village* have noteworthy influences revealed in production and will have a bearing on their genre labels.

Furthermore, discourse would be significant to *Feeding Frenzy*'s description and genre label. Jimmy Buffett's Parrot Heads, the affectionate name for his fan base, not only consistently purchase his releases and attended his performances but also subscribe, at least mentally, to the lifestyle he portrays. They are significant characters in the story of Buffett and his music. Featured on Buffett's website, the Republic of Texas Parrot Head Club, one of hundreds of such clubs, lists as part of its mission to acknowledge the "party animal sleeping within all of [them]" as well to "provide a variety of social activities for people who are interested in the music of Jimmy Buffett and the tropical lifestyle he personifies" (Parrot Head Clubs n.d.). As it applies to most Parrot Heads, that "tropical lifestyle" is a state of mind and is the *status quo* in the imaginary place called Margaritaville. It is also the relationship between Buffet and Parrot Heads, which is revealed in and affirmed by *Feeding Frenzy*. A live recording, this release particularly illustrates this dynamic relationship, the transaction between Buffett's music and his listeners. The vibrancy of this community and their support of Buffet and his releases cannot be understated, which means that any description of *Feeding Frenzy* that does not accommodate discourse as well as cross-reference and capture information from the Parrot Head Clubs or other listeners is incomplete.

Conclusion

Qualifying genres in description is not simply an exercise in filling otherwise empty data elements. In the specific case of popular music genres play a fundamental role in how it is accessed. Therefore, any archive that holds popular music as part of its collection should not only integrate genres within its descriptive practice but also explain how they have been used as labels. *RAD* has proven itself to be an effective standard for describing a popular music collection and its 'nuts and bolts' characteristics like contributor names, track lists, copyright details and edition statements, but its short falls in guidance about the Scope and Content data element is an opportunity to qualify genre labels. This article does not suggest that this element is superfluous; rather, the scope of the current guidance for this element needs to be widened to include production and discourse so that it can explain genres and ultimately produce sound, accessible records.

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Endnotes

1 There are several formats that apply but are not exclusive to popular music: albums, singles, LPs, EPs and mixtapes. This article adopts 'release' as a general term to describe any commercial format. Due to lack of artist consent, bootlegs, clandestine recordings of live performances, have not been considered.

2 The FBI's letter and several newspaper articles about police intervention of Straight Outta Compton's tour make up part of the liner notes artwork for the 2002 re-release of the album.

3 Manual of Archival Description 3rd edition, a descriptive standard written by Michael Cook and Margret Procter, was last updated in 2000. It does include general guidance and a chapter for sound recordings; however, its lack of updates prevents it from being a viable standard for contempary archival use.

Appendix

Fig 1

Delaina Sepko's Music Collection
(collection)

			creator name	collection name	date range	contents	creator biography	purpose or use	common characteristic	physical characteristics	collection location	copyright
8.1	Title and Statement of Responsibility Area											
8.1B		Title Proper		x								
8.1C		General material designation								x		
8.1D		Parallel titles										
8.1E		Other title information										
8.1F		Statements of Responsibility	x									
8.2	Edition Area											
8.2B		Edition Statement										
8.2C		Statement of responsibility relating to edition										
8.3	Class of material specific details area (not used for sound recordings)											
8.4	Dates of creation, broadcast, publication, distribution etc area											
8.4B		Date(s) of Creation			x							
8.4C		Place of broadcast, etc										
8.4D		Name of broadcaster, etc										
8.4E		Statement of function of broadcaster, etc										
8.4F		Date of broadcast, etc										
8.4G		Place, name and date of manufacture										
8.5	Physical Description Area											
8.5B		Extent of descriptive unit								x		
8.5C		Other physical details								x		
8.5D		Dimensions								x		
8.5E		Accompanying material										
8.6	Publisher's Series Area											
8.6B		Publisher's series statement										
8.7	Archival Description Area											
8.7B1		Administrative history										
8.7B2		Biographical sketch					x	x				
8.7C		Custodial History									x	
8.7D		Scope and Content				x			x			
8.8	Note Area											
8.8B		Notes										x
8.9	Standard Number Area											
8.9B		Standard Number										

Fig 2

		The Imagined Village (series/artist)					*The Imagined Village* (file/release)											
		artist name	artist biography	contents	date range	physical characteristics	album/ song name	contributor name	contributor role	recording date	release location	release date	record company name	copyright	catalogue number	version	track list	album/song biography	physical characteristics
8.1	Title and Statement of Responsibility Area																	
8.1B	Title Proper	x					x											
8.1C	General material designation					x												x
8.1D	Parallel titles																	
8.1E	Other title information																	
8.1F	Statements of Responsibility	x						x										
8.2	Edition Area																	
8.2B	Edition Statement																	
8.2C	Statement of responsibility relating to edition																	
8.3	Class of material specific details area (not used for sound recordings)																	
8.4	Dates of creation, broadcast, publication, distribution etc area																	
8.4B	Date(s) of Creation				x													
8.4C	Place of broadcast, etc										x							
8.4D	Name of broadcaster, etc												x					
8.4E	Statement of function of broadcaster, etc												x					
8.4F	Date of broadcast, etc											x						
8.4G	Place, name and date of manufacture																	
8.5	Physical Description Area																	
8.5B	Extent of descriptive unit					x												x
8.5C	Other physical details					x												x
8.5D	Dimensions					x												x
8.5E	Accompanying material																	x
8.6	Publisher's Series Area																	
8.6B	Publisher's series statement																	
8.7	Archival Description Area																	
8.7B1	Administrative history																	
8.7B2	Biographical sketch		x														x	
8.7C	Custodial History																	
8.7D	Scope and Content			x												x		
8.8	Note Area																	
8.8B	Notes							x	x					x				
8.9	Standard Number Area																	
8.9B	Standard Number														x			

Fig 3

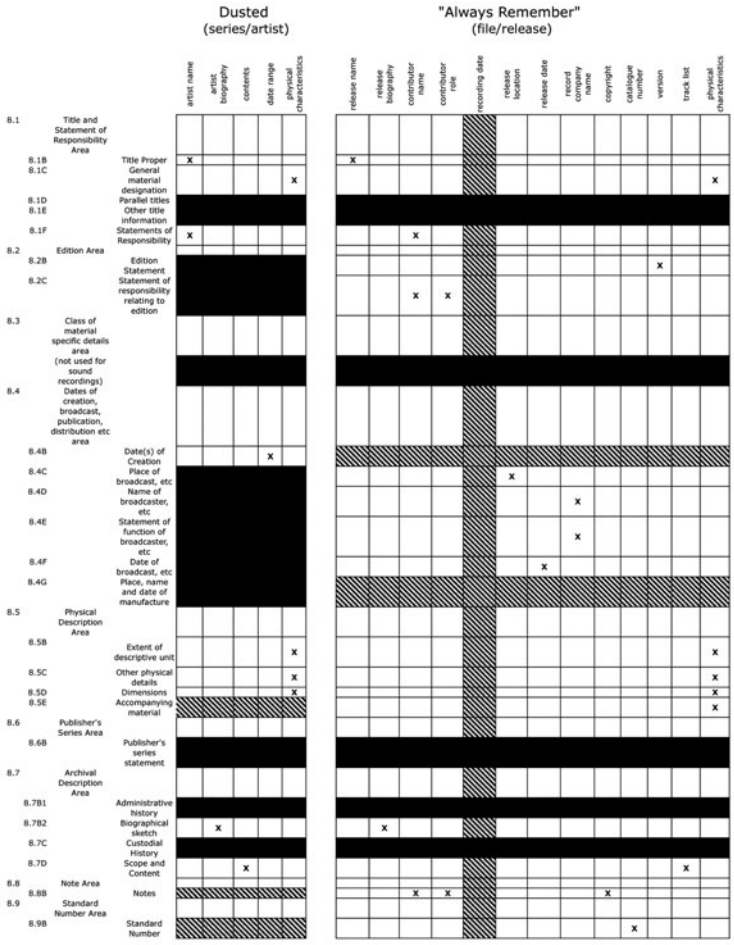
Dusted
(series/artist)
"Always Remember"
(file/release)
artist name
artist biography
contents
date range
physical characteristics
release name
release biography
contributor name
contributor role
recording date
release location
release date
record company name
copyright
catalogue number
version
track list
physical characteristics
8.1 Title and Statement of Responsibility Area
8.1B Title Proper
8.1C General material designation
8.1D Parallel titles
8.1E Other title information
8.1F Statements of Responsibility
8.2 Edition Area
8.2B Edition Statement
8.2C Statement of responsibility relating to edition
8.3 Class of material specific details area (not used for sound recordings)
8.4 Dates of creation, broadcast, publication, distribution etc area
8.4B Date(s) of Creation
8.4C Place of broadcast, etc
8.4D Name of broadcaster, etc
8.4E Statement of function of broadcaster, etc
8.4F Date of broadcast, etc
8.4G Place, name and date of manufacture
8.5 Physical Description Area
8.5B Extent of descriptive unit
8.5C Other physical details
8.5D Dimensions
8.5E Accompanying material
8.6 Publisher's Series Area
8.6B Publisher's series statement
8.7 Archival Description Area
8.7B1 Administrative history
8.7B2 Biographical sketch
8.7C Custodial History
8.7D Scope and Content
8.8 Note Area
8.8B Notes
8.9 Standard Number Area
8.9B Standard Number

Fig 4

			Jimmy Buffett (series/artist)					*Feeding Frenzy* (file/release)												
			artist name	artist biography	contents	date range	physical characteristics	release name	release biography	contributor name	contributor role	recording date	release location	release date	record company name	copyright	catalogue number	version	track list	physical characteristics
8.1	Title and Statement of Responsibility Area																			
8.1B		Title Proper	x					x												
8.1C		General material designation					x													x
8.1D		Parallel titles																		
8.1E		Other title information						x												
8.1F		Statements of Responsibility	x																	
8.2	Edition Area																			
8.2B		Edition Statement																		
8.2C		Statement of responsibility relating to edition																		
8.3	Class of material specific details area (not used for sound recordings)																			
8.4	Dates of creation, broadcast, publication, distribution etc area																			
8.4B		Date(s) of Creation				x						x								
8.4C		Place of broadcast, etc											x							
8.4D		Name of broadcaster, etc													x					
8.4E		Statement of function of broadcaster, etc													x					
8.4F		Date of broadcast, etc												x						
8.4G		Place, name and date of manufacture																		
8.5	Physical Description Area																			
8.5B		Extent of descriptive unit					x													x
8.5C		Other physical details					x													x
8.5D		Dimensions					x													x
8.5E		Accompanying material																		x
8.6	Publisher's Series Area																			
8.6B		Publisher's series statement																		
8.7	Archival Description Area																			
8.7B1		Administrative history																		
8.7B2		Biographical sketch		x					x											
8.7C		Custodial History																		
8.7D		Scope and Content			x														x	
8.8	Note Area																			
8.8B		Notes								x	x					x				
8.9	Standard Number Area																			
8.9B		Standard Number															x			

ACCESS FOR ALL

Ingrid Belt, Head of Archive publishing, NRK (Norwegian Broadcasting Corporation)
Danielle Chiosso Liu, Media archivist, NRK (Norwegian Broadcasting Corporation)

> "Share content with the people and make our archive easily accessible for the public."

The above statement is taken from one of the main goals in the long-term strategy of the Norwegian Broadcasting Corporation (NRK, 2012). This paper focuses on two major measures taken to achieve this goal: The reorganization of the Archive & Research department and the launch of a new online media player. The new media player contains both live programming and historical content from the archive. The Archive & Research department was reorganized to meet the challenges of tomorrow, with the intention of providing public access to all NRK content, accessible anytime.

The Norwegian Broadcasting Corporation: Access for All

NRK offers a wide range of content with three national TV-channels, sixteen national radio-channels and a website (nrk.no). NRK is state-owned, under the commission of the Ministry of Culture, as mandated by the Parliament. NRK's mandate is to be a non-commercial, politically independent, national public service broadcaster across all media types. It is fully funded through licensing fees. Nearly nine out of ten Norwegians use one or more of NRK's offerings every day, whether on TV, radio, Internet or other platforms (NRK, 2011). The NRK homepage, nrk.no, is the likely the second biggest provider of online content in Norway (NRK, 2011). NRK is an important common reference point, in accordance with NRK's overall strategy to unite people throughout Norway. The corporation is legally required to provide access for all, with guidance from the Ministry of Culture. Article 17b of the Bylaws for NRK (2010) states that:

> The NRK shall make as many as possible of its radio and television programmes available on the Internet, both for simultaneous distribution and as an archive service for download and/or individual playback. http://www.nrk.no/informasjon/about_the_nrk/1.4029867

There are five goals in NRK's long-term strategy, which will govern NRK from 2012 until 2017. The fifth goal declares that NRK will tell, promote and preserve our common history. To do so NRK shall:

> Tell our history and pursue journalism that describes the Norwegian reality in the past, present and future.
> Share content with the people and make our archive easily accessible for the public (NRK, 2012).

TV, when you want

To accomplish this goal NRK developed a new online media player for its television and radio content, with live programming and archival material available for viewing and listening whenever the user want. On demand is the common English language term for this type of media access. NRK coined the term "når du vil" to convey this concept in Norwegian. Literally this translates as "when you want" and the phrase "TV, when you want" (TV, når du vil) has become a slogan for NRK and the media player.

The first version of the media player for television went live in September 2012 and has been met with overwhelmingly positive feedback. A visually clean design and still images are emphasized in the new media player and have been important in attracting attention

and interest. Unfortunately copyright discussions and technical bugs have meant a delay in the launching of the new media player for radio.

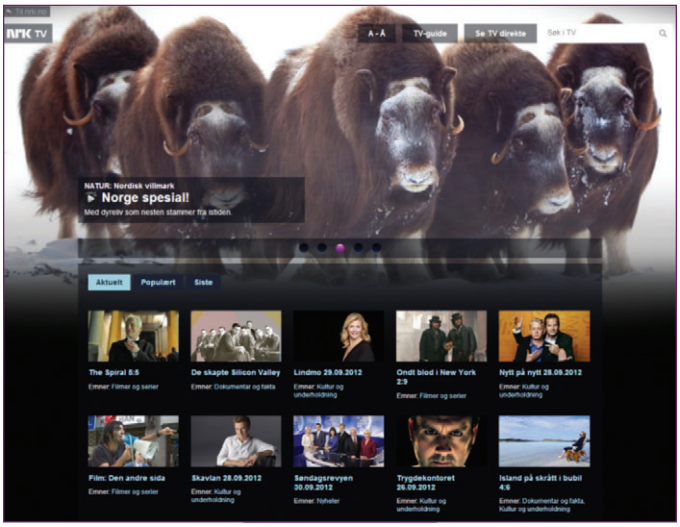

Figure 1: The new NRK media player (tv.nrk.no)

Reorganization: Archive & Research

In addition to, or rather alongside, the development of the media player, A&R underwent a major reorganization. A new A&R was conceived to meet future requirements and user needs, keeping the goals cited earlier in mind. Reorganization focused on both external public use of the archives and internal use of the archives by production staff.

Previously, A&R consisted of a five separate divisions: a Library, a Radio archive, a Television archive, a Record library and a Notes collection. There is also a regional archive division that has, for the most part, remained unchanged. In May 2012, a new organizational structure was established, as illustrated in the chart below. The new A&R sections are more multimedial than before and focus on different aspects of media archive work. The Music archive manages notes, records and in-house recordings. The Research Center offers research services for both TV and radio, and in databases and literature. Metadata use and control is handled by the Metadata section. Archive Publishing was created to increase accessibility to the archives and to the whole history of the Norwegian Broadcasting Corporation. This new section manages film and video-storage, digitizing of the entire collection, and restructuring and adding metadata to archival material.

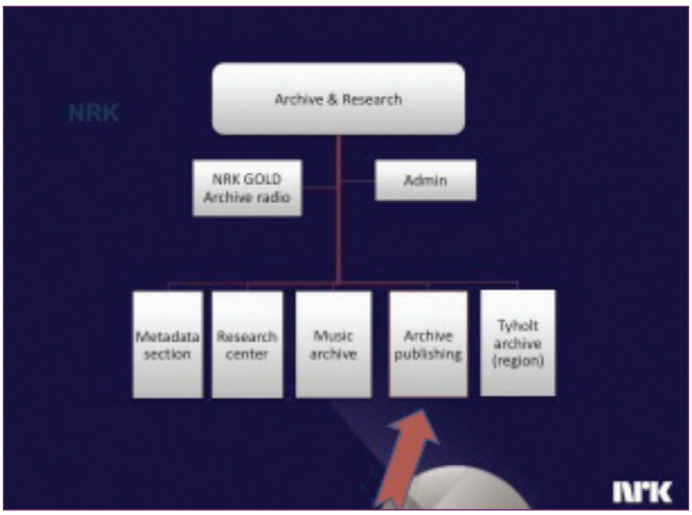

Figure 2: The new department of Archive & Research at NRK

A&R was given the responsibility of publishing historical archival television and radio content to the new media player, as well as guiding NRK productions to publish new content with required metadata. Three priority areas were developed and will be discussed in further detail:

a. A group was formed to set in place metadata rules that could support the intention of the media player. This group also trained production staff in correct metadata entry. This work continues today in the Metadata section.
b. A pilot workflow for publishing historical archive content was tested. Forty television series and around 350 television episodes from the archive were published in the beta-version of the media player.
c. A new section in A&R, Archive Publishing, was established, with the main goal of providing easy access to the archive.

Metadata in the production room

A major consequence of the new media player is that metadata entry has moved out of the archive and into the production environment. A&R did not have the capacity to handle the amount of metadata demanded by the new media player, in the required time frame, using the old methods of cataloging. In collaboration with the team behind the new media player, a set of minimum metadata requirements for the production environment was drafted. Both radio and television programs are now expected to index their programs (when content-appropriate) and to add other descriptive metadata at story, show and program level. Metadata entry is expected to be done during production or very quickly after production wraps. Responsibility for overseeing this new workflow lies with the newly formed Metadata section in A&R. The Metadata section trains production teams in metadata entry and is responsible for quality control of the metadata.

The minimum requirements, drafted in 2011, are:

1. Teaser or an informative text about the program
2. Rights
3. Indexing
4. Images
5. Contributors
6. Tags
7. Location

This new workflow and division of labor has affected people in many departments across NRK. There has been a marked increase in collaboration and knowledge sharing across divisions, a development many find positive. However, the process has not been without challenges. A&R and production employees, especially in radio, have had to learn new production techniques and systems in a relatively short period of time. Many people have been given new functions or tasks on top of existing ones. An evaluation of this new metadata workflow and the quality of the resulting metadata is currently underway.

Publishing the archive to the new media player

In the autumn of 2011 a pilot for publishing archival material to the new media player was conducted and a new workflow was developed. We began by drawing out the workflow by hand, as shown in the picture below. The workflow was later remapped to make it more manageable.

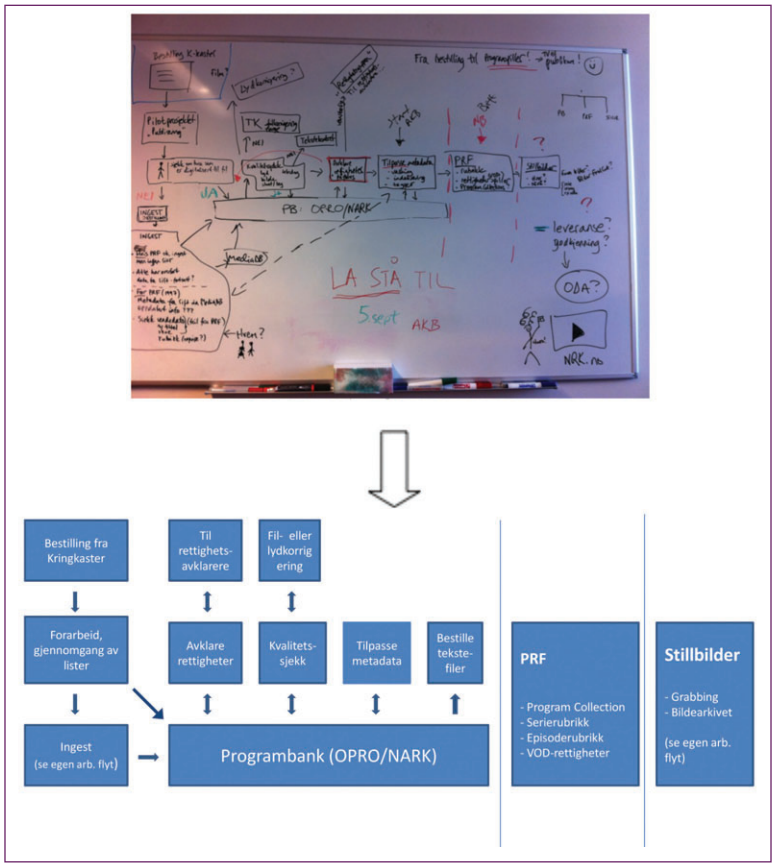

Figure 3: Workflow for publishing historical content, hand-drawn and remapped versions

In an attempt to please as wide a margin of the population as possible in the pilot project, we decided to publish the most popular content first. By looking at statistics from the old media player that was in use at the time, we found humor and entertainment television to be the most viewed content. Based on this, 40 series and about 350 episodes were selected from the television archives for the pilot.

The programs selected were organized to get an overview of possible program collections, and to use as a basis for further monitoring of the workflow. A list was made over what had

already been digitized. We ingested the tapes and films and made digital files, alongside technical quality control of the video. Copyright and other rights were examined, recorded and clarified. From there the most time consuming work started; formulation of metadata. Media archivists conducted tagging and indexing of the content in the production systems. Once metadata was in place, we gathered programs that belonged together and created program collections in the planning system. Short teasers for each program were either written or edited. Finally the video content was published, together with metadata and other descriptive information. Most of the still images for the series were grabbed from the video, but we also found images stored in old boxes in the archive, in private storage, and in our digital image archive. This archive publishing workflow supports the seven minimum metadata requirements of the new media player outlined earlier.

Indexing content for the media player is very time consuming from a production standpoint, particularly in regard to editorial and news programs. However, it is very user friendly from an end-user perspective. It gives the audience the opportunity to go straight to what they are interested in. Complementary metadata and indexing provide significant added value to the content and ensure good retrieval possibilities.

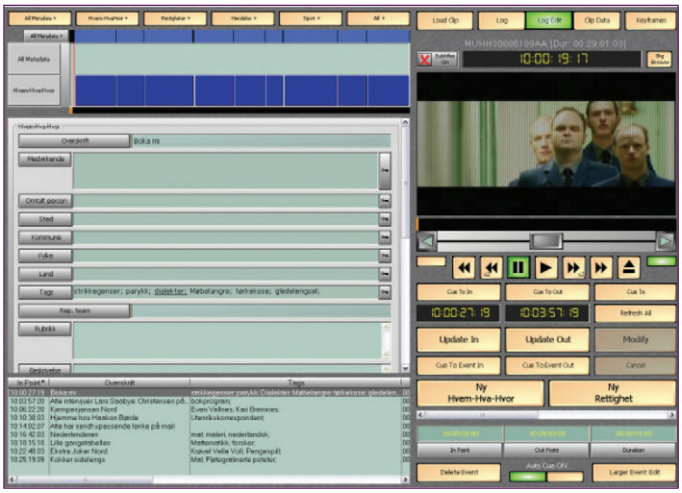

Figure 4: Metadata entry in Programbank, the NRK television production system

We did a thorough time study of the workflow, and found that the average time to publish a 30-minute program from the archives is 1 hour and 45 minutes. Restructuring metadata is the most time-consuming part of the workflow.

Until the pilot study, we had only cataloged for internal use. The focus had been on archiving and recycling stock shots and clips for new production. Consequently, the vocabulary was highly internal and full of abbreviations and "NRK lingo". To get up to date, we looked at what was being done in comparable organizations and websites. The launching of the new media player forced us to take account of a new user group of the archive – the NRK audience. This has demanded a change in our way of thinking as well as a change in our vocabulary. Indexing and tagging are new ways of making content accessible, and we are letting go of the control of our traditional systematics and taxonomy.

In essence there are now two metadata workflows in place in NRK. Production staff handles metadata for new production and media archivists handle metadata for archive material. Both workflows are required to meet the minimum metadata standards laid out by the new media player. As metadata entry in the production environment becomes more internalized, it will be interesting to compare metadata entry and quality from these two similar but different work-

flows. It will also be exciting to see how users of the media player respond to the metadata that is visible and searchable in this new online environment for NRK content.

Challenges

We see A&Rs responsibility for the management of metadata and the publication of archival material to the media player as a positive development for A&R. It is also an advantage for the organization as a whole. The A&R team has considerable knowledge of the content and experience in knowledge organization. However, it does involve many new challenges and requires new knowledge and skills.

Three main areas stand out immediately:

1. **Rights**
   Within this area development has fortunately taken place. NORWACO is an umbrella organization that maintains the rights to 34 other organizations and acts as a common body for right holders. NRK is in final negotiations with NORWACO to obtain the rights to publish all NRK produced content older than 1997. This agreement gives a unique opportunity to share the NRK history with the people. An agreement with another, larger umbrella organization, IFPI, which manages rights for the biggest music labels, is not yet in place. This has meant in some instances a delay of the publishing of certain content. The pace of negotiations has affected radio the most aversely. Rights are a challenge that will remain relevant in the future.

2. **Technology**
   Today's technology solutions in NRK do not support publishing radio or TV material older than 1997, because of a transition to other systems at that time. More technical development must take place and to allow for the transfer of metadata between current applications. Furthermore, we need to look at technical solutions that streamline the work even more, solutions that can better aid making the entire archive accessible.

3. **Staff**
   The staff needs to be large enough to meet the expected delivery and have the right expertise, skills and abilities. We need to make sure that we have the most up-to-date knowledge about how the content should be made available to the public. We need to know how people use the media player and other platforms, and be able to learn and develop new tasks and routines. We need experience and knowledge of NRK's archive and archival methods over the years - what's in all the folders and binders. This means a mix of new and modern competencies, with experience and knowledge of the past. We need broad expertise in our staff and enhanced teamwork.

There remains a large amount of archival content to publish in order to reach our goal of providing full access, but we have good momentum and are on schedule. A top priority will be

development activities for publishing historical material in an efficient way and utilizing current technical solutions. This involves extensive collaboration with other professionals in NRK, such as web designers, the web editorial desk, and the Technology division. And we will have to challenge our conventional methods. Archives have traditionally performed activities in the final stage of the production chain. Entirely new ways of working are required now that our tasks are integrated throughout the production and publication process.

Archive content has in recent years received considerable attention within the corporation and is regarded not only as a significant heritage but as a competitive advantage for NRK as a media company in Norway. Looking forward, we need to develop the archive in unconventional ways and see new possibilities, without losing sight of our mission to preserve our cultural heritage.

Figure 5: Screen shot from the new NRK media player (tv.nrk.no)

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DEALING WITH AV MEDIA AND DIGITAL FILES IN THE SWEDISH MEDIA DATABASE (SMDB) AT THE NATIONAL LIBRARY OF SWEDEN

Olle Johansson, Bibliographic Expert, Audiovisual Media Department, National Library of Sweden

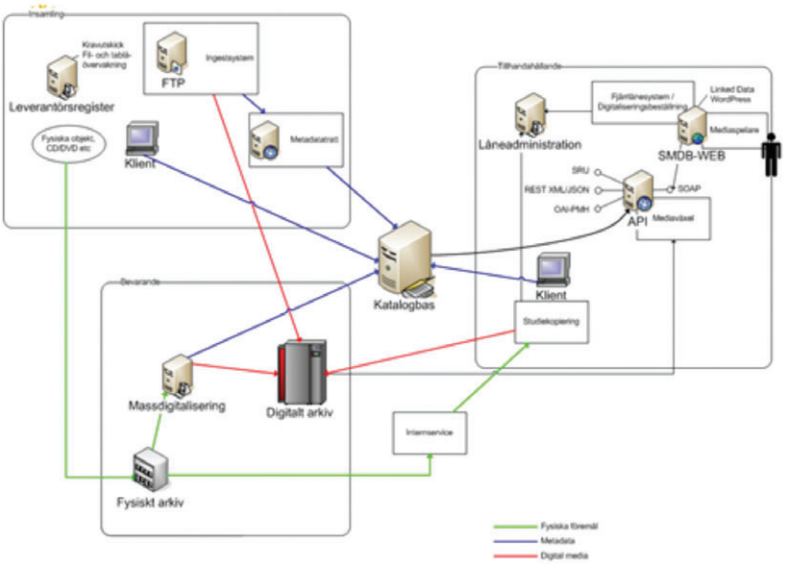
Introduction

The Audiovisual Department within the National Library of Sweden receives a constant stream of material under the Legal Deposit Act: phonograms, videos, interactive multimedia products, radio and TV. The holdings total approximately 9 million hours of recordings.

The Swedish Media Database (SMDB) is a complex system with interacting parts:

- Supplier management system
- Ingesting system (FTP)
- Metadata funnel
- Mass digitisation system
- Digital archive
- Lending management system
- Media player
- File location system
- Browse copy production

The Supplier management system contains information about 6200 suppliers (3800 active). It is used for demanding Legal Deposit copies through email and mail (PDF). Here basic metadata is recorded and transferred to the client/server. It has a built-in FTP system for receiving digital files and it manages surveillance of incoming files and metadata.



Left up: Gathering - Supplier management system, Ingesting system (FTP), Metadata funnel, Client/server
Left down: Preservation - Mass digitisation system, physical archive, digital archive
Middle: The actual catalogue
Right: Public access - Lending management system, Media player, File location system, Browse copy production
The on-going migr ation/digitization of our material – with a capacity of 2800 hours of recordings per day – gave us further copies to deal with. Totally, the archive holds more than 4 million hours of digitized recordings.

Most of this material demands extensive description of the content: tracks, parts, programs etc. Not only do we get a copy of each work, we get all the different editions, versions, kits, boxed sets, etc. of phonograms, videos and interactive multimedia products published in Sweden. An important difference for the description of our material is that phonograms, films/videos and multimedia are catalogued manually, but for radio and TV we use program schedules to describe the broadcasts.

The publication of kits, e.g. a concert on CD and DVD published together, and boxed sets consisting of separate works requires special treatment in order to make the catalogue information clear and easy to understand for the end user.

The publication of digital files on the web raises new questions of how to record metadata, both regarding descriptive and technical metadata.

Technical metadata is an especially difficult chapter for AV Media, and no existing cataloguing standard addresses the question sufficiently.

In order to deal with all these complex questions we have created the Swedish Media Database (Svensk Mediedatabas), a catalogue system that, in a simplified form, is based on Functional Requirements for Bibliographic Records (FRBR). It is also compatible with the MARC21 format, to make it possible to exchange catalogue information with others.

The result is a system where we separate the catalogue information into two different types of catalogue records: content records and carrier records. This enables us to link carrier records to existing content records, e.g. for new editions, versions etc. A carrier record for a digital copy made in-house is also linked to the content record.

By doing this we gather different editions etc. together, so that instead of getting several hits in a hit list when searching for a title in the database, you only get one hit, thus making it easier for the end user to navigate.

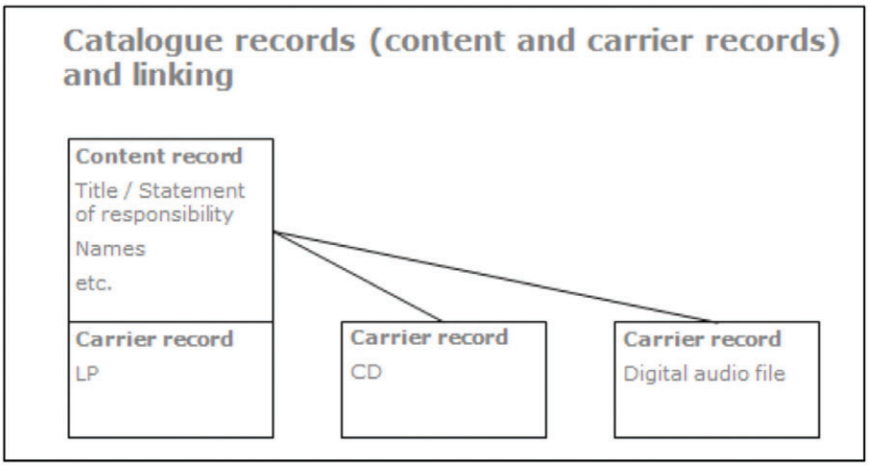
It is also possible to describe kits and boxed sets consisting of separate works separately and link the records together. This makes the catalogue information about each work easier to understand, and you can still show the end user that the works have been published together.

For the optimal description of parts, e.g. tracks on a CD, short films on a DVD compilation etc., we create records parts within the content record. Every part can thus be catalogued on a deep level, with composers, lyricists, performers, recording data, classification etc. A content record may include an optional number of part records.

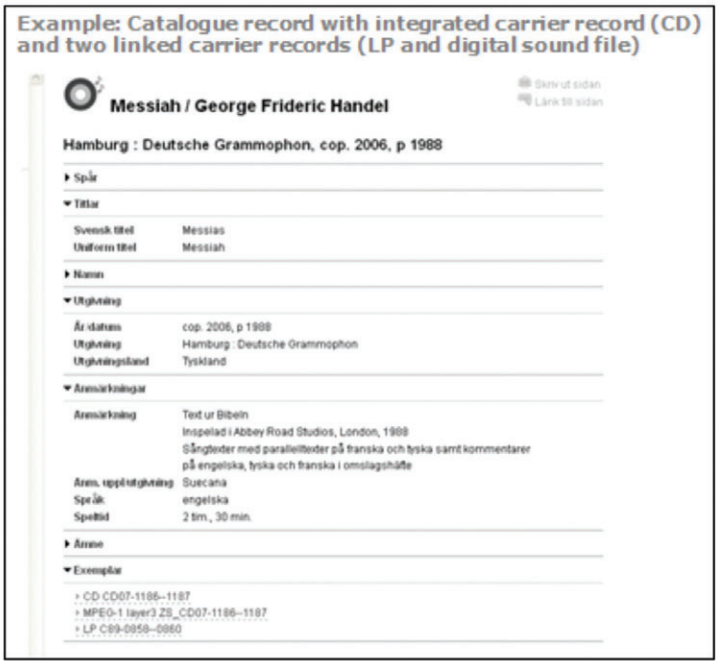
Catalogue records (content and carrier records) and linking

Normally, a catalogue record consists of a content record with an integrated carrier record. The resource first catalogued is described in the content record with the integrated carrier record.

Other resources may then be catalogued in carrier records that are linked to the content record, when the content is the same – or almost the same – as in the content record.



A carrier record for a digital browse copy made in-house is also linked to the content record. By doing this we gather different editions, versions, etc. together, so that instead of getting several hits/results in a hit list when searching for a title in the database, you only get one hit. This makes it easier for the end user to navigate.

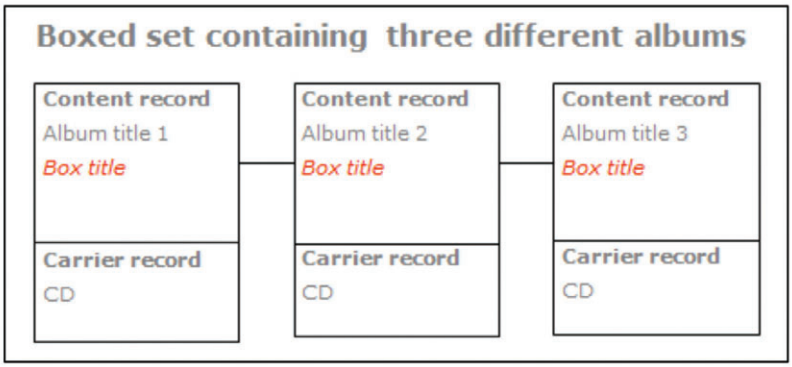


In the first view, the carrier records are shown in short form, to improve the overview for the users. You expand the carrier records by clicking on them.

Different works published together

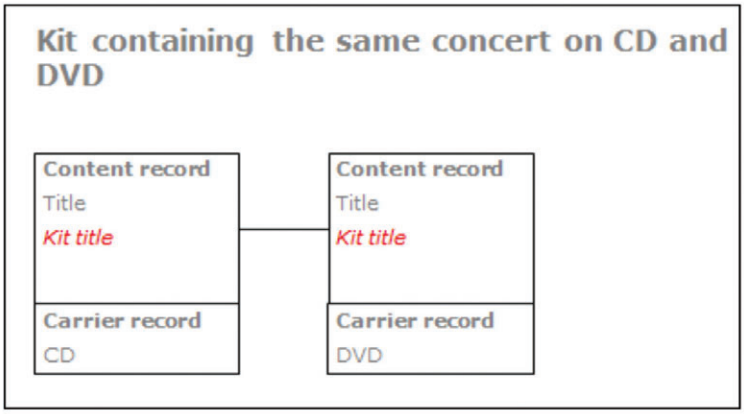
For different works published together, as in certain boxed sets, it is possible to describe each work (here meaning albums, films etc. published on separate carriers) individually, in separate catalogue records, and link the records together. The records are linked together by the title of the boxed set recorded in the Box field in each content record. The catalogue information about each work is described in separate catalogue records, which makes the information easier to understand.

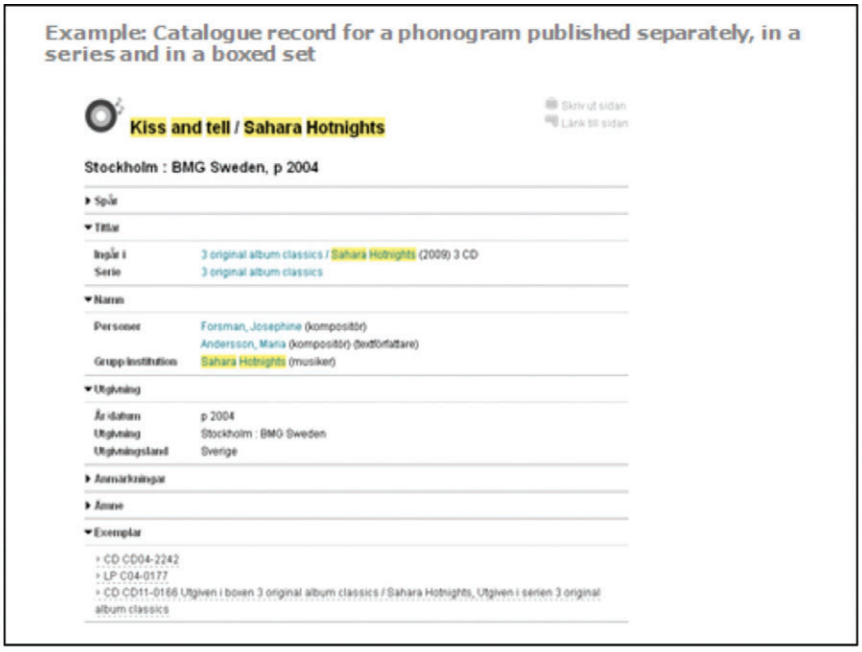
Boxed set containing three different albums on CD



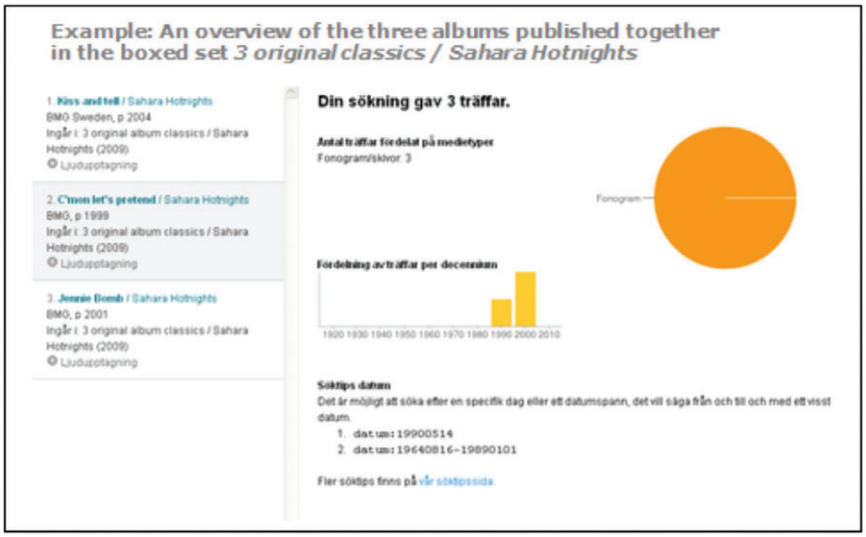
Kits, which contain works published on different media types, are described separately and linked together with the title of the kit recorded in the Box field, in the same way as boxed sets.

Kit containing the same concert on CD and DVD





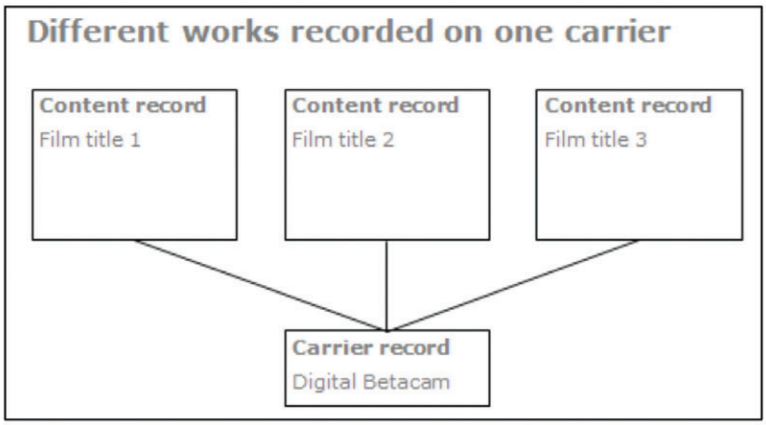
The Box field shows the boxed set edition with title, year, extent, and technical format. The overview of the carrier records shows the different editions of the album *Kiss and tell*. If you click on the box title you get an overview of the phonograms published in that particular boxed set. If you click on the series title you get all phonograms publishes in the '3 original albums classics' series.



Different works recorded on one carrier

Different works recorded on one carrier, e.g. short films transferred to video, are described in separate content records and linked to a separate carrier record.

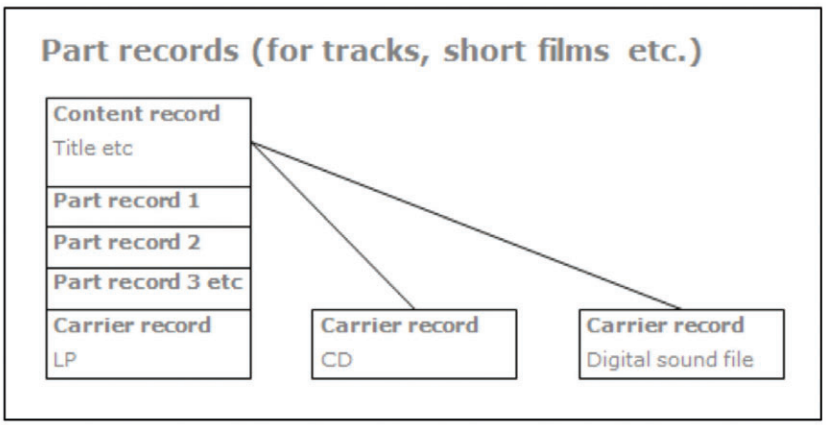
Thus the catalogue information about each work is described in separate content records. This makes the information easier to understand. The end user can still get an overview of the works recorded on the same carrier by clicking on the carrier record.

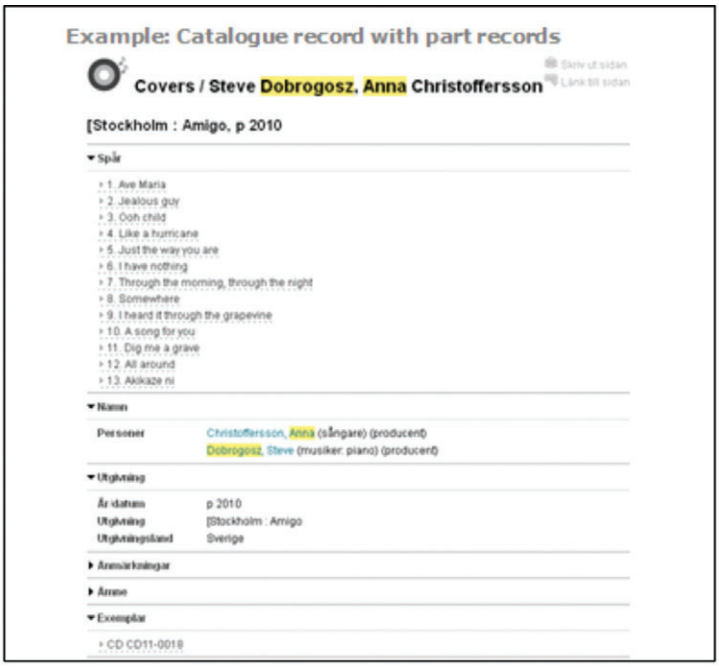


This model is sometimes used for radio/TV program schedules, which can be linked to a carrier record containing broadcast from a longer period, for example a month.

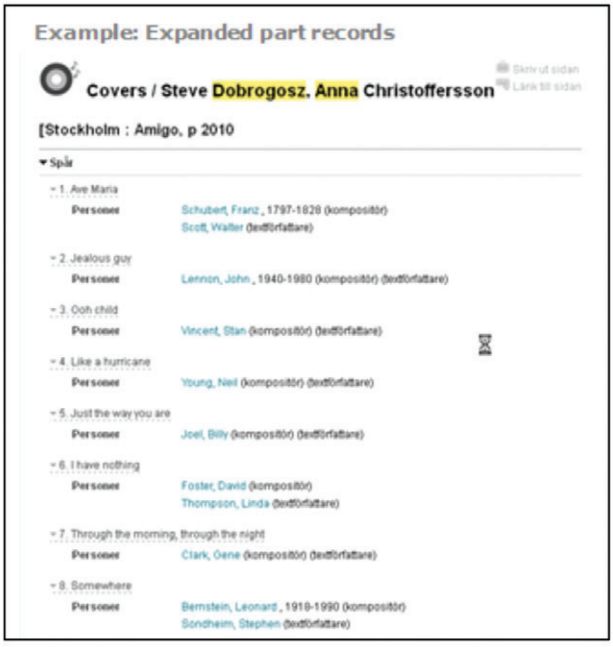
Part records (for tracks, short films etc)

For the optimal description of parts (for instance tracks on a CD or short films on a DVD compilation) we create part records within the content record. Every part can be catalogued on a deep level, with composers, lyricists, performers, recording data, classification, etc., if you have the time and the resources. Part records make the content record easy to read and understand. A content record may include an optional number of part records.





In the first view, the parts records are shown in short form, to improve the overview for the users. You expand the part records by clicking on the arrow before them.



In this case, information on composers and lyricists are given when the part records are expanded. (Compare with a content note created according to AACR2.)

Cataloguing rules for AV media

The Audiovisual Media Department within the National Library of Sweden uses in-house cataloguing rules for AV Media. They are based on *The IASA Cataloguing Rules – a manual for the description of sound recordings and related audiovisual media* (http://www.iasa-web.org/iasa-cataloguing-rules). The IASA Rules are in their turn based on AACR2.

Rules for cataloguing different works published together

The rules for when to catalogue an item in separate catalogue records are, in short, that all kits, and phonograms and videos where each carrier holds a separate work/expression should be catalogued separately. Boxed sets containing a compilation, TV-series etc, are catalogued in one catalogue record.

Rules for linking

The following elements may differ when linking:

- Format
- Date of publication, distribution etc.
- Place and publisher, distributor etc.
- Label and catalogue no. ./ISBN/video no.
- Edition including if published in boxed set or separately
- Duration
- Language
- Console for computer games
- Minor differences in content

In this example, describing two editions with a minor difference in content – with and without bonus tracks – all tracks including the bonus tracks are catalogued as part records in the content record. In the content record there is a note saying: "Tracks 12-13 only on CD06-

0879". Differences in content are always described in the content record. (If the difference in content is considerable, as is the case with an extended version of a film, you have to create a new content record.) Other differences than in content are described in the carrier records. Hence, differences in place, publisher and date of publication, label and catalogue number are described in the carrier record.

Physical description: technical formats etc.

To solve the problems with technical metadata, we have created a hierarchical list with all technical formats and their characteristics that are used in (or, in some cases, known by) the archive.

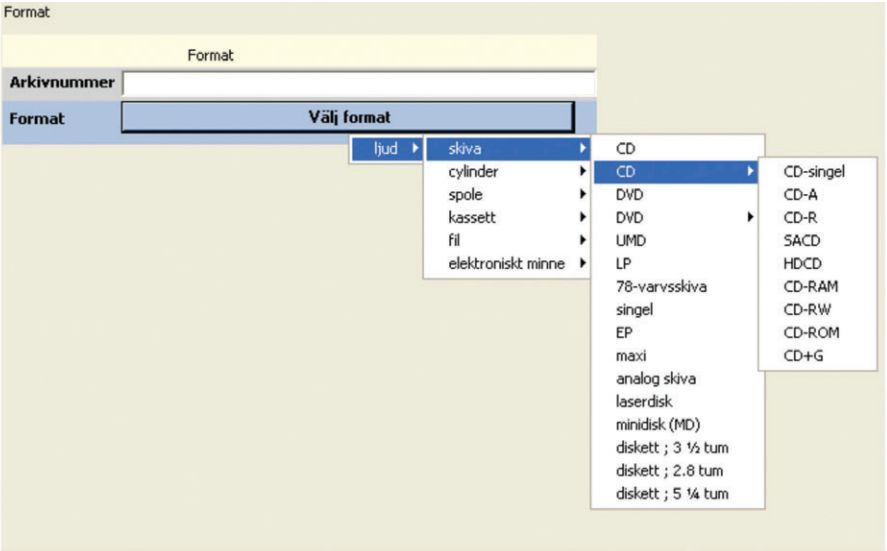
- **Sound**

¶

- **Disc** [090a--e is required information, the rest is optional with default values as given here ; can be changed by the user as required]

090a	090b	090c	090d	090e-I	090e-II	091 Speed	092 Cuttings	093 Sound	097 File format	101 Dimension	102 Material
Sound	Disc	Mechanical	Analog	LP		33 v/m	micro groove, lateral cut			30 cm	vinyl
Sound	Disc	Mechanical	Analog	EP		45 v/m	micro groove, lateral cut			17 cm	vinyl
Sound	Disc	Mechanical	Analog	78 rpm disc		78 v/m	coarse groove, lateral cut	mono		25 cm	shellac
Sound	Disc	Mechanical	Analog	single		45 v/m	micro groove, lateral cut			17 cm	vinyl
Sound	Disc	Mechanical	Analog	maxi		45 v/m	micro groove, lateral cut			30 cm	vinyl
Sound	Disc	Mechanical	Analog	analog disc							
Sound	Disc	Optical	Digital	**CD**							
Sound	Disc	Optical	Digital	CD	CD-A						
Sound	Disc	Optical	Digital	CD	CD-R						
Sound	Disc	Optical	Digital	CD	SACD						
Sound	Disc	Optical	Digital	CD	HDCD						
Sound	Disc	Optical	Digital	CD	CD-RAM						
Sound	Disc	Optical	Digital	CD	CD-RW						
Sound	Disc	Optical	Digital	CD	CD-ROM						
Sound	Disc	Optical	Digital	**DVD**							
Sound	Disc	Optical	Digital	DVD	DVD-Audio						
Sound	Disc	Optical	Digital	DVD	DVD-R/+R						
Sound	Disc	Optical	Digital	DVD	DVD-ROM						
Sound	Disc	Optical	Digital	DVD	DVD-RAM						
Sound	Disc	Optical	Digital	DVD	DVD-RW/+RW						
Sound	Disc	Magnetic/optical	Digital	MO-disc							
Sound	Disc	Optical	Digital	laser disc							
Sound	Disc	Magnetic/optical	Digital	mini disc (MD)							
Sound	Disc	Magnetical	Digital	floppy disk ; 3 ½ inch						3 ½ inch	
Sound	Disc	Magnetical	Digital	floppy disk ; 2.8 inch						2.8 inch	
Sound	Disc	Magnetical	Digital	floppy disk ; 5 ¼ inch						5 ¼ inch	
Sound	Disc	Magnetical	Digital	hard disks							
Sound	Disc	Magnetical	Digital	Iomega ZIP							
Sound	Disc	Magnetical	Digital	Iomega JAZ							
Sound	Disc	Magnetical	Digital	EZ-drive							

Page from *SMDB – Format specification*



This specification is the structure behind the drop-down boxes that the cataloguer has to use when choosing technical format.

Radio and TV

For radio and TV program schedules from the nationwide radio and TV broadcasters are imported (often in the XML format) and converted into content records in the SMDB. Either they are imported directly from the broadcasters, which is the case with Swedish Public Radio/TV and the commercial channel TV4, or from the news agency TT Spektra (TV channels in the digital terrestrial net or satellite channels). For some 70 selected programs from Swedish Public Radio/TV and from TV4, the metadata is enhanced with additions made manually by cataloguers.

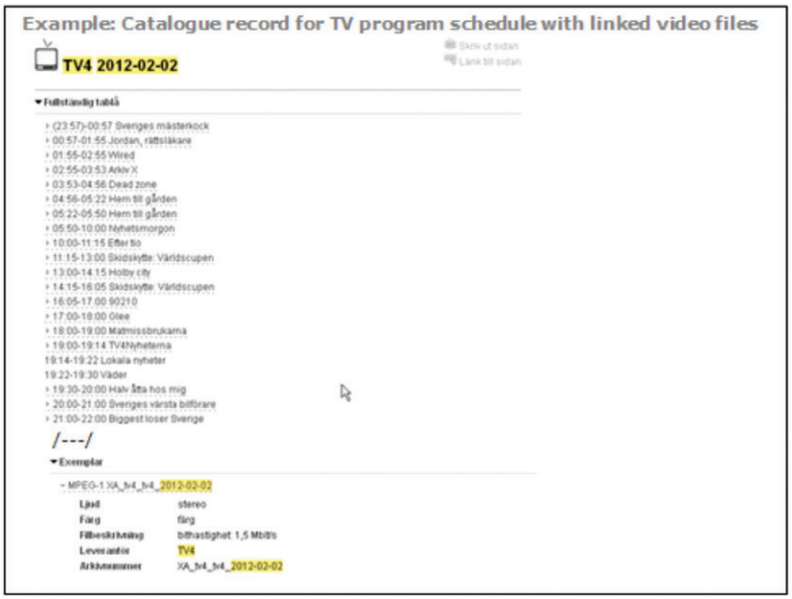
The actual broadcasts are delivered either as digital files (MPEG-4, MPEG-1 or MP3) or as physical carriers (DVD-R or CD-R).

For the broadcasts delivered as digital files, carrier records are created automatically and connected to the content records, as integrated carrier records. The carrier records get automated archive numbers, which link them to the digital files. The files are linked to the catalogue records via the archive number This number is automatically constructed from broadcasting company, channel and broadcast date, e.g. XA_tv4_tv4_2012-07-10.

The digital files are instantly accessible via the SMDB on the premises in Stockholm.

We get broadcasts from:

- Swedish Public Radio (19 channels)
- Swedish Public TV (5 regular, 19 regional channels)
- TV4 (11 regular, 60 regional channels)
- Axess, Kanal Global, NTM and Canal plus
- MTG (42 channels) and SBS (48 channels) – 4 selected weeks/year



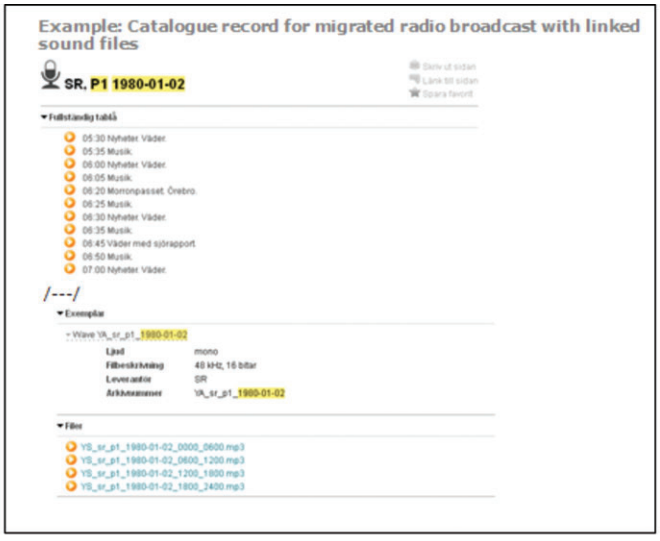
In this view only the title for each program is shown. Next example shows expanded part records with full information on each program.

The information on each program in the program schedule can be quite extensive (here we even get the names of the actors in name fields). This information is delivered to us from the broadcasting company. The arrows within orange circles are "Play buttons", which indicate that the programs are already digitized and instantly playable for the researchers.

For the broadcasts delivered on physical carriers, carrier records must be created and numbered manually and connected to the content records as integrated carrier records. This particular carrier record contains one month of broadcasts, which means that it is linked to thirty program schedules, each containing one day of broadcasts. The shopping basket before the title indicates that you can order a digitization of the program.

Swedish Public Radio

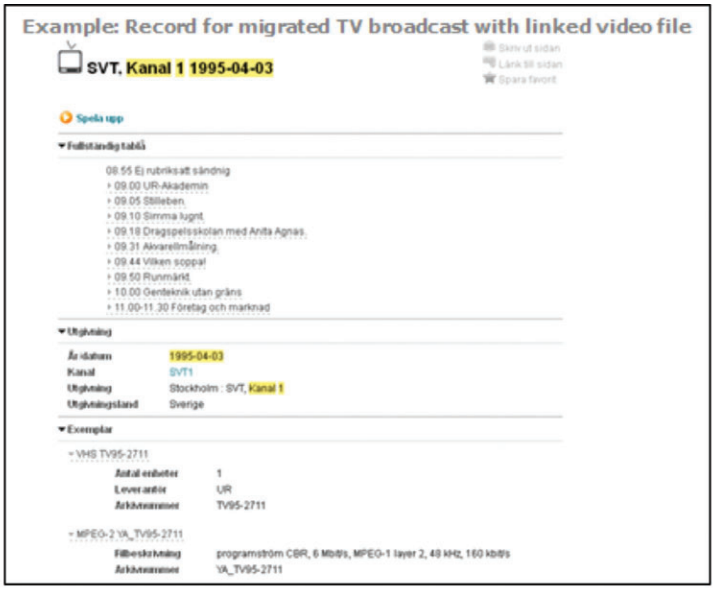
In 2007, a special project concerning the program schedules for Swedish Public Radio broadcasts from 1978 to 1984 was completed. These program schedules were scanned, and by using Optical Character Recognition (OCR), and manual editing, we were able to put them into the Swedish Media Database in a searchable form. And since the nationwide broadcasts from the Swedish Public Radio have been migrated into digital files, all programs from 1978 and onwards are now searchable and accessible via SMDB on the premises in Stockholm.



The open reels – six hours duration with four channels in mono recorded simultaneously – have been digitized into files with six hours duration.

Swedish Public TV

All Swedish Public TV nationwide broadcasts from 1978 and onwards are searchable in the SMDB. In the 1990s, the broadcasts from 1978-1982 were transferred from VCR tapes to Digital Betacam. In this on-going migration project, the years 1983-2008 have so far been migrated into digital files. In the near future, all nationwide broadcasts from the Swedish Public TV will be accessible as digital files.



The technical metadata for the digital file is described in the carrier record for the file. The prefix Y stands for mass migrated files. YA is an archive file, YS is a browse file.

Mass digitization project – CDs from 1984 to the present

We have an on-going mass digitization project for CDs. So far CDs from 1984 to 1997 have been digitized – around 30 000 objects. The files have been described and linked to the database, and are playable for our researchers on the premises.

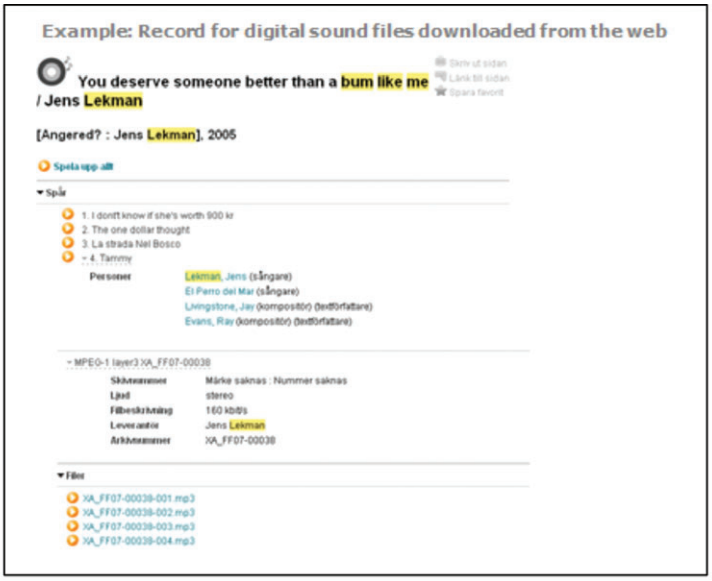
Digitization on demand for researchers

Phonograms, films, video, radio and TV programs are digitized on demand, when researchers want to listen to or view a production. Most of our collections are available only to researchers but on the premises in Stockholm certain special collections are available to the public. On request from researchers, we can also order and digitize older material that we don't have in our archive: films (from the Swedish Film Institute), and public radio/TV broadcasts (from the Swedish Broadcasting Corporation).

Downloading digital files on the web

A selection of Swedish music, Swedish TV programs and Swedish video productions has been downloaded from the Internet and catalogued in SMDB (productions published on the web only). This has been done in preparation for the new Legal Deposit Act, which will include web

publications. While waiting for the new law, we learn how to work with the material and also save some productions for the afterwards.



The digital files are described in the carrier record and the actual sound files are linked to the part records. The prefix X stands for files made from external material, XA is an archive file, and XS is a browse file. In cases like this, the archive files are also browse files since the files imported to our system are already in a browse format.

SMDB – the Swedish Media Database

SMDB, the Swedish Media Database is available at the Swedish National Library home page: www.kb.se > Sök i SMDB KB:s Audiovisuella medier or directly at: smdb.kb.se

Please note that no digital files are available on the web, for copyright reasons.

ARCHIVING ACOUSTICS

Umashankar Manthravadi, American Institute of Indian Studies

Abstract

We are all aware of how rapidly cultural and musical traditions can change, or disappear altogether. And we can see how traditions struggle to adapt to new social conditions and new technological means. There are failures, but many success stories as well. One of the threats to any performance tradition are the changes in the acoustic conditions under which it is performed. Whether it is a cave or a theatre or a temple in the middle of a city traditions struggle to adapt. Very often, the technologies used to make this adaptation (microphones and PA systems) effect the traditions in unexpected and not very satisfactory ways. Worldwide, there are efforts to document performance traditions under threat. But there has been no similar effort to document the acoustic conditions under which these performances take place. The author in this paper will describe the examples of acoustic conditions that have changed, and as a result have changed major performance traditions. He will describe the technologies that are currently available to document acoustic properties of performance spaces; how they can be recorded and archived. The author will describe a low cost system he has been using for such measurements in archaeological sites. He proposes an international effort at collecting and preserving such measurements in sound archives worldwide and will describe some of the ways in which these measurements can help reconstruct at least some elements of vanishing traditions.

A repository of Impulse Responses

This paper is in the nature of an appeal; to collect Impulse Response recordings – as closely adhering to ISO 3382 standards as possible, of many sites that are linked to performance. Theatres and auditoria of course, but temples, ancient souks and market stalls as well. These IR files are very small – need not be larger than 100 Kb each. But they will preserve a heritage that is daily deteriorating.

I will begin with a little history; in 1995, Dr Thomas Ault, theatre historian, asked me if I could measure the acoustic properties of a second century BC structure in Orissa, because he wanted to establish that this space was a very early theatre.

So off we went, packing a full size 486 computer with Windows 3.1 and 640 MB of hard disc, Nakamichi CM 300 omni and a CM 300 cardioid microphones and a small mixer. We rented a monitor for the computer in Bhubaneswar, and hired a loudspeaker and amplifier, along with an electrician who hooked up the computer to an overhead power cable.

Our first visit to the site convinced me of two things: the site indeed had extraordinary acoustics, and any kind of measurement could only be done well after midnight. There was a teashop, and two temples, all producing music through their loudspeakers, and there was a highway less than a kilometre away, with truck noise, very loud horns, and music too. And hundreds of tourists, many of them school children.

Using an early version of Cool Edit software, I played various kinds of tones and recorded them back as the site interacted with the sound. Among the tests I did was to play a sweep tone, from low frequencies to high. The site appeared to produce very long-delayed echoes at some low frequencies, and it certainly had a surprisingly long Reverberation Time for an outdoor space.

Among the possible ways of studying this space was to build an acoustic model (I used CATT acoustic) so one can take the various elements apart, and see what contributions they make to the acoustic properties of the site. Around this time I got in touch with Prof Angelo Farina at the University of Parma, who pointed me to ISO3382 specifications for acoustic measure-

ments of built spaces. He also provided me with the Aurora set of plug-ins for Cool Edit, which produce a full set of results meeting ISO3382 from processed Log Sine Sweep measurements.

This early work led to several papers, at the Acoustical Society of America's special sessions on Archaeological Acoustics and at two meetings of the International Federation of Theatre Technology.[1]

I made several more trips to Ranigumpha over the years, with improved technology. On one trip I used Omni microphones inserted in my ears and made dummy head measurements! All the while, conditions at the site were very visibly deteriorating

The structure, very elaborately carved out of a mountainside, is limestone and very crumbly. It is a popular local tourist spot, poorly supervised, with children (and monkeys) scampering all over. Every visit, one sees more broken off little pieces of the carved surfaces. This does not effect the acoustics very much, but some years ago the Archaeological Survey has started beautifying the place, which I am afraid does.

Ranigumpha near Bhubaneswar, Orissa (C.T. Ault)

Vulnerable acoustics

On my last brief visit to the site, I noticed that they had dug up the flat ground in front of the structure. They were planting bushes and trees where two thousand years ago people probably sat on improvised wooden benches to watch ritual theatre. I had not been there since, but I could see it will break up the view of a very beautiful façade of the structure. It must change the acoustics too, but in what way I have not measured.

Michael Gerzon the Oxford mathematician and 'founder' of ambisonics initially proposed the collection of sonic behavior of ancient theatres and auditoria.[2]

There are several important reasons for this.

First is to identify and preserve the acoustic properties of archaeologically valuable sites, as currently no such effort is being made. This in itself will be a valuable resource, as the measurements enable the recreation of virtual acoustic environments even if the original environments have been disrupted or destroyed.

Second, a study of these acoustic properties will lead to an understanding of the acoustic sensitivity of the people who built them, and will go some way in explaining the function of some of the more obscure structures from early India. For example, it should help in identifying sites that were definitely intended for performances of various kinds, including theatres.

The third is to create a repository of these measurements (as standardized Impulse Responses) for future study and perhaps use. There are already small commercial collections of this kind ("Waves" comes to mind). There have been some discussions about the rights to these IRs – evidence perhaps they are important to preserve.

There have been some attempts in this direction already.[3]

With software based measurement systems, it is possible to extract sufficient information on the acoustics of a given space – in the form of impulse responses – to recreate these acoustics.

Three measurement systems Soundfield microphone, dummy head and a pair of cardioids – Angelo Farina.

While great attention is being paid to the preservation of physical spaces of cultural importance - whether ancient archaeological sites or medieval performance spaces - no attention at all has been paid to preserving the acoustics of the spaces.

In many cases, preserving the pristine acoustics of these spaces is impossible. Cities have grown around what were at one time remote temple sites. The amount of man-made noise has increased phenomenally - it has always been worsening, but this increase has become exponential in the modern era. And sometimes, the very efforts of preservation or protection of a site led to the destruction of its acoustics.

There are other activities that affect the acoustics of these spaces. A multilane highway is obvious and audible. But not so obviously, a new high-rise building, a large hotel, excavations on a nearby mountain, for marble or limestone or just plain rock, will also affect the acoustics of some of these spaces.

The acoustics of all ancient spaces may not be equally significant. But we do not know which ones are significant, which are not, and they all are being destroyed.

What we do know is that the acoustic environment played a far greater role in the construction and use of many early sites than has so far been acknowledged. From sites of cave paintings to ball courts of the Aztecs, significant acoustics have been observed at many sites.

Steven J Waller et al have established that acoustics played a significant part in the selection of caves for painting by early man (around 20, 25 thousand years ago). There is currently a move in some countries to prevent any development in the mountains around these caves that would modify their acoustic properties. Recent archaeological work in the Velpumadugu in Andhra Pradesh for instance has established links between Neolithic petro glyphs and 'singing stones' in that area.

There are other sites that are perhaps not of archaeological interest, but are of importance nevertheless. Some years ago I visited the home of Kumar Gandharva, and recorded some music in his practice room. It is a large, low ceilinged room with a hard wooden floor. I recorded some wonderful Tanpura sound in that space, and I know that Kumarji took the sound of tanpura very seriously. It is one of those spaces that I would like to have documented.

In many parts of India, ritual performances are linked closely to specific locations. What are the acoustical properties of these spaces? They too are candidates for documenting and preserving.

Folk theatre in India is now presented with a forest of microphones, sometimes suspended like fruit from overhead. In a few performances of Yakshakagana that I have seen, you can hear the percussion, and the main singers. The actors, who dance and say their lines, are not audible. A veena performance without contact mikes, what does it sound like. As amplification takes over the concert stage, a sitar concert reaches rock music volumes.

What did it sound like in a Kerala Koothambalam, when the singer did not have a microphone, but was audible over the percussion? We do not know, but I do not think their relative volumes have changed; what changed was the threshold noise against which the performance takes place.

When I went to measure acoustics of several locations in Hampi, Karnataka, I was not looking for auditoria, but Other spaces of acoustic interest. The ruined market stalls, a space that was used for public announcements, etc.

Ruins of Hampi market stalls – with the modified Zoom H2 recording impulse responses.

State of the Art

In the last decade, many people have been at work, all over the world, documenting the acoustics of a great variety of spaces. Many methods are being employed, from starter pistols to bursting balloons; DAT recordings of the resulting sound to sound level meters and stop watches.

Computer based methods – in particular MLS signals and Log Sine Sweep signals as source signals, and Impulse Response recording as the required measurement - are available, but have generally tended to be expensive and cumbersome.

I have been, for ten years now, trying to simplify and make inexpensive a system for this use. The requirement is: a loudspeaker (a small full range speaker can be used, but the ideal is an omnidirectional dodecahedron.

An amplifier and a signal source. Small automobile amplifiers powered with rechargeable lithium battery packs are ideal. I used a laptop as my signal source, but switched to an MP3 player with a recording of the log sine sweep signal.

The microphone: at the minimum a calibrated (or calibratable) omni microphone. A mono IR will give repeatable results, but the ISO specifications call for a two channel recording. To be future proof, my own recommendation is to use a soundfield or equivalent microphone. This is also the recommendation of Prof Angelo Farina "a Soundfield microphone could be the optimal transducer for performing 3D impulse response measurements: the W channels is good for the monoaural parameters (omnidirectional), the Y channel provides the figure-of-8 signal required for computation of LF, and other two directive channels (X and Z) can be used for recreating the whole 3D soundscape inside a playback environment…"[4]

The problem of cost and complexity still remains. High quality ambisonic microphones are expensive. They require a good quality multichannel A-D convertor and a laptop or a multichannel recorder. Multichannel recorders are now getting affordable, however.

Several years ago, I realized the Zoom H2 recorder could be modified to be a very reliable and inexpensive 4-channel recorder. A recorder like the Sound Devices 744 is preferable, but this costs only a fraction. I had documented the modification. [5]

Building Tetrahedral microphones too has become simpler with advent of 3d printing, and I routinely get capsule assemblies printed at Shapeways.[6]

One of the versions of home built Tetrahedral Microphones, with the modified Zoom H2.

My last site measurement visit was almost two years ago, to Hampi in Karnataka. It was the first time I had measured IRs in ambisonic format, using my system built out of a modified Zoom H2 and home built tetrahedral microphone using six mm cardioids capsules.

For my Hampi visit, I used a small RadioShack loudspeaker, which at one time was recommended for measurement use, a small 40-Watts amplifier that can be powered with a 12volt battery. A laptop to generate the Log sine sweep signal, and the Zoom H2 and my Tetrahedral microphone (Brahma !) to record.

I have simplified the process since then – I now record the Log Sine Sweep signal onto an MP3 player. (Many of them will play wave format sound) and glue this to the amplifier. The laptop can stay in my hotel room.

I will also replace my Radio Shack loudspeaker with an omnidirectional dodecahedron. There are published files for printing the parts needed for this. I just have to get my 3d printer going.[7]

(Endnotes)

1 ASA special session on Archeological Acoustics, Columbus, OH, 1-5 Nov, 1999; Cancun, Mexico 2-6 December, 2002. "Theatre and Cultural Memory", IFTR World Congress, Amsterdam June 30 to July 6, 2002.

2 Recording Concert Hall Acoustics for Posterity" M.Gerzon – JAES Vol 23, Number 7, pages 569-571 (1975)

3 http://www.acoustics.net/

4 "Recording Concert Hall Acoustics for Posterity", Angelo Farina, Regev Ayalon AES 24th International Conference on Multichannel Audio

5 http://www.flickr.com/photos/ms_static/sets/72157625446503232/detail/

6 http://www.shapeways.com/shops/umashankar

7 http://www.thingiverse.com/thing:24308

SOCIAL SCIENTISTS AS USERS: SEARCHING FOR RECORDED SOUND IN ITS ENVIRONMENT

Gisa Jähnichen & Ahmad Faudzi Musib, Universiti Putra Malaysia

Abstract

For social scientists, it is crucial to access complex information on sound production and the recoring environment. They need data derived from professional recordings that help to support conventional observations.

Media distributors have long-held the role of environment sounds as disturbing nuisance that had to be eliminated or suppressed. In the best / worst case, side sounds were left unchanged to create a "lively" atmosphere for an anthropological sound recording or a sound recording for a special audience to which the place of the performance is of particular interest. The coughing in a live concert or the dog barking in the background of a village ensemble became then part of the marketed item.

In an archive, sound reductions hopefully not take place. Nevertheless, environmental sound inclusions, in certain recordings, are considered to be side effects of the main recording project undertaken by collectors of different disciplines who did not purposely intended to record those noises. Ideally, they were searching for equipment that avoids it best.

Unlike this approach, the project at our institution tries to purposely include all possible environment sounds produced during the primary sound production. These sounds come from various distances and or directions. The paper will focus on the scientific potential and the resonance of these recordings among users in order to achieve more reliable research outcomes. Though small in number, researchers of very different social sciences areas might become a strong and supportive group of future users.

Introduction

For social scientists, it is crucial to access complex information on sound production and the recoring environment . They need data derived from professional recordings that help to support conventional observations. In times of new methodologies in humanities and amoung network researches, environmental sound as well as sound environment becomes an important subject of study for the benefit of holistic views on human development.

Sound recording engineers and archivists, however, did and do not focus much on the role of the environment as an acoustic and thus complex sound of life that delivers a huge amount of extra information[1]. These Media distributors perceive it as "noise" that should be separated from the audio essence; a disturbing nuisance that had to be eliminated or suppressed to serve the expectations of the consumers and the researchers. The problem of getting to this kind of complex sound and later on to its preservation starts with the way the recordings are done. In the following paper we present some examples of recording methods followed by a discussion of its use by social scientists in our small scale archive at Universiti Putra Malaysia.

The research on our recording and preservation methods revolves sound recordings of select local string instruments in their rural environment. For example the sape native to different ethnic groups of Orang Ulu (Chan & Musib, 2011), and the Bidayuh tube zither *pratuokng* in its local context (Jähnichen, 2011c; Musib, 2011).

The second part of experiment is done in terms of observing the further use of these recordings as scientific tools and as accessible items in our Archive. Each sound embedding depends on spatial and time parameters. These parameters are evident in the musical performance of these selected local string instruments therefore we do not limit our observa-

tions on the sound source. Blauret (1997:365) initiated that visual and audible information defined by the perceiver is in a shape of spatial layout such as depth, position and dimensional parameters. Therefore, we keep in mind that sounds deriving from the *pratuokng* of the Bidayuh musicians and the environment are equally weighty. In a field recording that was conducted in June 2011 in Annah Rais (Padawan, Sarawak) we recorded sound of the tube zither from multiple positions, points, angle and distances that were conceptualized as "contextual sound". This has opened up another horizon of sound knowledge, particularly on sound in its context. Understanding the capabilities of the audio recording equipment encouraged us to record sounds and group them by technical highlights. The concept of capturing contextual sound through highlights in this study might perhaps be a useful application in collecting audio data that will be archived in the future to serve social scientists in their historical and systematic researches.

Conventional Recordings – The Point of Departure for Archival Documents

Audio equipment does play a big role in getting the most reliable sound information out of a selected area. Audio recording engineers have had to face many roadblocks when attempting to get the desired sound on tape during the early years of collecting and transforming these recordings into scientific documents. Digital equipment seems to be a solution for uncomfortable recording conditions; however, the good and the new do not prevent the bias from early collection practices such as sound isolation and prioritization in selecting sound sources. Finally, it all depends on the perspective of further use. Therefore, it is so tremendously important to think of multiple perspectives. One of them these is the perspective of social scientists and their needs: What details can be of use for researchers and scholars in the social sciences and humanities?

One question is if the sound can be singled out, or extracted and analyzed via spectrograms for frequency analysis, or waveform statistics to formulate certain variables. Another question might be the reduction of bias in approaching sound sources. Perhaps we should heed the advice from "We know so little! Record everything" made by Charles Seeger (Pescatello 1992: 141; also Baranovitch, 1999: 159) on all kinds of sound not only on "styles". Considering further developments in audio technology, the recorded item will possibly not be limited by its acoustic border but by the perspective of its use.

Signal Acquisition

Advancements in recording technology are growing rapidly and they make us less aware of the importance of recording fundamentals, particularly towards some technical aspects. To give some examples: Which device is suitable for the high sound pressure level when recording the fifteen foot war drums of the Bidayuh shown in figure 1a, or for capturing the dynamic range of the naturally soft sounding *sape* shown in figure 1b? The built in compressor or limiter and other effect processors might alter the actual sound of instruments. Though fast working scientists need something handy, snappy and able to post online within seconds, we should bear in mind by omitting any one of these inadequacies of sound quality that will not deliver a reliable knowledge source.

Figure 1a: War drums of the Bidayuh demand a microphone that withstands high sound pressure level. (Photo by Gisa Jähnichen 2011).

Figure 1b: Three sape (boat shaped zithers) in different sizes. They are played while sitting on the ground and leaning against the wall. The body of the player plus the wooden background give the instrument then a special sound that cannot be simply achieved in a studio or through isolated sound conditions. (Photo by Gisa Jähnichen, 2009).

The bamboo tube zither *pratuokng* of the Bidayuh, as shown in figure 2a and b is a multi output instrument that can be highlighted under the category 'sound of instruments' (highlight category 1). The instruments meant are gongs in different sizes coming in a set. The gong set is not played in common performances thus the single *pratuokng* replaces the gong set for daily entertainment or informal meetings.

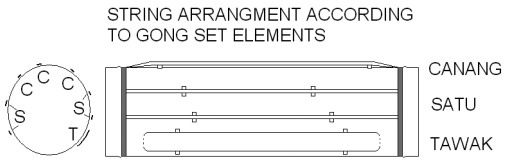


Figure 2a: The functional transmission of gong characteristics on a *pratuokng*. *Canang* is the smallest, bright sounding gong used at least in pairs, here in a group of three. The *satu* is played in an accentuated way to articulate rhythmic patterns that may interlock and played in two pairs, and the *tawak*, the big gong, gives the metric frame.

If the instrument is the main focus of the highlights mentioned earlier, then the instrument's sound can be divided into two components. The components are *tawak* mostly played with the left hand, and the beating of the strings by the right hand. The *tawak* component represents the sound produced by hitting an elevated tongue of the tube and the plucking of the lower *satu* string using the thumb portrays the rhythm function within the repertoire. The other idiochord strings of the *pratuokng* that are beaten with short beaters padded with rubber strips suggest a higher tuning hence playing the role of *satu* and *canang* in a melodic line.

In this situation, large diaphragm microphones were used enabling us to capture low frequencies produced by the instruments. The low frequencies produced were generated from the *tawak,* the beating of the bamboo with the left-hand of the performer, as well as the frequencies produced from bamboo flooring on which the musicians sit. Since all flooring was made out of bamboo segments on each village section (called *kupo*) of the longhouse, the sound was strongly affected by the quality of the bamboo, especially its degree of drying and its age.

In an excerpt of ensemble music (highlight category 2) involving two *pratuokng* players accompanying a traditional Bidayuh welcome dance or *Ranggi Pinyambut* with the piece named *Titie Nunuok* as shown in figure 3 we may clearly hear the squeaking sound which is the sound of the bamboo floor and the shimmering sound of the 'sound ornaments', such as the bangles around the feet, hand as well as the belt that is made of coins worn by the dancer.

Figure 2b: Abas Anak Ringap age 78' demonstrate the art of playing the pratuokng (Photo by Ahmad Faudzi Musib 2011).

In the third highlighted category which is the 'instruments – music in its context' the we used the condenser microphone. It is sensitive, able to pick up a signal that is soft in nature. The sound was recorded using a large diaphragm condenser microphone hanging above the two players to pick up an equal blend of both the instrument and the entire sound condition. The

condenser microphones are the most sensitive microphones and also tend to exhibit much more reliable sonic characteristics (Thompson 2005:17). Omni directional polar patterns (Alten, 2010: 70-71) were used on the microphone in order to capture the overall sound event.

Figure 3 Welcome dance or *Ranggi Pinyambut* accompanied by two *pratuokng* players (Photo by Gisa Jähnichen).

Figure 4. A large diaphragm condenser microphone is hanging above the musicians (Photo by Ahmad Faudzi Musib 2011).

Contextual Sound

Live sound was captured at a distance so that we were able to collect another perspective of sound perception,. The resulting recording presents as an oversaturation of contextual sound (highlight category 4). Nevertheless, this recording environment is one of the most prominent conditions in which sound is perceived within the rural situation. Villagers usually perceive music performances from the distance sitting in front of their own entrance on the joint terrace of the long house (Jähnichen, 2011a). As sound samples show, this sound appears far different from the sound in immediate proximity to the performers and from the space where the musicians practice. The bamboo flooring can be seen as a spatial extension of the music instruments thus enlarging the sound experience into a thinner yet more complex sound.

Figure 5a: Bamboo flooring of each "Kupo" that is built 2.5 meters above the ground (Photo by Gisa Jähnichen, 2011).

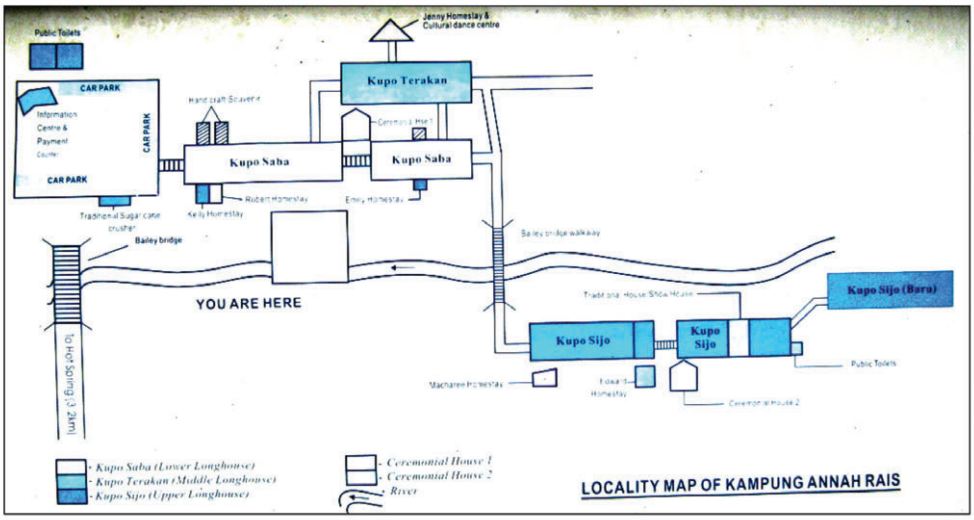


Figure 5b: Map of the village Annah Rais (Photo by Gisa Jähnichen, 2011).

The Outcome of Noise Reduction

The following figures derive from two audio examples. The first example shown in figure 6 is the side sound profile recorded in stereo view in a spectrogram analysis format (Adobe Audition).

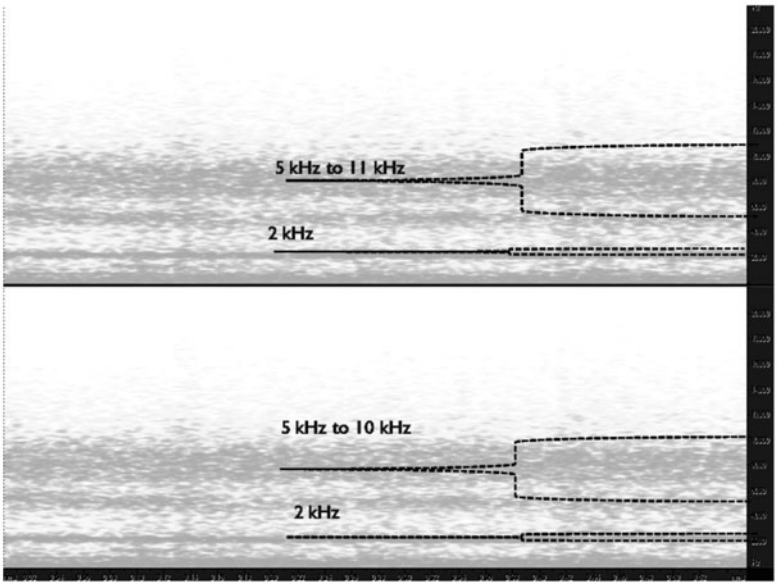


Figure 6: 'Side sound' profiles.

In figure 7 is a sample of two *pratuokng* recorded without noise reduction. The spectrogram plots a mixture of both, the side sound profile and the sound event in a strict limitation.

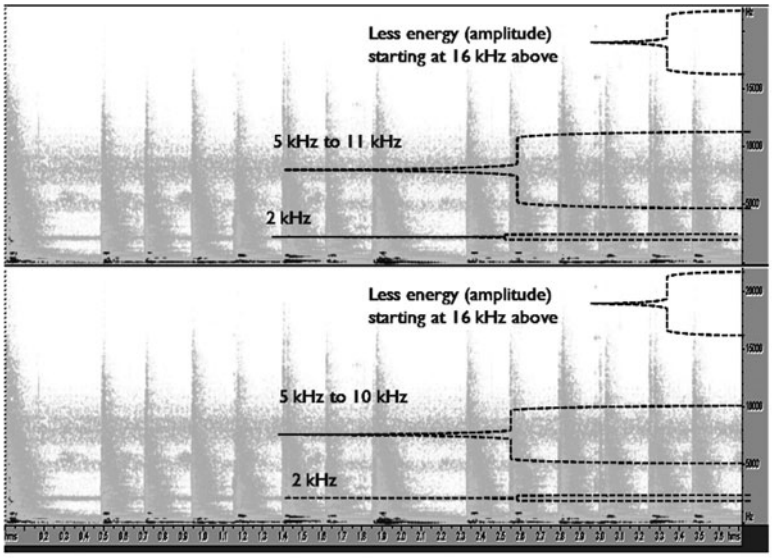


Figure 7: Spectrogram view of 2 *pratuokng* of *Titie Nunuok* with its 'side sound'.

Capturing the side sound profile makes it possible to use this profile as a model for removal of "noise" embedded in the sound event. Figure 8 is the noise reduction scheme.

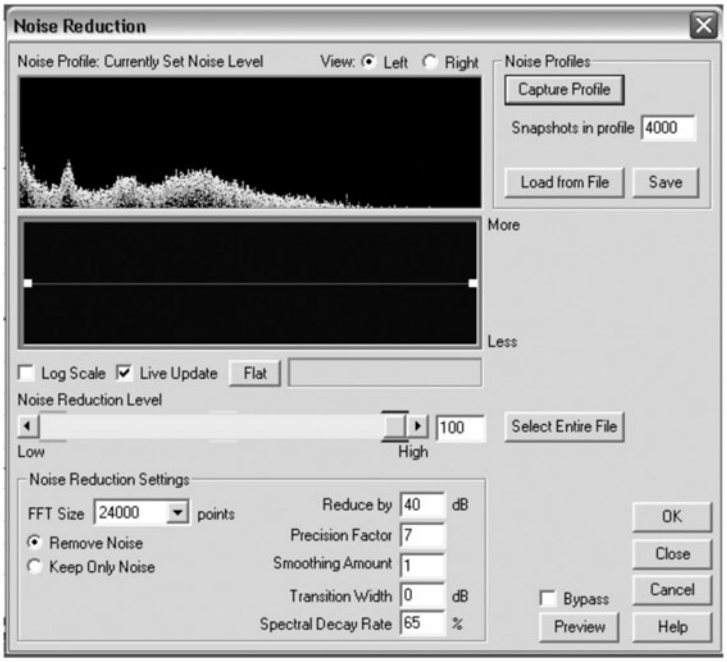


Figure 8: Noise reduction scheme.

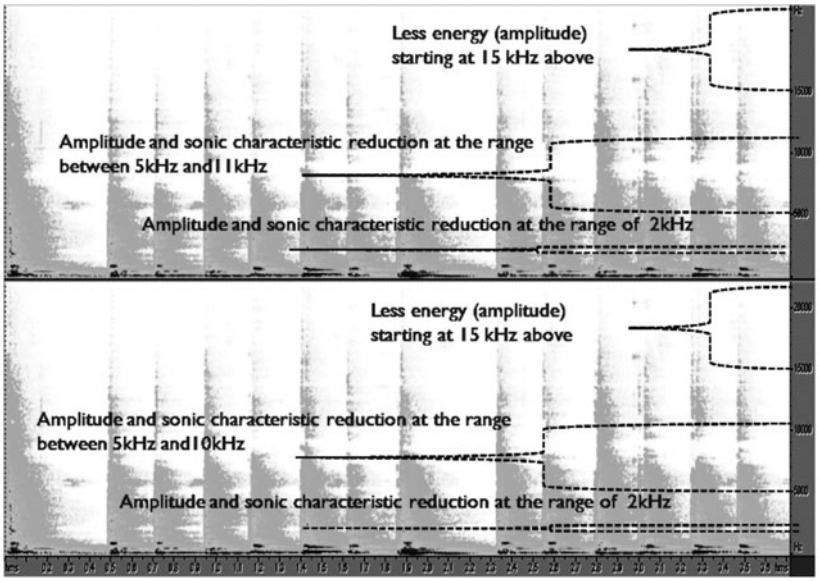


Figure 9: Spectrogram view from 2 Pratoukng of *Titie Nunuok* with noise reduction.

With the noise reduction scheme applied shown in Figure 9, most of the frequencies of 2 kHz as well as frequencies within the range of 5 to 11 kHz as the modelled audio signals within this range are attenuated tremendously. In best and worst cases, side sounds were left unchanged to create a 'lively atmosphere' for a so called 'anthropological sound recording' or sound recording for a special audience to which the place is of particular interest.[2]

The sounds might be then isolated, manipulated, moulded, shaped, and its format finalized and sold on the shelf of a record store and labelled as 'the authentic sound of…..'. This is, from the viewpoint of an archivist, an irresponsible production method deriving from marketing strategies that have given a wrong picture of an actual sound and its many changing conditions to average listeners. The role of professional sound recording is not only to record, mix, master, print and enjoy the replay, but the awareness of how important is each sound source that one is about to produce (Jähnichen, 2011b: 1-13).

Discussion and Conclusion: Contextual Sound, the Archive as Such and Social Scientists as Users

If we consider that in large audiovisual archives, specialists for each field of the archiving process have to accumulate a large amount of specialized knowledge for their particular field. It seems to be a high expectation that these multi-perspective and user focused recording aspects are carefully considered. Nevertheless, they are crucial in serving a clientele coming from social sciences. In the past, technical advances and developments in capturing sound of material objects such as musical instruments (Chan & Musib 2011), tools or even human or animal voices were of utmost interest. With immaterial constructions deriving from sound waves such as interval relationships or timbre, and visually analysed movement patterns, the current tendency in research is to gain specified social knowledge and communication strategies that are always to be seen in co-operating networks within the audible world. Professional recordings and careful multi-perspective preservation of these recordings are one important precondition for the effectiveness of these audio objects in social sciences even though this idea is not yet broadly recognised (Jähnichen, 2011c).

A way out of overestimation is a continuously updated register of co-operating experts that can be involved on a basis of mutual benefits. The question is not how can we know everything connected to a recording if we are not an expert but rather how to gain access to experts who know everything connected to an assessable field.

Small scale university archives could be a competent partner in search for that solution. In our experience, the use of archived items among social scientists depends strongly on the recording quality and the comprehensive documentation of it. Most of them do use sound recordings to really research deeply into it and not for illustrating cases. High quality should include various perspectives of recording options thus increases the value of the proof. Social scientists do not publicly abuse archive material to attract audiences, they use them to demonstrate the essence of social knowledge gained from it. That makes a remarkable difference to users from mass media, users who just enjoy sound and audiovisual material.

Figure 10 shows the preliminary documentation part of the recordings in Annah Rais (Padawan area, Sarawak).

CODE NUMBER	DATE	VENUE /PLACE	LENGHT
ABC 123	13 JUNE 2011 8.15pm	ANNAH RAIS PADAWAN, SARAWAK	00.05.13.11
TITLE	INFORMANT/ PERFORMER/ INSTRUMENTS	SOURCE / REMARKS	RECORDIST / REMARKS
TITIE NUNUOK Ranggi Pinyambut (Welcome Dance)	A PERFORMANCE BY 2 PRATUOKNG PLAYERS ON A BAMBOO TUBE ZITHER ARTHUR BORMAN 45 (M) ARDWELL 26 (M).	PERFORMANCE WAS RECORDED USING AN AKG C414 LARGE DIAPHGRAM MICROPHONE, ATTACHED TO A TASCAM US122 AUDIO INTERFACE. SIGNAL WAS RECORDED ON A FIGURE OF 8 POLAR PATTERN, HANGING ABOVE THE PRATUOKNG PERFORMERS.	AHMAD FAUDZI MUSIB
FORMAT	AUDIO PROCESSING	LINK	
.WAV	NONE		

Figure 10: Example of a documentation of a recorded audio material data for archiving

We hope that we could draw your attention to the specific needs that social scientists have and their increasing interest in developing sound and audiovisual perspectives in the future of their fields. This should lead to a sensitive approach to the whole practice of processing audiovisual material, especially sound recordings that serve social sciences. In the future, social sciences will possibly work exceedingly more with audiovisual material as one of the most comprehensive knowledge sources available. Appropriate sound recordings that approximate social reality that are explored from various perspectives may play a central role in this process of methodological modernization.

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(Endnotes)

1 Except studies in criminology and linguistics of dialect identity.

2 From another perspective, let's say of a world music producer, the coughing in a live concert or the dog barking in the background of a village ensemble is part of the marketed item.

NOTES