

## **LEARNING AND NETWORKING: PRESERVATION PLANNING FOR AUDIOVISUAL COLLECTIONS**

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The conservation of audiovisual materials is highly complex - it requires specific technical know-how, understanding of the meanings and values associated with every record, knowledge of specific context in which the record was created, and environment in which it will be managed and accessed in the present as well as in the future. Thus the process of making choices for preservation has cultural and social implications and demands additional knowledge and skills such as preservation planning, management, networking, communication, cultural sensitivity, etc. As demonstrated by two case examples, i.e. the ICCROM archive and KIK-IRPA's photographic collection, preservation planning for mixed audio-visual collections is central to the long-term access to this heritage.

Yet, time is of essence, as due to technological changes, lack of awareness and inadequate resources, much of world's twentieth century heritage is at the risk of being lost. The situation is even worse in cultural and research institutions where audiovisual records were collected as ancillary materials, but have gained value over time, and have become vital to institutional memory. Lacking policies, infrastructure and trained staff, these institutions require immediate help. Sound and Image Collections Conservation (SOIMA) programme of ICCROM focuses on developing capacity for audiovisual preservation and access among such institutions. The training activities of the programme emphasize development of professional networks for interdisciplinary knowledge exchange.

By capturing real experiences SOIMA provides an effective training course for mid-career professionals, and in doing so it actively contributes to improved practices in the field.

### **A worldwide memory (lost?)**

Sounds and images comprise a major portion of the world's memory and intangible heritage, encompassing diverse cultures, languages and creative expressions. Today, audio-visual collections are omnipresent in our societies as they are easily created, and this often as a side product of various activities. As such, sounds and images not only play an important part within multiple areas, such as scientific research communities (both hard sciences and humanities), the creative industries, and media, but also act as instruments in the worldwide democratisation of information and the global emancipation of culture. Yet, most of the world's nineteenth, twentieth, and increasingly twenty-first century sound and image heritage is at risk of being lost due to deterioration, technological obsolescence or damage from natural or other disasters (Edmondson, 2004, p. 34).

Many nineteenth and twentieth century sound and image carriers are made of materials that are highly unstable such as nitrocellulose and acetate-based plastics, oxidative metal components or biologically degradable substances containing organic components. Although proper storage environments can slow down deterioration, one of the weakest links in the preservation of this heritage is its strong dependence on technology. Subsequently many sounds and images are constantly threatened by technological obsolescence on various levels, such as outdated

playback equipment, an increased lack of support for older technologies and incompatibilities with newer media types. Next to this enduring “tortoise and hare”-like competition with technological innovations and progress, disassociation remains a hidden, but nonetheless important risk for many audio-visual collections. Consequential, for most AV-carriers, effective management is indispensable.

Furthermore, in the current phase of transition from analogue to digital formats, cultural institutions worldwide are facing serious difficulties managing this heritage due to a lack of knowledge, skills and resources. Many sound and image collections are held in institutions that do not specialize in this area. They lack the core skills and necessary support to manage and preserve their audio-visual collections, both in their analogue and digital form. Given the current technological landscape, there is a strong need for digitisation of analogue formats to keep them accessible in the future. A recent study points out that between 57% and 63% of sound and image content held within European cultural institutions needs to be digitized in order to ensure its long-term accessibility (Presto Centre, 2011; Wright, 2011). Whether or not the digital revolution is over, it remains to be seen if all our audio-visual heritage materials will make it into the digital realm. Moreover, most of the contemporary sound and image heritage is born in digital form and in order to make it accessible over a long period time, robust digital preservation systems should be put in place.

## Safeguarding Sounds and Images

Initiated in 2006 by ICCROM, the International Centre for the Study of the Preservation and



Figure 1: Hands on film repair during SOIMA 2011 in Riga (Latvia) and Vilnius (Lithuania)

Restoration of Cultural Property<sup>1</sup>, the Sound and Image Collections Conservation (SOIMA) programme was created in response to the urgent need for a coordinated international action to safeguard endangered audio-visual collections. As a response to the above-listed challenges, its primary aim is to prepare a critical mass of professionals who have the ability to make right choices for the preservation and access of sound and image collections in diverse cultural institutions such as museums, libraries, arts and cultural centres, and archives. Acknowledging the diversity of contexts in which sound and image collections reside, SOIMA has espoused an inclusive and broad-ranging approach to their preservation and access. The programme especially targets cultural institutions that have significant and mixed media sound and image collections, but do not specialize in audiovisual preservation.

Every two years SOIMA is held in collaboration with national and regional bodies responsible for photographic, audio-visual and film collections. The course brings together professionals from diverse backgrounds and institutional contexts around the

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<sup>1</sup> ICCROM is an intergovernmental organization, currently composed of 133 Member States. It was created by UNESCO in 1956 as an autonomous scientific organization with the aim of developing, promoting and facilitating conditions for worldwide cultural heritage conservation and restoration. <[www.iccrom.org](http://www.iccrom.org)>.

world to meet with an international team of highly specialized professionals. The selection of participants is based on both the viral effect they are likely to have in training others in their home countries, and the significance of the collections that they manage.

Introductory topics of a typical SOIMA course focus on the significance and use of sound and image collections in diverse institutional contexts. Exploring the potential of sound and image media in transmitting knowledge and cultural traditions, the course provides an overview of issues related to the preservation and access of sound and image materials, for example photographs, films, video, audio and digital materials. Practical sessions include identification of various formats and the playback equipment, repair and handling of media, field recording and digitization. Course topics cover issues such as current knowledge and practices for documenting and cataloguing, storage and risk assessment of collections, emergency preparedness and response, criteria and technologies for migration, planning preservation projects, outsourcing options, digital preservation and management. Adaptation to technological changes and related cost-effective preservation strategies also form a key component of the course. Furthermore, SOIMA recognizes the constant shifts both in technology and the values associated with such records. As a result, the training is regularly updated to meet the needs of the sector and in order to mitigate the most important risks for this heritage. For instance, in the previous two international courses, use of information and communication technologies was emphasized with the goal of providing user-driven access to create a sustainable base for the preservation of sound and image collections. The significance of forming wide-ranging partnerships to enhance creativity and entrepreneurship has been illustrated through diverse case examples. Additionally, digital preservation has increasingly become a critical component of the course.

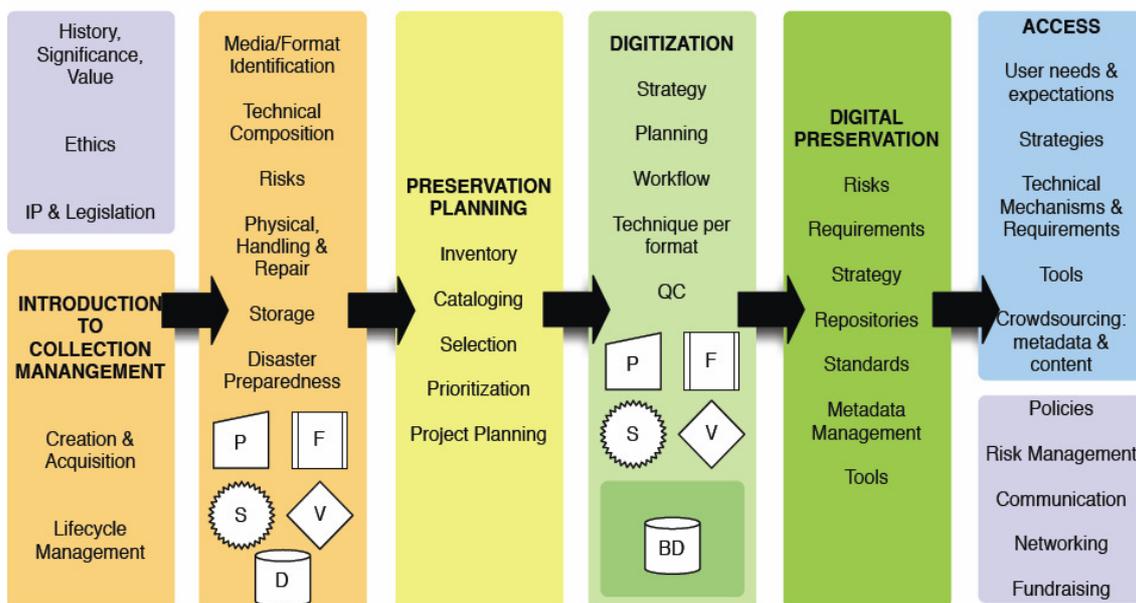


Figure 2: The structure of a traditional 3 to 4 week SOIMA course. P: Photography; F: Film; S: Sound; V: Video; D: Digital; BD: Born Digital.

The training offered within the framework of the programme aims to encourage exchange of knowledge and expertise that resides among broadcasters, large dedicated audio-visual archives, and other experts in this area, with the 'minority' sound and image collections residing in cultural and research institutions. Moreover, the capacity in which archiving sound and images contributes to building social capital forms is a key component of a typical 3-4 week SOIMA course. The overall pedagogy exploits participants' experiences to enhance their critical thinking skills. The highly hands-on nature of the training gives them the necessary confidence to apply the knowledge gained to their respective institutional contexts.

## **Preservation planning for audio-visual collections**

One of the key topics addressed in the SOIMA courses is the multi-layered preservation planning for audio-visual collections. Such an approach includes amongst other things, a collection plan as well as policy making and awareness-raising in order to create a large support base within institutions to preserve audio-visual collections.

As preservation is an integral part of a cultural institution's mission, preservation planning should be part of its overall strategic management plan. Preservation planning is a process by which the general and specific needs for the care of collections are determined, priorities are established, and resources for implementation are identified. Needs assessment surveys are essential to preservation planning and must be carried out before a plan is drafted. The survey should assess the entire building in which collections are housed. Hazards to collections are identified, considering such factors as environment, storage, security and access, housekeeping, conservation treatment, and policies and practices. All this information is recorded in a formal survey report, which is the tool for drafting the preservation plan (Ogden, s.d.).

### **Case study: Preservation Planning for ICCROM's audiovisual material**

ICCROM develops activities to increase knowledge skills and awareness on cultural heritage preservation, such as the SOIMA programme. In its daily work and to implement these activities, ICCROM generates records that need to be preserved as well. Among these records, audiovisuals are a valuable component of ICCROM's institutional documentary heritage. This material, which is composed of approximately 1,100 items spanning from 1961 to the beginning of the 2000s, contributes to reconstructing ICCROM's history and the evolution of the worldwide cultural heritage conservation thoughts, tendencies and capacity building activities.

In 2002, when ICCROM Archive was constituted and the archivist position created, a project was initiated to design an overall strategy for the Archive management. Two concomitant activities were undertaken in the records that were produced and accumulated by the institution since its creation in 1956: a preliminary inventory of the holdings and a preservation survey to evaluate the conditions of these resources.

The preliminary inventory was needed to have intellectual and physical control of the records. While box files were opened and series and files were identified and described, the condition and preservation requirements of the holdings were also recorded. Content lists (providing information of the records at the series/file level) and preservation forms (identifying the diverse types of archival materials, condition, stability and need for preservation attention) were compiled. Assessments of the storage spaces, environment, security conditions and disaster planning were also undertaken.

This overall survey helped to identify the Archive needs, in relation to policies and procedures, archival processing, preservation and access. An executive summary was produced with all the information gathered and recorded during the assessment, and short-term, medium-term and long-term priorities were set up. Short-term priorities reflected those problems requiring immediate action or projects that could be undertaken with the existing staffing and funding. Medium-term priorities were projects that required additional funding, planning and staff time. Long-term priorities included steps to be taken once short- and medium-term goals were accomplished, as well as large-scale activities that could be planned for over the long term (Mata Caravaca, 2003).

The audiovisual material was at that time considered a medium-term priority. In reality, it was evaluated as high priority (due to the material fragility) but the lack of financial and human resources made it unrealistic for the organization to afford its processing, rehousing and reformatting in the short-term.

Time passed without resource availability for specific projects, such as the one on the audiovisual recordings, which were considered among the records with special needs together with other archival material, such as drawings/plans, posters and photographs. In 2013, a new assessment was carried out on the audiovisual material thanks to the help of an intern. The inventory (or list description at the item level) was reviewed and the condition survey gave the following results: Many materials were not accessible due to the lack of playback equipment (U-Matic), while part of the readable formats (VHS) were showing signs of progressive deterioration in their visualization, such as colour alteration and fading, creases and crumpled effects. Motion pictures films presented an intermediate state of degradation, with evidence of a "vinegar" odour.



Figure 4: Snapshot of video showing crumpled effects.



Figure 5: Use of chemical paper strips for the detection of vinegar syndrome on a motion picture film, showing a 3 (serious) level of alteration.

The audiovisual material conditions were progressively deteriorating and we were risking the partial or total loss of the audiovisual content. A specific preservation plan was then elaborated for this material. The recommended short-term actions were focused on adopting measures to preserve the original materials. Furthermore, digital reformatting was identified as an urgent need to ensure access to the audiovisual contents. A digitization project was initiated, having in mind that a digitization project is not just a scanning project. Goals, standards and procedures needed to be clearly defined and planned. The process is complex and embraces multiple activities (Federal Agencies Digitization Guidelines Initiative, 2009), such as

- Pre-digitization activities
  - Selection, assessment and prioritization (what materials will be digitized and how those ones will be prioritized).
  - Identification of file formats.
  - Identification of metadata.
  - Preparation of available descriptive metadata.
  - Determination of file naming and directory structure schemes.
  - Identification of the digitization company and request of cost estimates.
  - Digitization test.
  - Preparation of originals for digitization, including recording items going to digitization.
  
- Digitization activities
  - Capture and conversion (creation of an archival master for long-term preservation).
  - Creation of derivatives and versions.
  - Naming files and indexing.
  - Collection and creation of metadata.
  - Quality control of digital copies and metadata (verifying errors or files not created according to specifications).

- Post-digitization activities
  - Returning items to archival storage.
  - Submission of files to digital repository.
  - Back-up.
  - Finalizing the complement of metadata needed and cataloguing.
  - Rehousing the material in archival quality enclosures.
  - Identifying access/use restrictions or copyright.
  - Making digital copies and associated metadata available to users.
  - Planning periodical refreshing / migration of digital files.

The pre-digitization phase presented several technical challenges, such as the identification of file formats, descriptive metadata, and an appropriate digital storage system. The advice of an expert on managing digital audiovisual resources is fundamental to appropriately plan this type of project. Fortunately, technical issues were solved through the advice offered by the SOIMA network, i.e.:

- File formats for digital reformatting

The identification of file formats for reformatting audio recordings and motion picture films was relatively easy: WAV (BWF)<sup>2</sup> and DPX<sup>3</sup>, respectively, to retain the highest quality copy for long term archiving and preservation. The challenge was to select file formats for video, as there is no consensus among the archival community as to which file format (wrapper or codec) should be used for long-term storage. A standardized file format for videos does not exist yet, and different video file types, some open and some proprietary, are suited to different aims and objectives (JISC Digital Media, s.d.). The choice of the archiving format is always a compromise and depends on several considerations (Library of Congress, 2014) such as the value of the audiovisuals, source format (high resolution such as Betacam SP, or lower such as VHS), type of users and their needs, infrastructure for accessing the files, etc. Our final choice was oriented to obtain high quality preservation masters through the use of an uncompressed and widely adopted codec, such as V210<sup>4</sup> in AVI<sup>5</sup>. For access masters, the choice was DV25<sup>6</sup> in AVI, a well-documented and widely supported lossy compression file format.

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<sup>2</sup> Broadcast Wave Format (BWF) is an extension of the WAVE audio format. WAVE, or more commonly known as WAV due to its filename extension, is an uncompressed Microsoft and IBM audio file format standard for storing an audio bitstream on PCs. It is widely considered a de-facto standard for long-term preservation.

<sup>3</sup> Digital Picture Exchange (DPX) file format is one of the industry standard data format for handling a single frame of a motion picture or video data stream. DPX file format supports the exchange of resolution-independent, pixel-based (bitmapped) images, intended for very high quality moving image content for post-production, theatrical distribution and for long-term preservation.

<sup>4</sup> V210 Video Picture Encoding is an (uncompressed) proprietary codec, but well supported by open source and other software tools (the majority of current media players and editing software).

<sup>5</sup> AVI (Audio Video Interleaved) is a multimedia container format introduced by Microsoft in November 1992 as part of its Video for Windows software. AVI is a proprietary format, whose specifications are made available by the manufacturers. It is implemented in a wide variety of tools available under an open

- Descriptive metadata

Here the challenge was to identify specific metadata for audiovisuals, as a multiplicity of metadata standards for describing cultural content exists. Our goal was to store metadata both internally (embedded in the file) and externally (in a separate file). Embedded metadata allows data (i.e. identity and intellectual ownership information) to travel with the file, and is very useful in cases in which records change location or are re-used for publications on line. However, not all applications can read embedded metadata. Therefore, externally stored metadata are also useful, being accessible and searchable in an immediate way.

Not all file formats support embedded metadata, and certainly not equally well. In our case, as we chose BWF and AVI wrappers formats for audio and video, both based on the RIFF file format<sup>7</sup>, the SOIMA network recommended that we should consult the following standards:

- RIFF INFO tags.<sup>8</sup>
- BEXT chunks metadata for BWF files.<sup>9</sup>

Both the BEXT chunks metadata for audio files and the RIFF INFO Tags for audio and video files were used as reference model for developing our metadata. Another reference was the free and open source programmes produced by the US Federal Agencies to read and write metadata within BWF and AVI files: BWF MetaEdit<sup>10</sup> and AVI MetaEdit<sup>11</sup>.

- Digital storage system

license. AVI is a derivative of the Resource Interchange File Format (RIFF), which divides a file's data into blocks, or "chunks".

<sup>6</sup> DV25 (Digital Video) is a format for storing digital video. Open standard developed by a consortium of ten companies for a consumer digital video format, and standardized by the International Electrotechnical Commission (IEC); elaborations developed by SONY and Panasonic and standardized by the Society of Motion Picture and Television Engineers (SMPTE). DV uses lossy compression of video while audio is stored uncompressed.

<sup>7</sup> The Resource Interchange File Format (RIFF) is a file container format for storing data in tagged chunks. It is primarily used to store multimedia such as sound and video. AVI and WAV use RIFF as their basis.

<sup>8</sup> The RIFF Info Tags found in WAV audio and AVI video files are available in:

<<http://www.sno.phy.queensu.ca/~phil/exiftool/TagNames/RIFF.html>>. [Accessed: 07/08/2014].

<sup>9</sup> European Broadcasting Union (2011). This document defines the specifications of the BWF format and the broadcast audio extension chunk <bext>, which is used in all BWF files. BWF contains the minimum information – or metadata – which is considered necessary for the exchange of audio material between different broadcast environments and between equipment based on different computer platforms. BWF is an application of the Resource Interchange File Format (RIFF) for storing data in "chunks".

<sup>10</sup> BWF MetaEdit was developed by the US Federal Agencies Digitization Guidelines Initiative (FADGI), with the support of AudioVisual Preservation Solutions, Inc. (<http://www.avpreserve.com/>). BWF MetaEdit permits embedding, editing, and exporting of metadata in BWF files.

<<http://bwfmetaedit.sourceforge.net/>>. [Accessed: 07/08/2014].

<sup>11</sup> AVI MetaEdit permits embedding and editing of metadata in AVI files, in the same way as BWF MetaEdit for BWF files. AVI MetaEdit is available at NARA's *GitHub site*:

<<https://github.com/usnationalarchives/AVI-MetaEdit>>. [Accessed: 07/08/2014].

Audiovisual digital reformatting produces large amounts of data that need to be stored in large-scale repositories. In our project, 60 TB of storage space was estimated as a requirement for storing the audio/video masters and derivatives. In this case, the challenge was to identify a sound solution for both the long-term preservation and the financial impact of the system over its life-cycle (TCO)<sup>12</sup>. Presently, as the hardware technology used for long-term storage is not stable enough<sup>13</sup>, a long-term preservation strategy has to foresee periodical audits of the technological scenario. Depending on the outcome of the audits, possible migrations of the holdings to a different storage should be planned for. Taking into account these considerations, our final choice was to adopt an integrated scalable system of NAS<sup>14</sup> and LTO robotic libraries.

Archivists face complex preservation scenarios while dealing with records. Archives are composed of mixed material, each presenting its own preservation specificities. The audiovisual field embraces technical and technological aspects that require high skills and knowledge to appropriately respond to the audiovisual preservation needs. Key points for archivists dealing with this material are preservation planning (and related holdings assessments), training and networking.

### **Case study: Creating institutional awareness and a common language at KIK-IRPA**

Dedicated to the conservation, research and inventory of Belgium's cultural heritage, KIK-IRPA (Royal Institute for Cultural Heritage) houses one of the country's most important photographic collections. Following an in-depth collection analysis, KIK-IRPA designed a five-year collection plan. Although many conservation strategies have been developed, the success of a preservation plan relies heavily on its institutional support.

Although the collection was originally conceived, and is still being used as a tool in the inventory of the nation's heritage, these documents are now being preserved for their intrinsic value and surpass their initial research value. They have become rare pieces and present a significant potential for the general historic consciousness as they literally represent the visual memory of Belgium's cultural heritage. Ironically, the 'discovery' of KIK-IRPA's historic collection of photographic supports coincided with the discovery of the degradation of its nitrocellulose-based supports. As such, the situation at that time demanded an immediate shift in the on-going practices of the Institute towards its collection. An emergency conservation campaign was set up in order to safeguard over 150 000 supports. Although most of the staff was aware of the

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<sup>12</sup> Total cost of ownership (TCO) is a financial estimate intended to help buyers and owners determine the direct and indirect costs of a product or system. TCO tries to quantify the financial impact of deploying an information technology product over its life cycle.

<sup>13</sup> For example, the current de facto standard of LTO tapes is handled by a consortium of commercial companies (HP, IBM, Quantum) and, its "user friendly" addition, LTFS, is relatively new having its specifications first released in 2010. Linear Tape-Open (or LTO) is a magnetic tape data storage technology originally developed in the late 1990s as an open standard alternative to the proprietary magnetic tape formats that were available at the time. LTO is widely adopted for archiving system and backup. It is an interoperable and cost effective format, that can be written and read by a variety of drives from different manufacturers, and do not require a proprietary software for read/write operations. Linear Tape File System (LTFS) refers to both the format of data recorded on magnetic tape media and the implementation of specific software that uses this data format to provide a file system interface to data stored on magnetic tape.

<sup>14</sup> A network access server (NAS) is a single point of access to a remote resource.

urgency of the situation, getting them engaged turned out to be quite complex. The fear of making mistakes and having to re-evaluate past decisions turned out to be a mental stumbling block for people in taking action and planning for the future. Through presentations, several e-mail and poster campaigns, personal talks and some elementary 'shock therapy', where kilos of degrading nitrate film were put on show, people eventually did take notice of the urgency and the importance of the collection at stake. Nonetheless this crisis situation provided impetus towards proceeding with an in-depth collection assessment. Using the methodologies acquired during the SOIMA 2011 course, we were able to effectively execute a condition assessment and inventory of the collection comprising more than 1 million objects in one period equivalent to six-month full-time work. The compiled information was then analysed and used to establish an integrated risk assessment of the collection. Likewise, whilst the conservation campaign took form and the staff became more and more involved, even more risks were identified. When staff noticed the damage caused by inappropriate handling, most also became aware of its impact on the collection. Moreover the personal contact with the supports boosted interest in the images. As a result people not only became aware of the heritage value of the collection, but openness towards a new evaluation of the collections status was created. Furthermore the established consciousness was one of the important elements in forestalling further degradation and facilitating risk prevention actions.

Identifying the needs and priorities for the collection and creating institutional awareness were only one of the first steps in order to safeguard the collection for the future. Once a detailed analysis of the collection was communicated, next came the difficult task of taking further actions. However when there are multiple priorities, multiple viewpoints and a decrease in the substantial funding for cultural heritage, establishing a realistic collection plan seems like a labour of Sisyphus. Next to staff and logistics, one of the main painful points was to reach a consensus amongst colleagues. As we can only preserve so much, choices need to be made, and as an institution we need to learn to accept that we will not be able to save every object in our collection in time.

In order to prepare for a sustainable collection plan, we needed to identify the significance of our collection and the various values associated with the photographs in it. Identifying the most important items in our collection would enable us to prioritise the right supports for conservation and digitisation. Although value and significance assessment is gradually becoming a common concept in the museum field, its application proved to be quite complex. Despite the fact that most experts were convinced that the collection was very valuable for the institute, a consensus on which items represent the biggest value for the repository seemed impossible. The biggest problem was that different experts had different points of view and emphasised different aspects as being important. Likewise, there was no common ground for objectively comparing the experts' arguments. Still, although the discussions at first seemed to point out a huge disagreement, there was more consensus amongst colleagues than initially could be observed.



Figure 6: Discussing values and current practices during the CoMa 2013 international conference 'Safeguarding Image Collections', a post SOIMA 2011 initiative.

Based on a study of the most commonly used value criteria in the built heritage, archival and museum field, a conceptual framework for collection value assessment was created. This methodology was translated into an online tool: iCAT (<http://scoremodel.kikirpa.be/>). Whilst developing this tool, we consulted multiple national and international experts working with different collections and in other institutional contexts. These experiences enabled us to improve the tool and to broaden the methodology to other types of collections and institutions. Additionally, inviting external experts and letting them test the tool together with the staff of KIK-IRPA helped to open the discussions. Exchanging experiences

with other institutions also showed us that decisions need to be made in order to move forward. It became clear that although there are disagreements amongst colleagues, compromises were needed to safeguard the collection. Furthermore, the development of the tool and the methodology provides us with a first step in mapping the 'why' of our collection management in a structured way and to visualise the shifts in value associated with our collection. As such, future collection plans will be able to anticipate new uses and prioritise supports for preservation and digitisation accordingly.

### Learning from the field

SOIMA courses are designed to respond actively to the needs of the field, especially those of small to medium-sized mixed audiovisual collections, as their management requires a wide range of specific skills and knowledge. Before, during and after the course, participants are invited to share their experiences and contribute in a proactive manner to the programme.



Figure 7: Judith Opoku-Boateng, participant of the 2013 SOIMA course held in Kenya, is setting up a digital repository of audio visual records at the Institute for African Studies in the University of Ghana.

Next to knowledge transfer in the strict sense, the learning activities are aimed at developing the participants' learning and communication skills. These include a balance of illustrated lectures, practical work, group work, seminars and discussions. During the sessions, participants are asked to look for examples and case stories based on their own professional contexts. Primary to the course, they are asked to compile a range of different kinds of information (collection contexts, policies, a basic inventory) about their collections, which is used as an information base for most of the group work and case exercises during the training. In a similar perspective a one-day conference on 'Sound and Image Collections: Current Challenges and Strategies for their Conservation and Long-Term Use' is organised after one week. During this event both the participants and the teaching team present case studies about the

management of various audiovisual collections. As such, the course enables them to establish a firm foundation during the 3 week programme to enhance the preservation of the collections in their care.

The course also includes study visits to various institutions, to review and assess the key course ideas and concepts within live institutional contexts. During the practical sessions, participants work in real collection environments which enable them to translate the theory directly in the field. Moreover, working in real life situations pushes the participants to rethink standard concepts and make them workable in realistic contexts that are not always capable of applying the strictest norms. As such, the assessment methodology practiced during the SOIMA 2011 course in the Lithuanian National Archives provided the base for the intensive collection analysis at KIK-IRPA. Also the ICCROM archive audiovisual project was used as a case study during the 2013 course in Kenya. Therefore, the outcomes of the different working groups are also a real asset to the hosting institutions.

Each participant is furthermore encouraged to think in advance of the course of an idea or a project which they can initiate and possibly carry out within six months of their return. During the course, the participants have the opportunity to discuss with the resource people and colleagues their ideas for improving the conservation conditions of audiovisual collections in their institutions and beyond. Consequently, the acquired knowledge and skills are immediately applied in the field, with results appearing within the medium to long term. As such, it is possible to evaluate the course’s impact and effectiveness on the safeguarding of audiovisual heritage.

As an additional resource for the SOIMA community, ICCROM has set up a website (<http://soima.iccrom.org>) with case studies and a selected bibliography of online content on audiovisual preservation. The primary aim of this website is to present examples where the professionals in charge of sound and image collections have employed innovative strategies to overcome certain management or preservation issues. Secondly, the website also offers former participants to exchange information on the matter (such as suppliers, other courses, conferences, etc.).

Since the original course in 2007 in Brazil, seven of the former participants have also joined the international teaching team. This approach not only provides a catalyst for preparing a second and third generation of teachers and advocates, but enables constantly improving the program based on the participants’ observations of the field. As such, the course allows the trainers to bring their own practical skills to the programme. This enables SOIMA to go further than a mere teaching of the standards; from their experience the trainers encourage the participants to seek out informed compromises and feasible solutions that are widely applicable.

As for all ICCROM courses, a formal evaluation, which addresses the content and approach as well as the learning environment, is carried out during and after the course. Furthermore, one year after each course, participants are asked for feedback, and to report on their follow-up projects in their respective institutions.

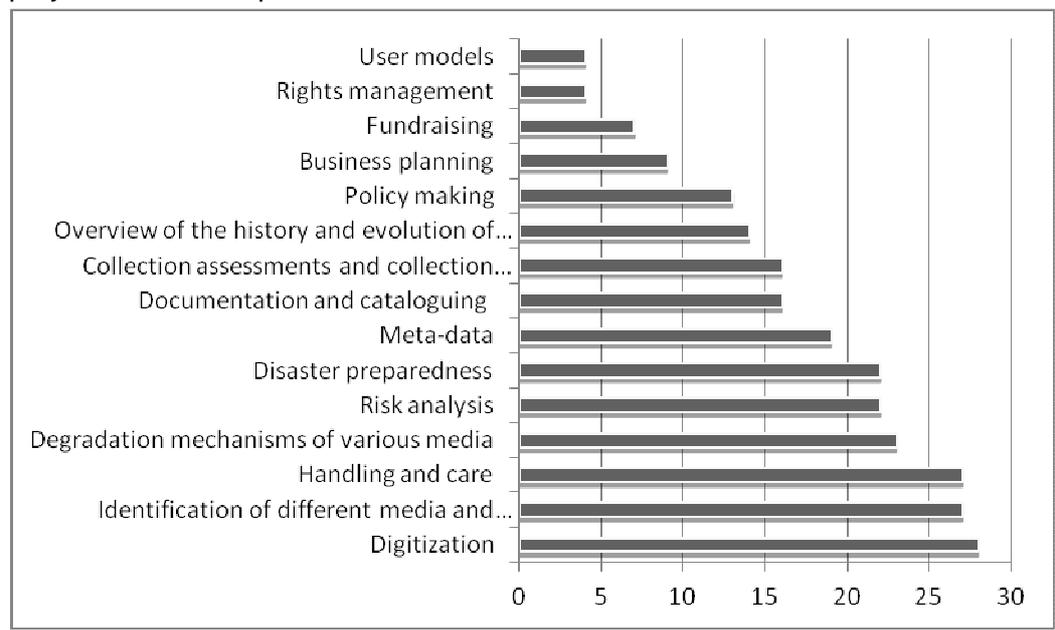


Figure 8: Topics identified as being most relevant by former participants (based on the responses of 43 out of 73 participants, survey carried out from 25 May until 30 June 2014).

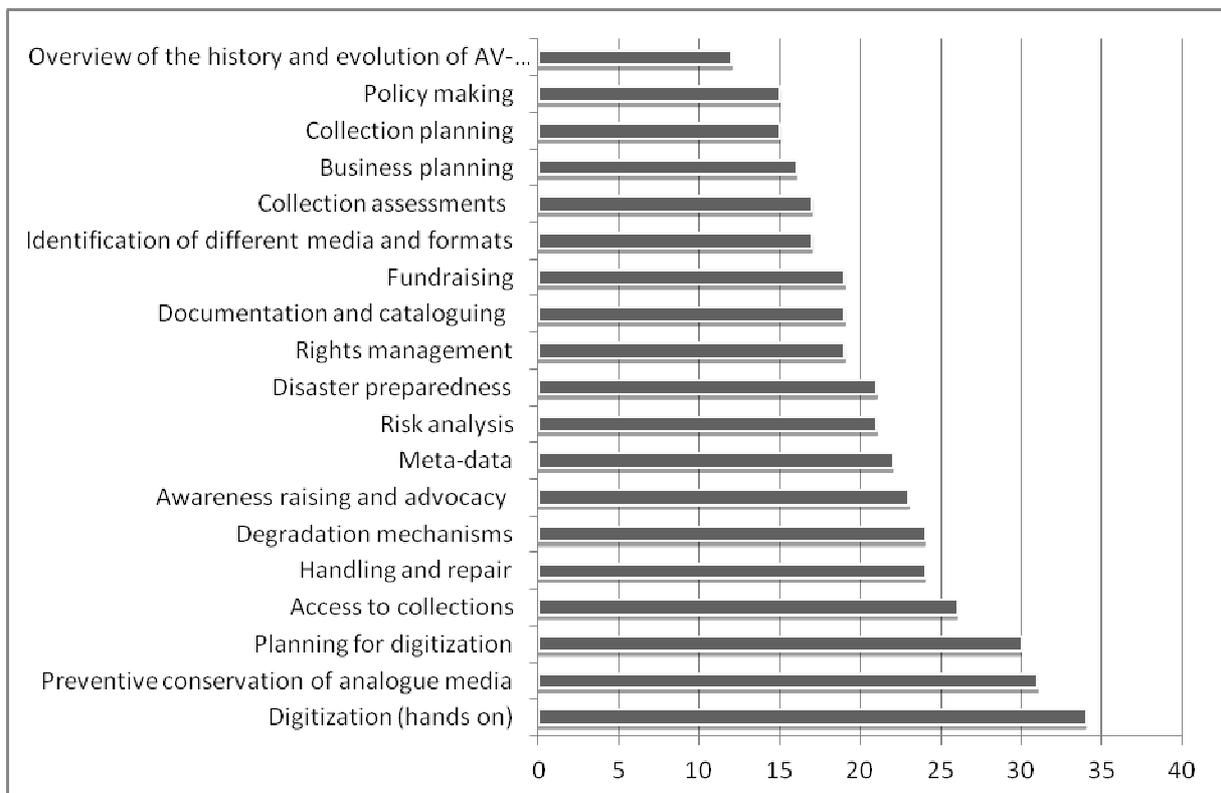


Figure 9: Topics to address in future courses as identified by former participants.

The constant interaction between theory and practice before, during and after the course, as well as in the evaluation of the programme, allows SOIMA to appropriately proactively respond to the challenges and needs of the field. Thanks to this innovative approach, the SOIMA programme has an immediate and important impact on practices in the field.

### **An insured future ...**

Since its inception, the programme has trained 73 professionals from 55 countries. Many former participants are also actively teaching this subject through formal university courses in Brazil, Philippines, Senegal and Lithuania. By focusing on training and knowledge exchange, SOIMA continues to play a small but important part in the safeguarding of sound and image heritage on a global scale long after the conclusion of each training event. By consistently offering a training programme every two years, and constantly evaluating and improving its approach to teaching this subject matter, SOIMA has indeed established a unique and essential approach to training in the audiovisual landscape.

### **Bibliography**

Edmondson, Ray (2004). *Audiovisual Archiving: Philosophy and Principles*. Paris: UNESCO, p. 34. <<http://unesdoc.unesco.org/images/0013/001364/136477e.pdf>>. [Accessed: 07/08/2014].

- European Broadcasting Union (2011). *EBU-TECH 3285 - Specification of the Broadcast Wave Format (BWF): A format for audio data files in broadcasting*. Version 2.0. <<https://tech.ebu.ch/docs/tech/tech3285.pdf>>. [Accessed: 07/08/2014].
- Harvey, Phil. *ExifTool: Read, Write and Edit Meta Information!*. <<http://www.sno.phy.queensu.ca/~phil/exiftool/TagNames/RIFF.html>>. [Accessed: 07/08/2014].
- JISC Digital Media. *Choosing a digital video file type*. <<http://www.jiscdigitalmedia.ac.uk/guide/choosing-a-digital-video-file-type>>. [Accessed: 07/08/2014].
- Library of Congress (2014). *Sustainability of digital formats: Planning for Library of Congress Collections*. <<http://www.digitalpreservation.gov/formats/fdd/descriptions.shtml>>. [Accessed: 07/08/2014].
- Mata Caravaca, María (2003). *ICCROM Archives: Survey report and Action Plan*. [Unpublished report].
- Ogden, Shereilyn. "What Is Preservation Planning?". In: *NEDCC Preservation Leaflet: Planning and Prioritization*. <<http://www.nedcc.org/free-resources/preservation-leaflets/1.-planning-and-prioritizing/1.1-what-is-preservation-planning>>. [Accessed: 07/08/2014].
- Presto Centre (2011), *Digest: Threats to data integrity from use of large scale management environments*. <[www.prestocentre.org/library/resources/digest-threats-data-integrity-use-large-scale-management-environments](http://www.prestocentre.org/library/resources/digest-threats-data-integrity-use-large-scale-management-environments)>. [Accessed: 07/08/2014].
- U.S.A. Federal Agencies Digitization Guidelines Initiative - FADGI (2009). *Digitization Activities: Project Planning and Management Outline*. Version 1.0. <<http://www.digitizationguidelines.gov/guidelines/DigActivities-FADGI-v1-20091104.pdf>>. [Accessed: 07/08/2014].
- U.S.A. Federal Agencies Digitization Guidelines Initiative – FADGI. *BWF MetaEdit*. <<http://bwfmetaedit.sourceforge.net/>>. [Accessed: 07/08/2014].
- U.S.A. National Archives and Records Administration - NARA (2012). *AVI-MetaEdit*. <<https://github.com/usnationalarchives/AVI-MetaEdit>>. [Accessed: 07/08/2014].
- Wright, Richard (2011). *Tutorial: Why Digitise AV material?*. Presto Centre. <[www.prestocentre.org/library/resources/tutorial-why-digitise-av-material](http://www.prestocentre.org/library/resources/tutorial-why-digitise-av-material)>. [Accessed: 07/08/2014].