

Best Practice Guideline 6

FILM AND SOUND ARCHIVES
in non-specialist repositories

D. M. Lee

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SOCIETY OF ARCHIVISTS

Best Practice Guideline -

Film and Sound Archives

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APPENDIX A: Specialist Film and Sound Archive Repositories in the United Kingdom and Ireland

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1. INTRODUCTION

1.1 This guideline is aimed directly at non-specialist ('specialist' meaning film and sound) archive repositories, which happen to store cinefilm, video and sound recordings alongside other records. Interest in these modern audio-visual records has risen to the extent that the Film and Sound Group was established by the Society of Archivists in 1994, to provide advice and information to members about this highly technical field. Those in a position to devote staff and resources to film and sound archives are encouraged to aim for the highest standards recommended for specialist repositories. **Those who feel, after reading the minimum requirements outlined in this guideline, that they cannot meet such standards are strongly encouraged to transfer such records to a more appropriate repository.** Clearly, there are benefits in resource allocation to be gained from such action, as well as providing better long term care for the records themselves. This has been recognised by the Royal Commission on Historical Manuscripts in *A Standard for Record Repositories*, by the National Council on Archives in *An Archives Policy for the United Kingdom*, and by the International Council on Archives in its *Code of Ethics*.

1.2 Specialist audio-visual archives in the United Kingdom and Ireland are listed in Appendix A. Apart from the national institutions, which are well known, there are also regional repositories that are publicly-funded to care for film and sound archives which are of local interest. In particular, members of the Film Archive Forum work closely with organisations and individuals in their respective areas, as well as with each other, to provide a service for owners of archive cinefilm and video recordings. The Forum is now recognised by the Government for this work, and its members receive funding from official bodies like the Film Council and its equivalents in Scotland, Wales and Ireland as a consequence. This archive film service is achieved through partnerships with owners, including local authorities, businesses and the higher education sector, with the aim of providing the best possible care for the original records themselves whilst ensuring wide public access via copies.

1.3 The aim of this document is to provide guidelines for the minimum care and management of film and sound archive collections held by repositories which do not specialise in these kinds of records: cinefilm, video and sound recordings, as well as their related written documentation. No distinction is made between professional and amateur productions, as they should be treated on an equal basis. The identification and basic knowledge of these records, their formats and gauges, playback equipment and physical characteristics are vital to their proper care and management. This will be covered in a way that should be readily understood by archivists and conservators not normally used to dealing with this subject.

1.4 The need for better understanding of film and sound archives within the profession has also prompted the creation of an optional module in the Mlitt Archives and Records Management distance learning course at the University of Dundee, for example, which may also be studied by qualified archivists as a Single Module Diploma or Certificate for their continuing professional development.

1.5 This guideline is complemented by the Society's Film, Sound and Photography Group's Resource pages on their website, at <http://www.archives.org.uk/thesociety/specialinterestgroups/filmsoundandphotograph>

ygroup/resources.html. They contain information of direct interest to archivists and conservators working with these materials, and references to the Group's web resource pages and Helpline at fspg@archives.org.uk will be made throughout this document.

1.6 The highly specialised field of film and sound archives (usually separated into one or the other) is relatively new and still evolving. New developments occur frequently and may only become known through specialist literature, conferences and membership of particular bodies devoted to this field. It is recognised that staff of repositories mainly concerned with the written and printed word do not require in-depth knowledge of film and sound archives but, for various reasons, need to deal with relatively small but growing collections in the most appropriate way. In this sense, therefore, 'best practice' is defined as basic care and management of such records, if only to avoid the problems caused by neglect, such as physical deterioration, lack of access, accidental damage, and the inadvertent placing at risk of other archive records. This guideline will also help members of the Society of Archivists to abide by the *Code of Conduct* (especially section C) with respect to these audio-visual records in their care. That includes the encouragement of partnerships between specialist and non-specialist archive repositories to ensure that audio-visual collections receive the best possible treatment and care. It also includes the willingness to take in **digital recordings** on widely standardised carriers like CDs, which can and should be treated in the same way as any other digital archive material. The Heritage Lottery Fund, for example, actively encourages applicants for oral history funding to deposit their recordings with a local archive service, which nowadays should be in a position to receive such digital material.

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2 ACQUISITION: APPRAISAL AND SELECTION

2.1 It is important to stress the need for an active approach to acquiring film and sound records, because of their vulnerability to physical decay and loss through sheer neglect. It is estimated, for example, that most early films are now irretrievable, simply because their owners did not provide adequate protection through proper storage and copying, or could not see the value of their retention. Once again, however, it is also important to emphasise here the principle of best practice, which demands the preservation of film and sound archives in the most appropriate repository. This is enshrined in the *ICA Code of Ethics*, section 2, which includes the statement: -

‘Archivists should acquire records in accordance with the purposes and resources of their institutions. They should not seek or accept acquisitions when this would endanger the integrity or security of records; they should co-operate to ensure the preservation of these records in the most appropriate repository.’

The same sentiments are expressed in the documents *An Archives Policy for the United Kingdom* (Principle No. 9) and *A Standard for Record Repositories* (sections 3.9 and 3.15). Arrangements can be made to transfer film and sound collections to a specialist repository as a partnership agreement, whereby the transferer retains any rights and shares the cost of preservation and access. In some cases the trustees of a collection may be in a position to assist financially, or grant aid can be sought. At a fundamental level, if a repository lacks even the means to appraise film and sound records because it cannot obtain suitable playback equipment, then it should not be acquiring such archive materials. A Collecting Policy is strongly advised, taking such a factor into account.

2.2 Standard archival practice for the appraisal and selection of records is appropriate for film and sound collections, but there are one or two considerations:

2.2.1 Mixed collections pose a particular challenge for archivists, regarding their preservation and access. Firstly, they must be dealt with as separate physical formats, as the section on storage and preservation will show. Secondly, the appraisal, selection, accessioning and cataloguing processes all require the means to view and listen to the records which, in the case of film and sound items, may only be possible after copies have been made on to standardised formats; the originals must then be transferred or retained as appropriate. Identification of formats and gauges is crucial to proper archive administration, because of the playback implications, as well as for storage and preservation (see the Society’s Film, Sound and Photography Group’s Resource pages and websites like www.vidipax.com/audioformatguide.php, www.vidipax.com/videoformatguide.php and www.filmforever.org/ for help with identification). A useful report on such problems, concerning the Peter Slade Drama Collection at the John Rylands Library at Manchester University, can be read in the *Proceedings of the International Conference on Moving Images, Photography and Sound, York, July 1998*, pp. 161-171. It reminds one to think carefully about the practical implications when dealing with mixed collections containing film and sound items.

2.2.2 Knowledge of production history is an important part of the appraisal process, allowing one to understand the provenance and context within which film and sound

records were created, whether professionally or by amateurs. Oral history techniques can usefully be employed for this process, especially when other documented sources do not exist. This process needs to take place whilst the depositor or other knowledgeable persons are still available for consultation. It may also be the case that a depositor is unsure of the exact identity of the records concerned, and may require a list and a copy to aid this process. Sometimes, further records or missing items can be recovered as a result of the consultation.

2.2.3 Labelling on originals cannot be taken for granted, as the wrong item may be in a container or used for another purpose, for example. Every item should be examined for this reason, although it is very time-consuming. Such diligence will reveal much about the physical nature of acquisitions and their components. There is a need, for instance, to sort out true duplicates of items and decide upon the best one to retain - the challenge is to preserve the highest quality records acquired. On the other hand, different versions of an item should be kept as they provide an insight to its production and the nature of its distribution. The archivist should also look for cross-references from one item or set of records to another, to ensure continuity or completion of related material. This often involves identifying different elements of a production, from original recording to intermediary editing and final version, as well as its related documentation. Correct labelling of such productions in the professional sphere is a considerable aid to the archivist, especially if the same title and/or 'programme number' are used throughout, but this cannot be guaranteed. Background knowledge is still very useful in identifying badly labelled and 'incomplete' productions, such as broadcast films without soundtracks (because this element was relayed live from the studio), and reversal masters (as opposed to prints from negatives).

2.3 Once a decision has been made to acquire film and sound records, some form of receipt is needed to document the transaction. In the case of audio-visual records which need some time to identify correctly and appraise, a temporary holding receipt providing a broad idea and extent of the acquisition is sufficient initially. Following identification and appraisal, more detailed information can be printed on to a receipt for the custody or gift of records, which may also contain a form of legal wording allowing the archivist to make copies for preservation purposes, provide access and so on (see Appendix C for an example). Both the archivist and consignor then sign the receipt, with a copy retained by the former for information and legal purposes. Large collections which take a while to identify properly can be dealt with by informing the depositor that a detailed list will follow in due course. Care should be taken to ensure that, as far as possible, the consignor has proper authority to deposit or donate the records listed to the archive concerned. Some producers, for instance, may not seek permission from their commissioning body or employer prior to such a transaction. The physical ownership of records does not always include the right to property or intellectual ownership (copyright), which are in themselves often two distinct and quite separate entities. It is important to realise that any audio-visual records deposited, particularly those belonging to an individual, may not retain their original provenance and could have been self-selected or contain other miscellanies associated with the depositor's career or private life. Quite often, items are acquired by a body from other sources for training purposes, information, and incorporation within a production and so on. An example of this is the retention by BBC Radio Solent of an off-air recording of the first hour of broadcast by its commercial rival Radio Victory,

which the latter had not kept in its own library. It is also likely that a deposit will only represent a partial record, especially if made by an individual working in the audio-visual industry.

2.4 The creation of archive records in film and sound form, by commission or by repository staff themselves, is another form of acquisition which should be informed by a collecting policy. These archive recordings may take the form of off-air recordings from broadcasts, live events, folk music or traditions, and oral history. Rights ownership plays an important part in such acquisitions and are usually subject to a license agreement by the repository which, in some circumstances, allows for better access to these collections (see section 9). There are also ethical considerations to take into account: the Oral History Society, for example, has issued guidelines which cover not just copyright, but also ethical responsibilities and obligations beyond legal requirements. This includes proper consideration of interviewees and their needs, the uses to which recordings will be put, the standard of recording and documentation to aim for, and the need for openness about the whole process. The Oral History Society's website contains detailed and informative sections on these and related matters, at www.oralhistory.org.uk/index.php.

3 ACQUISITION: ARRANGEMENT AND ACCESSIONING

3.1 The formal process of accessioning can now begin. It may first be necessary to arrange a collection in a particular way, based upon the principles of provenance and original order, and using knowledge of production history. This classification process may involve different corporate levels, then arrangement by production, function, title, subject, 'programme number', date, etc. Related production documentation or an archivist's own recording of information is crucial to the process. Where records have lost all trace of original order, or had none in the first place, an artificial arrangement will have to be imposed, based upon an observable pattern.

3.2 It is very important to gather together all the elements of a production in the order of their creation as far as possible. Maintaining context and clarity should be the aim, involving an understanding of the records and their function, e.g., video copies of cinefilm 'rushes' could have been made for convenience of evaluation, but also for the editing process itself.

3.3 The process of arrangement may be complicated by the acquisition of mixed collections from the same source, and the need to separate items by size and format in the archive strongrooms for reasons of correct storage environment and economy of space. Nonetheless, the principle remains true, regardless of where or how the records are stored. Accurate retrieval depends upon accessioning and good finding aids.

3.4 Once appraisal, selection and arrangement have taken place, decisions about accessioning should be straightforward. Unfortunately, this is not always the case with audio-visual records. Normal archival procedure is to apply a reference code, which reflects each source of acquisition, such as **AV1** for Radio Victory Board of Management, which remains the same for any future additional deposits from that source. Sub-codes may be used to denote particular series and individual items of the records acquired, such as **AV1/MT3** for the Radio Victory series 'Morning Thoughts', programme three. This code may cover all of the elements concerning that production, including related documentation, with a reference in the finding aid as to the particular elements concerned. Further sub-codes may equally be used to provide each element with its own unique identifier, such as **/T1** for the first transcript of an oral history recording.

3.5 Potential problems can arise for a number of reasons, for example, if gaps in collections or additions to them are filled and acquired from different sources. This means that related items are separated by the accessioning system through different reference codes. Cross-referencing within the finding aids is essential, and archive users should be made aware of the links. Another common problem arises through the need to copy audio-visual archives for preservation and access reasons. The copies need to be both linked with their 'original' and yet remain distinct and identified as copies. The obvious solution is to add a further sub-code, such as **/F1** (first film copy) or **/V2** (second video copy), which preserves the link with the item copied and also reflects the medium of the copy itself. Lastly, the archivist needs to distinguish between related and non-related items within a container such as an audio tape or reel of cinefilm. Tracks of music recorded under one title do not normally require sub-coding, for instance, whereas compilations of tracks from other sources

put together for economy or convenience may well be a different matter. Similarly, a related recording may 'spill over' on to another container that also contains unrelated items. The Accessions Register must note such things by, for example, stating that a record is 'part of 1 tape', or 'tracks 3-5 of 1 tape and track 1 of another', etc. If this seems too vague, then the containers themselves need their own separate numbering system, which must be distinct from that used for item coding.

3.6 The use of the term 'copy' may cause confusion, as can 'master material'. It may never be possible for an archive to acquire the actual negative or master tape of an item, for example, although it could well receive a good print or commercial copy. The archivist should treat such copies as 'originals' for accessioning purposes, and apply the sub-code for duplicates made by or on behalf of the archive. It is these which are sometimes referred to as 'master material', when applied to preservation copies from which to make further duplicates for access purposes. Lastly, temporary deposits borrowed for copying may result in two reference codes being applied to the same item, one for the deposit and the other for the copy retained by the archive. This should not cause major problems, although it is always possible that the temporary deposit may return as a donation or long term deposit at a later date. In this case, the copy retains its status and the 'original' takes on that copy's reference code, minus the sub-code. Here are some examples of the application of reference coding to accessioned materials which are then copied for access and preservation reasons:-

AV24/1 ('original' cinefilm or video)

AV24/1/VID1 ('master copy' – for making further video copies)

AV24/1/V1 ('access copy' – made from the 'master copy')

AT31 (temporary deposit – collection level)

AV68/1/VID1 ('master copy' of a video item* received as part of **AT31**, and retained by repository)

AV68/1/V1 ('access copy' made and retained by repository)

(*N.B. If the 'original' video from temporary deposit **AT31** is later deposited long term or donated, it becomes **AV68/1**)

3.7 The processes described above enable true access to become possible, and yet they are not always carried out. Some archives may leave film and sound records 'to be dealt with later', whilst others just accumulate backlogs. Once accessioned and listed, however, a very useful guide to the records has been produced. Computerisation can enable restricted searching via 'free text retrieval' software, although this has limited effect when faced with repeated titles or those which do not reflect the content. Access to individual items is best dealt with by full cataloguing and indexing.

4. STORAGE AND PRESERVATION

4.1 This is fundamental to any archival activity, but particularly so in relation to film and sound archives, hence its prominence in the guideline. The UNESCO *Memory of the World* guide to standards for archive documents points out that

'... The audiovisual document is an analogue representation of a physical status or event: every part of such a document is information. While a speck of mould in a book does not normally hamper the understanding of the text, comparable damage on a photograph would cover up information, and, on a magnetic tape, it could even render the tape unreadable. Seen, therefore, from the perspective of redundancy, audio-visual documents call for a higher degree of protection and security than written materials. Digital data can also be similarly endangered.'

Unfortunately, studies of local authority record offices (Forbes and Dunhill) suggest that such records are not being properly stored or preserved there, having been passively acquired with mixed collections in many cases, and left 'to be dealt with at a later date'. Either that, or lack of knowledge about the special requirements of film and sound recordings has led, in one or two unfortunate cases, to the use of unsuitable chemicals with them, resulting in their accidental destruction. **For these reasons, it is strongly recommended that, unless the minimum standards outlined in this chapter can be met, such records should be transferred to a specialist archive repository and suitable copies retained for access purposes if required.**

4.2 Identification of physical and digital file formats is, first and foremost, the most important step in the process of storage and preservation. The Society's Film, Sound and Photography Group's Resource pages will help with the most common formats of cinefilm, video and sound recordings likely to be acquired, but refer to a specialist if in doubt. It is worth noting that outer packaging can be misleading, so it is necessary to examine the item within to be certain. All handling of these materials must be with cotton or latex gloves.

4.3 Storage Environment for film and sound archives is critical. Dust and damp are the main enemies, with pollutant gases, ultra-violet light and residual magnetism important factors, but temperature is crucial for many of these records, and especially colour cinefilm. The revised British Standard 5454: 2000 (BS 5454) recommends more stringent conditions than for paper archive records for these reasons, including better air filtration, lower temperatures and relative humidity. Importantly, BS 5454 now states that "in a general purpose repository a separate compartment should be provided for any material that requires an environment different from that recommended for paper and parchment..." (Section 11.2.2). In fact Annex A of BS 5454 sets out the different environments required for film archives, as quoted in best practice guidelines produced by UNESCO for developing countries and general repositories

(see www.unesco.org/webworld/mdm/administ/en/guide/guidetoc.htm):

| | Temperature | Relative Humidity |
|------------------|-------------|-------------------|
| Colour Cinefilm | - 5°C | 30% |
| B/W Safety Film | <16°C | 35% |
| B/W Nitrate Film | 4°C | 50% |

Sound and video archives are also covered by the UNESCO standard, including those stored on digital media:

| | | |
|----------------------|---------|-----|
| Gramophone Disc | 5°-10°C | 30% |
| Wax Cylinder | 5°-10°C | 30% |
| Audio and Video Tape | 5°-10°C | 30% |
| Compact Disc/DVD | c20°C | 40% |
| MiniDisc | c20°C | 40% |
| Hard Drive | c20°C | 40% |
| Data tape | 5°-10°C | 30% |

Separate magnetic and striped film soundtracks are not specifically mentioned in the UNESCO standard, but it is recommended that they are stored in the same way as cinefilm, and digital audio preservation copies made for safety purposes.

4.4 One can see from the above table that the best practice for film and sound archives is to store them at lower temperatures and relative humidity than paper records, with more stringent air filtration. Strict control of variations is also vital, with no more than $\pm 2^{\circ}\text{C}$ for temperature and $\pm 5\%$ relative humidity changes over a year recommended for these types of record. Some form of air conditioning (or special packaging at freezing temperatures) is obviously required, and acclimatisation needed for records stored at low temperatures which are to be removed for any purpose, if condensation is to be avoided.

4.5 Preservation Copies: this is a good point to mention the use of copying as a preservation tool. The particular nature of audio-visual archives makes them prone to physical decay, format obsolescence or both at some point. Preservation or 'safety' copies, whilst sometimes likely to be lower quality than the original, will at least ensure its continuity in some form. The highest standards of transfer should be the aim, involving professional equipment, and all processes used should be fully documented. These days transfers of audio and video recordings should be in the digital domain and, ideally, the digital files created should be stored in Digital Mass Storage Systems (DMSS). This involves continuous maintenance, error checking and data migration when necessary. For more information, read *IASA Technical Committee Standards, Recommended Practices and Strategies, IASA-TC04, Second Edition* available from the International Association of Sound and Audiovisual Archives website: www.iasa-web.org/special_publications.asp. Cinefilms should still be preserved as cinefilm stock, whilst film laboratories exist, although access copies may be in digital form.

4.6 Film and sound recordings which are 'born digital' may be received in a variety of formats, usually proprietary and thus very likely to become obsolete. Such acquisitions should be dealt with in the same way as other digital records. Preservation copies should be made using a DMSS, and stored uncompressed. Section 4.12.5 looks at this in more detail.

NB There is an important distinction here between preservation copies, which

seek to replicate the original as far as possible, and access copies, which may be edited, restored or improved for ease of research (but not necessarily enhanced beyond the range of the original viewing and listening experience, if authenticity is to be maintained).

4.7 Shelving must be strong and made of coated metal that does not produce harmful gases in the long term (unlike wood, which is also a fire hazard), and should be checked for residual magnetism periodically and dealt with by degaussing, if necessary. Static shelving is preferred, because of the possible damage to fragile items caused by movement, but mobile racking can be used if economically necessary so long as jerky motion is avoided. A free flow of air is necessary around film collections, not only because of microclimates, but also due to 'off-gassing' of these plastic media; open shelves are essential. This is why any archive storage boxes used must have ventilation holes. As film and sound collections tend to be heavier than paper, consideration must be given to floor loading and the height of racks. Health and safety risk assessment is a strong factor here, concerning the weight of items, loaded boxes and the sensible use of steps and trolleys. Finally, when storing a collection, more importance should be attached to its physical requirements than to the collection. Similar size items requiring the same environmental conditions are best stored together, in other words, even if it means splitting up collections on shelves.

4.8 Labelling is essential for film and sound records, whether repackaged or not, simply because they cannot easily be 'read' like paper documents. Accurate identification of contents, physical nature and playback characteristics are all-important elements, along with the name of repository and reference code. The number of components is another element to remember, as the contents of one item may be spread over several containers or, conversely, be compiled with others inside one container. Similarly, related components like negatives, duplicates and prints may need to be noted on the label, through the reference code and/or by clear indications such as 'Master' and 'Preservation Copy'.

4.9 Associated documents, artefacts and original containers retained for their information or intrinsic value should also be carefully marked with the same reference code as their related items. A soft pencil should be used, finding a suitable place to mark that does not detract from their value as artefacts. Paper and cardboard artefacts should be treated in the same way as standard archival records.

4.10 Access copies may be made in-house or by using commercial facilities, although the latter must be chosen with care if 'originals' are involved. Such copies are usually stored separately from 'originals', for safety and environmental reasons - quick access is dependent upon there being no need for acclimatisation of items from cold storage. It is good practice to make duplicating masters of 'originals', from which to make any further copies and allow the latter to rest undisturbed in long term storage (except for periodic checks on physical condition, etc.).

4.11 Cinefilm: identification, conservation, storage and preservation

4.11.1 Cinefilm formats are relatively straightforward to identify, but it is essential to discover which stock has a cellulose nitrate base (See the Society's Film, Sound and

Photography Group's Resource pages for details). This is because of its highly flammable nature and proclivity to chemical deterioration. The additional tendency to emit gases makes such film a dangerous format to be storing with other archive records and inhabited buildings. Cellulose nitrate cinefilm stock was mainly used for 35mm professional films up to about 1951 and can often be identified by the word 'nitrate' appearing along the edge of the film outside the picture area. Virtually all other cinefilm gauges, with rare exceptions, are on non-flammable 'safety' base.

4.11.2 Nitrate film must be stored separately in another building, to avoid any possible contamination of other archive records and because of its flammability. The store should be away from inhabited buildings and regarded as a temporary housing for such film, pending copying to safety film stock and/or disposal. British Standard ISO 10356 is specifically devoted to nitrate film, and arrangements should be made with a specialist archive repository for its temporary storage if the recommendations cannot be adequately met.

4.11.3 Early identification of physical deterioration, mould growth and other damage is also important. In particular, decomposing material is a health hazard and will adversely affect other archive records stored nearby, due to 'off-gassing'. Damp conditions (60% Relative Humidity and above) are a primary trigger for the onset of decay, especially if fluctuating with the seasons. Decaying nitrate film has already been identified as unstable and dangerous - in its final, powdery state combustion is possible at high temperatures and, once alight, gives off highly toxic smoke and is virtually impossible to extinguish. It is worth noting that celluloid wax cylinders, 'instantaneous' gramophone discs and 'acetate' tapes also contain elements of cellulose nitrate. Safety film, including that coated with magnetic oxide for sound recording purposes, is also affected by damp, giving off a characteristic smell that has led to this type of decay becoming known as '**vinegar syndrome**'.

4.11.4 Appendix C gives an example of procedures to follow when acquiring suspected decaying films, which may also be applied to a review of existing collections. It will be noted that, in these procedures, if the regrettable action of disposal becomes necessary, it is recommended that commercial or local authority waste disposal facilities be used. Special containers for 'household hazardous waste' may be used by owners of decaying nitrate films, for example, but organisations responsible for archive repositories are expected to use commercial firms which specialise in the disposal of such material. Until recently, local fire services would take away small amounts of nitrate film for training purposes, but this now seems to have stopped for health and safety reasons. The Image Permanence Institute has developed a guide for safety films (also known as 'acetate film') involving the use of special paper strips known as 'A-D Strips' to monitor deterioration, and also provides good advice about archival storage of cinefilm generally.

4.11.5 Cinefilm should be duplicated on to cinefilm with a polyester base by a commercial film laboratory, or by arrangement with the British Film Institute National Archive, which has its own facilities. This is because the initial transfer to video or digital formats will not achieve the same resolution as the original film nor recreate the original viewing experience. The Fédération Internationale des Archives du Film (FIAF) *Code of Ethics* is particularly good on the rights of collections in this respect.

4.11.6 Transportation of originals for copying elsewhere should be undertaken by trusted despatch couriers, including those willing to take nitrate film. In the latter case, reels must be carefully packaged in metal transit cases which are clearly labelled, not only with repository and destination details, but also with red warning stickers proclaiming 'nitrate film' and 'hazardous substance', available from the courier or health and safety specialist suppliers. All items sent away should be in strong containers, of course, with protection given to the contents by appropriate packaging like film cans, padded bags, tissue paper, bubble wrap and so on. It is important to let the items 'breathe', however, so the use of sealing tape and polythene bags is not recommended. If at all possible, it is always better to accompany 'originals' and supervise their transfer personally, to ensure that the items are safely transported and the work carried out satisfactorily (see article about the use of cinefilm in commercial videos in the Society's Film, Sound and Photography Group's Resource pages).

4.11.7 Cleaning and repairs should be kept to an absolute minimum, as more damage than good may result. Unless specialist equipment, and the skills to use it are available, the most any archivist or conservator should attempt is to clean off very obvious dirt and mould from items with a soft brush or lint-free cloth and, if necessary, using small amounts of very mild solvent, detergent or purified water (but not for damaged, flaking or gelatine-based lacquer gramophone discs, which could be harmed by this treatment; use a specialist in this case). Great care must be taken with all film and sound archives, as they are fragile and easily damaged. Cotton or latex gloves and a protective face mask must be worn, and the use of a fume cupboard with filtered air expellation may be needed for health and safety reasons.

4.11.8 Simple repairs to broken films may be undertaken, but with caution: manufacturers' instructions must be followed when using the necessary equipment. Cinefilm breaks are often caused by dried-up splices or projection damage, and may be repaired with a film splicer of the correct gauge and, if possible, moveable sprockets for shrunken film. Other kinds of damage include tears, lifted emulsion and sprocket hole rips. The special optically clear tape supplied for cinefilm splicing may be used for temporary repairs only, prior to making copies, but 'cement' joins are for permanence. Care should be taken with the special 'cement' used, however, as the chemicals are classed as hazardous substances. Both tape and 'cement' splicing require skill and practice, but they inevitably result in the loss of film frames. Modern polyester stock must be spliced using special heat welding film splicers, for permanence. The problem with any tape splices is that they may dry up or ooze adhesive over time, however well they are stored. It is not uncommon to discover items joined with ordinary sellotape or even staples*, which must be removed to help conserve the reel (*not to be confused with Lawley Clips attached to cinefilm sprocket holes, used for film grading purposes in the past, and which should be very carefully removed). It is important to note that tape splices should cover both sides of cinefilm, to prevent damage in projectors and other equipment, although tape must only cover one side of separate magnetic soundtracks, that which does not hold the magnetic coating. Equally, tape must not cover magnetic stripes on the emulsion side. This means that nothing can be done about flaking magnetic coatings.

4.11.9 Repackaging will be necessary for many cinefilms, something that is often

neglected in non-specialist repositories. Before this is done, however, all other material like paper should be removed; it could do harm to stored items through moisture absorption, fibres, dust, and condensation or chemical contamination. Anything with useful information or value as an artefact in its own right should be stored separately and given the same reference code.

4.11.10 35mm and 16mm cinefilms should be removed from their flanged spools (which may cause damage in long term storage) or cartridge and rewound on to a plastic bobbin - also known as a 'core' - appropriate to their gauge; there are no special bobbins for smaller gauges. Only the medium and large size bobbins should be used, to avoid the 'clockwork spring' effect. It should be rewound at an even tension throughout, so that the edges are perfectly flat and the reel not too tight or loose, with the emulsion side facing inwards and the start of the film ready to play - called 'head out'. Each end of the film - the 'head' and the 'tail' - should have a metre length of 'leader' attached: the convention is black for the 'head' and white for the 'tail', with single edge sprockets for sound films and double edge sprockets for silent films. Numbered or 'countdown leaders' are used for projection copies and films with synchronised separate sound tracks. It is best not to affix the ends with tape, which may ooze adhesive in storage. Tin film cans or inert polypropylene film cans, available from specialist suppliers, are used to house cinefilm but only come in two gauges: 35mm and 16mm. Small gauges will have to go into 16mm cans. The three main sizes are: 400ft, 1,000ft (or 1200ft), and 2,000ft. It is best practice to house only one film reel per can, using a medium or large bobbin to achieve the best fit, but very small reels in the same collection could be placed in the same can for economy. The only other material stored inside the can with the film reel should be a molecular sieve, such as MicrochamberTM paper or paint as a cut out disc or interior coating respectively, or special acid indicating 'A-D Strips' such as that supplied by the Image Permanence Institute for monitoring 'vinegar syndrome'. Molecular sieves contain zeolites which absorb harmful gases given off by both nitrate and acetate film stock in long term storage, and also help arrest decay whilst urgent action is taken to deal with that particular situation.

4.11.11 Cinefilms should have the title and/or reference code written on the film leader as well as on the can label, using a grease pencil in the former case and permanent felt tip pen for the latter. The edge of the film can may also contain these essential details, using special adhesive labels or white 'gaffer tape' and felt tip pen, for ease of identification in storage.

4.11.12 Cinefilm cans in archive storage must be placed flat in piles of no more than 30cms high, ensuring that the cans are the same size. The weight of the pile should help the cans remain still during mobile rack movements, but their smooth exterior may cause slippage so due care should be taken. Edge labels need to face outwards.

4.11.13 With regard to cinefilm 'originals' in long term storage, McCormick-Goodhart has clearly shown that chemical and physical stability in photographic materials, including cinefilm, is strongly related to correct storage, with maximum stability being achieved at sub-zero temperatures and low relative humidity. His findings agree with those of the Image Permanence Institute in the United States of America, whose 'time weighted preservation index' relates storage conditions directly to the projected number of years acetate base cinefilm will last before the likely onset

of decay (see http://www.imagepermanenceinstitute.org/shtml_sub/pitwpi.asp for details). Hence, at sub-zero temperature and 30% relative humidity (RH), fresh triacetate base cinefilm should last for 1,000 years. These conditions must remain constant, however, and if cinefilms are removed for inspection or copying it might proportionately shorten their lifespan. It is also worth noting that very low humidity would make cinefilm brittle, whilst such low storage temperatures require items to be acclimatised properly before viewing, to avoid condensation, physical deformation and possible mould growth. Furthermore, the instability of colour dyes makes such films more susceptible to chemical instability (fading) in long-term storage, whereas although black and white films also fade, very low storage temperature is not so crucial in this respect. It is for this reason that standards for the archival storage of cinefilm recommend different environmental conditions for black and white films, from that for colour films. According to McCormick-Goodhart, a small cold store or suitable industrial freezer cabinet would provide the necessary storage conditions for colour film, with double packaging in polyethylene bags and a desiccant such as silica gel in between, acting as an alternative to low humidity controls. A moisture indicator would also be needed for monitoring purposes. This provides an economical alternative to air conditioning, which can prove very difficult to maintain at the constant low temperature and humidity levels required for colour film storage.

4.12 Audio and Video: identification, conservation, storage and preservation

4.12.1 Video and Sound formats require similar treatment as archive records and may be readily identified in most cases, although items of a similar gauge and even size will not always play back properly on the same viewing and listening equipment. Quarter inch audio tape, for example, may have various track configurations which allow for up to four separate recordings end to end and requires the relevant four track machine to discover these, whilst the same gauge video tape looks the same in all respects but will need the correct machine to view the recorded pictures. There are various other characteristics too, like speed, recording system and colour sub-carrier to take into account. If there is any doubt, such formats must not be played back until positive identification by an expert or trustworthy knowledgeable person has been made, otherwise damage could be done.

4.12.2 White dust on the surface of video and audio tapes may denote 'sticky tape syndrome', whereby deposits of the binder which glues the magnetic coating on to the base have migrated to the surface. A common cause of this is damp and the condition is known as 'hydrolysis'. Damp may also be the cause of decay in acetate base tapes, known as 'vinegar syndrome', with similar effects to that of acetate base cinefilm. Such problems require specialist treatment, sometimes involving the use of tape 'scraping' machines and/or a low temperature oven to make the tapes playable for long enough to make a preservation copy.

4.12.3 Oxide shedding of the magnetic coating is a different problem, caused by poor tape manufacture and ageing, for example. This results in 'dropout', the loss of audio or video signal on playback, and may be corrected up to a point by a special 'dropout compensator' circuit in some machines (digital equipment may use 'error correction').

4.12.4 Copying of old video and sound recordings may involve the skills of a specialist with particular equipment. Physically or electronically damaged recordings

will definitely require specialist help. It is imperative that decaying items are copied, if it is still possible, as a matter of urgency. This decision will, of course, depend upon the unique value of the items concerned and the availability of resources. The Society's Film, Sound and Photography Group's Resource pages lists recommended experts, as well as providing guidance on the use of commercial facilities.

4.12.5 Digital transfers should be made without any signal processing (to remove faults or enhance quality), to allow for future corrections within the digital domain. If data reduction (sometimes referred to as 'lossy' or even 'lossless' compression) can be avoided during transfer all the better, as something within the original item will be lost, despite claims to the contrary. The use of professional equipment during transfer will overcome the problem of the 'serial copy management system' present in most domestic recorders, which prevent further digital copies or 'clones' being made in future. Whilst there are standards for audio digitisation – IASA TC-04 – the picture for video is still unclear, although EDCine recommends JPEG2000 with a MDX wrapper (see <http://www.cinematek.be/edcine/index.php?p=research> for details). JPEG2000 involves 'lossless' compression, however, so an alternative strategy would be to transfer video recordings uncompressed to existing file formats in widespread use, such as Quicktime. A Digital Mass Storage System comprising hard drives and data tape safety copies will be required, and accurate metadata is crucial to item identification, its attributes (including version and subject content) and just finding it within the System. The use of analogue formats as preservation media is not recommended because they are now obsolete, and even physical digital carriers such as gold CD-Rs and DVD-Rs, Digital Betacam and DVCPRO tapes will only provide a temporary solution for this reason. There is no escape from recopying – data migration - in the future, but it is hoped that the digital domain will be capable of producing 'lossless' copies known as 'clones'. Specialist sound and video archivists are pinning their hopes on systems which will automatically 'regenerate' to keep pace with new software formats.

4.12.6 The same basic guidelines for transportation of cinefilm, outlined in 4.11.6, apply to video and sound archives. If anything, they can be even more prone to accidental damage, especially from rough handling.

4.12.7 Gramophone discs often need cleaning and should be done by hand, using 5% solution of a very mild detergent in cold purified water and a natural sponge to follow the groove; the label must not get wet. Shellac and vinyl discs may be cleaned ultrasonically, by use of a specially constructed container that allows the disc to revolve in purified water without wetting the label. The disc can then be dried naturally at room temperature or with a cool clean air jet. Do not apply these methods to damaged and flaking discs. During handling, discs must be supported with gloved fingers at the centre label area and the thumb on the outside rim. 'Instantaneous' discs (also known as 'acetates') are particularly vulnerable to damage by careless handling, as the surface lacquer of gelatine is soft and unstable, so wet cleaning should be avoided. White dust on the surface may actually be caused by the migration of castor oil plasticiser, and is often mistaken for mould.

4.12.8 Other audio carriers, such as wax cylinders and wire recordings, are less likely to be acquired by general archive repositories. In fact, they should not be kept or acquired if at all possible, because of their extreme vulnerability and need for highly

specialist treatment. Only those repositories with the appropriate facilities, knowledge and skills should preserve such material.

4.12.9 Tape splicers (designed for the purpose) are used to repair audio and video tape, although the latter will suffer distortion of the image at the join and may damage the recording/replay head of the playback machine. The non-magnetic side of the tape only must be used for splicing, and care should be taken using the necessary razor blade for cutting purposes.

4.12.10 Repackaging is often necessary, and removing other material like polythene is essential. Video tapes are usually acquired with their container, which forms an essential part of the replay mechanism. If the container is damaged, however, it will be necessary to replace it with another of exactly the same type - not easy if the format is obsolete. This is a task best undertaken by video tape engineers or technical staff of film archives, as the tapes are often housed inside cassettes or cartridges, their ends fixed to a reel. Open reel formats are easier to deal with, provided the correct gauge of flanged reel is used with the necessary machine for rewinding the tape. Proprietary methods are not advised, because of the importance of maintaining an even and correct tension when winding, with perfectly flat edges and no 'windows' (termed 'cinching') caused by tape pack slippage. It is debatable whether open reel tape ends should be fixed with adhesive 'zebra' tape or not, because of the possible effects of long term storage, so close fitting plastic collars might be a better solution. Video tapes must always be fully wound to the end for storage and not played from a point within the reel, as the lacing mechanism inside the playback machine could damage the tape at that point as it is pulled around guide rollers and tape head. The thicker leader at both ends of a cassette tape is designed to take the strain of this action. Hard outer cases provide the best protection for video tapes, with inert polypropylene plastic preferred to that usually available for cassettes; these are available from conservation suppliers. Lastly, it is very important to remove or slide open the tabs that prevent accidental over-recording of video tapes.

4.12.11 Audio tapes also tend to be acquired with their containers and should be treated in the same way as video tapes, but there are certain points to bear in mind: -

- open reel tapes should be wound end out for storage, so that they have to be rewound (at normal speed) for playback purposes;
- there should be flanges on both sides of the tape pack (unlike some makes of reel);
- audio leader tape should be spliced properly to the beginning and end of a reel, for protection;
- it is important to remove all paper, etc. from open reel tape containers, to prevent possible moisture absorption, dust and other contamination in storage;
- cassettes in old or damaged housings will benefit from new replacements, especially if replay is difficult. Empty housings with screws may be purchased from specialist suppliers;
- remove or slide open tabs to prevent accidental over-recording of cassettes;
- outer cases should be strong and clean, preferably inert polypropylene or acid-free cardboard as appropriate;
- 1/4 inch tapes in cartridges might be better wound on to flanged reels, for ease of replay, unless good quality equipment is available for cartridges;
- 'acetate' tape, and others suspected of 'vinegar syndrome' may benefit from the

insertion of MicrochamberTM paper in the outer case, to help absorb harmful gases whilst action is taken to copy the recording.

4.12.12 In storage, tapes housed individually - the same sizes kept together - should stand vertically on edge, labels facing outwards, with dividers at suitable intervals. The dividers are important, as they not only take the weight of any items removed and diffuse lateral pressure, but also provide support on incompletely filled shelves, and must be moveable for that reason. Small items are best stored on edge inside standard, acid free, ventilated cardboard archive boxes on shelves, with labels on items facing upwards and labels on the boxes facing outwards. If special ventilated drawers are used for small items, they should still be placed on edge, with packing or slots to prevent movement.

4.12.13 Discs are prone to damage and distortion in storage, unless the packaging is appropriate to their long-term well being. Gramophone discs are best surrounded individually by acid-free tissue or specially-made polyethylene sleeves, then placed inside Mylar or 'acid-free' cardboard envelopes (not fully sealed), and placed upright in rigid boxes of the appropriate size - do not mix different sizes of disc in the same box. Alternatively, the repackaged discs may be placed upright on to open shelves for economy, using supports every five discs or so. Original packaging may be retained, if appropriate, in a separate housing and storage environment suitable for paper documents. Compact discs and DVDs are best placed inside MicrochamberTM sleeves and stored on their edge in special acid free cardboard boxes made for the purpose, or using CD inserts from conservation suppliers and stored inside their 'jewel cases' with the inner packaging and spoke removed (see National Preservation Office guidelines at www.bl.uk/npo/pdf/cd.pdf). MiniDiscs are protected by a plastic caddy, so may as well be kept in their outer casing and stored the same way as Compact Discs. Video discs may be treated similarly to gramophone discs or compact discs, depending upon original packaging.

4.12.14 Wax cylinders should be dealt with by specialists, as they are very fragile. Best practice is never to touch the outer surface, using two gloved fingers down the centre to remove a cylinder from its cardboard tube. Repackaging is essential, as the tubes are unsuitable for long term storage of cylinders, although they may be retained as artefacts in their own right. Cylinders are best transferred instead to special 'acid-free' board tubes or 'pyramids' which grip the inside at top and bottom only. These may then be fixed and stored upright inside archive boxes with lids and ventilation, or inside drawers, but must be kept separate from anything else.

4.12.15 Labelling is very important. Audio and video tapes are housed in flanged reels, cassettes or cartridges, so it is they which should be labelled with essential details. The outer container should display the full label, with perhaps the reference code and/or title on the edge. Some archivists record details using a microphone at the beginning of audio copies, for extra security.

4.12.16 Discs with labels may be written upon carefully with soft pencil, only requiring the reference code in small letters. Compact discs and DVDs may be damaged by this, so it is best to use the central hub only for labelling, using a permanent felt tip pen. More details can be written on the sleeves or Mylar

envelopes, and on any outer containers.

4.12.17 Magnetic materials are prone to accidental erasure, and tapes may even suffer 'print through' of adjacent recorded layers in certain circumstances. These might involve playback equipment, high temperatures and lightning strikes, but is much more likely to be caused by close proximity to strong magnetic fields present in electric motors, bulk erasers and television sets. Those responsible for the storage environment should take these factors into account.

5 DISASTER PLANNING AND RECOVERY

5.1 This usually means fire and flood, but should also include risk assessment which takes into account the physical well being of stored film and sound archives as audio visual recordings. This involves visual inspection, playback and tape rewinding on a periodic basis.

5.2 Tapes are prone to all kinds of damage because of their susceptibility to improper handling, poor winding, mould, binder decay and signal loss or transference to adjacent layers. In long term storage, despite the proper conditions being met, some of these latent problems can re-emerge. It is important, therefore, to make periodic checks for signs of contamination, residual magnetism, flaking, uneven wind, too tight or too slack a wind, physical damage - especially to the tape edge - and distortion. 'Vinegar syndrome' in acetate tapes will be obvious from the smell, although a safer test might be to apply 'A-D strips' to suspected tapes. These strips are available direct from the Image Permanence Institute or from conservation suppliers, and test for acidity. Virtually all specialist archive repositories have to make selective inspections of their holdings at periods of, say, once every five years or so, because of the sheer numbers of tapes involved and the lack of staff required to carry it out more fully. Any sign of the above damage in a tape should lead to more inspection of those stored adjacent, those from the same collection, and others of the same physical type, e.g., certain brands of tape have been found to suffer from binder hydrolysis or loss of recording surface due to manufacturing faults.

5.3 Cinefilm should also be inspected periodically, and selectively if necessary, to ensure freedom from contamination, hydrolysis and physical damage. 'A-D strips' may be applied to suspected reels, especially those containing magnetic sound tracks.

5.4 With regard to other formats, they should be checked visually and any remedial action taken immediately if damage or contamination is found. It is technically possible to check for loss of data in digital recordings stored on physical media, but the equipment required is expensive, so it is better to make a safety copy from the start and store it separately from the original recording. Even better: make several safety copies and keep them in separate buildings. A DMSS, of course, should incorporate automatic error checking and data migration as standard.

5.5 Fire precautions are essential, as all plastics give off highly toxic smoke when alight. Gas-based extinguisher systems like CO₂ or, preferably, 'Inergen' are much better than water-based systems for dealing with film and sound records, because of the great damage which can be done to them by water contamination. Doors, vents and other apertures to the strongrooms should have 'intumescent' sealing systems which form smoke-proof seals in the event of fire. See BS 5454 for more detailed recommendations concerning fire precautions in archive strongrooms.

5.6 Before a disaster such as fire, flood or power supply failure in air conditioning plant occurs, one should be prepared. This primarily involves maintaining an up to date emergency plan which includes protecting the repository building, staff and

collections, and general knowledge of where fire extinguishers, sprinklers and stop cocks are situated, as well as the location of nearby emergency supplies. Such an emergency plan should include the decision to prioritise collections for evacuation, if possible. Staff training must include film and sound archive formats, and the fire and rescue services made aware of their specific needs immediately after a disaster. Packaging like film cans and boxes may provide some protection, helping to stave off the immediate effects of smoke and water, as well as maintaining a temporary microclimate of their own.

5.7 In the event of a disaster, it is important to note that, whilst heat will deform and destroy items, damp conditions (including condensation) are the most likely to have adverse effects on film and sound archives, in terms of contamination and mould growth. **One should not automatically use methods for recovery that would be carried out for paper, parchment and books.**

5.7.1 Cinefilm dampened by the above disasters, including the use of water to put out fire, should be kept damp by placing them in a bucket or waterproof bag filled with cool purified water, as it is the drying out process which does the damage. The wet reels must then be transported swiftly to a film laboratory, so that they can be chemically re-washed and dried carefully. Cinefilm must not be freeze dried, as it is likely to become physically unstable. Other films affected by smoke and high humidity levels must also be sent to the film laboratory for re-washing, to remove contaminants. Separate magnetic sound tracks cannot be re-washed in photographic chemicals, but would benefit from a bathe in purified water, controlled drying and re-copying on to another medium as soon as possible. Heat will deform cinefilm quite badly, of course, since it is made of plastics; it would probably be irretrievable.

5.7.2 Nitrate film gives off highly toxic gases when set alight, and is almost impossible to extinguish unless water is applied within the first ten seconds. It is much safer to leave burning nitrate films well alone if possible, and evacuate the area. It is worth noting that, if such material is found on the premises of an archive repository after a fire, the insurance company may not compensate unless it already knew about the necessary but temporary need to handle and examine nitrate films on the premises, and that this arrangement was catered for in the insurance agreement.

5.7.3 Sound and Video materials should be removed from water as soon as possible, allowed to drain and then remain wet and cool, whilst being decontaminated with purified water spray or recovered by a specialist company for treatment. Such materials must not be rubbed clean, as they are highly susceptible to surface damage. If treatment and drying by a specialist is not feasible, they can be dried by repository staff using a controlled stream of cool air. Specialist treatment may involve freeze or vacuum drying, but this should be avoided if possible, as sound and video materials will easily distort. Nonetheless, it has been successfully applied to flood damaged tapes held by the British Library Sound Archive, along with irradiation treatment for mould growth, without apparent ill-effects. It tends to depend upon the type of base upon which recordings are made - open reel tapes on polyester base are more likely to survive such specialist treatment than cassettes or acetate base tapes and gramophone records. All affected items will need repackaging after treatment, including perhaps the replacement of cassette and cartridge cases. If protection copies of items do not exist, they should be made now.

5.8 Dust contamination is serious for any audio-visual material and particularly its equipment, but especially so for tapes and digital media. Replaying these with microscopic amounts of dust contamination will frequently result in signal loss and may permanently damage the tape or disc. It is wise to ensure that all these materials are well covered or removed during building work, as the fine particles loosened by drilling work, for example, are capable of moving through the air and contaminating an entire building. Equipment is not only adversely affected by dust itself, but will also transfer it to the media being replayed and damage them. It should be sent to the manufacturer for specialist cleaning. Mix dust with liquids and the end result could be a substance which 'glues' tape edges together, for example, so wet cleaning of dusty tapes is not recommended. Dry dust should first be removed from the surrounding environment with a vacuum cleaner, bearing in mind that plaster dust in particular may find its way into the air handling system and rooms far removed from the site of initial contamination. Next, the outsides of closed containers of audio-visual media should be vacuumed at low suction power. Remove and isolate the media to avoid spreading any contamination. The interior of the containers may now be vacuumed, but cassettes and cartridges will need to be taken apart for access and their shells replaced with new ones.

5.9 Other possible disasters that may affect repositories are less easy to prepare for, such as explosions, subsidence or earthquakes, chemical spills, and acts of deliberate vandalism. To a certain extent, the physical separation of originals from their copies plays an important part in preserving the image and sound content. Large film archives like the BFI National Archive have reciprocal arrangements with similar repositories abroad, for instance, which ensures that copies of cinefilm 'treasures' are preserved elsewhere in the event of disaster. This might be achieved at a more local level, by non-specialist repositories depositing archive cinefilm with regional or national film archives, in exchange for access copies.

6 EQUIPMENT AND HANDLING

6.1 One of the main distinguishing factors between the care of film and sound archives and more traditional records is the equipment required to gain access to the former's contents. Even cinefilm, which can be held up to the light, is only truly 'readable' by machine. Such equipment is, therefore, essential and must be scrupulously cleaned, maintained and preserved along with the items to be replayed, examined and conserved. This means obtaining second-hand equipment for obsolete formats (some to be cannibalised later for spare parts), as well as purchasing new items, which can be expensive. Instruction manuals for the old equipment will also be needed, but may be difficult to obtain, so companies like Oldtimer Cameras can be used for copies (see the Society's Film, Sound and Photography Group's Resource pages for suppliers). All equipment must be safe to use, both mechanically and electrically, which may require the services of specialist engineering and repair companies.

6.2 The minimum equipment recommended by the Joint Technical Co-ordinating Committee (set up by the various international film and sound archive organisations) for small collections and poorly-resourced repositories is as follows:

6.2.1 Cinefilm

Hand Rewinder (which may include a film editor with viewing screen for small gauges), with appropriate rewind arms and spools for the gauge being handled. **Flat Bed Rewinders** are better, if available, and will require cardboard or leather circles cut to protect the plates from damage by metal spools. Motorised rewinders are expensive and may cause damage by inexperienced operators, but if motorised film editing machines like **Steenbecks** are available (and affordable) second hand, they are well worth considering for film handling.

Split Spools (35mm and 16mm), to enable rewinding and storage on plastic cores.

Cores (also known as Bobbins), no smaller than 2" in diameter, for 35mm and 16mm gauges. Use 16mm cores for small gauges, if required.

Footage Counter (35mm and 16mm) - either the type that is used with Rewinders, or the ruler type which is used with Cores.

Gloves (lint-free cotton or latex), for handling cinefilm.

Scissors - non-magnetic type is best for cinefilm magnetic soundtracks.

Soft Brush, for dust cleaning.

Scraping Knife, for cinefilm splicing.

Film Splicers (cement and tape), for appropriate gauges.

Film Cement, for appropriate cinefilm bases (ask supplier).

Film Leaders, for appropriate gauges and 'head' or 'tail' of film roll.

Soft Wax Pencils, such as Chinagraph, for writing on film leaders.

Magnifier, to examine cinefilm frames more closely.

Film Cans (35mm and 16mm) - either tin or special inert plastic, of appropriate size.

Microchamber™ Paper or Paint, to use in film cans containing magnetic soundtracks or cinefilm at risk of decay (it absorbs harmful gases and extends its life).

Solvents, for cleaning really dirty cinefilm - use very sparingly and take advice!

Lint-Free Cloths, such as Selvyt, for cleaning purposes.

Humidity Chamber, for 'relaxing' dry and brittle cinefilm prior to basic conservation work.

NB: Cine projectors are not suitable for the initial handling of cinefilm, because of the accidental damage they may cause, unless one is certain that the reel is in a fit state for projection. Commercial copying facilities using Telecine machines are less likely to cause damage to old and fragile cinefilm than projectors. Access copies on video will have to be made in this way, but care must be taken in the preparation of the reel for transfer. (See the Society's Film, Sound and Photography Group's Resource pages for information about commercial copying facilities).

6.2.2 Video Recordings

Replay Machines, suitable for the video formats held and well maintained, linked to a **Video Monitor** (preferably) or **Television** by dedicated leads. Watch out for different formats within formats, such as low and high band U-Matic, VHS and S-VHS, 8mm and Hi 8, Philips 1500 and 1700; also the different colour standards PAL, NTSC and SECAM, for which a **Standards Converter** will be needed (see Format Guide in the Society's Film, Sound and Photography Group's Resource pages).

Plastic Cases (Amaray type or inert polypropylene), if original containers are damaged, mouldy or just not present; cardboard slipcases are not suitable for archive storage.

Video Tape Splicing Kit, for appropriate format, but only if really necessary.

Video Tape Head Cleaners, preferably 'wet' cassette type for appropriate format.

Time Base Corrector, now often built into video recorders, helps correct poor quality video signals on replay.

Leads and **Connectors** play an important role, so it is important to maintain a good supply with both present and future needs in mind.

6.2.3 Sound Recordings

Replay Machines, suitable for the sound formats held and well maintained, linked to a **Near Field Monitor Loudspeaker** (preferably) or good quality **Headphones** by a **Power Amplifier** or that inbuilt to the replay machine; gramophone players require an additional **Pre-Amplifier**, or a **Graphic Equaliser** in order to get the best out of the type of disc to be replayed. The machines must have the ability to replay particular track configurations, multiple tracks, speeds, sizes of recording container and so on for the sound format concerned (see Format Guide in the Society's Film, Sound and Photography Group's Resource pages). Professional equipment is preferred to domestic, especially concerning digital recorders, which are unaffected by serial copying management systems that inhibit digital copying.

In addition to these, the other basic audio equipment requirements are as follows:

Open Reel Audio Tape (1/4") Recorders, able to cope with reel sizes up to 10.5", the main speeds of 3.75ips and 7.5ips, and track configurations full, two and four track (mono and stereo). Azimuth adjustment will be necessary from time to time. These machines should be stored on their backs when not in use, as this puts less strain on capstan motors inside.

Compact Cassette Recorders, preferably with real time counters.

Gramophone Disc Player (electric), able to cope with disc sizes up to 12", the main

speeds of 78rpm, 45rpm and 33.3rpm, with a robust tone-arm, variable tracking weight and a range of styli for different discs. A player with variable speed controls up to 84rpm would be an advantage, as early discs were not always recorded exactly at 78rpm.

Tape Splicers, for the size required.

Gloves (cotton or latex).

Demagnetiser (also known as a Degausser), for removing latent magnetism which can build up on tape recorder and replay heads plus other parts, and affect sound.

Scissors (non-magnetic type).

Tape Head Cleaners, either as a kit for open reel tapes, or as a 'wet' cassette cleaner.

Lint-free Cloth and **Purified Water**, for cleaning gramophone discs (very carefully).

Tape Boxes.

Tape Spools.

'Acid Free' Tissue or Cardboard Sleeves, for gramophone records.

Polyethylene Enclosures, open one end and flap secured with special tape, for gramophone records.

'Acid Free' Boxes, for storing gramophone records safely together on the shelf (as an alternative to loose storage in sleeves or enclosures).

Cassette Boxes and **Tape Enclosures** (to replace old ones - it often results in tapes becoming playable again)

CD Boxes, used with **Microchamber**TM envelopes for storage (see article by Jon Farley in *Film and Sound Group News*, no. 4).

Leads and **Connectors** play an important role, so it is important to maintain a good supply with both present and future needs in mind.

Transcribers may be purchased for full size cassettes, and used in conjunction with a foot pedal control, to leave hands free for typing. These days, however, foot pedal controls are more likely to be purchased for use with computers, employing software to listen to digitised recordings and type into text packages like Word.

6.3 Having acquired the necessary equipment, it is important that it is handled properly and safely. Manufacturers' instructions should be strictly adhered to, and staff well trained in the use of equipment they will need to perform certain tasks. This includes instruction of members of the public and others in the use of viewing and listening machines.

6.4 Health and safety factors arise when staff use hazardous materials and chemicals for examination and conservation purposes. Some film splicing cement formulas are carcinogenic, for instance, and cleaning solvents give off harmful gases. The film and sound materials themselves may also be hazardous, including poisonous coatings on some tapes. Good ventilation is essential for such work, of course, and fume hoods are very useful when handling toxic chemicals and decomposing plastics. Unfortunately, such a device is not always practical when performing some tasks, such as cleaning activities involving machines. Open windows and electric fans may have to suffice in these circumstances. Cotton or latex gloves must be worn at all times, with suitable filtered mask and eye protectors when dealing with toxic gases.

6.5 An important, but sometimes overlooked consideration, is that presented by most old materials - they shrink and distort with age. Equipment is manufactured to handle new items, so it could actually damage old items. Second-hand, well used equipment

may have worn sufficiently to match aged film and sound recordings, but this cannot be taken for granted. It may be necessary to purchase adjustable machines, or amend them in some way to allow for shrinkage and distortion to some extent. It is possible, for instance, to commission the construction of a wax cylinder player which incorporates a modern stylus and other features to help replay this fragile medium, although damage is still possible. Furthermore, old equipment which is infrequently used often needs to be 'warmed up' by, for instance, setting them to 'play' without actually inserting an item - for as much as several hours - before an item can be satisfactorily replayed. New technology is now being applied to some media which cannot be replayed at all, such as badly warped or broken gramophone discs, using lasers to read the groove. These are highly specialised techniques, however, which are still developing and require some skill to apply; the equipment is also very expensive.

6.6 Even new technology may cause problems in use, such as recorders using lasers. It is possible to 'corrupt' a Compact Disc or MiniDisc recorder, for example, merely by accidentally jogging the surface upon which one stands during the recording or copying process.

6.7 Most general repository archivists are likely to look towards commercial facilities for such needs, or perhaps seek the services of specialists within or without their wider organisations. The main consideration here is the health and security of original items, both in transit and during handling (see 'Commercial Videos - a Warning' in the Society's Film, Sound and Photography Group's Resource pages). Careful choice of transportation, packaging and commercial or specialist facility is imperative.

6.8 Equipment used for access purposes within the repository must fulfil fire and safety regulations, and be supervised by staff trained in its operation. On some machines, it may be necessary to blank off recording controls and other functions not strictly required for playback purposes, to avoid accidental erasure of items and possible confusion for users. Suggestions for types of equipment and its arrangement in the search room are in section 10.

6.9 Equipment may also be used for group presentations, both on and off site. Such equipment must be suitable for the purpose, as well as being well maintained and in good working order. It is particularly important to pay attention to health and safety factors, such as manual handling (especially lifting), lone working, risk assessment and working environment. Personal safety is paramount, of course, but so is that of the audience. This means that cables should be secured against accidental entanglement, and that projection and playback equipment should be mounted upon stable platforms like purpose-built stands and tables, with at least a metre of space around to prevent knocks. Other factors such as sound volume, the special requirements of disabled people, room blackout and screen illumination levels will need to be taken into account. This obviously requires common sense, plenty of time allowed for setting up, and good prior arrangements with those responsible for the venues. Good advice may be obtained from the IAC – The Film and Video Institute (www.theiac.org.uk/) and local cine and video clubs.

7 STAFFING REQUIREMENTS

7.1 There seems little point in providing the necessary storage, packaging and equipment for film and sound archives if the basic knowledge and expertise required to understand and use it properly is not present. This guideline is certainly no substitute for training and experience in this field. Furthermore, such collections must be under the direct control of an archivist or records manager, as they would be for any other archive records held in a repository; they should not become the sole responsibility of a technician or conservator, just because of their technical nature. This practice falls in line with the Society of Archivists *Code of Conduct* and the ICA *Code of Ethics*, which both urge the updating of professional knowledge for the records in their care.

7.2 The Society of Archivists is making provision for basic education and training in this field for non-specialists and there is an optional module in the MIitt Archives and Records Management distance learning course at the University of Dundee, for example, which may also be studied by qualified archivists as a Single Module Diploma or Certificate for their continuing professional development. Workshops have been organised by the Society's Film, Sound & Photography Group, sometimes in conjunction with the Preservation and Conservation Group, for archivists and conservators. Illustrated talks are given on various aspects of the specialism at seminars and conferences. The Film, Sound & Photography Group also provides advice and information for Society members through a helpline, visits, talks, and the Resource pages on its website, at <http://www.archives.org.uk/thesociety/specialinterestgroups/filmsoundandphotographygroup/resources.html>.

7.3 Outside the Society, other courses and conferences are run by organisations like the British Library Sound Archive and the Oral History Society (for oral history techniques), and the British and Irish Sound Archives group. Such activities need to continue, with the support of the Society of Archivists and other bodies like Skillset, if knowledge is to spread amongst archivists and conservators, even if it leads to the conclusion that film and sound archives are best left to the specialists. A survey by the Film and Sound Group in 1999 found that some room is being found by the archive degree courses for this specialism, although the focus is still very much on textual archives and is likely to remain so.

7.4 Where more than just basic knowledge is sought after, there are courses, conferences and seminars for specialists, both in this country and abroad. The MA course in film studies and archives at the University of East Anglia is the only full-time course of its kind in the UK, with others available in the USA, Australia and Italy. The various international bodies listed in Appendix B provide information and conferences to members, some aspects of which may also be taken advantage of by non-members, and it is these bodies that take a lead in best practice and standards at the highest level. The British Universities Film and Video Council often organises seminars and workshops concerning technological subjects, including archive work, copyright and digitisation, and can provide training on demand for basic film handling and so on if required. Professional bodies like the BKSTS - the moving image society - also run highly specialised short courses and seminars on technical subjects, usually related to the cinema.

7.5 Training of film and sound archive conservators tends to be done in-house at specialist repositories, in conjunction with the above-mentioned professional bodies, but there is no equivalent of the Conservators Training Scheme in place. Basic training for conservators in general repositories is being addressed by the workshops mentioned above in 7.2, to a certain extent.

7.6 Equipment maintenance needs to be carried out by a mechanical/electrical engineer, if possible. Such a person must be made aware of the specific needs of archive film and sound collections, and be able to deal with old and outdated equipment as well as new machinery. This is particularly important if outside contractors are used.

8 CATALOGUING AND INDEXING

8.1 Best practice in this area demands that copies should be used for viewing and listening purposes to produce synopses and transcripts of film and sound items, but it is the originals which must be physically and intellectually described in the catalogue main entry. For access purposes, however, it should also be made very clear to users and staff that only copies are available for research, commercial use and illustrated presentations. These must be described separately, taking into account their different formats and any compilations, editing, enhancements and so on which make them different from the originals.

8.2 The minimum recommended elements for catalogue descriptions are as follows:

| | |
|-------------------------------|--|
| Reference Code | (usually the accession number with sub-number) |
| Title | (only that within the item itself, otherwise create one) |
| Date(s) | (when item made or transmitted; may need to be |
| Physical Form | (whether a cinefilm, video or sound recording) |
| Technical Description | (carrier, gauge, size, base material, etc.) |
| Extent | (Number of components, or part of a compilation) |
| Location | (shelf in strongroom) |
| Copyright & Access | (reference to details of rights owner/s, licensing |
| Provenance | (source of item and proprietary ownership; |
| Documentation | (written material accompanying item) |
| Contents Analysis | (synopsis, preferably with timings) |

Identification of all or even some of these elements may be difficult, unless the necessary information is gathered at the time of deposit, otherwise considerable staff research is needed. A good example would be the identification of individuals in a cinefilm or sound recording, or a particular location, which might be gleaned from the depositor.

8.3 The synopsis is particularly important if archive users are likely to be researching particular topics or people, such as architecture or a historical figure for example, and which may be found within an item covering a broader field or compilation of subjects. Unless supporting documentation already provides this information, there is no alternative but to view and/or listen to the item and make a sequential précis of its contents with potential users in mind. This makes research very much easier, and if a change of sequence or topic can be denoted by a timing or footage indicator, so much the better for those using appropriate playback equipment. Sound recordings in particular are not easily 'browsed' or 'scanned', and so lend themselves particularly well to this treatment. Specialist film archives and broadcasting libraries employ shot-listing terms to describe individual sequences within a film or video item, because their users often wish to gain swift access to particular images. Sound archives may even fully transcribe spoken word recordings, for similar reasons. General archives are not expected to go to this sort of trouble as a rule, and are unlikely to have the time to add any further details to an item, such as may be found in specialist archive catalogues.

8.4 A number of cataloguing rules or standards exist, from the highly specialised to the more general, which can be applied to archive film and sound records. An

example of the former is that of the International Federation of Film Archives (FIAP) rules for cinefilm and video recordings, and the International Association of Sound and Audiovisual Archives (IASA) cataloguing rules for audiovisual media with an emphasis on sound recordings, which are very detailed and require specialist knowledge to use properly. An example of the latter is the *Manual of Archive Description*, 3rd edition (MAD3), which contains the necessary elements for all kinds of archive records. Ward has demonstrated this for sound recordings in his *Manual of Sound Archives Administration*. In fact, the hierarchical structure of MAD3 suits collection overviews as well as item level description, and caters for administrative history. Many of its principles have been used in the *General International Standard Archival Description*, 2nd edition [ISAD(G)], which has now been amended to include all archival media, rather than the rules for 'special media' originally planned. Its major flaw is that the critical information concerning physical characteristics is not required until level 3.4.4, so catalogue users will not know whether they are looking at textual or audio-visual records until well down the page. This can be put right by including a general physical format field near the beginning of a description, for inputting 'cinefilm', 'video recording' or 'sound recording', and assuming everything else is textual, for example.

8.5 Widespread adoption of cataloguing standards allows for easier exchange of information and the creation of union catalogues, although this depends upon computerisation in practice. The Joint Information Systems Committee (JISC) has been actively pursuing this objective on behalf of higher education users in the United Kingdom, by means of computer networks, Encoded Archival Description (EAD) for 'tagging' fields in ISAD(G) when applied to computerised systems, and Z39.50, a software protocol designed to bring together similar items from separate databases on request as a 'search engine'. Agreement on standard indexing terms is still required for this to work properly, however, and the International Council on Archives (ICA) has begun the process with publication of the *International Standard Archival Authority Record for Corporate Bodies, Persons and Families* [ISAAR(CPF)]. To this has been added the *National Name Authority Files* [NNAF] by the National Council on Archives, and the *UNESCO Thesaurus* for subjects.

8.6 Computerised cataloguing systems are now applied to archive collections. Some are designed specifically for archive film and sound recordings, such as SIFT (BFI National Film and Television Archive) and CADENSA (BL National Sound Archive). Broadcast libraries, such as those at the BBC and ITN, employ highly sophisticated systems using subject classification and shot-listing of individual items for swift retrieval by users at their own computer terminals. The ability to recall actual items online via the internet, plus the application of 'visual indexing' for still and moving images on-line, whereby selected frames appear on the screen after interrogation of a textual index, are being developed in these areas (see the British Pathé website for examples, like www.britishpathe.com/workspace.php?id=728). Increasingly, moving images from a film and sound from a recording appear alongside their catalogue information online, including full transcripts, e.g., www.pearl.arts.ed.ac.uk/Tocher/Vol-50/50-005/50-005fr.html. Cataloguing 'in context' is also gaining ground, whereby information about the item and its production is added to the clip, e.g., <http://ssa.nls.uk/film.cfm?fid=6222> and <http://sasearch.brighton.ac.uk/view/context.php?film=567>.

8.7 More general computerised systems for archives can often be adapted to include item level descriptions for film and sound records, especially if cataloguing rules like MAD3 or ISAD(G) have been applied. CALM 2000 Plus and CAIRS are examples, and they can also store images and sound to a certain degree (see Appendix C for examples of film and sound archive cataloguing description in CALM). A feature of such systems is the ability to retrieve indexing elements automatically from the cataloguing description, especially synopses, shot-lists and transcripts - often called 'full text retrieval'. Some can also use manually applied indexing terms, to provide a 'belt and braces' approach to retrieval. Manual indexing, though time-consuming, provides a more precise tool than 'full text retrieval'. It is usual for subjects and locations to be applied conscientiously from a thesaurus of terms or classified arrangement. Corporate names and people need to be consistent with a set of rules that cope adequately with royalty and foreign spellings, for example.

9 COPYRIGHT

9.1 It is ironic that the use of copies for access purposes by archivists, in order to safeguard original film and sound records, may put them in contravention of the law. The Copyright Act prohibits copying many items without a licence, and then only for specific purposes. Oral historians and others engaged in the creation of archive records get around this problem by producing forms which licence certain uses of recordings, where copyright is a factor (see Appendix C for an example). Deposit receipt forms may also be used in this way, so that owners of records can sign their permission for archivists and conservators to carry out certain tasks, such as copying for preservation and access purposes, repackaging, conservation repairs, allowing on-site research by users, commercial and non-commercial use of items, etc. (see Appendix C for an example). Where property and intellectual rights in such records belong wholly to the depositor, it is possible for all rights to be passed on to the archive repository, in the case of donations. Unfortunately, most intellectual rights - covered by the Copyright Act - tend to belong to third parties, such as the production company or broadcaster. In such cases, donation forms only serve to pass on the physical property, not the rights in its use. For this reason, it is important to check that the depositor has not dubiously acquired such property, such as a former staff member of a company which owns all rights to certain film or sound records, and is depositing them without formal permission. Furthermore, separate rights may exist in elements within a single item so that, for instance, a broadcast organisation may own the rights to a programme for broadcast, but not to some of the elements from other sources within that programme. Copyright may also be sold or transferred, even passed on in wills, and the owners hard to establish or find, further complicating matters. The lack of registration for copyright ownership, exacerbated by an absence of legal deposit of audio-visual materials in this country, is a further obstacle. As a result, archivists often find themselves unequipped to provide basic rights information about their holdings. Despite all this, however, it seems most unlikely that anyone would prosecute archivists and conservators for making preservation copies, nor for providing access to viewing and listening copies within the repository. It is obviously better not to put 'originals' - meaning the best available version or component of a title - at risk from accidental damage through replay to users, and it can reasonably be argued that providing reference copies is a good showcase for the item concerned which could lead to greater awareness of its contents and earn royalties for its rights owners. This means that repositories must not be seen to profit from its holdings, unless all rights are held or signed agreements have been made with the depositors. Ethically, it is important that any fees earned should go back into the preservation of such records, for this reason.

9.2 Best practice demands that archivists should know and understand the Copyright Acts currently in force, despite their complexity and continuing amendments. A basic outline of the present situation (2000) is provided below:

9.2.1 The current UK Act in force is the *Copyright, Designs and Patents Act 1988*, which apparently supersedes all previous Acts in terms of duration of copyright, but not necessarily in other elements like ownership. This means that archivists need to be familiar with previous Acts as well. Unfortunately, many terms are not defined, and there is an absence of case law in this field of legislation. The duration of copyright under the 1988 Act was amended later and came into force on 1 January

1996 under Statutory Instrument 3297 (1995). Due to international agreements like the Berne Convention, much foreign material is also covered, in that works are protected by the law pertaining to the country of origin. A general movement towards the harmonisation of copyright provision within the European Union may result in further amendments.

9.2.2 Works protected by the Act include: sound recordings, cinefilm, video recordings, film and video soundtracks, terrestrial and satellite broadcasts, and cable programmes (including items within those programmes). Related written records, in whatever form, are also covered along with film set designs, posters, graphics and computer-generated works.

9.2.3 The owner of such works at the time of creation/production is defined as the person or organisation by which the arrangements were made for making the item, usually the financier. Creators of works are known as 'authors' under the 1988 Act, and may be employed by the financier (usually an organisation) concerned. Rights in various elements of the work like performance, script, music and dialogue, may or may not be owned by the financier; it depends upon any agreements signed during production, affecting copying and use afterwards. Such rights can be bought or sold and passed on to others as bequests, further complicating the issue.

9.2.4 'Fair Dealing' under the Act deals with related written records and other Literary Works, whereby Statutory Instrument 1212 (1989) allows archives to make restricted copies for individuals once a Form of Declaration and Undertaking has been signed.

9.2.5 Duration of intellectual copyright (from the end of the calendar year stated in all cases) is summarised as follows:

- Cinefilm and Video Recordings - 70 years from the year in which the death occurs of the last to die of the following: principal director, screenplay author, dialogue author, or composer of music made especially for the film or video.
- Sound Recordings - 50 years after it was made or, if subsequently released, played in public or broadcast, 50 years from then.
- Cinefilm or Video Sound Tracks - the same as that for a cinefilm or video recording, unless treated as a sound recording for release in its own right.
- Broadcasts and Cable programmes - 50 years from the year in which the broadcast was made or item included in a cable programme.
- Crown Copyright - 125 years from the year in which it was made. If, however, a work is commercially published within the first 75 years of being made, copyright lasts for just 50 years from that time. A surprising number of works fall within the latter category. Recent changes in the implementation of Crown Copyright, by which it is asserted and then waived if felt necessary, is aimed primarily at material of a legislative and consultative nature, but the right of government and related bodies like the Imperial War Museum to charge reproduction fees is maintained. Archivists should always first check material

with such bodies before assuming it is free of copyright implications.

Oral history informants have Literary Rights in their spoken words, and copyright protection extends for 70 years after their death, whereas the interviewers (usually in the name of their organisation) hold the recording rights, lasting 50 years after it was made or released, etc.

After the death of the author, his or her 'personal representative' takes over the rights, unless they were sold or passed on to a particular named person or body. New technology forms of the above, meaning digitised, are covered by the same law. There is no difference in treatment, therefore, between a film or sound recording and its electronic form.

9.2.6 Related written records and digitised text are classed as Literary or Dramatic works, whilst graphics, set models, movie posters, etc. are treated as Artistic works. Copyright provision is thus the same as that for more traditional archive records, and lasts for 70 years from the end of the calendar year in which the 'author' dies.

9.2.7 'Unpublished' or 'unreleased' works (also known as 'orphan works') are covered for the first time, with copyright durations as above. If the 'author' is unknown, duration is 70 years after the 1988 Act - 2059 - unless discovered before that date. This means that the so-called 'perpetual copyright' enjoyed by amateur works in the past no longer applies.

9.2.8 Known 'authors' and film directors have Moral Rights in their works (made after 1 August 1989), entitling them to acknowledgements at all times and the right to object to derogatory treatment and false attribution of their works. In time, this may well extend to the subjects of works. Furthermore, a person who, for private and domestic purposes, commissions the making of a cinefilm or video has the right not to have copies issued or shown to the public, broadcast or included in a cable programme. These rights exist even if the people concerned pass on their copyright ownership to others. Archivists should be aware of this when allowing copyright works to be used off-site.

9.2.9 Performers at live events must give permission before recordings can be made of them. In practice, their trade union tends to deal with this. Archivists should be aware that the Musicians Union and Equity have been notoriously unwilling to grant permission. It is also worth noting that folksongs may only be recorded for a 'designated archive' (see below), if the song is unpublished, the author unknown, and the performer gives permission.

9.2.10 The copying of items under the Act concerns any material form, including that which is different from the original (such as a video copy of a cinefilm), 'off-air' recordings and 'downloading' from computer networks. Only bodies designated by the Secretary of State may record 'off-air' from broadcasts and cable programmes for archival purposes, unless special agreements have been made with the broadcast and cable companies concerned. Archives wishing to become designated must apply to the Patents Office, after first approaching the relevant broadcasters and cable operators for their views on the application.

9.3 Off-site use, such as for broadcast, must be licensed by the rights owners or by licensing bodies such as the Mechanical Copyright Protection Society and the Performing Rights Society. The former can be achieved through signed agreements with depositors and, if necessary, other rights owners. Each proposed use may require written permission at the time and involve the payment of royalties. Archives which do not own rights may nonetheless charge a facility fee (or reproduction fee) to, say, a broadcaster wishing to use an item held by an archive, for which the user may also be charged a royalty by the rights owners. Licensing bodies allow non-profit making presentations and displays of some copyright material in return for an annual subscription. Some rights owners, however, charge royalties or access fees for such use, whether profit-making or not; newsreel companies are a good example. They are particularly wary of digital access off-site. Bodies like FOCAL (Federation of Commercial Audio-Visual Libraries) advise their members on copyright licensing and run courses for anyone interested and concerned about this subject.

9.4 Specialist archives like the BFI National Archive maintain files of company histories, giving details of take-overs, mergers and other changes: see www.bfi.org.uk/filmtvinfo/gateway/categories/legislationcopyright/ and www.bfi.org.uk/filmtvinfo/researchers/distribution/british.html; sources like the *British Film Catalogue, 1895-1985* by Gifford and the *Kine Yearbooks* are useful in tracing a link with present film rights holders, for instance, as well as for historical research. Where there is no known copyright holder, intending users of film and sound archive records can be asked to sign a letter of indemnity, which covers the archive should the owner subsequently appear. Archivists should use their judgement in deciding whether to contact depositors before off-site use of their property, to inform them of this action out of courtesy, even if payments are not due.

9.5 Archives which hold copyright in some or all of their holdings will need to apply high standards of protection to them, as do other copyright owners to their own works. Archivists need to be wary of giving away rights for undetermined and indefinite use, for instance, as has occurred with some contracts issued by broadcasters. Agreements for specific uses only are recommended in this case. There is also the question of Publication Right, introduced in 1996, which allows Literary, Dramatic, Musical or Artistic Works and Films (but not sound recordings) to be 'published' again (meaning 'communicated to the public') if they are out of copyright. This means that such works must first have been in copyright and not published in this or any other state in the European Union. Most amateur works come under this heading, for example. The archivist should be aware of this and ensure that any agreements for use, including loans, of their own copyright material makes the relinquishment of Publication Right by the user a condition of supply.

10 ACCESS

10.1 Regarding access to archive film and sound records in general, it may be necessary to delay or restrict access if there are conservation problems, or concerns due to the sensitive nature of the contents of an item, such as medical, racist, obscene or otherwise disturbing material; this may be insisted upon by the depositor and/or rights holder. The archivist may also deem it prudent to deny or delay access if there is concern about how an item may be used, if its owner seems likely to be distressed or their interests damaged as a result. A good example of this occurred when a television company failed to mention that film footage copied from an archive collection was to be used to challenge its owners for alleged past misdemeanours. A careful balance needs to be found, therefore, between the needs of users and that of the archive collections and depositors.

10.2 The normal repository rules for preventing theft of records applies here, of course, and includes equipment in this case. Risk assessment applies equally to staff as well as to users.

10.3 For on-site access the archive premises should allow for an area with low lighting levels, to reduce reflectivity on viewing screens, and a tolerance of replay machine noise, such as would be required for microform viewing. Headphones can be employed to ensure privacy where carrels are provided in open areas, for individuals listening to recordings. Some repositories have rooms devoted to this purpose, which may be soundproofed to allow for a group listening experience. Special cinemas or lecture theatres may be provided, with raked seating perhaps, for presentations and public screenings. In fact, many users of film archives prefer to view cinefilm or video recordings this way, as members of an audience; the notion of individual research of such media is still not widespread among the general public.

10.4 At present, replay machines for individual access to copies of archive moving images and sound recordings tend to be DVD/CD players, or computers with those replay facilities and software; some repositories may still be using video and audio cassettes. Other archives prefer to replay items on request from a remote server to a user's computer terminal, either by staff or, more likely, user-controlled via an online database.

10.5 Delivery of access copies to users may be achieved relatively quickly via efficient manual or computerised ordering systems, but only if items requested are stored on-site. Some archives require users to make their requests up to two weeks in advance, to allow for transportation of items from remote storage areas, although it is better practice not to impose such a delay on access. Once delivered to the user, the normal staff supervision and security arrangements are needed, especially where expensive equipment is being used. In fact, active staff assistance is highly desirable, not just with replay machines, but also concerning information about the items being researched; this extends to presentations and screenings to groups. After viewing and/or listening is complete, items should be physically checked, fully rewound if necessary, and returned for reshelving.

10.6 Providing copies of film and sound records away from the repository is increasing with demand. The various kinds of off-site access are briefly listed below:

- Via online catalogues with attached film and/or sound items, or extracts thereof, usually involving streaming.
- illustrated presentations to the public, special interest groups and educational institutions at community halls, cinemas, lecture theatres and other public places, including outdoors at agricultural shows and even in Bioscope tents, for instance.
- through presentations and displays at different venues or at special events such as local history festivals, conferences, exhibitions and anniversary celebrations.
- via loans of items and compilation packages (which have been cleared with rights owners for the purpose) to groups and individuals, for their own presentations and research purposes, often aimed at specific users like schools, museums and community groups. Public libraries are now purchasing these packages for borrowing by their own users.
- for sale as commercial packages on particular topics or localities.
- for sale in the non-commercial sense to members of the public, students, public and community organisations, etc. as requested items (after clearance) for various purposes.
- as reminiscence therapy for the elderly, in hospitals or day care centres for example, as well as through dramas based upon archive records like video and oral history recordings.
- use by broadcasters and film or video makers, including multimedia packages.

10.7 A potential problem with the sale and loan of items is that of ‘piracy’. Many people now have the facilities to copy items, and do not concern themselves with copyright. The archivist must take precautions against this by, for example, requiring people to sign forms promising not to copy, through warnings on recordings and labels, the marking of visual images with electronic ‘watermarks’ or by deliberately making poor quality copies for research use. This does not always work, however, and even broadcasters will use sub-standard material sometimes.

10.8 Once items have been cleared for use, many archivists charge ‘facility fees’ to provide them. These are not the same as royalties, but do involve a scale of charges for particular uses, from non-commercial to commercial, as well as for staff research. Copying items for this purpose may be carried out in-house or via commercial facilities, and the user charged accordingly. This helps bring in some revenue for the archive that should be used for preservation copying, for example, but also requires a financial system to keep track of debts, income and expenditure.

10.9 The publicity value of providing off-site access can be considerable, and is likely to encourage further acquisitions and information about existing collections. The skills of marketing are required to remain active in promoting the archive in this way, and may include not just listings in directories, publicity leaflets and poster distribution, but often personal appearances on television and radio programmes, printed articles, and so on. Much effort is involved in achieving this, however, and

may be beyond the resources of some archives. In fact, volunteer effort has been used to assist with this aspect of providing access.

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General

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- A highly useful directory published by the British Universities Film and Video Council (BUFVC) since 1981, in several revised editions. Each edition contains an alphabetical guide to collections with subject index, a select bibliography of relevant books, periodicals, Acts of Parliament and other reports, organisations and other useful information. They also contain very interesting articles, some of which are listed below:

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The BUFVC also publishes other material, such as the journal *Viewfinder*, and provides searchable online databases and AV content relating to British Newsreels, television and radio programmes and much more besides, some available by subscription only. See <http://bufvc.ac.uk/> for details.

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Useful Websites

Association of Moving Image Archivists (AMIA) - www.amianet.org/

The BBC Archive - http://www.bbc.co.uk/archive/tv_archive.shtml

British Film Institute (archive film and TV database) - <http://www.bfi.org.uk/filmtvinfo/ftvdb/>, (resources for researchers) - <http://www.bfi.org.uk/filmtvinfo/researchers/>

British Library Sound Archive - www.bl.uk/collections/soundarchive

British Universities Film & Video Council (BUFVC) - <http://bufvc.ac.uk/> - covers film, video, TV and radio resources

International Association of Sound and Audiovisual Archives (IASA) - www.iasa-web.org/

Columbia University Libraries (Survey Instrument for Audio and Moving Image Collections) - <http://www.columbia.edu/cu/lweb/services/preservation/index.html>

FACET: The Field Audio Collection Evaluation Tool (Indiana University) - <http://www.dlib.indiana.edu/projects/sounddirections/facet/index.shtml>

Film Forever (visual guide to formats, care and handling) - <http://www.filmforever.org/>

Oral History Association (technical pages contain good illustrations of equipment) - <http://www.oralhistory.org/technology/>

Oral History Society - www.ohs.org.uk/

TAPE Online (Training for Audiovisual Preservation in Europe: guidelines) - <http://www.tape-online.net/>

12. GLOSSARY OF TECHNICAL TERMS

Acetate Disc

See under **Instantaneous Disc**.

Acetate Film

Safety film base. Types include **Tri-acetate** and **Diacetate**.

Amplifier

Device for altering the strength or 'Volume' of a signal for recording or playback. It must be properly matched with input equipment and monitors to avoid overloading problems. There are several types of amplifier, including:-
Distribution Amplifier - used to distribute one signal input to several outputs, with independent volume level control and isolation for each output.

Power Amplifier - simply used to convert a signal to sound through a monitor, at different volumes up to a stated maximum power of so many watts at a given load or 'Impedance' measured in ohms, e.g., 150 watts at 8 ohms.

Preamp - boosts the volume of a weak signal from audio equipment and tape or disc players, often with controls for tone, etc., to be fed into a power amplifier.

Azimuth

Angle of recording and playback heads to a tape. Should be 90° for best results.

Binder

Chemical adhesive used to bind emulsion or magnetic coating on to a base. Prone to drying out or reacting to damp and migrating to the surface of magnetic tape, where it appears as white dust, impeding replay (known as 'sticky tape syndrome').

Bioscope

Early type of cinema, usually in the shape of tents at fairs.

Bobbin

The core around which cinefilm is wound and usually made of plastic. A **Split Spool**, which comes apart, is needed to handle films on rewinders when wound on bobbins.

Bulk Eraser

See under **Degausser**.

Capstan

Rotating drive wheel attached to the motor on a tape machine that ensures constant speed when the tape is pressed against the wheel by the pinch roller.

Cartridge

Physical container of only one spool of tape or cinefilm, usually on an endless loop, for replay in a cartridge machine. Term also used for a gramophone pick-up, containing a **Stylus**.

Cassette

Physical container of two spools of tape, for replay in a cassette machine. Term sometimes used instead of cartridge, especially regarding early 9.5mm cinefilm containers.

Cassette Tab

Removable tabs or 'lugs' in audio and video cassettes prevent accidental erasure of a recording when removed. Some types are sliding tabs. Often overlooked, yet important devices.

CD-R

Recordable compact disc which only allows one chance to make a recording, unlike magnetic tape and **CD-RW** (re-writable) discs, which allow over-recording. The non-label side of a CD-R is usually green or green/golden in hue, but the label side may be silver or gold; the latter type is meant to be better for preservation copying. Please note that a CD-R recording must be 'finalised' in the machine to become permanent and 'readable'.

Celluloid

See under **Nitrate**.

Cement (Film)

See under **Film Cement**.

Cinching

Slippage of tape due to loose winding in a roll causes wrinkling, sometimes into 'S' shapes, called Cinching which can cause permanent damage. Poor winding can also cause Pop Stranding, whereby tape edges poke out of the roll. Careful winding and rewinding at the correct tension is essential before storage.

Colour Sub-carrier

Term used for video recordings made using different colour systems: PAL, NTSC and SECAM. Mains frequencies and the number of television lines used by a country's transmission system determine these. Recordings made in a country with a different colour sub-carrier system will need to be copied through a **Standards Converter** before they may be replayed in this country, although some video players and televisions will actually replay two or more types.

Compression

Digital compression involves the use of computer software artefacts to reduce the amount of data storage space required for sound and video recordings, by means of only sampling the changes in continuous sound and vision rather than the whole. Also known as **Data Reduction**.

Core

See under **Bobbin**.

Data Reduction

See under **Compression**.

Degausser

Electromagnet device used to 'Demagnetise' tape recorder heads and other metal parts. The type used to erase tape recordings is known as **Bulk Erasers**. See www.taperecorder.co.uk/demagnetizing.htm for more information.

Diacetate Film

Type of safety film stock that was prevalent before **Tri-acetate** stock.

Drop-out

Momentary loss of signal on a recording or broadcast. The former is usually caused by a scratch or surface debris, which cuts out the recorded signal being replayed at that point. 'Dropout Compensators' overcome this problem electronically, particularly effectively on digital recordings, which use 'Error Correction' techniques.

Dub

Literally a copy of a recording. In terms of cinefilm and video soundtracks, it also includes different language versions, the addition or altering of elements like music and effects, and the synchronisation of words to mouth movements. Also known as 'Dubbing'.

Duplicates

Copies made on to the same medium. Also known as **Dupes** in the trade.

Emulsion

Photographically sensitive coating on cinefilm base.

Film Cement

Chemical used to splice cinefilm together. Different kinds are used for various types and age of cinefilm. Some kinds can be carcinogenic.

Flange

The side of a spool containing tape or cinefilm, which helps keep the reel inside from coming apart during playback or projection.

Footage Counter

Device for cinefilm (16mm and 35mm), either built into a rewriter or film editing machine, or as a separate piece of equipment; can be electronic these days. Used for counting exactly how many feet (or metres) there are in a reel.

Format

Refers, in this guideline, to types of audio-visual archive records in their broadest sense: cinefilm, video and sound recordings. May also be used to

describe particular sub-types of the above, such as Reversal, VHS and CD.

Frame

Any one of the individual pictures which form the visual part of a cinefilm. The shape of frames give their name to types of picture ratio (width by height), such as 'Academy', 'Widescreen' and 'Full Frame'. This is important to know when copying cinefilm (see *Film and Sound Archive Sourcebook* for details).

Gaffer Tape

Type of wide tape, usually linen, with a strong adhesive backing used in the audio-visual industry for securing cables to surfaces. So-called because it is the 'gaffer' (chief electrician) who uses it mainly. Not recommended for non-industrial flooring like community centres, because of the marks made.

Gauge

Refers to the width of a cinefilm.

Grading

Procedure to match scenes in a cinefilm so that the light level is consistent throughout. Grading is achieved by altering the light level of the printer.

Graphic Equaliser

Manipulates sound through filters or 'equalisers' when recording, to help minimise 'noise' and distortion or to create particular tonal effects. Graphic equalisers provide separate frequency response control of each octave of sound.

Grease Pencil

Type of wax crayon used in the film industry mainly for writing on cinefilm leader. Also known as a **Chinagraph pencil**.

Instantaneous Disc

Gramophone disc base used for making recordings direct from source, whether a live event or another recording. Made of soft unstable surface material, which includes cellulose nitrate, on aluminium or another hard core. A heated stylus would cut a groove as the recording was made, hence the term 'instantaneous'. Also, confusingly, known as an **Acetate Disc**.

Jewel Box

Used for compact disc storage.

Lawley Clip

Strategically placed metal clip around cinefilm perforations, which informs a duplicating machine about grading of colours and density.

Leader

Any protective piece of cinefilm or tape joined to the beginning or end of a reel. Countdown leaders have numbers printed on them, always missing out

two and one for projection purposes, whilst others may have synchronisation marks for separate soundtracks.

Master

One of those terms which means different things to different people. Those responsible for sound archives should refer to **Preservation** or **Archival Master** when talking about copies of items held, to protect them from possible damage. Items acquired and held by the repository can be termed originals - even if they are in fact duplicates - for the purposes of sound archive administration, and should be stored in a separate strongroom from that of the Preservation Masters. **Production** or **Duplicating Masters** are used for making access copies. In the audio production industry such Masters are often the edited final versions of sound recordings, but this may not be the case in archives, e.g., oral history tapes. Cinefilm masters are usually the camera original, but can be the best existing material for preservation copying purposes. Video masters can be the camera originals or the master edit.

Molecular Sieve

Special conservation material containing **Zeolites** which absorb harmful gases given off by decaying audio-visual records. Comes in the form of bags, paint or impregnated paper for placing next to the affected record in its container.

Monitor

A television or video monitor is a professional device that receives pure signals from the recorder, and does not have an aerial for receiving broadcast transmissions. The monitor can be set up for optimum viewing performance, and may need separate loudspeakers for sound.

An audio monitor is a professional loudspeaker. There are two main types: a near field monitor, used for close listening purposes and the most suitable one for archive repositories; a studio monitor, used for live recordings in studios.

Negative

Camera film that requires processing by the laboratory, then duplicated on to print stock to produce a positive image.

Nitrate Film

Highly flammable cinefilm stock made for the cinema industry until 1951. It is also chemically unstable and liable to decompose, especially if affected by damp. Widely known as **Celluloid** and only made in 35mm width and above.

Off-gassing

Emission of small amounts of gases from certain plastics which, over a period of time in storage, may adversely affect nearby archive records as well as other materials in close proximity. Fresh air ventilation disperses these gases before they have time to build up in confined areas.

Oxide

Term used to denote the magnetic coating on a sound recording. The adhesive used to keep it on a tape or cinefilm is known as the **Binder**.

Perforations

See under **Sprocket**.

Pick-up

See under **Cartridge**.

Plasticiser

Chemical substances that aid the moulding of, for example, gramophone discs. Sometimes, migrated plasticiser can be mistaken for mould on the surface.

Print-through

An 'echo' effect on tape recordings, caused by the transference of sound from one layer of tape to another within the roll. It is thought that heat combined with magnetic instability causes this effect, but winding and unwinding the tape reduces it.

Programme Number

Reference code given to a broadcast programme, which stays with it throughout its production and transmission, for use by all staff including accountants.

Reel

Wound tape or cinefilm, either housed in a **Spool** or around a **Bobbin**.

Reversal Master

Camera film processed by the laboratory using the reversal process comes out as a positive, not a negative. Standard 8mm, Super 8mm, 9.5mm and some 16mm cinefilm used the reversal process for filming. As no negative is used, the original which ran through the camera becomes the projection positive. No negative means that it is a cheaper process for the home movie maker. A **reversal print** is just a duplicate using reversal film stock. This stock can be identified by having a black edge, whereas negatives and positive prints tend to have clear edges.

Re-washing (Film)

See under **Washing**.

Rewinder

Device for winding and rewinding cinefilm on and off spools. Different gauges require different rewinders, although these are often built into film editing machines. There are two types of rewinder: upright and flat bed, and they can be manual or motorised.

Rushes

Quick positive print made from negative, for viewing purposes and assemble editing. Gets its name from prints made overnight for viewing the next day - 'rush through'. Also applied as a term to the other elements of production: soundtracks and video recordings.

Safety Film

Non flammable cinefilm stock. The cinema industry used nitrate stock until 1951 (with prints still being used up to ten years after) because of its strength and flexibility, whereas safety stock was used for smaller gauges from the start because of their use in the home and schools.

SCMS (Serial Copy Management System)

Enables only one copy of a commercial digital recording to be made by a recorder with this system installed. Further copies of the recording are also prevented if the second recorder has SCMS installed. Analogue recordings are not affected. Professionals do not use this system for their work, so their equipment is unaffected.

Sepmag

Separate Magnetic soundtrack. Used in cinefilm production, where the picture is separate from the recorded sound and synchronised in the editing process. Sepmags are made of cinefilm base - acetate or polyester - with a full magnetic coating, and may contain several parallel tracks. Alternatively, there could be more than one sepmag, each containing different elements of the final soundtrack, such as music, effects and narrative.

Shot-listing

Detailed cataloguing of moving image recordings by sequences, using timings and camera movement terms, for accurate recall of those particular sequences. Mainly employed in broadcast television libraries.

Signal Processing

Filtering of sound through equipment like mixers, equalisers and amplifiers to help reduce unwanted 'noise' on a recording, as well as to improve its audio playback quality.

Splice

A join in a cinefilm or tape. Can be overlap or 'butt-join' type, with a diagonal cut used for magnetic soundtracks to aid the smooth passage of sound across the splice.

Spool

Physical container with flanges to contain a reel of tape or cinefilm during playback or projection. A **Split Spool** comes apart to enable films wound on bobbins to be handled on a rewinder or projected.

Sprocket

Wheel or roller with teeth to engage in sprocket holes (also known as **Perforations**) in cinefilm.

Standards Converter

Video device for converting recordings made on one type of **Colour Sub-carrier** to another. Some video recorders have this device built in.

Steenbeck

Manufacturer's name that has come to be used for all kinds of motorised flat bed cinefilm editor/viewing tables.

Stripe

Type of magnetic sound track on cinefilm, pasted on to the edge. Prone to unsticking. Both film edges were used sometimes, for extra sound effects, stereo, or just to balance the other edge for stability during projection.

Stylus

The 'needle' which either cuts or fits in the groove of a gramophone disc (or wax cylinder), for recording or playback respectively. The vibrations caused by fluctuations in sound waves are transmitted to or from the groove through the stylus and its **Pick-up** (also known as a **Cartridge**), and its support - the **Tone Arm**. In the past, styli were made of steel, bamboo, etc. and could be sharpened if they became blunt. Modern styli are much smaller and made of diamond or sapphire materials to various sizes and configurations, to fit different groove dimensions. 'Conical' styli have rounded ends which best suit grooves in poor condition, whereas 'elliptical' styli with their spherical shape play best in well preserved grooves.

Tape Head

Oblong metal device on a tape machine across which the tape rubs. Magnetic signals on the tape may be recorded, erased or played back, depending on the head, which may combine two of these functions on some machines.

Telecine

Machine for running cinefilm, so that the picture is converted into a video signal to feed into a video recorder. Used to transfer cinefilm to video, but has been used in the past for broadcast transmissions.

Televideo Machine

Combined television and video player. Also known as a 'Combi'.

Time Base Corrector

Device that helps correct unstable signals on video recordings. Can be inbuilt to recorders or stand-alone. Used when copying domestic formats to professional machines.

Tone Arm

Support arm for a gramophone pick-up.

Track Configuration

How recorded sound is laid out on an audio-visual item, e.g., two-track stereo, four track mono, variable area track. Important to understand for replay and duplication purposes.

Tracks

Sound tracks on magnetic tape, discs and cinefilm. They may be single tracks of sound created by one recording head, or several in a row. See the Format Guides in the *Film and Sound Archive Sourcebook* for more detailed information about types and configurations.

Transcriber

Audio cassette player with foot pedal control and headphone attachments,

used for transcribing oral history recordings into text.

Tri-acetate Film

Type of safety film stock. Now being replaced by polyester stock.

Vinegar Syndrome

Deterioration of acetate safety film base attacked by one of its own ingredients, acetic acid. Produces a characteristic vinegar smell. Damp is one of the main triggers for this condition.

Washing (Film)

Final processing stage for cinefilm, when residual chemicals are washed away. If this is not done efficiently, remaining chemicals can stain the film and may cause long term damage. Re-washing should remedy this, and thoroughly clean films that have become dirty in use and in poor storage.

Wax Cylinder

Sound recording medium going back to the 19th century, whereby a stylus (needle) scratched a groove on to a revolving wax cylinder, vibrating with the sound waves produced via a horn. The same machine was used for playback. See the Format Guide in the *Film and Sound Archive Sourcebook* for more detailed information about types.

Zebra Tape

Special thin tape with a black and white 'zebra' pattern for joining the end of an open reel video tape. Used in the video and broadcast industry.

Zeolites

Chemical mixture designed to absorb harmful gases given off by decaying audio-visual records. Housed in a **Molecular Sieve**.

NB More detailed glossaries may be found in the *Film and Sound Archive Sourcebook*, section 3.

APPENDIX A: SPECIALIST FILM AND SOUND ARCHIVE REPOSITORIES IN THE UNITED KINGDOM AND IRELAND

1 The Film Archive Forum

This is a collection of national and regional film archives with similar aims and purposes, which meet four times a year to discuss matters of common interest and exchange information. It also holds occasional workshops for members and lobbies for support of film archives, training provision and related legislation, such as legal deposit. A publication, *Moving History: towards a policy for the UK moving image archives* (available free on the Film Archive Forum website or from the BUFVC) outlines the Forum's statement of principles concerning its members' work. This is recognised by Central Government through MLA, HEFCE, HLF, the Society of Archivists, and the National Council on Archives, amongst others, as well as by various international bodies and important film archives abroad.

The UK Film Archive Forum (Website: www.bufvc.ac.uk/faf) consists of the following members:-

IMPERIAL WAR MUSEUM FILM AND VIDEO ARCHIVE

Lambeth Road

London [SE1 6HZ](#)

Curator: Roger Smither

Tel: 020 7416 5293/4 Fax: 020 7416 5299

E-mail: film@iwm.org.uk

Website: <http://collections.iwm.org.uk/server/show/nav.00g004>

Contact: Paul Sargent, deputy curator

Jane Fish, production information officer

BFI NATIONAL FILM AND TELEVISION ARCHIVE

J. Paul Getty Conservation Centre

Kingshill Way

Berkhamsted

Hertfordshire [HP4 3TP](#)

Head of Collections and Information: Darren Long

Tel: 01442 876 301

London office:

21 Stephen Street

London [W1T 1LN](#)

Tel: 020 7255 1444

Website: www.bfi.org.uk/nftva

Contact: Patrick Russell, keeper of documentary film

Steve Bryant, keeper of television

SCOTTISH SCREEN ARCHIVE

National Library of Scotland

39-41 Montrose Avenue

Hillington Park

Glasgow [G52 4LA](#)

Curator: Janet McBain
Tel: 0845 366 4600
E-mail: ssaenquiries@nls.uk
Website: www.nls.uk/ssa

NATIONAL SCREEN AND SOUND ARCHIVE OF WALES/*ARCHIF
CENEDLAETHOL SGRIN A SAIN CYMRU*
National Library of Wales
Aberystwyth SY23 3BU
Director: Richard Iestyn Hughes
Film Development Officer: Iola Baines
Tel: 01970 632 828
E-mail: agssc@llgc.org.uk
Website: <http://screenandsound.llgc.org.uk/index.htm>

EAST ANGLIAN FILM ARCHIVE
University of East Anglia
Norwich NR4 7TJ
Director: Richard Taylor
Tel: 01603 592 664
E-mail: eafa@uea.ac.uk
Website: www.uea.ac.uk/eafa
Region: Norfolk, Suffolk, Essex, Cambridgeshire, Hertfordshire, Bedfordshire.

NORTH WEST FILM ARCHIVE
Manchester Metropolitan University
Minshull House
47-49 Chorlton Street
Manchester M1 3EU
Service Manager: Marion Hewitt
Tel: 0161 247 3097
E-mail: n.w.filmarchive@mmu.ac.uk
Website: <http://www.nwfa.mmu.ac.uk/>
Region: Greater Manchester, Lancashire, Merseyside, Cheshire, Cumbria.

WESSEX FILM AND SOUND ARCHIVE
Hampshire Record Office
Sussex Street
Winchester SO23 8TH
Manager: David Lee
Tel: 01962 847 742
E-mail: sadexn@hants.gov.uk
Website: <http://www.hants.gov.uk/record-office/film/index.html>
Region: Hampshire, Berkshire, Isle of Wight, East Dorset.

YORKSHIRE FILM ARCHIVE
York St John College
Lord Mayor's Walk
York YO31 7EX
Director: Sue Howard

Tel: 01904 716 550
E-mail: yfa@yorks.ac.uk
Website: <http://www.yorkshirefilmarchive.com>

SCREEN ARCHIVE SOUTH EAST

University of Brighton
Grand Parade
Brighton BN2 0JY
Curator: Frank Gray
Tel: 01273 643 213
E-mail: screenarchive@brighton.ac.uk
Website: www.brighton.ac.uk/screenarchive/
Region: Sussex, Kent, Surrey.

SOUTH WEST FILM AND TELEVISION ARCHIVE

Melville Building
Royal William Yard
Stonehouse
Plymouth PL1 3RP
Director: position vacant
Tel: 01752 202 650
E-mail: info@swfta.org.uk
Website: <http://www.tswfta.co.uk/>
Region: Devon, Cornwall, Somerset, Wiltshire, West Dorset, Bristol, Bath, Gloucestershire, Scilly Isles.

MEDIA ARCHIVE FOR CENTRAL ENGLAND

1 Salisbury Road
University of Leicester
LE1 7RQ
Director: James Patterson
Tel: 0116 252 5066
E-mail: macearchive@le.ac.uk
Website: <http://www.macearchive.org/>
Region: Nottinghamshire, Derbyshire, Birmingham and surrounding city unitaries like Wolverhampton, Lincolnshire, Leicestershire, Rutland, Warwickshire, Northamptonshire, Worcestershire, Herefordshire, Staffordshire, Shropshire.

NORTHERN REGION FILM AND TELEVISION ARCHIVE (emerging archive)

School of Arts and Media
University of Teesside
Middlesbrough
Tees Valley
TS1 3BA
Director: position vacant
Tel: 01642 384022
E-mail: enquires@nrfta.org.uk
Website: <http://www.nrfta.org.uk/>
Region: County Durham, Tees Valley, Northumberland, Tyne & Wear.

2 British and Irish Sound Archives

In 2006 a forum of British and Irish Sound Archives (BISA) was established to discuss matters of mutual interest, starting with an E-mail discussion list at <http://www.jiscmail.ac.uk/lists/BISA.html>. Membership is growing - please contact Hon Secretary Jonathan Draper for more information:
Jonathan.draper@norfolk.gov.uk

BISA members - and other sound archives - are listed, selectively, below:-

BRITISH LIBRARY NATIONAL SOUND ARCHIVE

96 Euston Road
London. NW1 2DB
Tel: 020 7412 7676
Email: nsa@bl.org.uk
Website: sound-archive@bl.uk
Contact: Nigel Bewley, conservation manager
Rob Perks, keeper of oral history

IMPERIAL WAR MUSEUM SOUND ARCHIVE

Lambeth Road
London. SE1 6HZ
Tel: 020-7416-5363
Email: sound@iwm.org.uk
Website: <http://collections.iwm.org.uk/server/show/nav.00g007>
Contact: Margaret Brooks, Keeper

NATIONAL SCREEN AND SOUND ARCHIVE OF WALES/*ARCHIF CENEDLAETHOL SGRIN A SAIN CYMRU*

National Library of Wales
Aberystwyth SY23 3BU
Director: Richard Iestyn Hughes
Tel: 01970 632 828
E-mail: agssc@llgc.org.uk
Website: <http://screenandsound.llgc.org.uk/index.htm>

NORTH WEST SOUND ARCHIVE

Old Steward's Office
Clitheroe Castle
Clitheroe
Lancashire. BB7 1AZ
Tel: 01200 427897
Email: nswa@ed.lancscc.gov.uk
Website: www.gmcro.co.uk/other/NWSA/nswa.htm
Contact: Andrew Schofield, archive assistant
Region: Lancashire, Greater Manchester, Merseyside

SCHOOL OF SCOTTISH STUDIES – SOUND ARCHIVE

University of Edinburgh
27 George Square

Edinburgh. EH8 9LD
Tel: 0131 650 4159
Email: Scottish.Studies@ed.ac.uk
Website: www.celtscot.ed.ac.uk/archives.htm#archives_sound
Contact: Dr Cathlin Macaulay

ULSTER FOLK AND TRANSPORT MUSEUM

Cultra
Holywood
County Down
Northern Ireland. BT18 0EU
Tel: 028 90395126
Email: peter.carson@magni.org.uk
Website:
www.uftm.org.uk/collections_and_research/archival_collections/sound_archive/
Contact: Peter Carson

ST FAGAN'S NATIONAL HISTORY MUSEUM

Dept. of Social & Cultural History
Cardiff.
CF5 6XB
Tel: 0208 392 5376
Email: Beth.Thomas@museumwales.ac.uk
Website: www.museumwales.ac.uk/en/stfagans/
Contact: Dr Beth Thomas

UCD DELARGY CENTRE for IRISH FOLKLORE and the NATIONAL FOLKLORE COLLECTION

University College Dublin
Belfield
Dublin 4
Tel: 00353 (0)1 716 8439
Email: anna.bale@ucd.ie
Website: www.ucd.ie/irishfolklore
Contact: Anna Bale

RADIO TELEFIS EIRANN

Sound Archives Department
Sound Archives
Radio Centre, RTE
Donnybrook
Dublin 4
Ireland
Tel: 353 (0) 1 208 3111
Email: tapes@rte.ie
Website: www.rte.ie/laweb/arc/arc_index.html
Contact: Malachy Moran, Brian Rice, Diarmuid O'Sullivan

BBC SOUND ARCHIVE

BBC Information & Archives

401 Henry Wood House
3-6 Langham Place
London.
W18 3DF
Tel: 020 7765 4230
Email: Simon.rooks@bbc.co.uk
Website: <http://research.gateway.bbc.co.uk/ia/>
Contact: Simon Rooks

EMI ARCHIVES
Central Research Laboratories
Dawley Rd
Hayes
Middlesex.
UB3 1HH
Tel: 020 8848 2010
Email: archives@emimusic.com
Website: <http://www.emigroup.com>
Contact: Hamish Hamilton or Paul Lilley

ENGLISH FOLK SONG AND DANCE SOCIETY
Vaughan Williams Memorial Library
Cecil Sharp House,
2 Regent's Park Road,
London.
NW1 7AY
Tel: 020 7241 8959
Email: library@efdss.org
Website: www.efdss.org
Contact: Malcolm Taylor

MUSEUM OF LONDON
London Wall
London. EC2Y 5HN
Tel: 020 7600 3699
Email: info@museumoflondon.org.uk
Website: www.museumoflondon.org.uk/English/Collections/1700Today/Life-stories-oral-history.htm
Contact: Sarah Gudgin, Curator, Oral History and Contemporary Collecting

CHARLES PARKER ARCHIVE
Birmingham City Archives
Central Library
Chamberlain Square
Birmingham. B3 3HQ
Tel: 0121 303 4217
Email: archives@birmingham.gov.uk
Website: www.birmingham.gov.uk/charlesparkerarchive.bcc
Contact: Fiona Tait, Senior Archivist

The archive consists of Parker's work for BBC radio in the 1960s, including his famous *Radio Ballads*, documentaries and books.

BRADFORD HERITAGE RECORDING UNIT
Bradford Industrial Museum and Horses at Work
Moorside Mills
Moorside Road
Eccleshill
Bradford, BD2 3HP
tel: 01274 435853
email maggie.pedley@bradford.gov.uk
Website: www.bradfordmuseums.org/altmain/bhru.htm
Contact: Maggie Pedley, Museum Manager East

ESSEX SOUND AND VIDEO ARCHIVE
Essex Record Office
Wharf Road
Chelmsford. CM2 6YT
Tel: 01245 244624
Email: martin.astell@essexcc.gov.uk
Website: www.essexcc.gov.uk/ero
Contact: Martin Astell, Sound & Video Archivist

NORFOLK SOUND ARCHIVE
Norfolk Record Office
The Archive Centre
Martineau Lane
Norwich
Norfolk
NR1 2DQ
Tel: 01603 222599
Email: Jonathan.draper@norfolk.gov.uk
Website: www.archives.norfolk.gov.uk/sound_archive/nrosound01.htm
Contact: Jonathan Draper, Archivist

NATIONAL CENTRE FOR ENGLISH CULTURAL TRADITION
University of Sheffield
9 Shearwood Road
Sheffield. S10 2TN
Tel: 0114 222 6296
Email: j.redford@shef.ac.uk
Website: www.shef.ac.uk/natcect/archive
Contact: Jill Redford, Archivist

WESSEX FILM AND SOUND ARCHIVE
Hampshire Record Office
Sussex Street
Winchester
SO23 8TH
Manager: David Lee

Tel: 01962 847 742
E-mail: enquiries.wfsa@hants.gov.uk

THE LIVING ARCHIVE

The Old Bath House
205 Stratford Road
Wolverton
Milton Keynes
MK12 5RL
Tel: 01908 322568
Email: zflinn@livingarchive.org.uk
Website: www.livingarchive.org.uk
Contact: Zena Flinn

EAST MIDLANDS ORAL HISTORY ARCHIVE

Centre for Urban History
University of Leicester
University Road
Leicester. LE1 7RH
Tel: 0116 252 5068
Email: emoha@le.ac.uk
Website: www.le.ac.uk/emoha/index.html
Contact: Colin Hyde

SOUTH WALES MINERS' LIBRARY

Hendrefoelan House
Gower Road
Swansea. SA2 7NB
Tel: 01792 518603
Email: miners@swan.ac.uk.
Website: www.swan.ac.uk/lis/library/libraries/swml/
Contact: Sian Williams

3 Other Archival Organisations of interest

BBC INFORMATION AND ARCHIVES

Television Centre
Wood Lane
London. W12 7RJ
Tel: 020-8008-2288
Email: CustomerService9@main.bbc.co.uk (General Enquiries)
tvarchive@bbc.co.uk
RadioArchive@bbc.co.uk
Photo.library@bbc.co.uk
Website: www.bbcresearchcentral.com/
(Regional BBC libraries may also be contacted)

BBC WRITTEN ARCHIVES CENTRE

Caversham Park

Reading. RG4 8TZ
Tel: 0118 946 9281
Email: wac.enquiries@bbc.co.uk
Website: www.bbc.co.uk/heritage/more/wac2.shtml
Contact: Archivist

BRITISH PATHE Plc
New Pathe House
57 Jamestown Road
London. NW1 7DB
Tel: 020-7424-3636
Email: pathe@britishpathe.com
Website: www.britishpathe.com/
Contact: Librarian

BRITISH MOVIE TONE NEWS FILM LIBRARY
Denham Media Park
North Orbital Road
Denham. UB9 5HQ
Tel: 01895 833071
Email: library@mtone.co.uk
Website: www.movietone.com/index.cfm
Contact: Librarian

BRITISH UNIVERSITIES FILM AND VIDEO COUNCIL

77 Wells Street
London. W1P 3RE
Tel: 020-7393-1500
Email: ask@bufvc.ac.uk
Website: <http://bufvc.ac.uk/>
Contact: Sergio Angelini, Information & Publications Executive
Chief Executive: Murray Weston

Offers a wide range of services, information and facilities to members and non-members, including access to the **British Universities Newsreel Project database** (also available online to members), cinefilm and video viewing and copying facilities, a meetings room, off-air recording service (members only) and access to its extensive literature and research facilities. The BUFVC also runs courses, provides consultancy services and facilitates meetings of the Film Archive Forum, as well as publishing guides to film, television and radio holdings in the UK and Europe.

COI FOOTAGE FILE (Central Office of Information)

Film Images (London) Ltd
2 The Quadrant,
135 Salusbury Road,
London.
NW6 6RJ, UK
Tel: 020-7624-3388
Email: research@film-images.com
Website: www.film-images.com/index.jsp?ID=0
Contact: Tony Dykes

Crown Film Unit and other Central Government-sponsored films, now run by a commercial organisation. Contains a mixture of classic documentaries and short information films.

ITN SOURCE

200 Gray's Inn Road

London.

WC1X 8XZ

Tel: 020-7430-4480

Email: uksales@itnsource.com

Website: www.itnsource.com/en/

Contact: Sales Director

The main owner of or agent for cinema newsreels and ITV libraries. Owns ITN library, **Pathé (France) archive**, and **Reuters Television Library** (which also contains video access copies of British newsreel collections *Gaumont Graphic*, *Gaumont British News*, *Universal News*, *Paramount News*, and *Empire News Bulletin*).

MASS OBSERVATION ARCHIVE

University of Sussex Library

Falmer

Brighton. BN1 9QL

Tel: 01273 678157

Email: library.specialcoll@sussex.ac.uk

Website: www.massobs.org.uk/

Contact: Fiona Courage, Manager

NATIONAL MARITIME MUSEUM ARCHIVE

Film Archive

Greenwich

London. SE10 9NF

Tel: 020-8312-8522

Email: films&filming@nmm.ac.uk

Website: www.nmm.ac.uk/server/show/conWebDoc.1319

Contact: Film archive officer

NATIONAL MARITIME MUSEUM ARCHIVE

Historic Photographs Section

Greenwich

London. SE10 9NF

Tel: 020-8312-8600

Email: plansandphotos@nmm.ac.uk

Website: www.nmm.ac.uk/cgi-bin/empower?DB=ShipsPlansAndPhotos

NATIONAL MOTOR MUSEUM

Library of Motoring

Montagu Building

Beaulieu

Hants. SO42 7ZN

Tel: 01590 612345

Email: info@beaulieu.co.uk

Website: www.beaulieu.co.uk/motorlibrary/intro.cfm

Contact: department concerned: Film and Video Library (Stephen Vokins); Archive Collections (Heather Boyns); Motoring Picture Library (Jon Day).

National Media Museum (formerly the National Museum of Film, Photography and Television)

Bradford

BD1 1NQ

Tel: 0870 70 10 200

Website: www.nationalmediamuseum.org.uk

Contact: Mary Murphy, Head of Collections group or Michael Harvey, Curator of Cinematography.

Holds frame samples of cinefilm formats and the *British Bureau of Television Advertising* collection of TV commercials

OPEN UNIVERSITY LIBRARY

Interactive Open Learning Centre and Media Archive

Walton Hall

Milton Keynes. MK7 6AA

Tel: 01908 659283

Email: E.A.Mallett@open.ac.uk

Contact: Liz Mallett, Manager

Holds the archive of Open University television and radio programmes broadcast by the BBC.

APPENDIX B: NATIONAL AND INTERNATIONAL ORGANISATIONS

The following are a selection of relevant web sites and addresses (where known) of organisations, and may be subject to alteration or deletion.

Society of Archivists Film and Sound Group

www.archives.org.uk/thesociety/specialinterestgroups/filmsoundandphotographygroup.html

Oral History Society

C/o Department of Sociology, University of Essex, Colchester, Essex CO4 3SQ

www.ohs.org.uk

(includes details of regional network contacts for advice and information)

Association of Moving Image Archivists (AMIA)

8949 Wilshire Boulevard, Beverly Hills, CA 90211, USA

www.amianet.org/

Association of Recorded Sound Collections (ARSC)

www.arsc-audio.org/

International Federation of Film Archives (FIAP)

www.fiafnet.org/

International Federation of Television Archives (FIAT)

www.fiatifta.org/

International Association of Sound and Audiovisual Archives (IASA)

www.iasa-web.org/

Archivists in Independent Television

c/o the Library, Independent Television Commission, 33 Foley Street, London W1P 7LB (Tel: 020 7130 67763)

Image Permanence Institute

Rochester Institute of Technology, 70 Lomb Memorial Drive, Rochester, NY 14623-5604, USA

www.imagepermanenceinstitute.org/

UK Copyright organisations:-

MECHANICAL-COPYRIGHT PROTECTION SOCIETY

29/33 Berners Street

London. W1T 3AB

Tel: 020-7580-5544

Email: info@mcps.co.uk

Contact: Non-retail Licensing Department

Administers a very detailed database of licensing agreements with users of recorded music, providing free advice to enquirers and representing composers and publishers. Royalties are collected and paid by this body, the principal clearing house for music copyright payments.

PERFORMING RIGHT SOCIETY

29-33 Berners Street

London. W1T 3AB

Tel: 020-7580-5544

Email: info@prs.co.uk

Administers performing rights in copyright music, whether 'live' or recorded, via any medium. Represents both British and foreign music composers and publishers.

PHONOGRAPHIC PERFORMANCE

1 Upper James Street

London. W1F 9DE

Tel: 020-7534-1000

Licenses public performances and broadcasts of copyright protected sound recordings in the UK.

The **BRITISH COPYRIGHT COUNCIL**, based at 29-33 Berners Street, provides liaison between the above organisations and makes representation to Government on their behalf.

NB: Archivists wishing to clear copyright in **cinema, video and other audio visual material** need to contact the rights owners concerned, including television companies. See the British Film Institute researchers section for information about companies and organisations, at

<http://www.bfi.org.uk/filmtvinfo/researchers/directory/browse.php?id=Organisations>

There do not appear to be any general advice groups or administrators like those listed above for copyright and licensing in these areas, and lawyers are very expensive!

