



Australian
National
University

ANU Audio-Visual collections at risk

Research collections deteriorating

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Scholarly Information Services

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Summary

The ANU Archives and Library contain collections of national significance. Developed over the past 75 years, the rich resources in the collection reflect the needs of research and education including material acquired in formed collections donated by eminent researchers, business and labour organisations.

A significant number of resources are audio visual material in physical formats, with a limited life span:

All tape-based formats created in the 20th century are now obsolete. Tape that is not digitised by 2025, we risk losing forever.

Deadline 2025: collections at risk. National Film and Sound Archive.
<https://www.nfsa.gov.au/corporate-information/publications/deadline-2025>

A small amount of remediation work for material in the ANU Archive collection occurred in response to a report by Chelsey Engram in 2011 with the construction of a cool room in the basement of the Menzies Library. Approximately 20% of the audio visual material in Archives moved from Underhill to the cool room to seek to extend the life of the physical material. Some work was done to identify material most at risk and relabel that material as part of the storage project. Overall, the archive has around 10,000 items of audio visual material in physical format. All are at risk of being unusable within the next 5 years.

The Library has around 640 titles in the catalogue of audio visual material in physical form. There are around 3000 uncatalogued items in the Menzies Library - a backlog of around 20 years. Many of the titles are original recordings by eminent academics that cannot be replaced as they were not commercially published. Material lost in the flood has been replaced by digitised material and no remediation work has occurred on audio visual material in physical form in the collection.

Actions to ensure these works are not lost requires:

- assessment of the collection (identifying the material which for the most part is not yet described),
- development of priority framework for conversation work,
- conservation assessment and
- a digitisation program to ensure the material is not lost.

There may also be important material in the colleges (particularly CASS and CAP) which should be assessed and including in a conservation and digitisation project.

What is the problem?

The ANU Archives and Library have collected audio visual material and audio material in a wide range of formats that have a limited life space.

Material was acquired in the physical format that was available at the time - there are a great range of physical formats with different deterioration problems in the collection.

A report from Chelsey Engram In the archive collection is attached (Attachment 1).

Examples of deteriorating materials:

Audiotapes and motion picture films.

Vinegar syndrome: When cellulose triacetate begins to decompose, 'deacetylation' occurs and the acetate ion reacts with moisture to form acetic acid, producing a vinegar odour when the can is opened.

The presence of the odour does not mean the film has degraded, but rather that the reaction is taking place. However, the reaction is continuous, and once started, it cannot be stopped or reversed. In fact, the reaction is autocatalytic, which means it feeds on itself and speeds up over time. The acid produced can also react with the dyes in colour films, causing dye fading and damage to both the image as well as the base.

The material will deteriorate and ultimately crumble.



Films on reels

The assessment found many examples of sticky shed and print through.

Sticky shed:

The gummy deposits left on tape path guides and heads of an audio and video machine after a sticky tape has been played.

This occurs when a tape binder has deteriorated to such a degree that it lacks sufficient cohesive strength so that the magnetic coating sheds on playback. The shedding of particles by the tape as a result of binder deterioration that causes dropouts on VHS tapes.

Present in Amex audiotapes In the collection made between 1977 and 1983.

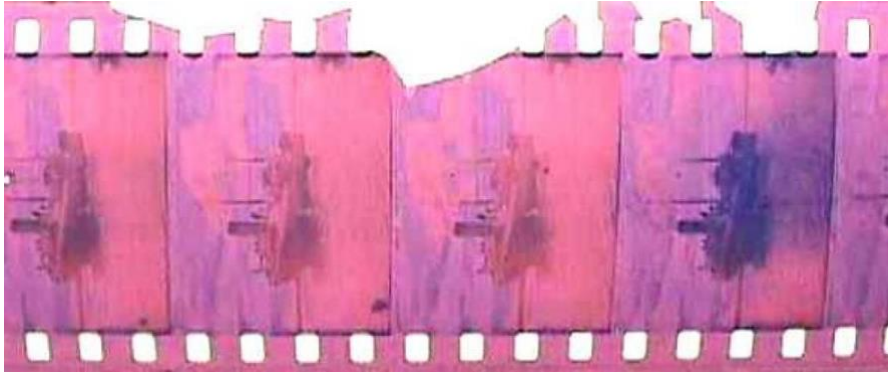
Print through

Audio: The condition where low frequency signals on one tape winding imprint themselves on the immediately adjacent tape windings. It is most noticeable on audio tapes where a ghost of the recording can be heard slightly before the playback of the actual recording.

Film: Print-through is an image that occurs on film in the negative/positive process. All film stocks, well nearly all, have information about the manufacturer printed in the margins. When the camera original negative is copied, the whole width of the film is copied including the stock information. The subsequent copy will have its own stock markings plus a copy of the camera originals. The copy is called print-through. The print-through will be white on black/grey and be reversed in comparison to the duping material's own

stock markings. The print-through will also be less sharp or slightly fuzzy. As you may surmise, print-through can occur through several generations of copying, making the margins a veritable melee of information. In these cases it may be difficult to decide which are the stock markings of the film seen in front of the user.

Perforation damage



This damage has generally occurred during the use of the film and requires manual repair before any film can be used or copied.

A nationally significant collection

ANU Archives and Library contains many national significant resources.

ANU Archives

The Archives hold the records of ANU and many eminent individuals companies, organisations and trade unions. All material in the collection is original and there are no duplicate copies that can be used to replace any material that is lost.

The current assessment has found that there are approximately 10,000 items of audio visual material in physical format. Approximately 1% of the total collection is in this format.

The Division has a small program of digitisation and some material has already been digitised (see attachment 2)

Examples of audio visual collections in urgent need of conservation and digitisation

Prof Stephen Wurm sound tapes and Goreger Wurm tape reels (8mm, Super 8, VHS)

Prof Wurm was an eminent linguist, particularly known for his study of New Guinea and Australian Aboriginal languages. His wife Prof Groeger was a major researcher in languages. He joined ANU in 1957, as Senior Fellow within the Research School of Pacific and Asian Studies (RSPAS, now Coral Bell School of Asia Pacific Affairs) He was Professor of Linguistics from 1968 to 1987. In 1961 he was a foundation member of the Australian Institute of Aboriginal Studies and became Chairman of the Linguistics Committee. In 1967 he was the first elected president of the Linguistic Society of Australia and the Australian representative on the UNESCO Comite International Permanent de Linguistes. When the new Department of Linguistics was established at the Research School of Pacific Studies, Wurm was appointed its first Professor and Head of Department. He retired in 1987 but remained actively involved in the field of linguistics right up until his death on 24 October 2001 in Canberra.

Archives hold his paper and the Library his personal library.

The work of Wurm and Groeger continue to be of high value to contemporary researchers and the material would be a valuable addition to PARADISIC and support new scholarship.

John Curtin School of Medical Research Conferences (sound reels some acetate)

The John Curtin School of Medical Research was established in 1948 through the combined efforts of Howard Florey (Australian Nobel Laureate) and Prime Minister John Curtin. The Audio tapes include a medical practice conference held in 1968.

These records are at high risk of loss due to vinegar syndrome and record Important early research.

Australian Manufacturing Workers' Union, National Office (sound cassettes, acetate)

The Amalgamated Metal Workers Union (AMWU) was formed in 1972 with the amalgamation of three metal trade unions - the Boilermakers and Blacksmiths Society of Australia (BBS), the Sheet Metal Working Industrial Union of Australia (SMWU) and the Amalgamated Engineering Union (AEU). In 1979, the Federated Shipwrights and Ship Constructors Union of Australia amalgamated with the AMWU, which changed its name to the Amalgamated Metal Workers and Shipwrights Union (AMWSU). When the Federated Moulders' (Metals) Union amalgamated in 1983, the union's name changed slightly to the Amalgamated Metals Foundry & Shipwrights' Union, but in 1985 reverted to be the Amalgamated Metal Workers' Union.

The cassettes are critical records of the activities of what was one of the most influential unions through the 1980s and 1990s of high value to historians.

Colonial Sugar Refining Company Limited (Umatic, VHS video, 16mm acetate films)

The Colonial Sugar Refining Company was founded on 1 January 1855 by Sir Edward Knox. It was formed in Sydney as a partnership of unlimited liability which took over some of the assets of the Australasian Sugar Company and Robey and Company including sugar stocks and the Brisbane House refinery and distillery. The company expanded through Australia and the region. In 1882 the company began sugar production in Fiji with crushing at the Nausori mill. The company also introduced a system of chemical control of processes in its mills. In 1915 the Colonial Sugar Refining Company (Fiji and New Zealand) Limited was formed to take over the assets of the company outside Australia. This subsidiary was liquidated in 1923 and the assets returned to CSR Co Limited. From around 1939, the Colonial Sugar Refining Company Ltd expanded into manufacturing industrial chemicals through its Industrial Chemicals Division, and building materials as early as 1942 with the construction of a plaster mill in Sydney and manufacturing plasterboard. In 1948 CSR Chemicals Limited was formed, later changing its name to CSR Chemicals Pty Ltd in January 1952. In 1959, CSR acquired an interest in Bradford Insulation. In 1973 the company name changed to CSR Limited. CSR Limited took over Australian Estates Co Ltd in 1975.

The audio visual material is of great interest to historians including those studying Indentured labour forces and Industry development.

ANU Library

The Library collection also contains unique material of value to research and education, reflecting the national role of the university. Over 3000 items are in the collection. The majority have not been described and are not recorded in the collection or appropriately housed (they sit for the most part in the basement of Menzies Library which has regular water ingress).

The Library collection includes some material that duplicates material held by the Parliamentary Library and potentially the National Film and Sound Archive, most notable the Instructional Resources Unit recordings of

made of television news in the 1980s. These should be discussed with NFSA and, if not required, discarded. They are not included in the overall title count.

Examples

Australian Indigenous audio visual materials

Titles in this category include:

Works not held by any other library or AIATSIS, for example:

Yuulngu language [videorecording] [S.l. : s.n.], [198-?]

Moodeitj yorgas [videorecording] = Solid women / presented by Australian Women's Advisory Council to the Premier Perth : Western Australian Women's Advisory Council to the Premier, 1988

Jungayi [videorecording] : caring for country [Australia] : Bleeding Hearts Pictures, c1992

Manta Wirura Kanyilpai [videorecording] : keeping the spirit in the country - land management in the Pitjantjatjara and Yankunytjatjara lands. Alice Springs, N.T. : IAD Press, c1994

Material long out of print and not widely held including:

Mungo Lady [videorecording] [Australia] : Blackfella Films, 1993

Growing up Koori [videorecording] Drysdale, Vic. : Equality Videos, 1994

Original recordings of eminent academics

ANU holds the only copy.

Interview DR. T. Ophel

Nuclear Physics RS PHYS S

28/7/1984

Distinguished ANU academics no.3

DR HC Coombs

19/8/1984

Distinguished ANU academics no.2

Prof Manning Clark

No date

Distinguished ANU academics no.2

Prof A.D. Hope

No date

Conference recordings for example:

Indochina refugee situation 1979

4th Melanesian Arts Festival 2010

Many original music recordings

What risk mitigation has occurred?

The major development occurred in 2012 when a cool room was built. It was constructed in level 1 of the Menzies Library and holds approximately 20% of the ANU Archives audio visual collection. It is approximately 80% full. The total capacity is approximately 100 metres of shelving.



Images of material in the Archives cool room. The is one high risk item is in the single cooler in the store.



Images of material in the Library.



Image of material to be digitised for access by an ANU academic for current research

The majority of the ANU Archives audio visual material and all the Library audio visual material are stored in ordinary collection areas with no temperature, humidity or other controls to limit deterioration. Regularly there is water ingress into areas where this material is stored

Note alternative storage is not available at the National Archives of Australia or National Library of Australia as they do not have capacity currently to take this material.

Most of the Library collection is undescribed and significance therefore has not been assessed.

Next steps

In order to address this issue and prevent the loss of this unique collection which contains material of great research significance assessment of the collection and investigation of issues is required.

The suggested steps are:

- assessment of the collection (identifying the material which for the most part is not yet described),
Propose to use library staff to over semester 1 to describe as far as possible, noting that equipment is not available to see the content of the material, the audio visual items in the collection
- from this preliminary assessment development a list of those items at most risk of becoming unrecoverable in the next 12 months
- identify what material should be prioritised for conservation and digitisation taking into account factors of:
 - physical risk and deterioration
 - importance to research
 - importance to education
 - importance to the university's mission
 - practical availability of solutions
- continue to work on a proposal for a research centre that could provide storage and basic conservation facilities;
- prepare a business case for conservation and a digitisation program to ensure the material is not lost.

Attachment 1. Survey of the audiovisual materials in the ANU Archives: final report

CHESLEY ENGRAM
MARCH 2011

This report covers a project to physically inspect and record the type and condition of the identified audiovisual materials in the ANU Archives. The work was carried out one day per week between July 2009 and March 2011 mostly in Repository work area.

OVERVIEW

Scope

ANU Archives hold the records of the University (ANUA) and the Noel Butlin Archives Centre (NBAC). They are housed in a number of repositories located in the Acton Underhill area of the campus. This space is shared with other departments of the University for storage of furniture, electronic equipment etc. There is no environmental control in Acton Underhill apart from the Archives work area.

An ongoing project exists to identify, list and isolate the audiovisual materials in the collection. The materials, once identified, are usually placed in archival containers and stored with the rest of the collection. Spreadsheets have been produced listing descriptions, quantities, and type of this material. The audiovisual material consists mainly of audiotape on reel and cassette, videotape on reel and cassette and early motion picture film.

128 collections were inspected (38 ANUA and 90 NBAC listed in Attachment A) comprising approximately 6000 items and representing around 60 metres of records.

Only one significant collection was partially surveyed, the HIV/AIDS Archive which includes audiovisual material from the mid 1980s to mid 1990s and was without a complete list. Other unprocessed collections, without lists, were also unable to be examined.

The results are recorded and, along with this report, are available at <Y:\Archives\Private\Collection\Audiovisual material>

Inspection Procedure

Boxes of the identified audiovisual material were retrieved from the repository and brought to the work area. Each item was removed from its packaging, visually examined and observations recorded. Minor remedial treatments such as fixing loose tape ends or replacing broken cases were often done at this stage. No major treatments were carried out and the completed boxes were returned to the stack area.

SURVEY

Types of Material

The audiovisual materials inspected comprised mainly audiotapes on reels and cassettes, videotapes on reel and cassette along with 8, 16, and 35 millimetre motion picture films, sound discs and DVDs.

Audiotapes

Over half the material surveyed (3700 items) was analogue audiotape on compact cassette, micro cassette and reel ranging in age from 1950 to late 1990s. Most formats are on reputable brands such as BASF, AMPEX, SCOTCH, TDK, and SONY with a smattering of lesser-known brands. Most of these early tapes were on a PVC or polyester base but several acetate-based items were found.

From the 1920s to the 1980s most film and audiotape comprised a base of diacetate or triacetate. These acetate bases are susceptible to 'vinegar syndrome' a process in which moisture in the air interacts with acetate to produce acetic acid, emitting a vinegar odour. Over time the base begins to shrink or warp and emulsion will fall off or magnetic oxide layers will shed. Polyester bases are more inert and do not suffer from this deterioration. Acetate-based material is usually urgently in need of treatment.

Most of the specific brand numbers could be identified and were recorded. Many tapes, both reel-to-reel and cassette, used by the ANU Instructional Resources Unit (IRU) were generic and unidentifiable. The majority of the tapes were in their original cardboard or plastic packaging. Playback equipment for these tapes should not be problematic.

Videotapes

Approximately 1400 videotape items were surveyed, two-thirds of which were Umatic, Umatic-s and Betacam and one-third VHS formats from reputable brands. A small amount of early 1 and 2 inch Quadruplex videotape was also found. Playback equipment for VHS material, and possibly Betacam, exists within ANUA but equipment for the playback of some of these early formats, Umatic and Quad, could be hard to source. Other institutions such as NFSA may have to be approached for assistance.

Motion picture film

Some 500 reels of 8, Super 8, 16 and 35 mm film were inspected. The majority of these will have diacetate or triacetate base in various stages of deterioration (as described above). No nitrate-based film was found. Cellulose nitrate was used as a film/tape base prior to acetate; it is highly flammable and has usually degraded extensively. Many of the films may be duplicates of material held in other national collections. Currently ANUA does not have the equipment for viewing any of these films.

Sound Discs

A small number of 1960s, and earlier, lacquer and vinyl sound recordings were found, most in original packaging. Compact discs, CD-ROMs and Minidisks are also found. A phonograph turntable with variable playback speeds will be needed to audition the early discs. CD and CD-ROM playback equipment is common but Minidisk equipment is becoming obsolescent and sourcing may be problematic.

Condition

Audiotapes

The majority of the audiotapes examined appeared to be in a satisfactory physical condition and were in their original cardboard or plastic packaging cases although a number are loose or in paper envelopes. Most of the leader ends of the tapes on reel were loose although some still had original plastic clamps in place or were fastened with deteriorating adhesive tape. Many reels had no identifying label and many had labels attached with yellowing adhesive tape. Most of the reel-to-reel tapes are suffering from 'stepping' or 'pack slip' where the tape has been unevenly wound on to the reel causing edges to lift above the surface. This has the potential to cause damage to the tape and contribute to loss of information. Most of the triacetate-based tapes exhibited a vinegar odour indicating deterioration is occurring.

Many of the tapes on reel are from the 1960s onwards and exhibit the natural deterioration problems of the magnetic media layer – 'sticky shed syndrome' (loss of binder), and 'print-through' (magnetisation of one layer of tape by another).

Cassettes could all be wound and appeared stable and most had plastic cases.

Some approximate audiotape life spans are: polyester-backed reel (35 – 50 years); cassette (5 – 15 years); micro cassettes (2 – 10 years).

The material needing most urgent attention will be the acetate-based tapes, tapes from the 1960s and 1970s, Ampex-branded tapes between 1977-1983 ('sticky-shed') and unique audiocassettes made before 1990.

Videotapes

Physically, all the different format videocassettes appear to be in good, stable condition, most still in their original card and plastic cases. Although the majority of videotape plastic bases do not exhibit natural deterioration symptoms like film and audiotape, it is the breakdown of the magnetic media layer which will cause problems. Damage from use, 'sticky shed syndrome' and 'print-through' will have contributed to signal loss and a short life.

Longevity estimates for videocassette formats are: 8mm (2-10 years); VHS (5 -10 years); U-matic (20 years); Betacam (25 – 40 years); 2 inch Quad (35 – 50 years). Based on this all 8mm, VHS older than 10 years, and Umatic from 1970s, 1980s and the Quad tapes are in urgent need of attention.

Motion Picture Film

All of the film surveyed was in some state of deterioration – colour fading, acetate base breakdown and use-damaged sprockets, edges and splices. Many metal reels and containers were damaged and rusty. Other colour problems may be discovered during playback. Sourcing playback equipment, isolating acetate-based material and reformatting are urgently needed.

Sound Discs

The majority of the vinyl recordings are in good condition. Obsolescence of playback equipment may be a problem. Several of the older shellac/lacquer based discs are broken and will need repair if their priority is high. Several discs are also delaminating from their aluminium base. Prioritising these items in terms of repair or disposal is an urgent requirement.

Storage

Generally, all of the material inspected is in stable outer storage containers and are sitting vertically within their Archive boxes. Some videocassettes are still in non-archival packing boxes (eg. Ford and McEwans collections) and should be re-housed. Many items are still in original packaging and, ideally, this should be replaced with inert polypropylene containers.

The storage environment in the repositories, however, has no climate control. Relative Humidity (RH) during the period of the survey ranged from 30 % to 85% and temperatures from 10°C – 25°C. The temperature is generally stable and at an acceptable level. RH, however, mirrors the outside conditions with average daily fluctuations of 5% which can jump to 30% with a weather change. Such high humidity and extreme fluctuations have a damaging effect on the binders of older audiotape and film.

RECOMMENDATIONS

This survey has helped to isolate and identify the physical condition of the audiovisual component of ANU Archives held to the end of 2010. It has further assisted in producing very useful databases listing all this collection material.

Further assessment of this audiovisual material and its storage conditions is needed to complete the survey project and the following recommendations are offered as a guide.

1. An initial prioritisation schedule to further identify important material for retention/reformatting or disposal. This could be based on the stability of the material, format, uniqueness and availability of playback equipment. The information provided in the survey databases will assist this phase.

2. The material identified as high priority should then be auditioned or viewed and checked for content authenticity, clarity, etc. A new priority list could then be generated detailing methods of preserving this material. Experienced staff should be acquired for this phase.
3. Carry out the recommendations from the priority list, again using experienced staff.
4. A number of treatments are deemed urgent enough for immediate action to be taken.
 - Placement of AD strips to monitor the level of deterioration of identified acetate material - motion picture film and early audiotapes. Once this has been done, the acetate – based items should be isolated from the collection and frozen until a decision is made on their priority and preservation treatment.
 - All Ampex audiotape made between 1977 and 1983 should be checked for Sticky Shed Syndrome and reformatted
 - All audiotape on reels should have original paper packaging replaced with polypropylene containers. Yellowing labels should be removed and replaced. If it is safe to do so wind and rewind audiotapes to reduce 'stepping' and produce a flat tape pack.
 - All metal reels on motion picture films and rusting metal cans should be replaced with polypropylene containers.
 - Ensure all audiovisual material is rehoused into appropriate archival outer storage boxes.
5. It would be useful if some of the procedures developed for this survey were adapted for describing new acquisition audiovisual material. When identified this material could be added to the existing databases.
6. Urgent consideration should be given to improving the environment within the repositories. Ideally, for long-term storage, audiovisual material should be kept in conditions where the temperature is constant and in the range of 17°C – 19°C and the Relative Humidity (RH) is constant in the range 25% - 35%. Film materials can tolerate lower temperatures (7°C – 9°C) at the same RH. Possibly, suitable storage area on campus with 24-hour climate control could be identified and used or the conversion of an area within the existing repository space to a climate-controlled area be considered. Minimum space required should allow for the shelving capacity of at least 100 metres. There may also be an option of storing the material offsite in a climate-controlled cold store such as the one at the NLA, depending on availability.

ATTACHMENT A

LIST OF ANUA/NBAC COLLECTIONS SURVEYED 2009 – 2011

*** = collections in need of urgent attention**

ANUA Collections		
ANUA 20	Tom Owen	sound cassettes
ANUA 22	Dept of Women's Studies	sound cassettes
ANUA 44	ANU Oral History project	sound cassettes
* ANUA 50	History Dept -	tape reels with Sticky Shed Syndrome (SSS) unplayable recording speeds
* ANUA 51	IRU Audio	32 boxes sound tape reels with SSS
* ANUA 53	University Records	1960s sound tape reel & cassette
ANUA 55	Low papers	commercial sound disc
ANUA 60	50 th Anniversary archives	sound cassettes
ANUA 65	RSPS Development unit	sound cassettes
ANUA 72	Price papers	sound tape reel
ANUA 91	Gollan papers	sound tape reels
ANUA 137	Australian Forestry School	sound cassette
ANUA 139	Tory papers	sound tape reels
* ANUA 191	ANU Film & Audio	ACETATE film/sound tape
* ANUA 231	SCUNA	ACETATE sound tape
* ANUA 233	Stephen Wurm	ACETATE sound tape
ANUA 238	Fry papers	sound cassettes
ANUA 240	NARU	film reels; Betacam videocassette
ANUA 258	Ward papers	sound cassettes
* ANUA 260	Groger-Wurm papers	1960s sound tape reels; 8mm, Super 8 film; VHS video
ANUA 271	Walls Tjibaou	sound discs
* ANUA 275	Centre for Mind	sound Mini discs
ANUA 276	Lacey papers	1960s & 70s sound cassettes & tape reels
ANUA 298	Pandanus Books	VHS videocassette
ANUA 306	Daws papers	sound cassette
ANUA 316	Campbell papers	sound cassettes/micro cassettes
* ANUA 351	Laycock papers	1960s sound tape reels, some ACETATE
ANUA 352	Griffin papers	sound tape reels
ANUA 363	ANU promotional videos	VHS videocassette
* ANUA 364	JCSMR conference	1960s sound tape reels, some ACETATE
* ANUA 367	Dept Anthropology	1956 film
ANUA 380	Dept Human Geography	VHS videocassette

ANUA 406	PH Records Room	1960s sound tape reels & cassettes
ANUA 417	Albert papers	U-matic videocassette
*ANUA 422	Dept Linguistics	ACETATE film(checked)
ANUA 423	IRU Video	VHS, U-matic, Betacam videocassettes
ANUA 424	Mathews papers	sound cassettes
NBAC Collections		
Z 88	Stead papers/AMSWU Fed	sound cassettes
Z 91	SUA Sydney	33 $\frac{1}{3}$ rpm vinyl disc
*Z 102	AMWU National	sound cassettes; ACETATE film
Z 140	ACSPA	sound cassettes
Z 153	Dalgety	sound cassettes, tape reels, VHS
Z 169	AANA	sound cassettes; VHS videotape
*Z 196	Aust-Jap Business Co-OP	16 mm ACETATE film
*Z 223	Tooth's	16 mm ACETATE film
Z 230	Ergonomics Soc Aust	sound cassettes
*Z 236	UAW Fed Office	16 mm ACETATE film
Z 246	SUA	33 $\frac{1}{3}$ rpm vinyl disc
*Z 263	SUA Vic	ACETATE tape reels
*Z 267	T & M Wright	1960s 16 mm film
Z 278	Farmers/Grazcos	sound cassettes
Z 282A	ACTU	1960s sound tape reels, cassettes; VHS
Z 306	RMAA	sound cassettes
Z312	Plumbers & Gasfitters	45 rpm vinyl disc
Z 385	Burns Philp	partially surveyed
Z 390	G Jackson	Sony Beta videocassette
Z 398	ABCE-BLF, Vic	VHS videocassettes
Z 399	Radical Left Bookshops	VHS videocassettes
*Z 401	Musicians Union Aust	broken shellac discs
*Z 403	McEwans	Umatic, VHS, Quad videotape; films; tape reels; ACETATE
Z418	Lindeman	16mm film; various videotapes
Z 429	WWF S Coast	1960s sound tape reels; shellac discs
Z 432	WWF Fed Office	33 $\frac{1}{3}$ rpm vinyl discs
Z 436	Hospital Employees Fed	VHS videotapes
Z 441	Aust Retailers Assoc	sound cassettes
*Z 451	UAW NSW	ACETATE tape reels
*Z 454	CSR Pymont	Super 8 film
*Z 462	Ford New Holland	sound cassettes; various videotapes; 16 mm ACETATE film
Z 484	Flight Attendants Assoc	sound cassettes
Z 486	Aust Nursing Fed	V2 videotape
Z 503	J Garland	33 $\frac{1}{3}$ rpm vinyl discs

Z 507	M Jennings	sound cassettes
Z 521	J McGuire	sound cassettes
*Z 547	Inst of Brewing	16 mm ACETATE film
Z 553	J London	sound cassettes
*Z 566	Q T U	sound tape reels with Sticky Shed Syndrome
Z 580	SAIT	78 rpm shellac discs
Z 589	F W Paterson	sound cassettes
Z 592	Maritime Dispute Coll	sound cassettes; VHS
Z 594	R Kuhn	sound cassettes
Z 605	NFF	sound cassettes
Z 607	NSW FF	VHS videocassettes
*Z 643	CSR	Umatic, VHS video; 16 mm ACETATE film
Z 645	FNBA	sound cassettes
*Z 656	WWF Film Unit	1 in. videotape; ACETATE film & tape
Z 657	Elder's predecessors	VHS videocassettes
Z 668	MUA Sydney	sound cassettes
Z 696	Grains Council	sound cassettes, microcassettes; VHS
Z 700	ACTU	33 $\frac{1}{3}$ vinyl disc
Z 730	CSR	
*Z 741	AMWU SA	sound cassettes; 16 mm ACETATE film
*E 218	Fed Ironworkers	16 mm ACETATE film (checked)
E 225	ANU Staff	sound tape reels
E 253	ATF	sound tape reels
N 63	Fed Ironworkers Aust – Nat	sound cassettes; tape reels
N 71	ANU Staff Amenities	sound cassettes
N 72	FEDFA	45 rpm sound disc
N 94	G McDonald	sound cassettes, many without cases
N 100	Aust Finance Conference	sound cassettes
N 107	Aust Internat Cabin Crew Assoc	sound tape reels
N 114	WWF Federal	sound cassettes
*N 120	ABC Staff Fed	16 mm ACETATE film
*N 131	AMWU SA	16 mm ACETATE film
N 153	Dieticians Assoc	sound cassettes
N 157	B Tully	33 $\frac{1}{3}$ sound disc
N 160	ACTU	33 $\frac{1}{3}$ vinyl disc
N 162	A Johnson	sound cassettes, microcassettes
N 163	Unilever	sound cassettes; VHS
N 166	E Ross/BLF	sound cassettes
N 171	A Inglis	sound cassettes
N 173	Aust in Spain Memorial Comm.	sound cassettes
N 187	ASA	sound cassettes
P 88	Theses	VHS videocassettes

P 114	Oral History	sound cassettes
Q 31	ADB	sound cassettes
Q 55	B Galligan	sound cassettes
T 62	WWF	sound tape reels
AIDS Collection		
H2	VHS videocassettes; videodiscs	
H3N	sound disc	
H3AV	VHS videocassettes	
H4	VHS videocassettes	
H6	VHS videocassettes, sound cassettes	
H7	sound cassettes	
H10	VHS videocassettes, sound cassettes	
H11	sound cassettes	
H16	sound cassettes	

Attachment 2 Digitised audio visual material

Year digitised	Description	Number items digitised
2011	Sound recordings from the History Department and Instructional Resources Unit including public lectures and conference speeches such as AD Hope on his creative writing and poetry, interviewed by Phillip Martin	28
2010-15	George E. Morrison Lectures in Ethnology including H.V. Evatt (1952) and His Holiness the 14th Dalai Lama (1992)	70
2012	Various films including from Tooth and Co, 'Making of the ANU' oral history recordings	43
2012	ANU Womens' Studies program recordings	17
2015	Asia Behind the News	13
2020	ANU 1967 film	1
2021	Ole Christensen films of Papua New Guinea	31
2020-22	Replacement of av works lost in flood, focus was on Indigenous research material that are out of print	48
2022 (forecast)	Dr Ian Maddocks' video and sound recordings from Pari, Papua New Guinea	27
2022 (forecast)	Amirah Inglis' Spanish Civil War, sound recordings	14
2022 (forecast)	ANU School of Art – Art Forum 1983-2005 sound recordings	540