Digitisation at Studios 301

CASE STUDY 1

State Library of New South Wales – Digitisation of Oral History Collections Tender – Digital Excellence Program (DEP) Oral History and Sound Recordings Project FY15/16

STATE LIBRARY®
NEW SOUTH WALES

CLIENT
State Library of New South Wales (SLNSW)

PROJECT
The SLNSW sought an audio digitisation specialist to digitise the content of 1710 tapes comprising oral history recordings dating from the 1970s to the present in various recording formats and recording speeds. This is the fourth archive digitisation job we have undertaken for SLNSW. We commenced this job in December 2015 and completed it in May 2016.

SIGNIFICANCE
The tapes are irreplaceable, and highly culturally significant. They are a significant repository of the recorded history of the state of NSW over the 20th century – for instance, the collection includes an invaluable set of interviews with the engineers and workers who constructed the Sydney Harbour Bridge in the 1920s.

THE CHALLENGE
The cultural value of the collection: The cultural value of the collections is incomparable. The tapes have been deteriorating – some tapes had become unplayable, and others were becoming damaged. Digitisation to preserve the content of the tapes for future generations had become essential.

OUR PROCESS
SLNSW delivered batches of approximately 300 tapes to us.

Our state-of-the art storage and mastering facilities:
We stored the tapes in our secure, airconditioned, humidity-controlled facility to begin the delicate digitisation process. Our storage facilities are adjacent to our dedicated digitisation mastering studio. This means that the tapes never leave the air conditioned and humidity-controlled mastering suite. This guards against degradation and damage, lowers potential for handling errors, and ensures security.

Optimised workflows for efficiency and accuracy:
Because cassette tapes are morely highly leveraged than reel to reel tapes (a much higher amount of content – typically an hour – on a smaller amount of tape), we needed to find efficiency gains to meet the project milestones, and to allow for contingency time for consulting the client about torn and creased tapes. We devised an optimised workflow featuring four continuous stereo audio streams into our Quadriga Workstation, using Audiofile - Inspector to perform continuous quality assurance. Defects found were compared with the original to confirm that the error was on the tape, and not in our process. All original audio defects from the tapes were retained in the digital files. This optimised workflow delivered significant productivity gains, reducing the number of tape machines running simultaneously, the number of operators required, and the number of digitisation suites required. This workflow also delivered greater acuity for picking up errors than human operators are capable of, while freeing up backup tape machines in case of failure, and making a continuous workflow possible.

Our experienced technical team:
Our technical team has worked with every audio format used in Australia over the last 40 years. Many of our more experienced technicians started their careers when Nakamichi 1000s were new technology – they have whole careers of expertise in maintaining these machines, as well as working with a variety of recording formats.

WHAT WE LEARNT ON THIS JOB:

Archival digitisation jobs of this scale and complexity present unpredictable and unforseeable challenges. It is impossible to predict the range of technical problems that might be encountered. Hence, an attitude of flexibility and curiosity to finding appropriate solutions and working closely and creatively with our clients is essential. What we learn from solving these unforeseeable problems is captured as learnings and refinements to our Standard Operating Procedures (SOPs).

Our SOPs are very important to us, because they embody our best practice. They are live documents, and we are constantly refining them. Our SOPs guide our team of technicians and operators who work across a number of different studios, and standardise their processes to control for risk, to minimise accidental tape damage, and to ensure that our clients receive a uniform, high quality outcome.

• ADAPTATION OF WORK FLOW AND SOPS TO DEAL WITH UNFORESEEN TECHNICAL CHALLENGES

Over the course of this job, we encountered tapes which had become torn, twisted or creased. Most tape housing is held together by screws, and the solution for torn, twisted or creased tapes is usually to unscrew the tape housing and transfer the tape to new housing with new hubs. On this job we encountered tape housings which did not have screws, but were moulded into position. This meant that we would have to break the tape housing to access the torn tape. We applied for permission to break the housing from the curator of the collection and adapted our workflow and project management to accommodate the delays.

• ADAPTATION OF MASTERING SUITE TO OPTIMISE WORKFLOW

On previous SLNSW jobs we had refined our workflow to have a lower number of tape recorders in continuous operation. We optimised this job to four stereo audio streams ingressing into the Quadriga Workstation, with Audiofile – Inspector performing quality assurance. This reduced the number of tape machines, operators and mastering suites we needed to use simultaneously. Quadriga, DOBBIN, and WaveLab were used on this project, with BWF MetaEdit used to meet SLNSW's metadata requirements.

• ADAPTATION OF WORKFLOW TO DELIVER GREATER PROJECT VISIBILITY

After project kick-off, it became evident that our workflow did not generate data appropriate to the reporting format requested by the client. We worked flexibly with SLNSW's project manager to adapt our workflow to meet their reporting needs successfully.

• IN-HOUSE TAPE BAKING

Previously, we had subcontracted tape baking. For this job, we acquired the facilities to do this in-house. This afforded us greater security and control and over the project.

BENEFITS TO STATE LIBRARY OF NEW SOUTH WALES OF WORKING WITH STUDIOS 301 AS ARCHIVAL DIGITISATION PARTNER:

Our expertise and experience as the longest-established audio production studio in Australia. The State Library of New South Wales benefitted from Studios 301's 90-year history of experience in all fields of audio. This means we have the facilities, the in-house technical team, the knowledge, the networks and the capacity to digitise collections consisting of all formats used in Australia from the mid 20th century to the present. We have retained an extensive in-house collection of tape machines which we continuously service. Because many are obsolete, we machine and hand-make necessary parts to keep them running. We bring our expertise and resources in all aspects of audio recording, mastering and production to archival digitisation, allowing us the flexibility and scalability to deliver SLNSW's projects on time and to the high quality expected.

STRENGTH OF OUR STANDARD OPERATING PROCEDURES AND CLIENT COMMUNICATION

This means that we reliably deliver uniformly high quality digital files to the standard required. We have incorporated our learnings on each project to refine and standardise our procedures, so that we can guarantee the uniform quality of our work. We have found that communication and flexibility are the keys to successful delivery of projects, as unforeseen issues and complexities will always come up. With a collaborative, positive and proactive approach, we draw on our technical expertise, and knowledge of the cultural value of your collections to propose appropriate solutions to issues as they arise.

SCALABILITY AND FLEXIBILITY OF OUR FACILITIES.

No digitisation project is too big or too complex for us. Our large audio production facility in Alexandria, Sydney, comprises 16 recording studios, three dedicated digitisation suites (both adjacent to our temperature and humidity-controlled storage room) and a number of other spaces which we are in the process of outfitting as bespoke digitisation suites.

SLNSW JOB SPECIFICATIONS AND ACHIEVEMENTS:

	SLNSW PROJECT 1	SLNSW PROJECT 2	SLNSW PROJECT 3
HOURS OF RECORDING	173	217 hours	166 hours
TAPE FORMATS	Audio cassette, micro cassette, 1/4" analogue tapes, DAT	Audio cassette	Audio cassette and DAT
DELIVERY TIMEFRAME	December 2012 – March 2013	May 2013 – July 2013	January 2014 – June 2015
ACHIEVEMENTS	First major project for SLNSW. We worked with SLNSW to ascertain the nature of the work required, and completed the project in ten weeks.	Tapes which were presented as poor recording quality or unplayable were found by us to be recorded at a slower speed. We used appropriate technology (Nakamichi 1000) to successfully digitise all of the 'unplayable' tapes without damage.	We used multiple recording suites to enable two or more engineers to work simultaneously. This allowed us to deliver a 100% digitisation success rate ten days ahead of schedule.

Not one tape was damaged while in our care, across these three jobs.

THE OUTCOME:
We are pleased to be conducting our fourth job for the State Library of New South Wales, having been awarded tenders for each job based on our strong track record of reliable, high quality work.
Where the SLNSW previously had a collection of deteriorating, unplayable tapes, they now have high quality, readily accessible and shareable digital audio files of their oral history collection in a non-degrading format for generations to come.