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Introduction: The need for a Pacific languages archive

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Why do we need an archive?

Why do we need an archive of sound recordings of the languages of the Pacific Islands?¹ An answer to this question can be given in about three words, using today's jargon: *Conserving cultural heritage*, or *Protecting heritage resources*. However, a fuller answer requires us to address a range of more specific issues. For instance, why should Australian institutions take on the task of creating and maintaining such an archive? What sort of archive is needed? Who are the intended users and what will they use it for? What kinds and quantities of materials await archiving? What sorts of technology should be used to manage these? And how is the existence of such an archive likely to shape or influence the research agendas and methods of scholars in the future? How might it be of use to the communities whose languages are being recorded?

The Pacific Islands may be insignificant in terms of land mass size, population and economic and political clout but in terms of the number and density of distinctive languages and cultures, it leads the world. Let me give a few figures to underline the truly amazing linguistic diversity of this region. The islands of the south and central Pacific, from New Guinea and Micronesia in the west to the Polynesian Triangle in the east, make up about 1 percent of the world's land mass but contain nearly one quarter of the world's languages. Of the 1250 or so Pacific Island languages no fewer than 900 languages are spoken on the island of New Guinea, which has an area about the size of NSW and about twice the size of Germany. Geographically speaking, New Guinea may be just a large island but linguistically it is a continent. In fact, in terms of the number of its languages and the number of unrelated genetic groups of languages it contains, New Guinea is more diverse than most of the continents, ranking well ahead of Europe and ahead of North and South America.

Some 300 languages are spoken in other regions of Melanesia, consisting chiefly of five main archipelagos: the Bismarck Archipelago north of New Guinea, in the west, the Solomons, Vanuatu, New Caledonia and the Loyalty Islands, and Fiji, in the east. Micronesia, by contrast, has just 13 to 17 languages and the Polynesian Triangle about 16. If you add to the Pacific Island languages the 600 or so spoken in Island Southeast Asia, i.e. Indonesia (excluding the province of Papua in Indonesia), Malaysia and the Philippines, and the 100 or so surviving Australian languages, you have around 2000 languages, or a third of the world's total, in Australia's immediate neighbourhood.

Given the small population of New Guinea and the other Pacific Islands it may seem extraordinary that so many languages are found there. Yet a little reflection on the geography of the region and on the history and sociology of its peoples should suggest

¹ This paper has benefited from Jane Simpson's eagle eye and wise comments on a draft.

an explanation. The Pacific is a region of scattered islands and island groups. The distances between islands and the ruggedness of the larger islands are conducive to linguistic fragmentation. The major islands and archipelagos of the southwest Pacific, from New Guinea as far east as the Solomons, have been settled for around 40,000 years, giving plenty of time for *in situ* diversification. It would be wrong to think that the same ways of life persisted without change over that period in the southwest Pacific, or that the region was completely cut off from developments elsewhere in the world, but it does seem to be true that the SW Pacific remained relatively isolated for tens of millennia and that some of the earliest populations and societies continued with gradual change. Social and political units remained small, seldom exceeding a few hundred. The arrival of Austronesian speakers some 3500 years ago shook up the southwest Pacific in a number of ways but did not fundamentally change the size of social and political units there.

That's the good news: the fact that this rich diversity of languages still survives and, to a lesser extent, so too do traditional cultures and knowledge encoded in ways of talking. Now for the bad news. The first bit of bad news is that most Pacific and SE Asian languages fall into the endangered category. Some, chiefly the large majority of Australian languages, are already moribund. It is possible, some would say probable, that most others have just a few generations left as fully functional languages. The tentacles of modern technology and modern economic and political systems now reach out and touch every society in the world. Among the social consequences of modernisation or globalisation is the obliteration or reduction of various domains of traditional knowledge including languages. I will give only one example of reduction. People who have been hunters, fishermen or farmers for centuries accumulate an immense body of knowledge and belief about the animals, plants and physical environment they have exploited to survive. When these people turn into urban clerks and computer programmers much of that knowledge, including extensive terminologies and systems of categorisation, is lost. We have seen the process of language reduction and loss at work in dramatic form in Australia, New Zealand and Hawaii, all cases where western powers colonised, then populated the region and subjugated the indigenous societies.

The second bit of bad news is that few of the Pacific and SE Asian languages and language-culture systems -- probably less than 10 percent -- could be said to be fairly well documented. The languages of Polynesia and Micronesia are fairly well recorded. Melanesia is a distant last. For most languages in Melanesia there are very skimpy materials recorded.

It is important to preserve for posterity as rich as possible a record of the languages which exist in this region, or which existed at the times such recordings were first made, in the mid-20th century. (We cannot take Grouch Marx's view: "Why I should do anything for Posterity? What has Posterity ever done for me?") We know that some kinds of material may never be obtainable again, in cases where rapid change has taken place. Sound recordings are among the most important records of such domains.

To the question "Why should Australian institutions take on the responsibility?" one can again give a succinct answer. It is in our interests to do so. The Pacific Islands and Islands of Southeast Asia are squarely in Australia's sphere of interest, influence and responsibility, both in political and social terms and in terms of traditional scholarly preoccupations. Australian and Australia-based scholars have done much of the fundamental research on the languages of these regions. Nowadays, scholars, at least, are sharply aware of their responsibilities to make the results of their researches available not only to the scholarly community but to the communities which are the sources of their data or the objects of their descriptions, and to ensure that those more remote members of the public, known as Posterity, will have access to their findings.

What is there to be archived? The nature and scale of the material

When magnetic tape recorders first became widely available in the 1950s scholars in many fields were quick to make use of this wonderful new device, among them field linguists, musicologists, oral historians and social anthropologists working in and on indigenous societies in the Pacific Islands and Southeast Asia. No one knows just how much tape-recorded material was collected in these domains over the last 50 years but the amount must be immense. I can speak with a modest degree of informedness only about the approximate quantity of linguistic recordings. I would not dare to speculate on the amount of material in other fields.

In the mid 1990s Jane Simpson expressed to me her concern about the fate of all the tape recordings and fieldnotes made by scholars who had worked on languages of the Pacific Islands, especially Australia-based scholars. Jane observed that there was no institution in Australia committed to and equipped for holding and managing sound recordings of Pacific Island languages or, for that matter for the minority languages of SE Asia and other regions. In New Zealand there has since the early 70s been an archive of Maori and Pacific Music which holds extensive collections of tape-recordings made by New Zealand-based scholars. In Australia there exists a sound archive at the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) to store and manage tapes of Australian Aboriginal language materials. It has more recordings than it can handle, allegedly a 15 year backlog! The National Library, Screen-Sound Australia and the War Memorial Museum handle some linguistic materials but I understand that these institutions, like AIATSIS, normally exclude materials recorded outside Australia and to a lesser extent Papua New Guinea.

A first quick, rough survey some years ago revealed the existence of hundreds of reel-to-reel tapes and cassettes and associated notes held by individuals and departments around Australia. Most remained in the hands of the researcher or his literary executor or former department without being appropriately stored, catalogued or copied. Such materials are in grave danger of deterioration or loss. Since then Nick Thieberger has begun a more thorough survey of the location, nature and extent of the materials.

How many hours of taped material are represented in these collections? It is likely that any linguist who did extensive fieldwork over a decade or more after 1950 will have collected at least 25 to 50 hours of taped material. I base these estimates mainly on what I know of the collections of tapes made by linguists at ANU's Research School of Pacific and Asian Studies and at the University of Auckland. The number of professional linguists who have done extensive fieldwork on Pacific Island and Island Southeast Asian languages since 1950 is not all that great, perhaps no more than 100. Still, 100 x 25 hours is 2500 hours, a lot of material. When we add recordings made by the many graduate students and scholars who have spent shorter periods doing fieldwork and the hundreds of teams of linguists doing long term work for SIL, the Pioneer Bible Society and other church-related groups, this figure must be multiplied. The recent establishment of various funds for research on endangered languages, especially the Rausing and VW Funds, will undoubtedly speed up the flow of tapes, videos and other documentary materials.

A few years later Jane and her University of Sydney colleague Chris Manning were the prime movers in an inter-university grant application to ARC to set up a digital archive to preserve this linguistic material and to make the sound recordings and associated documentation readily accessible to the public. This application was unsuccessful. Subsequently a research group was formed by Jane and Linda Barwick at the University of Sydney for the study of communication systems in endangered cultures, which digitised a number of linguistic collections and did much of the groundwork for a new application in 2001. As we know, this application struck pay dirt. PARADISEC is now a going concern, with equipment located at the University of Sydney, the Project Manager at University of Melbourne and its use shared between the participating institutions: the University of Sydney and Melbourne and the Australian National University, with the University of New England soon to come on board.

What sort of archive is desirable?

The objectives of the PARADISEC archive have already been well articulated in the grant application and other places but I think it is worth going into these briefly here. What sort of technology is desirable for the archive? What are its purposes? Planning must take into account that we live in an era when technology is changing with disturbing speed and where the development of standards is a continuing issue.

Archives traditionally have as their primary objective the preservation of records. There are two main strategies for preserving audio and AV recordings.

- 1. Controlled storage conditions in order to slow deterioration of originals.
- 2. Copying (and where necessary, cleaning and repairing) originals, often to new formats.

Strategy incorporates the assumption that it is the sound not the original tape that is important to preserve.

In Pacific island countries climatic conditions and lack of money and infrastructure have generally made it difficult to follow either strategy effectively. For example, the Institute of Papua New Guinea Studies in Port Moresby holds a sizeable collection of tapes but a report by Ewan Maidment (1998) states that storage facilities are inadequate, with recordings held in two containers and the editing equipment held in a leaky room, with no generators to maintain power during blackouts (which were and probably still are frequent in Port Moresby) and no substantive local support from politicians or senior bureaucrats to properly fund the Institute. Apathy, except at election time, is the prevailing response. Unfortunately, this situation seems to be pretty typical of archives around the world: considerable fanfare generally accompanies their initial funding and establishment but afterwards politicians and bureaucrats tend to forget that they need to continue to fund the archives adequately so that they can do their job properly, maintaining and developing staff, technology and other facilities.

From the start it was agreed that the PARADISEC archive should adopt a variety of strategy 2, copying originals onto new formats and that the format should be digital. Apart from any technical advantages digitalising may have in maintaining the quality or the longevity of recordings, it has the great advantage of making the material more readily accessible to the public. These objectives, it was clear, would need state of the art technology, and skilled staff to manage this equipment and other aspects of the archive operation. I quote from the description prepared for the workshop:

We are in the midst of the digital revolution, and standards are currently being forged for encoding, indexing and sharing of data that will affect the work of all researchers now and into the future. Whether linguists, musicologists, oral historians or anthropologists, we share a common concern to ensure that our primary data is transferred and maintained in the digital domain in ways that maximise future longevity and access, and are congruent with our ethical undertakings to our collaborators. (p. 1 of outline of PARADISEC workshop, U. Sydney)

Managing the sound recordings is not the only archiving business. The importance of having detailed written documentation associated with the recordings can't be overstressed. A tape alone, without information of the context of the recording, is like an archaeological artefact taken out of its context with no record: in many cases it will be meaningless to those who have to catalogue it. Linguistic tapes should come with a description of its contents and context of collection, enabling proper cataloguing, and ideally, with a transcript of the material on them. Inevitably, fieldworkers do not always provide such details.

It is impossible to predict all the future uses and users of the archive but the most obvious uses are:

- (i) As a database for scholarly researchers
- (ii) As a resource for members of traditional societies, wishing to pursue projects of culture maintenance or revival or of historical study.
- (iii) As a resource for creative artists and broadcasters.
- (iv) As a resource for the training of fieldworkers in data collection and management, e.g. through workshops teaching how to record, process and archive material.
- (v) Sharing of materials. The electronic revolution has made it easier to provide public access to archival materials (with appropriate constraints in certain cases)

Paradisec lost? How can the archive survive?

We can happily report that PARADISEC is doing its job well and it has been warmly welcomed by the research community. The big question is: how to secure funds to keep it going? An ARC grant has got it started and a second application is to cover next year's costs, but an annual dip into the lottery of ARC grants is surely not a viable or efficient way of maintaining the facility and its essential technical staff in the longer term.

The two other possibilities seem to be (a) evolving from a centrally-managed archive to a low cost system in which the users do all the work of making copies and putting them on the internet. (b) obtaining continuing funding from the host universities, or some other patron, to maintain and develop a centrally-managed archive.

The first option has certain weaknesses. For one thing, quality control would diminish. The second option is the more desirable one. It should be possible to make a strong case that PARADISEC is an archive that provides an important national service that is not duplicated elsewhere.