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OH 561/65

Full transcript of an interview with

NELLY HOOPER LUDBROOK

On 2 December 1973

By Mary Rose Goggs

Recording available on CD

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OF SOUTH AUSTRALIA: INTERVIEW NO. OH 561/65

Interview of Nelly Hooper Ludbrook by Mary Rose Goggs, recorded in Adelaide for broadcast on ABC Radio 5CL on 2 December 1973 as part of the series 'Now in retirement'.

TAPE 1 SIDE A

ANNOUNCER: [*Now in retirement.* Our guest] today is Dr Nell Ludbrook who, at the time of her retirement in 1967, was Senior Palaeontologist in the South Australian Department of Mines. Dr Ludbrook was born in Yorketown, and educated at Mount Barker High School, Adelaide University and at the Imperial College of Science, London University, where she took her Ph.D. Her first job in geology was during the War years as Assistant Geologist in the Bureau of Mineral Resources in Canberra, and it was from Canberra that Dr Ludbrook went to London to do research work at the British Museum and the Imperial College of Science. On her return to Australia she took up an appointment in 1952 with the South Australian Mines Department, and it was she who developed the Department's Palaeontology Section in the Geological Survey.

Dr Ludbrook is a member and a former President of the Royal Society of South Australia, and she was the 1963 recipient of the Verco Medal. She has also been Federal Secretary and President of the Geological Society of Australia, and she is a member of several overseas scientific bodies. Since retiring, she has continued to be active in the Mines Department as a consultant.

Speaking with her now is Mary Rose Goggs.

MARY ROSE GOGGS: Whatever moves one, Dr Ludbrook, to become a palaeontologist? Is it a long story?

I suppose in a way it is, and fundamentally, I suppose, I should attribute my early leaning towards geology and palaeontology – which is a branch of geology involving the study of fossils – to my predominantly Cornish descent. My maternal forbears came from Cornwall, my great-grandfather having come *via* the Klondike, and settled in Kapunda where his family joined him. He kept diaries of the early mining days in Kapunda, which I understand are now in the possession of a relative in Sydney, and I suppose that I should make a serious attempt to have them copied and placed on record in South Australia. I can remember, as a child, visiting a great-aunt in Kapunda and being shown a small collection of minerals from the district, which I later gave to the Department of Mines. These had been exhibited by her son at the Diamond Jubilee Exhibition – I think it was in 1897.

Did you have an interest in geology as a child?

No, not really. I think this came later, when I became successful in examinations in geology.

What about your parents' interests? Did they influence you?

No, not at all, I think. My mother was at the University of Adelaide in 1900 and 1901. She was one of the first teacher trainees to be admitted to the university, and always interested me, as a child, in her university lecture notes – meticulously written – and in the names of her professors. She was fortunate enough to have Professor Bragg as Professor of Physics – afterwards Sir William Bragg – and Professor – afterwards Sir William – Mitchell, I think, as Professor of English. She often talked about them to me as a child.

Did you have a childhood ambition?

I think not seriously. I can't remember any ambitions as a young child, but I think later I perhaps had not very serious thoughts of doing Medicine.

There must have come a time when you decided to specialise in the work that you did do. How did that come about?

Well, it was due to my mother's inspiration that my education continued at all beyond primary level. Even so, it was very precarious as we lived in the country, where schools weren't so frequent then as they are now, nor were scholarships available, particularly if one got over the age of eligibility for scholarships, so that I think I can say that my education didn't commence seriously until I entered the University of Adelaide in 1926. I'd studied in geology and mathematics in my secondary school course at Mount Barker High School, and by this time I had thought of perhaps doing Medicine, but I was not able to pursue this career because at this period we entered the Depression and it was not practicable for me to do so. I would have preferred to study Science as a second choice, but I had not completed the subjects necessary for Matriculation in Science. I had to graduate in Arts, although I included as much Geology and Mathematics as I could, and to that extent I gained a sort of scientific Arts degree. I also studied to be a teacher, which most people did during the Depression.

At what point did you become interested in the fossils?

During the period when I was an undergraduate I found that my energies were not completely satisfied, so I went to Dr CT Madigan, who was lecturing in Geology – and Professor Mawson was the Professor, Sir Douglas Mawson – and asked Dr Madigan whether there wasn't anything that I could do in the way of research in Geology. And he suggested that I commence work on a collection of fossil molluscs that Sir Joseph Verco had collected from the spoil heap of a bore which had been put down at the metropolitan abattoirs, and he'd given them to the university in the hope that somebody would study them. Sir Joseph Verco's hobby was the study of molluscs, which he collected by hiring a trawler and dredging along the southern coast to Western Australia.

Was the Verco collection a big one?

His collection and mollusc library formed the basis of the collection in the South Australian Museum. He was also my husband's great-uncle, and when we were both students at the university we used to visit him at his house on North Terrace, which was later demolished to permit the extension of John Martin's store to North Terrace.

What is a mollusc, Dr Ludbrook?

Well, the molluscs are one of the big phyla of the animal kingdom, and they're popularly known as shellfish. They include the snails and the clams and cockles. It's a very large group of animals, mostly marine, living in the sea.

Was it possible to continue this work when you moved away from Adelaide, as I think you did when you were married?

Well, it's possible to continue this type of work, really, anywhere if one has the material with one. In 1935 I married and went to live in Canberra, but the Mines Department used to send material to me, and also the Commonwealth Palaeontologist had moved up to Canberra by this time, so I continued my interest in South Australian fossils although I wasn't employed to work on them. But I was always sufficiently interested to work in my spare time, and this was useful because, during the War, I was employed as an Assistant Geologist with the Mineral Resources Survey which later developed into the Bureau of Mineral Resources, and – although I

wasn't working in the field of palaeontology. I worked mainly on indexing and compiling statistics on strategic minerals.

Was it only 'war work', in a sense, that you did with them?

It was in a sense, and it had a limited future because in those days married women were not eligible for employment in the Commonwealth public service, and my appointment had to be renewed every six months. But there was an opening for specialists and, with the idea of specialising in molluscs or even in – which can be used in determining the age of sedimentary rocks just the same as other groups of fossils, including molluscs – I went to London in 1950. My husband was going to be away for several months on a research program, and I had the advantage of having this material which had been sent to me from Adelaide. So I took it with me to compare it with material in the Imperial College of Science in the British Museum of Natural History. After I'd been there only a few weeks I realised that I would get most profit from working at the Museum, and I think this was a second milestone in my career. I was invited by Dr LR Cox, who was one of the world's leading specialists in fossil molluscs, to move down to the British Museum. I had a room at the Imperial College, but there was a room available at the British Museum just vacated by the Chief Palaeontologist of Burma Oil Company, who, like myself, worked also on molluscs and While I was there my husband died in tragic circumstances and I was advised by his relatives in England to avail myself of the opportunity of gaining my Ph.D. in London.

There can't be many people doing this kind of research. Weren't you tempted to stay on there at the British Museum?

Well, I was in a way, but it was necessary for me to get back to Australia for many reasons, including the fact that I needed to find employment. And while I was preparing to return to Australia just on completion of my Ph.D., quite by chance I met in Professor Reid's room the Director of Mines from South Australia who was visiting him to get some advice from him. He happened to tell me that there was a position of Technical Information Officer vacant in the Department of Mines in South Australia and that the previous Technical Information Officer had commenced micro-palaeontological work in the Department. He'd been employed by one of the oil

companies in Papua New Guinea, I think. So I returned and took up the post of Technical Information Officer with the express purpose of developing a Palaeontology Section in the Geological Survey, and I succeeded in doing this.

People talk about the extreme geological age of Australia. Is it a good place for this sort of work?

Well, we have a great variety of geology and it's a good place for almost any kind of geology or palaeontology.

Is palaeontology a necessary part or a by-product of the Department of Mines?

Well, it's a necessary part if there's interest in oil exploration or ground water supplies, because no method has been found yet to replace fossils for determining the age of rocks containing fossils.

It wasn't purely academic work, Dr Ludbrook, was it, but work of economic importance?

Well, this is so with any work for an organisation like a government department. One has to maintain a balance between service work and the research work which enables one to do the service work. And to this extent one's not just playing with fossils because they're interesting things to work on, but one has to demonstrate that they're of economic use, because the research work of a government is geared to its investigation programs and to the needs of the state.

What is the tie-up between fossils and oil exploration programs?

Well, by determining the fossils in the rocks through which a bore is passing, one can determine the age of the sediments and so the geologists work out the structures that exist below the surface, and hence the prospects or otherwise for oil and gas occurrence.

Would you say that palaeontology is a field in which a world perspective is necessary?

Oh yes, yes, not the slightest doubt. It's like most other sciences, you don't work in isolation.

The same sort of fossil material would be evident all over the world?

Yes, if the same kinds of rocks are present. Not all rocks are fossiliferous, but the same kinds of rocks often contain similar, if not identical, fossils.

Have fossils a commercial value?

Unfortunately, yes. To me, no, they're only of scientific interest, but we have now dealers. In the previous century shells were bought and sold and unfortunately, as one can see by many of the overseas airports at the moment, fossils are actually exhibited for sale at quite inflated prices. And I think it's largely because people have more money, money to spend on hobbies, and they're prepared to pay quite high prices for fossils, just the same as they are for shells. And one has to remember that the supply is not unlimited, and this is giving us some cause for concern – not only those who trade in fossils and minerals and shells, but those who collect them without any real need to do so.

Are they not protected by law?

Some are. Where a site is threatened, if it happens to be a site of particular interest and is threatened by over-exploitation, then they are declared reserves and permits have to be granted to remove any material from those earths.

Or there could be rules against taking certain fossils from certain countries altogether?

Yes, yes.

You've made many trips overseas yourself. Have these been for a specific purpose?

Usually I travel only for a specific purpose, to do some work because it's necessary, as in other sciences, to refresh one's knowledge of techniques for recovering the material. These are not easily recovered always. And also to compare material one has with type specimens elsewhere, so that I've gone overseas to London and to France, in particular, but also to attend conferences. Often at the conferences which are designed for geologists or palaeontologists there are field trips where one is able to collect materials of similar kind and similar age for comparison with one's own material.

It probably meant you going to a number of out-of-the-way places.

Well, I have been to some out-of-the-way places. I have been to Moscow, which is of interest, collecting on the border of Poland and Czechoslovakia in the Krakow area which I found very interesting, which has material similar to some in South Australia. I've collected in the United States. I've visited a colleague in one of the universities in India and seen some of his material. I've been in Japan and found the field trips there of particular interest for the structure of the rocks as well as for the fossils they contain.

Even in South Australia, Dr Ludbrook, you've probably been to places that others have never visited.

Well, I don't know. It's very difficult to say that one's been anywhere where someone hasn't been and left a bottle or a beer can nowadays. But I have been in the Far North of the state. I enjoy very much the way outback country, and I always went in the field with my geologist colleagues if it were necessary for me to do so, and these were some of the most enjoyable aspects of my career as a palaeontologist with the Department.

Have you ever found it a disadvantage being a woman on such field trips?

No, never.

Perhaps there are advantages, do you think, in having women working in this field?

I wouldn't say so, but there are certain things that women can do, particularly in palaeontology and petrology, which are merely the laboratory aspects of geology predominantly, and much of the work requires the patience that women are said to have. Men also have it, some men, but most men who are geologists like the open air life, so that women are often quite successful as palaeontologists or petrologists in the laboratory work.

What about your retirement, Dr Ludbrook? I gather that so far it's been very busy indeed.

Yes, it has indeed. Since I retired in 1967, six years ago, I've been Consultant to the Department of Mines where I have a room and work each day. I've been able to do systematic work on fossil molluscs, for which I was not able to find time when I was

doing so much service work. It's necessary to maintain a balance between service and the research work, which involves the classification and description of the material one's working on, in order to have the necessary background of information to use in service work.

What time have you had in your life for relaxation?

Well, I relax in work, in a way, as much as I can. But I am very fond of music and I go to the theatre and to concerts, and I have a garden in which I'm interested. But my retirement has really been extremely busy, busier than I expected, because it brought with it a spate of activities inspired by the 'Well, you have time to do it now, Nell.' One of these is editing the handbooks of the flora and fauna of South Australia, which is a series published by the Government Printer, and very much admired for the comprehensive coverage each handbook has of our flora and fauna. The edition of the – the second edition of *The vegetation of South Australia* was published at the beginning – well, end of last year, and early next year the second edition of *The marine and fresh water fishes of South Australia* will be available. Editing these takes up a great deal of my time, when one is getting in the final stages of publication.

What about regrets, Dr Ludbrook? Have you any regrets?

No, I think I have none.

Are there some things that you're still looking forward to doing?

I don't think so. I still look forward to finishing a lot of the work that I have been doing. This is about all I can hope for at the moment, to try to finish those projects which I still have on hand. Some are research projects, and I think this will occupy the rest of my life, probably. And it's easy for me to continue work because I don't require a well-equipped laboratory to work in, and when I finish one thing if I'm still alive to do so I'll just find something else to do.

ANNOUNCER: Our guest today in *Now in retirement* was Dr Nell Ludbrook, and she was interviewed by Mary Rose Goggs.

END OF INTERVIEW.

(Opening announcement is repeated on Sides A and B of tape.)