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Interview with John Prescott recorded by Rob Linn on 25th October 2006.

DISK 1

This is a University of Adelaide oral history project, interview with John Prescott on 25th October 2006, interviewer Rob Linn, this is session number one.

John, you're born in 1924. Could you just tell me a little bit about your parents and family, please?

Well, my family has its roots fairly well back in Lancashire. The Prescott name on my father's side is in Walton-le-Dale and/or Brindle, which is near Preston, going back into the seventeenth century. My mother, or her lineage, comes from Yorkshire, up in the more or less far north-west of Yorkshire, and her family worked its way down into Lancashire about the end of the nineteenth century. My great-grandfather was one of the pioneers of the Trade Union Movement in England and his son carried on, that would be my father's great-uncle, as a trade union secretary, and they had – the leadership of the Bolton No.2 Branch of the Amalgamated Engineering Union for nearly seventy years between them, which is a pretty good record.

Seventy years!

And my grandfather was an engineer in the cotton industry and he travelled widely over Europe installing cotton machinery, which was built in Lancashire, and at one stage he lived for – oh, was it eight years? – in France. My father was actually born in England but he had almost all of his primary schooling in France, and two of my aunts were born there. So on my father's side is a pretty long history, record in the cotton industry; rather less so on my mother's side. I think by and large they were husbandmen and so on, although my grandfather, whom I never met, was an overlooker – that's a foreman – in the cotton industry, in Haslingden, which is in Lancashire, and he had to take early retirement because he got emphysema from the cotton fluff, which was a rather common thing in those days.

My mother worked in the cotton mill. She left school at the end of primary school because the family was not very well off and they wanted to make sure that the boys received a fairly adequate education, and so she finished school at primary school.

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And in fact her mother – that’s my grandmother; again, whom I didn’t ever see – she had almost no education and pretty well taught herself to read. But interesting, that’s the sort of interesting byways in that part of the family.

Your mother’s Christian name was Elsie –

Yes.

– and her maiden name was Mason.

That’s correct.

Now, what was your father’s Christian name?

It’s James.

James.

James Arthur. And that’s interesting, because he wasn’t meant to be christened James Arthur; he was meant to be christened James Harter[?], after his mother’s surname. But the clergyman didn’t hear him correctly and of course in Lancashire they drop their aitches so if someone was called ‘Harter’ he would have been called ‘Arter’, and the minister, that didn’t sound quite right, so he christened my father ‘James Arthur’.

John, you said to me on our earlier get-together that your mother’s reason for working as a weaver in a mill was really very much to help her brothers go through higher education.

I probably didn’t say ‘*higher* education’.

No, sorry, you said ‘education’.

Education, yes, that’s correct. Yes, that’s correct. My mother’s younger brother acquired his education by going to teachers’ college. My mother’s eldest brother was just about the age of – how old would he have been? – in his early twenties I think at the time of the First World War, and I don’t know what his trade was before that. After the First World War, I mean there were lots and lots of people from Lancashire enlisted: Uncle Ernest and Uncle Eric both enlisted; Uncle Bernard went as a clerk in an insurance firm and stayed with them throughout his life.

His entire life, did he, work for them?

Yes, same firm.

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Now, your father, James, he's born in Bolton –

Yes.

– then first part of his education in France, is that right?

Most of his primary education was in France, at Lisle.

What happened from that point with him, for his education?

Well, then they went back to England when my father was about eleven or thereabouts, just about the end of primary education, and had to relearn English – well, not entirely, but he did I think probably one additional, one year of primary education in Lancashire – and this would be in Accrington – and from there he went to Accrington Grammar School and then on a scholarship to Manchester University.

Now, at Manchester, he went on to do a postdoctoral fellowship in Agriculture, is that correct?

Yes. He was one of the first – I think there may have been two, but he was certainly the first person to have a British Government scholarship in Agriculture. I think it was probably called a 'scholarship'; it may have been called a 'fellowship'. And the conditions of that were that you should spend a year on the Continent, somewhere in Europe, and a year at Rothamsted, and also I think some time at Holmes Chapel, which I think is in Cheshire, which was an agricultural research establishment. He had graduated in Organic Chemistry, but had an interest in agriculture because of helping on his future father-in-law's allotments in Accrington with Eric, my mother's brother, and he'd also stayed with relatives over on the other side of Lancashire on the farm, and he tells the story of how he did some elementary tests of soil properties on that farm. I'm not quite sure why. So he had an interest in agriculture and he was given one of these scholarships.

He went to Leipzig – this is at the beginning of 1914 – and he very, very nearly got caught by the War, the First World War.

So was that for agricultural research in Leipzig?

Yes. He went to work with Ostwald, who was arguably the best, the most distinguished physical chemist of his era, and certainly very high in the hierarchy of physical chemists of any period. And the sort of work that Ostwald was doing was frontier studies of the way in which particularly ions behaved in liquids and solids

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and all the rest of it, but he was warned that – well, people could see the war clouds rolling up and Ostwald said to him, ‘I think probably you should bear in mind that you’re going to have to get out in a hurry, and if the Russians mobilise I suggest that you leave.’ That was good advice. He had almost no money. He borrowed some money from an American student who was there – which he eventually paid back, incidentally – and caught the last train out of Germany into Holland and arrived back in Accrington, as he said, with twopence in his pocket and very hungry.

That’s a very good saying. Now, how did your father James and mother Elsie meet?

Well, they actually met independently, in a sense. They both went to a Band of Hope meeting –

Oh, gosh.

– I think probably in Haslingden, which is not far from Accrington. And actually Mother was living in Haslingden probably at the time. They’d have been ten or maybe in their early teens, both of them. And my father certainly remembers it. I don’t remember my mother saying much about it. But the Band of Hope meeting, of course, Band of Hope was a temperance organisation designed to ensure that young people didn’t succumb to the evils of drink, and my father used to say that it was a little bit bizarre that he met Mother at a Band of Hope meeting and in later years became Chairman of the Wine Research Council (laughter) or whatever the name of it was at the time.

And then the Masons moved to Accrington from Haslingden and they were back-to-back neighbours. So the opportunity for meeting each other was now really quite strong and my father was very friendly with Eric and they used to spend a lot of their time together.

Oh, that’s your mother’s brother.

That’s my mother’s younger brother, yes.

So your parents are married in 1916, after your father’s managed to get out of Germany and do a few things at Rothamsted, I suppose.

Yes. I think in fact they married in 1915. Yes, it would have been 1915 because they went to Egypt in 1916.

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I was going to ask about that. How did that come about?

Well, I suppose it wasn't a British mandate in those days although there was a lot of both French and British influence in Egypt at the time. But the Egyptian Government, or the Sultanic or government – it was in fact, if you like, it had been a branch of the Ottoman Empire, but the British more or less took it over – they were looking for somebody, they were looking for an agricultural chemist to ensure the quality of the fertilisers that they were buying and to carry out an agricultural research project. And they sought advice from Sir John Russell, who was the Director of the Rothamsted Experimental Station, and he suggested that my father would be a very suitable person and he was appointed without more ado. And so they left England in 1916, during the War, left from Trieste and dodged submarines across the Mediterranean (laughs) to arrive in Alexandria. I no longer remember the exact month; I don't think it matters very much; but I think towards the end of 1916.

Do you have any memory of how they enjoyed it there? Did they ever talk about it?

Yes. Well, my father didn't ever say very much about – well, yes, he did; but not quite in those terms. My mother said they were the happiest years of her life. And they lived on the experimental farm at Bahtim, which is in the delta. It's about, I think, probably thirty kilometres from Cairo. The nearest post office was at Matarea, and Matarea was the town where the Holy Family were said to have spent their time when they were in Egypt.

They lived there from 1916 to 1919, just after the War, when they had the anti-British riots in Cairo, and then the Society insisted that they go back and live in Cairo for security. They gave my father a – (laughs) they gave him a motor bicycle so that he would be able to get away if necessary, and they gave him a revolver from which he removed the bullets and put the revolver (laughs) in a drawer and never used it, and I find it difficult to imagine him doing it. And one or other, my mother or my father, was subsequently told that they had a meeting in the village to decide what should be done with them and they decided that they were okay. But they had to move into Cairo and that's where I was born.

In 1924.

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I was born in '24. My sister – I had a sister, she was born in '22, but she died in Egypt. She died before I was born.

Now, whatever induced your mother and father to come to Adelaide?

Well, now, this is Sir John Russell again, because Peter Waite had indicated, had told the university, he was prepared to make over his entire estate to the University for agricultural research, and that included the property at Urrbrae, what is now the Arboretum and what was going to be called the Education Block, which is to the west of Fullarton Road. He told the Government that he would leave one of those to the Education Department for agricultural education, and that's where Urrbrae High School is now and the TAFE¹ Institute, and the other one plus some other property and a substantial endowment to the University [of Adelaide] to carry out a rather broad spectrum of research in agriculture. Didn't include animals, there wasn't enough money for that. And the University of Adelaide – that was announced some years, in fact, before Peter Waite actually died, so it's often stated to be a 'bequest' but in fact it was a gift, conditional only on his wife being able to occupy the property until she died. And in fact both of them died quite relatively close together and in 1923 probably the property then became formally the University and the endowment became the University's.

So the Chairman of the Education Committee, I think it was – I forget, was it Goodman, was it Sir William Goodman? It wasn't the Vice-Chancellor. The Chairman of the Finance Committee and one other went to England to ask Sir John Russell's advice. They wanted to set up an agricultural research establishment and to suggest people who might be useful. And it was advertised in Australia and A.V. Richardson, who was then at the University of Melbourne, was a very highly-favoured candidate; and Russell gave my father a very, very strong recommendation. My father and mother were anxious to leave Egypt because of having lost my sister, and my father was interviewed at Port Said by these two people from University of Adelaide on the way back.

He wasn't offered a job on the spot. When they got back to Australia – – –. The matter was discussed by the University Council, and they had originally decided

¹ TAFE – Technical and Further Education.

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simply to make one appointment, one professorial appointment. Then they gave it a good deal of thought and they decided that perhaps they had enough money to make two appointments, and that's what happened. Richardson was appointed the Director of the Waite Institute, my father was the Waite Professor of Agricultural Chemistry and he was in fact the first member of the Waite Institute staff to take office. Richardson and he were appointed about the same time. Richardson had to wind up his affairs in Victoria, so he was a little behind Father in terms of administration, but not much.

I think the first non-academic appointment was Ken Pike[?], the Farm Manager.

Yes. Now, how did your father and Richardson get on together?

I think they got on fairly well. My father was extremely discreet on what he said. (laughs) When I was young I never really heard him discuss these matters. I certainly remember him talking about things that Richardson did. Richardson went to the Ottawa Conference to represent Australia, that was I think a food and agricultural conference. I was old enough to remember that, so that that must have been about 1929 or 1930, '31 maybe, perhaps '31. And the commentaries that you see say that it was a good combination because Richardson had a good deal of farming experience in Australia, he was an Australian agriculturalist, he was rather more on the practical side, and my father was a brilliant chemist. In fact, he's described on the plaque in North Terrace as the founder of soil science in Australia.

It's not entirely clear to me – should be, I suppose – that he made any decision as to what sort of work he would do when he got here. Obviously things like crops and so on were important, but by and large that was more closely-related to the things that Richardson was interested in, and so research programs on crop yields and pastures and so on were, broadly speaking, under the aegis of Richardson. My father then, he was a chemist, and I think he decided quite early that soil science needed a good, big boost in Australia. I do recall his going over to see the soldier settlements in the Riverina, which were getting all badly gummed up by salt. (laughs) All of this, what, a hundred years ago. Not quite a hundred; seventy-five years ago. And I think within a couple of years of his coming to Adelaide he'd definitely established the fact that he wanted to develop soil science in Australia.

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He was a disciple of the Russian School of soil science. I'd have to look it up now to remember the name of the Russian soil scientist that he was particularly impressed by. One of the things that he sought to do was to try and relate the soil, the rocks from which the soil was derived and the sort of vegetation that it carried. Nowadays, even now, when I drive out into the country, I can see the boundary between one sort of soil province and another because the vegetation changes. Of course, the farmers know this, but most city dwellers wouldn't even think of looking for it.

So, John, did your parents arrive in Adelaide in 1924 or '5?

'Twenty-four. End of August, 1924. And they stayed in a hotel on the corner of Rundle Street and Pulteney Street. I don't remember that. But it then became Cox Foy's.

Foy and Gibson.

Foy and Gibson's. That was a hotel at that time.

And then the Electricity Trust Building later.

Was it?

Yes.

I couldn't have told you that.

That's on the site of where the current meccano car park is, is it not?

Yes.

On the south-east corner.

South-east corner, yes.

So then was it after that they moved in with the Munro sisters?

I don't know, I don't think they lived there very long. They went and boarded in Malvern with the Munro sisters, and then I suppose after a long enough period of time to look around and decide what sort of a house they wanted to buy they bought a house on Cross Road, the corner of Hexham Avenue, which looked across the Waite Institute; and for the whole of his professional career my father lived within – not only within walking distance, but within sight of the Waite Institute; and even

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after retirement, if he'd been a good cricketer, he could have lobbed a cricket ball into it (laughs) from his retirement house into Waite Institute property.

So, John, you were educated locally –

Yes, I went to Scotch College.

– in your first years. But do you have a memory of work on the site of Waite Institute that your father had been appointed to?

Oh, yes. I can remember going with him to the first chemical laboratory, which was in the stables – oh, in the coach house; not in the stables, in the coach house. This has been recreated for the Waite's Historic Precinct, and the laboratory looks more or less, I believe, as it was in the days when my father worked there. I do remember some of the staff then. There was a fellow by the name of Schachter[?], Samuel, Richardson I certainly remember. I remember Mrs Richardson: you could hardly forget her, she was quite a flamboyant personality. Yvonne Richardson, her daughter, I didn't see very much of. She was half a generation older than I.

Richardson had an office in Urrbrae House in what is now the library. I have very vague recollections of going there. But I suppose I have recollections that go back not much older than three years old, maybe. I can certainly remember the Darling and Melrose Buildings being built. I can't honestly say I remember it being a bald patch of paddock, but I do remember it being no higher than the foundations, and that would have been about 1929, I think.

What was the country like up around Waite Institute at the time? Was it largely paddocks behind the Waite or was there housing there at that point?

Well, there was Alverstoke[?], a property, I think somebody was probably living in it at the time. The University eventually bought that. And then there was Claremont House much further up the hill, where people still live; I think it's owned by the University but it has tenants in it. There were people living in the lodge – in fact, Cousins[?], the gardener, the Urrbrae House gardener who was retained by the University. 'Holden' was Peter Waite's chauffeur and I do remember seeing 'Holden'. I discovered later that it wasn't spelt 'Holden', it was spelt 'Halden', but the way people pronounced it – – –. I don't think he lived on the premises, but Cousins and his family certainly lived in the lodge down on the corner of Cross Road and Fullarton Road.

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John, I was wondering also would you have had in those early years attended the University on North Terrace as well with your parents?

Oh, my father used to take me into the University when he went. The administration was still in North Terrace and if he wanted to go and talk to the Registrar he drove in. I suppose most of the interactions with the University would have been carried out by Richardson; but when Richardson was away my father had to carry the ball, and certainly I remember going in with my father when he was visiting Edgeloe. At that time Edgeloe wasn't Registrar, I don't think he was even Assistant Registrar. Bampton was the Accountant. And both of those names were familiar to me from when I was very young.

Oh, really?

As names. Probably my earliest scientific observation was that my father went, he did something like going – he went to meetings, and I recognised the fact that these meetings didn't take place in the summer, that they were associated with the winter, and that of course is the university year. The Medical Sciences Club he joined quite early, I think, although I can't honestly say – I certainly remember that from my later youth.

I can't be absolutely certain that I remember going in in the car in the Fiat, which used to be parked on what is now Hughes Plaza. There was a parking lot on Hughes Plaza, between the Anatomy School and the Prince of Wales Building, with the hut on the eastern side, and that was adequate for all the cars parked on the University at that time. Kerr Grant used to park outside the Physics Building. At a somewhat later stage – I suppose I would have been about twelve – my father went in to see Kerr Grant and he took me with him, and I simply sat there in the room while my father talked to Kerr Grant, and Kerr Grant gave me a copy of *Popular Science*, it was called.

Oh, the magazine?

The magazine. There was also *Popular Mechanics*, which was also widely-read. *Popular Science*. And I was absolutely fascinated with this and arranged for my father to get a subscription for it, and that continued until the Second World War. So I remember Kerr Grant, certainly as a person, from quite an early age.

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I remember quite a lot of the professors. Harvey Johnson was Professor of Zoology and my parents were quite friendly with the Harvey Johnsons. We used to frequently exchange afternoon tea visits. I got bitten by the Harvey Johnsons' dog and they were very upset. (laughs)

I hope the dog was all right.

Yes, the dog thought I was taking his dinner.

John, would the Barr Smith Library have been built, or did you see that opened at all?

No, I was there at the opening of the Barr Smith Library.

I was wondering that.

Yes, I remember going to that.

Would you have been about eight or nine then?

Something about that. My father of course went. My mother went and I'm reported as having said 'She wouldn't have missed it for quids', but that wouldn't have been the way she put it. (laughs) But I went along and I remember sitting there, nearby. I'm not in any of the pictures that I can see, but I went, I'm sure I was there. And I'm claiming to be there. (laughs) But that was quite a lot – I certainly remember it being opened, there is no doubt about that.

I remember the Bonython Hall being built. There was a lot of – – –.

Oh, yes, of course you would.

Yes.

Because of his gift.

Yes. And I was [at] quite a lot of the things that happened on the campus. There was an oval on the flat, where the Barr Smith Library faces. I forget what it was called.

Wasn't that the Jubilee Oval?

The Jubilee Oval? Could have been, yes.

It was used for the Show.

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Yes, it was. And there's a railway, you can follow the old railway line from the [Adelaide] Railway Station through the campus. If you know where you look you can more or less imagine it. It's not quite as obvious as it used to be. But it used to run along behind Government House and then around along the embankment and then sort of ran down roughly where the Library is now. I don't remember that. I remember the University used to play rugby on that field.

Now, was it in 1934 you had a year overseas with your parents?

Yes. My father had what would now be described as a year's sabbatical, which he spent in Europe, a good deal of it at Rothamsted. He certainly went to Alsace; of course he was interested, I think, in the potash mines in Alsace. And I went to school – my father said, borrowing the words of George Bernard Shaw, he didn't believe in allowing a boy's schooling to interfere with his education. And so I stayed – my mother stayed with Uncle Bernard, that's my mother's brother, for maybe three or four months, perhaps a bit more; I stayed with my father's youngest – no, wouldn't be the youngest; sort of middle sister, Marie, in Bereford and went to her school. She had a one-room school in Bereford in Lancashire. And then we went to stay for a rather more extended period in Hetton-le-Hole up in Durham with Uncle Eric – he was a principal of the local school – and he took me under his wing and improved my writing, quite significantly. It was not good and it was the subject of constant comment from my schoolteachers. But I understand it now. With increasing age, I don't have quite the control over my pen that I used to and I recognise it now that the reason why my writing was not good was that I didn't have good co-ordination when I was very young. It was reflected in my playing of sport. I was a real rabbit at cricket until I got a bit older, a real rabbit. So much of a rabbit that the cricket coach at school finally gave up. (laughter)

Now, when you came back from the UK to Adelaide, you went back to Scotch.

Yes.

Was there any particularly significant teacher there, in your life?

Well, of course I remember all of the teachers. Taffy Evans, who taught French and English, he taught French in a way that appealed to me so I got to be quite respectable at French. But later on, when I got to what would now be called year

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eleven and year twelve – well, no; in fact it would be year ten – Ray Smith, who went on to teach at PAC², he taught at Scotch for maybe two and a half years and then joined the Air Force, but he appealed to me. I think he was still a very inexperienced teacher – well, he was; (laughs) it was I think his first job – but the way he taught appealed to me. And he was keen on demonstrating that physics could be understood by experiments. It wasn't just a matter of learning facts. And chemistry, of course, there was practical chemistry, but that at that level is much more a matter of memory. And in fact he had already left to join the Air Force when I went into year twelve. But I had some quite good notes and so I didn't suffer too much by the fact that he'd gone.

I do remember, though, that in year ten he dictated notes on astronomy and that sort of thing; but he did some experiments and one – I can see where I was sitting and I can see the experiment up there in front of me – to show that the period of a pendulum doesn't depend on the mass of the ball. And this was not possible, I did not believe it, and I insisted on going and arguing the toss afterwards, in spite of the fact that I'd seen, (laughs) he'd demonstrated that it was true. And I think that probably was the thing that persuaded me that physics was rather more interesting than chemistry. Although I did rather better in chemistry than physics because it was a matter of memory.

Did Wilfred[?] Partridge teach you at all?

W.G. McDonald Partridge? Yes, he did, at an earlier – I suppose I would be about at the equivalent of year eight. I don't know how long he was at Scotch. I think he was a history teacher, and he also ran the Booklovers' Club and so I saw quite a bit of him under those conditions, and somewhere around this house you'll find a few books that were rebound as a result of what I learnt in the Booklovers' Club. I haven't read his biography. The Barr Smith Library didn't have it when I last looked.

No. He led a remarkable later life –

Yes.

² PAC – Prince Alfred College.

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– in Nigeria, was it?

Is it Nigeria?

No, hang on – – –.

If you were to say it was Kenya or – – –.

I can't remember.

Yes.

No, it wasn't it was – anyway, it's gone. It may have been Rhodesia, I think.

I think it was over on that side, yes. And I do remember he was different from many of the teachers who tended to – he was not a strict disciplinarian. He tried to find the reasons why people misbehaved, and I remember him at, I don't know how old I was then, I probably was getting on fourteen or thereabouts, he once made a comment to me about the fact that one should be more sympathetic about bullies than to subject them to strictures.

John, you mentioned earlier that you have a memory of being at the Barr Smith opening and you recalled meeting with Kerr Grant. How did he strike you as a personality?

Oh, well, of course I got to know Kerr Grant pretty well later on. When I first knew him he was this great gangling stuff with the enormous moustache and (disguises voice) a funny way of talking. (normal voice) He was a professor. He looked a bit peculiar, but he was really no different in that respect from Harvey Johnson or Macbeth or, later on, J. Wood in Botany or Mark Mitchell. Professors are professors and you treat them with respect.

Oh, yes.

But, as I say, Kerr Grant I got to know quite well, and one of the things he said to me was that, 'Well, I know you've got –', I'm not going to put on his funny accent; I can do it but I'm not going to, said, 'I know you've got a credit in leaving honours Physics and this entitles you to an exemption from Physics I, but I think you should do Physics I because if you're going to be a physicist you should see how it is taught in the early years, and because you will see all the lecture demonstrations.' And that was wonderful advice, wonderful advice, and I've been keen on lecture

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demonstrations ever since. He learnt the art from Pohl in Göttingen when he was over there before the First World War.

Was it Kerr Grant who arranged some welding for you?

Oh, yes. I did two years of a carpentry course at the School of Mines, for beginners –

This is while you were at school?

– yes, on Saturday mornings I went in. I think with the Davidson boys one year. And I made quite a lot of things and I still have some of them around the house here that I made. And as a result of the Booklovers' Club I needed a press, a screw press, that you could clamp the things together, so I made this out of wood. But I needed a screw to screw it down and a handle to go across the top, and I think my father suggested I should – well, he spoke to Kerr Grant and Kerr Grant said, 'Oh, yes. Well, tell him to come in and we'll get it done in the workshop.'

Now, you mentioned the Davidson boys. Can you tell me a little bit about Professor Davidson? He was the Prof of Entomology, was he?

Yes, he was. The University had some sort of obligation, I think, to the Department of Agriculture to maintain an entomology service. That may not be strictly very accurate, but certainly there was an antecedent obligation on Entomology which the University picked up, and Davidson was appointed as a professor of entomology. He died, unfortunately, relatively young. But I saw a lot of the Davidson boys, we used to do quite a lot of things together. But John was significantly older than I and correspondingly sort of three years more sophisticated than I was; and Torburn[?], who was the next, he'd be maybe eighteen months older than I; and then Duncan younger than I; and then Elma[?], daughter, younger again. And I see Elma quite regularly and I see Torburn quite regularly; John I see less frequently, he's now very, very deaf; and Duncan doesn't live in Adelaide so I see him very, very rarely. Since they were at the Waite Institute it was natural that we tended to associate.

There were Adam children as well which I knew but didn't play with.

Now, who was that?

Adam, D.B. Adam.

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So, John, the University would have been a relatively small place in those years, would it, in the '30s?

Oh, yes. Well, it went over a thousand full-time students when I was an undergraduate, (laughs) and that has its advantages and its disadvantages because it means that the University is still small, it doesn't have the whole range of facilities that it might have; on the other hand, people know each other. So that my father, I'm sure he knew all the professors and all the lecturers, and even I as a non-University student knew who they were so that when I went up to the University these weren't a lot of strangers. These were all names I knew and some of them I knew personally. Mawson, for example: we used to go and have afternoon tea at Mawsons's, down at Brighton. Mawsons and the Johnsons, I mentioned the Johnsons already.

That's Harvey Johnson?

Harvey Johnson.

And you mentioned Mark Mitchell and Professor Macbeth, I think?

Yes. Who was Professor of Physiology?

Was it Stanton Hicks?

Hicks, that's right, yes.

He was an interesting character, wasn't he?

I knew him by sight.

So what year did you actually begin your own university course?

I began in '42, right in the middle of the War.

And you gained a first-year scholarship?

I got a leaving honours scholarship in the previous year, I was the top of the first-timers. Looking back on it, it looks to me now that – and I was thinking about this (laughs) this morning – that [it's] somehow defeating the object of the exercise to provide bursaries for people to allow them to go to the University and then have most of them taken by people at Prince Alfred College and St Peter's College and a small sprinkling of others from private schools who can afford to do year twelve twice. (laughs) And I was quite chuffed to get a scholarship first time up. I wouldn't have gone back and done it again, I'd have gone on to university. I certainly felt like that

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and I'm sure my father wouldn't have been too happy about me just staying on to get a scholarship.

So I think you said to me that originally you wanted to do civil engineering, did I get that right?

(laughs) Yes. When I was younger, I suppose in it would have been my mid-teens, fifteen or sixteen, towards the end of my school life, I wanted to do civil engineering. I know that mechanical engineering is railways and so on, but civil engineering is building things and I liked the thought of building things. I'm not sure that I was very well informed on what civil engineering was, but it appealed to me. But my father had a visitor came to see us up at Urrbrae House, Sir George Julius I think it was, and he asked me – as visitors might like to do – what I intended to do and I said I thought I would do civil engineering. And he said, 'Oh, I don't think I'd do that,' he says, 'it's all been taken over by the government these days', or words to that effect. I don't know exactly what he said. But (laughs) he was sufficiently persuasive that I decided I didn't want to do engineering at all and I decided I would do chemistry because my father was a chemist and I'd been mucking around in his lab and that sort of thing.

Was Julius an engineer himself?

Well, I don't know for sure but I believe he probably was.

Okay. So you enjoyed mucking around in the laboratory, did you?

Oh, yes. I used to make things in my father's workshop. It wasn't a very elaborate workshop. But once I'd acquired carpentry skills, I won't say there was no stopping me but I didn't find it a mystery: if I wanted to make something I made it. I went through the usual stages of trying to make rockets out of gunpowder. I think I was probably lucky not to lose any fingers. But I have a feeling my father didn't know that I was doing that. So I enjoyed lab work, and in a couple of summers, summer holidays, I actually worked in the lab for my father.

Now, that first year at university in 1942, you said the Kerr Grant had encouraged you to take Physics because of the demonstrations.

Yes.

What was he like as a lecturer?

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Oh, he was terrible. He was not a good lecturer. I mean, the material was there: if you look at his first-year lecture notes they're quite admirable, and I used them more or less unchanged in future years for my own first-year lectures. They made a very nice framework. A bit old-fashioned, mind you, but very sound. But he was in fact a great one on lecture demonstrations, and these really do enrich a physics department. So I used to (laughs) go to George Fuller's lectures in the evening to learn the physics and go to Kerr Grant's lectures in the morning to watch the demonstrations. And he was no better in second and third year. He used to lecture in both second and third year – not the complete thing; Burdon took quite a substantial fraction of the load there.

But one thing that Kerr Grant did, he had a weekly meeting with the honours students and we would talk about all sorts of things, all sorts of problems in physics and so on. I'm not sure that he said, 'Well, now, I'd like to talk about this. This is a current problem which has just been published in *Physical Review*.' I don't think that's how he worked. What he did was to go through – and particularly (laughs) he insisted that we acquire a reading knowledge of German, and he used to read German to us and assign us references from German publications. I can remember that he assigned me – this is actually after, this would be in my honours year in fact – I had to translate an article in, I think, *Naturalwissenschaften*[], 'Can atomic energy be made technically useful?' This is 1939. Before the Bomb, long before the Bomb. And that was an exercise. And I had to translate, because I was interested in cosmic rays –

Hang on, John, what year would that have been? Not '39, would it?

No, did I say '39? No; the thing was *published* in '39.

Oh, was it?

This article on 'Can atomic energy be made technically useful?' was published in '39. I mean, barely after the nuclear fission was announced, was understood. I think I probably still have the translation somewhere.

But I also had to translate 'Fast and slow mesotrons in the cosmic rays'. I'd been always interested in cosmic rays and he asked people, 'Can you go – a subject you'd like to translate out of German?' And I said, 'Can you find me something on cosmic

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rays?’ And so he produced this. In fact, it was a pretty stuffy paper in the end, but it gave practice in German.

Did you find that physics kept up that interest you’d had from school with R.T. Smith, that even in first year you were still fascinated by that?

You’ve got the wrong Smith. It was Jack Smith.

It was Jack, not R.T.

No. Ray was his elder brother.

That was J.E., then.

Yes. Oh, yes. Once I’d got into physics I was hooked.

That’s amazing. That’s really at a very young age, isn’t it, fourteen or fifteen for you, by the sounds.

Yes, be fourteen, I suppose – yes, it would be fourteen.

Is it also true, John – you told me, I think, you sabotaged one of Kerr Grant’s experiments.

(laughs) This was in 1946, after I’d graduated. Kerr Grant’s last lectures were far-fabled. All sorts of things happened in the last lectures. He put on a set of a lot of demonstrations on what was then called ‘modern physics’ – that’s atomic physics and spectra and radioactivity and things of that sort – and he had a Geiger counter and he wanted to demonstrate to the class that you could identify which of a set of pillboxes a radioactive source was to be found in by holding a Geiger counter up to it. And we decided that we would – you use the word ‘sabotage’; I don’t think that was quite the way we would have looked at it, but it was in a sense sabotage – that we would *enliven* the lecture by – – –. I was working with quite strong sources of radon, radon beryllium, producing neutrons. This was 1946. So I brought this source in in a lead pot and (laughs) down at the other end of the bench, and when Kerr Grant brought his Geiger counter up to one of the pillboxes I lifted the (laughs) source out of the pot. Now, that was very foolish, it was a very strong source and I really had no business to be doing it. But it was capable of making the Geiger counter react fifteen feet away, down the bench – three, five metres away. But it didn’t take Kerr Grant long to realise that things were not working out quite the way he’d expected and we admitted that that’s what we’d done, in class. So at least the

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Geiger counter was – this is now being wise after the event, I think – that the Geiger counter could certainly detect radioactive sources at a fair distance.

(indicates recorder) I'm just going to flick this over into another session, if you don't mind. It won't take a minute.

That's all right.

END OF DISK 1: DISK 2

This is the second session of an interview with John Prescott on 25th October 2006 for the University of Adelaide Oral History, interviewer Rob Linn.

John, the course you were taking itself, where you were majoring in Physics, how did it develop the further on you went, if that makes sense to you. What were your interests more?

Well, in an undergraduate course you then followed a fairly well-defined program. We had, as I recall it, no choice of units or topics; [we had] choice of subjects across the faculty, and I chose to do Geology in my first year and then tried to do Geology as well as an extra in the second year, but it was too much to do. But by the time we got to honours then we were all expected to do a research-type project for honours, not quite so formal as we do now, and when I look at my – I still have my honours project report which Kerr Grant gave back to me, unless this was a fair copy, it's possible – it was a bit scruffy and the demands were not very high. But it was a research-type project and it introduced honours students to the idea of tackling the world around them on issues that they're not actually familiar with and making use of particular techniques and all the rest of it.

After I took my honours I looked around for a project to do, to get a master's degree if I was going to stay on in Adelaide, and I found a very interesting article in *Physical Review* on liquid crystals. These are now very, very important, (laughs) LCD³ television sets and all the rest of it, but then they were a curiosity. Also there was, at that time reactors were now becoming available for – nuclear reactors were available for civil use and it was suggested that beams of neutrons could be used to give diffraction patterns for crystals in the same way that X-rays could, I mean Bragg's idea with X-rays but using neutrons. Of course, the neutrons have a

³ LCD – liquid crystal display.

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wavelength. If they're slow enough, the wavelength is comparable with the dimensions of a crystal and crystals can be studied by using neutron diffraction, and at Lucas Heights now there's quite a big program been running on HIFAR⁴ and there will be an even bigger one on OPAL⁵ when that runs, and I thought that this would be interesting. Looking back on it, it was (laughs) ridiculous, because I really couldn't anticipate being able to go anywhere to do neutron diffraction; but at least I started studying liquid crystals and I started making apparatus for detecting neutrons, and I did detect neutrons and did a number of quite interesting demonstrations of one sort and another.

And then CSIR⁶ decided that they should establish a small group in Melbourne University under Professor Martin on atomic physics, so they established an Atomic Physics Section, and although I hadn't completed my master's degree the sort of work that I was doing was exactly the sort of thing that the Atomic Energy Commission was interested in and which I thought they would be working on, and so I saw this as a much more interesting thing to do than to hang around in the Physics Department.

Now, my intention had been to get a master's degree and to do what Oliphant had done: get an 1851 Scholarship and go overseas, and that was a very common way of getting overseas from Australia in that era. But I got in touch with CSIR, as it was then, and Fred White interviewed me in the Elder Hall at an ANZAS⁷ conference, that would have been say August of '46 or thereabouts, and I made a formal application for the position and was offered it. So Bill Lassick[?] from Melbourne University and I were the first two people appointed in Australia to take part in an atomic energy program.

John, before you go on with that, can I just take you back to your undergraduate years at Adelaide and then we'll come back to CSIR? You've spoken about your studies; what about the life at uni and the life with sport? What were the activities you pursued there?

⁴ HIFAR – HIgh Flux Australian Reactor.

⁵ OPAL – Open Pool Australian Light-water reactor.

⁶ CSIR – Commonwealth Council for Scientific and Industrial Research [now CSIRO – Commonwealth Scientific and Industrial Research Organisation].

⁷ ANZAS – Australia New Zealand America Society.

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I feel very sick about the misunderstanding, the way the Federal Government misunderstands what student unionism is. Admittedly, I worked in a small university. The University now is ten thousand students – well, it's more than that, but in terms of undergraduates it's not much more than ten thousand now – and so it's not so easy to make friends and join into activities. But the University was a hive of extracurricular activities in my day. I was President of the Men's Union and Vice-President of the Student Union in the year that Sam Jacobs was the President. I was very active in the Student Christian Movement: I was the Treasurer; I don't think I ever went any higher in office than the treasurer. I found the Student Christian Movement extremely formative. I changed many of my views on the way the world worked as a result of the association with the Student Christian Movement; and I was interested to see, for example, in comments – last week or the week before they had the fiftieth anniversary for the 1956 graduates, and they had a ceremony in Bonython Hall, and I went along to represent the Dean of Science. And a lot of the 1956 students, quite a lot of them, commented on the fact that they had been a member of the SCM. Now, I don't know quite when it faded out because I'd left Adelaide then. But it was a very, very strong organisation and it had a white-ant policy.

Meaning?

Meaning that concerned members of the SCM should get onto the Union to make sure that they behaved themselves. That's not quite the right way of putting it, but there were one or two (laughs) ratbags on the campus that created chaos – not chaos, not mayhem, but who had views that conservative people like me and my friends didn't approve of, like the Labour Club, I suppose, some of the firebrands in the Labour Club, and members of the SCM were enjoined to get themselves elected to the Union – it wasn't called the Student Representative Council – to counteract any other deleterious effects that might occur.

John, the Union was divided into for men and women, wasn't it?

Well, yes and no. There was a Men's Union and there was the Women's Union, and there was *the* Union. And the Union, of course, had both staff and students on it. The student members were elected and the President of both the Men's and Women's Unions were elected by the relevant constituencies. So I served on the Union – Council? – it was just on the Union, I suppose, and I remember the early days of the

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NUAUS, National Union of Australian University Students, in which, in the dying days of the War – it may have been just after the War, in fact, it probably was – when the Commonwealth Government was actually – (laughs) believe this or not – they paid the fares of councillors from different parts of the states to a general meeting of NUAUS in Sydney.

I also was a member of the Science Association, I was Secretary and President of the Science Association, and that was very strong. The point being, I think, that it was a small university. You knew everybody in your year in Science – or in whatever faculty you were – everybody in your year, you knew nearly everybody in your faculty, and I reckon I could honestly say that I knew everybody in the Faculty of Science at least by sight. I mean, I can't remember their names now, and I may be fooling myself, but I reckon I knew everybody in my year in all faculties – that's Arts, Medicine, Engineering and Science – and knew everybody in the Faculty of Science. Now, that's not impossible. It's something we would like to have now but which is, I think, beyond us.

You mentioned about SCM being formative.

Yes.

Who were some of the people you recall then?

I can't remember the names of the ---. We had a residential SCM Secretary, and I can't remember who it was. I can remember the names of some of the people who were in the SCM with me at the same time as I was, and I can see some faces, but without looking them up I can't remember their names.

Was Bas Hetzel still involved with it or had he moved on?

No, I knew Basil and Peter Hetzel from the SCM. But he was not one – well, he would have been one of the leaders. Of course, he was three or four years older than I. He was of course, I think, still in Medicine at that time. But he was significant in the SCM, yes.

I was just trying to think of that period. And it was made up mainly of study times and then a conference, is that right?

There was a national conference and I think probably in my honours year I rode my bicycle to Melbourne to go to the SCM conference with John Keeves[?] and Doug

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Stalley[?]. We cheated a little bit, we took the train to Mount Gambier and rode the rest of the way.

It's still a feat.

Oh, yes. No, just a minute, that's not quite true. We cheated on the way back a bit, but we rode nearly all the way over, now I remember, yes. Because we went through Caniva, we didn't go through Mount Gambier; came back that way.

So, John, we digress a little bit.

Yes.

Thank you for talking about that. And I know you also played sport, I think, at the time at university. But the move to CSIR in Melbourne and your meeting with Professor Martin was also pretty pivotal for you, wasn't it?

Oh, yes. I had a great respect for Professor Martin. He was in charge of a nuclear physics research program in Melbourne and that was the reason why CSIR decided to locate their section in his laboratory, in a sort of reminiscence of the way in which the Soils Division of CSIR developed from association with my father here in Adelaide. And eventually – let's see: I went over to do nuclear physics and the CSIR were not terribly fussy what sort of nuclear physics it was; people should become acquainted with the language of nuclear physics and the techniques of nuclear physics, and just exactly what people did was left to Professor Martin. And Bill Lassick helped to develop a betatron – not a very fancy one, but an accelerator – and it happened that Professor Moore[?], he was Associate Professor Moore, had just joined the Physics Department and Martin suggested to me that I should talk to Dr Moore and see whether there was anything that he was doing that I might be interested in, and there was. And so I did a project on cosmic rays, which is in fact nuclear physics and the techniques are very definitely nuclear physics. It surprises people to discover that Moore was my supervisor, because Moore is always correctly regarded as a theoretician; but he had brought with him an experimental program in cosmic rays that he was interested in, and I've had an interest in cosmic rays ever since.

When you were with CSIR, did you have any idea where you would go forward, if you like, or what you wanted to do?

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No, I think I just played it by ear. It was interesting, I was doing things that I was interested in. It was fun. And I guess I got a PhD, Bill Lassick and I both got PhDs, working for CSIR, and that didn't set any precedents – well, it did, I suppose. We were the first two Physics PhDs in Australia – at least, so everybody tells us and so I believe; nobody's contradicted it. I've never claimed it, but people tell me it's true.

So would this be in 1950 you got your PhD?

Yes, 1950. And then I applied for an Australian National University scholarship to go overseas, which Professor Martin managed to – I won't say organise for me, but spoke very strongly to get me to go. So I went to Oxford. That was interesting because the traditional scheme to go for nuclear physics would be to go to Cambridge, in Rutherford's place. Oliphant was no longer there, of course. And we had a visitor from England, I don't remember who he was. He gave a talk in the Physics Department and he said that he thought that Oxford was the up-and-coming nuclear physics university and that Cambridge was running down, and I'm sure he was absolutely correct, in nuclear physics. The two were absolutely dead-level runners for low-temperature physics, but in terms of nuclear physics Oxford was the better, and when I got to – after suitable correspondence I got to Oxford and I went to see C.H. Collie and he said to me something along the following lines: (disguises voice) 'Well, Prescott,' he said, 'I know you already have a PhD, but I've had you accepted into my college, Christchurch.' He said, 'I think you should do a D.Phil. An Oxford degree is always useful.' (normal voice) And that's pretty much how he sounded. And so I did a D.Phil in Oxford.

I ran out of ANU scholarship money and Oliphant, bless his heart, and Titterton refused to renew it. And so Oxford found me six months' stipend to complete my D.Phil. That was a Nuffield, he called it a Nuffield Fellowship. And so I got my D.Phil and then I came back to Melbourne, with a new set of nuclear physics skills which I then proceeded to make use of in Melbourne, and things went on quite well.

Very shortly after I got back in 1953 the Commonwealth Government set up the Atomic Energy Commission and Bill Lassick and I and a number of others who had been appointed since were transferred into the Atomic Energy Commission. In the meantime, CSIR had become CSIRO and come 1954–55 they'd set up operations in Sydney at Cronulla and they'd acquired a large patch of land on the hills overlooking

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the Woronora River in Shire of Sutherland, Lucas Heights, and they took me up there to have a look at the place and drove me out into the bush and I saw this large area of bush surrounded by a cyclone fence and I decided that I liked the university life better than that. And so I talked to Les Martin and he says, ‘Well, look, I think you are suited to university life. We can probably find you a job here, but if you can get a job overseas it’s closer to the centre of gravity of physics and you would find it much more formative.’ And so I applied for a job at the University of British Columbia, that was looking for somebody with pretty much my qualifications.

So it was really seeing Lucas Heights that made you think again?

That was the trigger. I think probably not very deep in my heart of hearts I knew I wanted to be an academic.

Were you married by this time, John?

Oh, yes. (laughs) I was married long before I went to – I was married shortly after I went to Melbourne, actually. So when we went to Oxford I already had a son, a small son, who was three in our first year in Oxford; and my elder daughter was born in Oxford and so my wife had a pretty rough time, I think, (laughs) for two or three years.

How did she feel about going to University of British Columbia?

She didn’t like leaving her family, which was understandable. I didn’t feel the same way about leaving my parents, and my mother, bless her heart, said to Jo when she was engaged, before she was actually married, something along the following lines: ‘Well, you know you’re going to have to get used to the Prescotts. You write the word “Prescott” on a suitcase and it walks away.’ Or words to that effect. And my wife still tells me – I won’t say ‘constantly’ – often tells this story. Of course, it’s actually, if you look at my father’s sisters and brothers, they were all over the place. And my grandfather, as I say, went to France, he went to Italy; he turned down an opportunity to go to Japan. So the Prescotts, that particular branch of them are a travelling family.

John, for how long were you in Canada?

Fifteen years altogether: five years at University of British Columbia and ten years at University of Calgary.

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Did you extend your work on cosmic rays at that time?

Well, no. It was interesting. I didn't know this at the time, but John Warren was on study leave at ANU and he came down to interview me in Melbourne, and they were actually looking for somebody who had experience in high-energy physics, which of course is cosmic rays, because they were hoping to get a high-energy accelerator in British Columbia. There was a good deal of talk in Canada, as I discovered later, about Canada being involved in high-energy physics and that there was a feeling in the West Coast that it would be built somewhere else and so they lobbied very strongly to have a high-energy accelerator in Vancouver. And the federal government went through quite significant motions about finding out what it would cost and all the rest of it and then decided it was too expensive. When I left to go to Calgary, either Shrum or Warren or somebody said, 'Well, it was a pity the high-energy physics didn't work out.' But the reason I think why they appointed me was that I'd had experience in cosmic rays but that I'd also had experience in accelerator physics so that ---. But there you are.

But then I went to Calgary, and they were looking for somebody who was interested in cosmic rays, and so I got back into it again and I've continued with it on and off until not long after I retired from Adelaide.

John, did you have a desire to come back to Australia or would you not have cared?

Well, the answer to the first is yes, I would have liked to come back to Australia. But if it had turned out differently I wouldn't have been too upset. I enjoyed it in Canada. I like Canadians, I like their way of life. In some respects it's a more egalitarian society than Australia – at least, Western Canada. And if it weren't for the climate, (laughs) which is pretty grim in the winter, it's a good place to live. The standard of living, of course, was much better: you could buy a car for half the price you'd pay in Australia (laughs) and things of that kind. But I was concerned about my parents, both of whom were alive. My wife was anxious, she was anxious to come back because her father was still alive although her mother had died and she didn't like the thought of growing old in Canada. But if I'd had to stay, I don't think I'd have been too upset.

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Now, as it turned out, I think the professorial chair in Physics in Adelaide, was it resigned in 1970, is that right?

That would be about – it could have been 1969 or thereabouts. Ken McCracken was the second Professor of Physics, and he decided he would go back to the United States. In fact, that fell through, but the chair was vacant.

Where were you interviewed, John, for that job?

In Adelaide.

They flew you back, did they?

(laughs) The answer is no. I was coming to Adelaide for a holiday and they took advantage of my being here. So I went through all of the usual steps like giving a lecture and talking to the Registrar and the Vice-Chancellor and having the superannuation scheme explained to me and all the rest of it, and when I left nobody said boo. It was interesting. Nobody said boo. From which I concluded that I was probably not head of the shortlist, top of the shortlist. But, be that as it may, I said to my wife, ‘Well, it was worth a try.’ So I went home to Canada and applied for Canadian citizenship. (laughs) And before that process had gone through I had a cable from Edgeloe, offering me the chair in Adelaide.

Oh, Vic Edgeloe?

Yes.

How did you find him?

Oh, much the same as I remembered him from twenty-five years earlier. What he said is, ‘It’ll be nice to see you back again after a quarter of a century.’

I’ve heard so many stories about him, he seemed to have quite a relationship with different academics.

He knew everything. I mean, (laughs) nothing happened in the University that Edgeloe didn’t know about. It’s a university of the old style. Once he retired, the University changed. Having a professional Vice-Chancellor, of course that was a big change, that was a big change. That took place after I left, when I wasn’t an undergraduate any more. But I was here when Edgeloe retired and the University, the administration of the University, then began to develop in a different way.

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John, did you take up your chair in '71, is that right?

Yes, I think probably August '71.

Had the place changed a lot from when you'd previously known it?

Well, the answer is 'yes and no'. It still had much the same sort of structures that it had before except that they were bigger, and I'd have to say that, as I've just said, the major changes that it seemed to me began to show followed some time after Edgeloe retired when it became quite clear that it wasn't possible for a registrar, an assistant registrar and a bursar and an assistant bursar to run the University. And at that time, when I came back, the University more or less ran that way. It was much more relaxed and much less formal. I remember, for example, talking to John Carver and John Carver says, 'I'm going to recommend Joe Dokes for promotion to senior lecturer.' I said, 'Oh, that's okay.' He said, 'What do you think about that?' I said, 'Well, it sounds all right to me.' And in fact he simply wrote a letter to the Registrar saying, 'I recommend Joe Dokes for promotion to senior lecturer.' Just like that. Didn't say 'because his teaching is exemplary', 'because he has a very long research record', 'because he acts on university committees'. That changed; but that was after I came back.

One of the big changes that was beginning to take place when I came back was the elected heads of departments. When I came back, all heads of departments were appointed for life. I was the first elected head of the Physics Department. Technically I wasn't the elected head of the Physics Department, I was appointed by Council, but I insisted that we have an informal vote within the department to say that I was acceptable. So that doesn't count, I suppose, but it does to me.

Was there a push to sort of, for want of a better word, the democratisation of departments at the time?

Yes. That began pretty much about the time I came back, the early '70s.

So were students wanting to be on departments then too, or not?

Yes, there were student representations for representation on Council, I'm not sure when they got to be there. When I was an undergraduate we made a representation that there should be students on Council and the Council sort of laughed at it. So we then asked, 'Well, could we have copies of the agendas?' And they said, 'Don't be

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ridiculous.’ Politely, but ——. And that didn’t happen until many years later. But I’m a great believer in the student viewpoint. Often not very well-informed, but often quite well-informed, and on some things they know more about the University than the administration does.

John, what about your own research specialties? Were you able to pursue those when you came back here?

Yes, pretty much. The Australian Research Council – it was called the ARGC⁸ then, I think – was beginning to provide support for research within departments. The University had a research fund, which it no longer has, not quite under those terms, and I was able to bring some of my apparatus from Canada. The particular experiment that I was working on was no longer to be continued, and so I brought the relevant stuff with me and a postdoctoral fellow, and the University found money for him until he got a Queen Elizabeth Fellowship. And they gave me a setting-up grant, which for its day was really still not very great but was quite adequate. So I didn’t have any trouble getting my research project started again.

I inherited a project from Ken McCracken, a balloon-borne cosmic ray experiment, and Peter Davidson was still on the staff at that stage as a research fellow, but the ARGC said, ‘Well, you’re going to have to make up your mind. Do you — —?’ I applied for both, money for both, for both the balloon experiment and for the extensive air showers experiment that I brought the apparatus [for], and they said, ‘Well, assuming that these are both equally meritorious and you have to make a choice, which choice would you make?’ (laughs) And so they agreed to provide enough funds – I think this is right, I’d have to check the correspondence – to wind down the balloon project, but ARGC gave me quite good support for the other project, and as I say Roger Clay got a Queen Elizabeth Fellowship and he’s now a full professor here.

Did you enjoy building equipment?

Yes. I’m a great believer in the idea that the world is three-dimensional, and I like making things. I’m not as good as some people, particularly these days on integrated

⁸ ARGC – Australian Research Grants Committee.

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circuits and all the rest of it, and there are people who are very, very much better than I am at that and I let them do it.

Now, John, there were three of the things we talked about that were of great interest to me in your time as professor there: one of those was that you took an interest in medical physics itself and really gave it a couple of opportunities it wouldn't have otherwise got.

Yes. One of the things that distresses me is that the Faculty of Medicine have decided that it's not necessary for doctors to know any physics, other than what they might have learned in year twelve. Well, that's better than nothing. But at the time I came back here the medical students were doing Physics I, the regular Physics I course, which was not designed specifically for medical students. It didn't do them any harm, altogether. But the Faculty of Medicine itself said, 'Look, there's a lot of stuff in here which is clearly of no use to us, we're not interested in it, we'll teach it ourselves', or words to that effect, and this put the cat among the pigeons and John Carver I think began it and then I picked it up because he went on study leave, and in consultation with John Veale[?] from the Department of Physiology we devised a new syllabus for Medical Physics and taught it as a separate subject, and in the first year John and I taught it together. We were both there nearly all the time, and I talked about the physics and he talked about the physiology and its application.

Though I say it who shouldn't, I think I rescued, helped rescue Medical Physics for the Physics Department. That sounds a bit like empire building and it is, we don't like to lose students, and I think in fact medical students need to know quite a lot of physics, and I'm sure a lot more physics than some of their seniors think they should know. And then some years later, after an unfortunate decision was made about who should teach Medical Physics, (laughs) and the situation began again, the person teaching it was actually a good physicist but was unprepared to recognise that he was teaching medical students and not physicists, and I then had to do another rescue job.

But it's interesting: quite a number of the first-year experiments in our laboratories got there because they had a genesis in the Medical Physics course.

Well, John, those laboratories themselves, you were also very involved in improving them for first-year students.

Well, I was very keen on first-year labs, yes.

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So did that take quite a time to push through?

I'm not sure you've got the right phrase about 'pushing through'. If you're going to do anything properly you've got to spend time on it.

Well, I was trying to ask in a nice way, were you a loner in supporting this?

Oh, no, no, no, I wasn't. One of my more enthusiastic collaborators was John Patterson, and I won't name one of my more *unenthusiastic* collaborators, who (laughter) did more harm than good. But no, John Patterson and I did a lot of work together in the first-year laboratories, and in fact he published papers on first-year laboratory work. And then he carried on after I decided I had other things to do. But most of my involvement in undergraduate laboratories was with first year and to some extent in second year and rather thinly in third year.

A couple of other things to talk about with you, and maybe more, John, but how did you set up that collaboration with Utah University? That's fascinated me.

I think when we last talked I mentioned this as something which I looked back on after somebody said, 'Well, what do you think was the most important things you did while you were in office?' And I got to know some of the people at the University of Utah. Jack Keuffel, for example.

How do you spell that name?

Keuffel, K-E-U-F-F-E-L. He died prematurely. But he had a good imagination for ambitious projects, and he set up an underground experiment which in fact was not quite as successful as it might have been but which certainly appealed to me, and this was while I was still in Canada and so I made a visit to Utah. And then, on one of my first study leaves I think from Adelaide, I decided I'd go back there. I'd already been there twice for relatively short visits, so I decided I'd take some study leave in Utah, and the reason why I wanted to do that was that they were beginning to set up a quite ambitious project for studying extensive air showers, which was the sort of thing we'd been doing. We'd been doing some work at Buckland Park, extending a different method into the study of showers by looking at the light produced in the atmosphere at night, moonless nights, by cosmic rays coming down. It produces flashes of light, and we measured them out there. But the people at Utah, they had a

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big show. They had a lot more money. And so I decided I'd go and spend a period of study leave there to see what they were doing.

Jack Keuffel was still alive at that time, but he died very shortly afterwards, and it happened that there was someone in Biophysics – no, Physiology; no, it was one of the medical departments, but let's call it 'Physiology' – was also doing some work on luminescence, and so I got in their good books by giving them some advice on luminescence, which was something I knew something about as well. And then, when they had vacancies for postdoctoral fellows, a number of our Adelaide PhD graduates went over to Utah. So we've had this interchange of personnel and now, certainly in my absence, a significant joint involvement in the Auger project.

How do you pronounce that?

Auger, French, A-U-G-E-R, Auger. He was the man who discovered cosmic ray showers. (clock chimes) Have I put you to sleep yet?

No, not at all, John. Well, this actually leads me into another point I find of particular interest, your work on luminescence dating that involved you in other work with the South Australian Museum.

Yes. One of my side, non-physics interests for years has been archaeology of one sort and another, and there's a sort of conditioned reflex, I can't not look at pictures on television of archaeology, I'd read articles in books about archaeology, I'm interested in it. I was born within sight of the Pyramids, for goodness's sake. And so, not long after we came back, it'd be 1973, my wife and I answered an advertisement which appeared on the notice of the staff club for diggers to help with the archaeological excavations at R..... on the River Murray, and we went up and helped excavate, scratching sand away and lifting bones and artefacts and shells and flint and that sort of stuff. It happens that there's a big reunion coming up this next Saturday for former R..... workers.

One night over the campfire I asked Graeme Pretty from the South Australian Museum whether there was anything which he thought the Physics Department could do to help his research project, and he said yes, he'd just read about something called thermoluminescence dating, which was being developed at Oxford, and he thought it would have a good application in Australia. Now, I hadn't the faintest idea what thermoluminescence was, let alone thermoluminescence dating, but it happened that

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the person that was doing it was Martin Aitken, who was one of my fellow students in Oxford when I was there so I knew him quite well. And next time I was overseas for a cosmic ray conference I decided to call on him and find out what it was he was actually doing. It sounded interesting and I decided that I would put it up as an honours project for one of my honours student, and when it was clear that it was a non-trivial exercise and that there was real physics in it I decided I would try and develop the physics side of luminescence dating, which I've done and which I decided fairly rapidly was going to be what I wanted to do after I finally retired.

So I in fact ran sort of parallel programs in cosmic ray physics and luminescence dating, and occasionally they overlap, and as I got closer and closer to retirement the cosmic ray interest narrowed down a bit and the luminescence thing widened out a bit, and so finally a year or two after I retired the astrophysics side of it simply stopped and I continued on with luminescence dating, as I do now – or the physics of it; well, the physics and practice of it.

John, just looking back over all those years that you've known the University, right from your very early days living just off Cross Road down here, what is the biggest change? And I don't just mean in student numbers; what's the biggest change that you can see from that early day? I'm just wondering, is it the fact that you knew everybody there, in those early years?

The thing I find ---. Yes, that's really quite a nice piece of prompting. And also when you say 'apart from the number of students', the biggest impression of the University is that the campus is covered in buildings. (laughs) Now, that's a big difference. But the interaction between students and staff is much, much less than it used to be. The number of staff that go into the staff club is relatively small, so I don't get to talk to too many people outside Physics or thereabouts. (sound of door being unlocked) That's my wife trying to get in. And the concept that the University is a business, which unfortunately the University has accepted and maybe has to accept, and that we are not producing students, qualified graduates; that we are teaching customers. This distresses me. This distresses me.

And I see my colleagues in the Physics Department overworked, I'd say grossly overworked. They don't have time for the niceties; they have to teach, and if they're not teaching they have to do lots of research so they can get lots of money. And they

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do talk occasionally – I'm sure some of them talk to other people (laughs) outside the Department.

The other thing that bothers me about Physics, and I think this is true for Chemistry and it's almost certainly true in the biological sciences, is the University no longer provides technical support for Physics. We in fact have a computing officer. We have no electronic – not true: we have one electronic technician who is attached to a research group; when he retires that post will be lost. He's exceptionally good. We have enough staff paid by the University, *just* enough, to cover our undergraduate teaching. We have a person in the workshop who's in a position to look after the teaching laboratories, although that's shared around a bit, and the other people in the workshop are paid by research grants. And this I think is a very serious misallocation of resources. Science can't work on that basis and to say that if you're going to do any research work you've got to find every penny of it yourself, the University can't afford to help you – 'Well, we'll provide the building and at the moment we do in fact pay for the electricity bill.' But the University of New South Wales is charging departments *rent* for their accommodation, I kid you not. We don't do that yet. Well, it's been suggested.

So, John, the world has changed rather greatly since you first knew the University –

Yes.

– without doubt.

Yes, it has.

Thank you very much for being willing to put your memories on tape for the future people of the University. That's very kind of you, thank you.

You must come back some other time when I'll put in the other bits that are left out.

END OF INTERVIEW.