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**Professor Alex Crampton Smith in interview with Lady Wendy Ball
Oxford, 21 May 1998**

WB Professor Crampton Smith, you come from a strongly Scottish background.

ACS Yes.

WB You were born in 1917 in Sunderland, I believe?

ACS Yes, which is, as I've often said, a source of great irritation to me because my grandmother insisted that my mother come south to have her baby with my grandmother. And I was ten days old when I went back to Scotland. But technically I'm an Englishman.

WB But you would prefer to be known as a Scotsman?

ACS I would much prefer it.

WB You are an emotional Scotsman.

ACS Precisely.

WB What was the background of your grandparents?

ACS My grandfather was an Orcadian, on my mother's side was an Orcadian. He came to Sunderland and became a wealthy businessman and an alderman and supported the Sunderland football team. He was a delightful old man, I loved him. My grandmother was a Scot, she was a Don of Deeside. On my father's side, my grandfather was an engineer on a tramp steamer running coal from Newcastle to London, so there's a bit of sea on both sides of my family.

WB But he was also a Scot?

ACS No, he was an Englishman.

WB He was an Englishman, yes. And so you have a great fondness for the Orkneys?

ACS Oh, yes.

WB You spent a lot of your youth there?

ACS Yes. Well, I used to go up and work on my cousin's croft and parish with cold, but I enjoyed it very much. It was lovely.

WB What sort of work?

ACS Fencing and digging. Mostly fencing actually. Just odd jobs, you know, whatever I was told to do.

WB Where were your family living when you were young... when you were at school?

ACS Oh, in Inverness because my father was headmaster of the Inverness Royal Academy.

WB Really. And did you have any brothers or sisters?

ACS I'm sorry?

WB Did you have any brothers or sisters?

ACS I have one sister, had one sister, she's dead. She was eight years older than I, but we got on pretty well really.

WB And your mother was not working outside the home?

ACS No. She taught before she got married, but she didn't teach after that.

WB And how did your father come to be headmaster?

ACS Well, my father was a very clever man. And he left school at fourteen and went into a solicitor's office. He then got a scholarship to the Bede School in Sunderland and became a pupil teacher. And then he got a scholarship to Durham University and got a double first in nat. phil. [natural philosophy] and mathematics and became a Charles Mailer(?) scholar. But all this took a lot of time and he wanted to marry my mother, so he dropped the idea of university and became a teacher. He started off in Keith in Bamffshire and he taught all day and he taught night school in the evenings, and at the end of the year they were very pleased with him, so they gave him a rise in salary of £100 a year, and that in 1917 was quite a sum.

WB Very substantial.

ACS But my father used that money to get a maid for my mother because 'a headmaster's wife should have a maid'. And from then until I went to university we were never without servants, which seems to me a tremendous reflection on the difference between middle-class wives now and middle-class wives then.

WB And your father wasn't affected by war service?

ACS No, he wasn't fit. He wasn't too well actually. He sort of battled on, but there was no question about him serving.

WB And you went eventually to his school?

ACS Yes.

WB At the age of?

ACS Five. You could go right through the school from five to seventeen.

WB And did that worry you being the headmaster's son? It must have been a very difficult position.

ACS Well, it was and it wasn't. There's no doubt about that some of the masters, I think, let me off a little bit easily, but others felt that the headmaster's son should not have any favours and beat me unmercifully.

WB Really?

ACS Yes.

WB Were they not worried about you reporting this back?

ACS No, they weren't. I had to conceal my wrists from my father, actually.

WB Your wrists?

ACS Yes. If you're asked to hold your hands out like that, you expose your wrists and that's a refinement of the use of the tawse.

WB Goodness. What sort of things did you get beaten for?

ACS All kinds of things, I can't remember, but I got beaten.

WB And you seem to have survived this? You have great resilience, obviously?

ACS Well, no, it was just, you know, a question of you can beat me, but you can't lick me.

WB So you became very bloody-minded about them?

ACS No, not really. It was just everybody got beaten, really.

WB But this was a mixed school?

ACS Yes.

WB Did the girls get beaten?

ACS No, I don't think so. I don't remember any girl getting beaten, actually.

WB And what did you enjoy most about school in these difficult circumstances?

ACS Well, I didn't have any trouble with the boys. I played everything that was going and I was quite good at it and I think that helped.

WB What were your major sports?

ACS Rugby and hockey. I boxed when I got to university, but I didn't box at school. There wasn't any boxing.

WB Did you fight at school?

ACS No, no.

WB And what subjects were you most interested in?

ACS Well, I can't remember being interested in anything specific, actually. You know, the highers were very broad-based and I think I took eight highers or something, I can't remember, but I don't remember being particularly interested in anything really.

WB So you didn't have a preference for things medical or scientific at that stage?

ACS No. In fact, my English master was very anxious that I should become a journalist and I must say I think I would have enjoyed it. But my father said to me, 'Alex, you'll never make a minister, you're not smart enough to be a lawyer, I won't have you in the services, so it's medicine.' And that was the end of that.

WB That was a very old-fashioned view?

ACS Well, I was quite happy. And, of course, as he was going to pay for my university education, he had a right to make some conditions.

WB And you were happy to go along with that? You didn't feel any rebelliousness about that?

ACS No, I didn't.

WB Did he choose the university?

ACS Well, Edinburgh was the obvious one. It had a very good medical school and so I went to Edinburgh. I think what was a bit of a mistake was that my seventeenth birthday was on the 15th June and in September I went to university, and I think that's too quick.

WB Yes. You didn't have a time of adjustment?

ACS No.

WB But you spent rather more time at university than you might have done, didn't you?

ACS Yes, I spent six years at Edinburgh and, as I've said before, I decorated more than one year with my presence.

WB More than one year?

ACS Yes, I failed a year.

WB This was because you were engaged in other activities?

ACS Precisely.

WB Can you elaborate on that a little?

ACS Well, I was boxing a lot and I was interested in young women. And I had a lot of fun, you know. At one time I used to go to communist meetings because a lot of my friends - not a lot - but several of my friends joined the International Brigade and I was pretty keen to do that actually. So I used to go to communist meetings to find out what it was all about, but they were so boring.

WB Really?

ACS And every time the word 'Russia' was mentioned, everybody clapped and I thought this was not for me, so I left. That was my end of my association with the Communist Party.

WB But you went to [Oswald] Mosley meetings as well, didn't you?

ACS Yes. Mosley used to give meetings there and we felt that Mosley was not a very good idea. So a group of us used to go to Mosley meetings and heckle them and get thrown out.

WB By his thugs?

ACS Yes. I would like to say that we acquitted ourselves well, but they were very large and we just used to get thrown out, but we tried!

WB Did you actually have any sort of serious bust-ups with the Mosley thugs?

ACS Well, I suppose we did. Yes, I think we did.

WB Did you get arrested?

ACS The Police were not interested.

WB No?

ACS No. It was just between us.

WB Mostly young medics or were people coming from all student groups?

ACS Mostly medics, but from all student groups. We're not talking about a lot of people, we're talking about ten or fifteen, something like that.

WB Was Mosley an impressive speaker?

ACS Yes, he was. Yes, he was.

WB And do you think people could have been swayed quite easily?

ACS Oh, I don't think so. No, I don't think so. I think really people had a great deal more sense than to take on board a lot of what he was saying.

WB What other activities were you engaged in in your university years? Were you sailing then a lot?

ACS No, I wasn't. Actually, after I dropped a year the war broke out and it became obvious that it was silly to waste time, so I did a lot of work and I didn't fail any more exams and I qualified in '41 I suppose. And then, you know, I did a six-month house job and joined the Navy, that was the way it went.

WB So you qualified at clearly a very bad period in time with the war overshadowing everything. Were you much affected at that time?

ACS I don't think so. I don't think it gave us any favours. I think the exams were just as tough as they had ever been, judging by the failure rate, which was just as it had always been.

WB So you qualified to be a general practitioner?

ACS Sure. And you weren't showing any particular interest in anaesthetics?

ACS No, it seemed to me to be sensible to do a surgical house job, which I did.

WB That was in Inverness?

ACS Yes. I was quite good at it, actually.

WB And you enjoyed all the aspects?

ACS Yes, I did. I very much... And, you know, there were no sort of registrars, there was just me and the chief, and that's very exciting when you don't have anybody between you and the consultant. That was terrific. I enjoyed that.

WB So you learnt quite a lot in that time?

ACS I learnt a lot, yes.

WB But then you volunteered for the Royal Naval [Volunteer] Reserve?

ACS Yes.

WB Why the Navy?

ACS Am I allowed to tell you one story about Inverness? I had read somewhere that giving sodium bicarbonate into the spinal theca in people who had uraemia was a good idea. I had a patient who was really dying of uraemia, so I thought I'll ring up Hugh Miller and ask him about this, so I rang him and his phone was out of order. I got on my bicycle and I cycled over to his house at 3 o'clock in the morning and knocked at the door and said, 'Mr Miller, do you think I could put sodium bicarbonate into this man's theca?' 'Hm, hm,' he said.' So I cycled back and I put this stuff into this guy's back and in the morning, Hugh turned up and he said, 'How's your man, Alex?' So I said, 'He's dead, sir.' 'Hm, hm,' said Hugh. That taught me a sharp lesson about letting dying people die. But I enjoyed Inverness, it was great.

WB And did you feel prepared to go into the Royal Naval Reserves?

ACS I suppose I did.

WB I mean medically? You were going in as a young medic?

ACS Yes, I felt quite comfortable.

WB Did you?

ACS Yes.

WB Did you have any other medical support on board?

ACS Well, until much, much later I only had sick berth attendants.

WB How much were they trained?

ACS They had a couple of years training, you know, first-aid stuff really. So I didn't have any medical help.

WB What sort of boat were you on?

ACS Well, I was put into Coastal Forces and I looked after a squadron of tank landing craft, LCTs. Then they wanted some in the Mediterranean, so they sent forty-eight out, a squadron, expecting to get about half of them there because they are clumsy craft.

WB How many did they hold - people?

ACS A tiny crew, perhaps ten, and this huge hold and that flat bottom - difficult. Anyway, they only lost, I think, six, but I had one bit of fun aboard the LCT. We left from Bideford, which is on the north Devon coast, I think, and about four days out we were signalled by another landing craft who said they had a man on board who manifestly had gonorrhoea. And I had some M&B 693 [sulphapyridine] or something on board, and bugs in those days were not very sophisticated and anything would do. So we put these pills in a condom, we attached the condom to a lifebelt and we streamed the lifebelt behind us and the other LCT caught up, picked up the lifebelt and the condom, and the man was cured. Funnily enough, many years later, I met the skipper of the receiving LCT, who was able to confirm this story. That was quite fun.

WB So how many men were you looking after?

ACS Well, just the ten.

WB Just the ten at this point.

ACS We couldn't go from ship to ship. I could do a certain amount on the radio, but not much.

WB And where did you head for first after that?

ACS Well, we were in Algiers for a while and then in a place called Djerba(?) and then in Tripoli. And from Tripoli - Sicily was over by then - they mounted Salerno and that was my first action really. I was put on the beach at Salerno. That was, you know, surprising.

WB A real shock?

ACS I suppose it was, but again, I can't remember an awful lot about it. But there was so much going on that you just did whatever was next to your hand. And of course, then the army were very quickly ashore. I was only on my own for about twenty-four to thirty-six hours and then the CCS [casualty clearing station] was working and I could deal with them.

WB When you say you were put on the beach, I mean were you actually operating on people on the beach, or trying to?

ACS Well, you can't operate on people in these circumstances, it was just a question of first-aid. But our people, the beach brick(?) I was with reckoned that they were at considerable risk and they didn't see why they shouldn't have a doctor, even though in a way a top-class sick berth attendant might have done as much as I could, but on the other hand I think it was a morale booster. And, you know, I charged about and did things.

WB So these were people who had been taken off the boats in a considerable state of shock. What sort of injuries were you seeing?

ACS All kinds. Mostly mine injuries, actually, and mortar shell injuries. But, as I say, I really can't remember much about it. I think you block out things like that.

WB But you did talk about people in tanks who were much helped by a particular technique?

ACS Yes. Well, I became a bit of an expert on the use of intravenous morphia. And a really good dose of intravenous morphia pretty well puts the guy to sleep and that enabled them to get them out of holes and get Thomas' splints on their broken legs before they really began to feel very much. And later on, I got a bit of evepan and then that was even better. And, of course, it's potentially dangerous - and Pearl Harbour showed how dangerous that was - but people I was dealing with hadn't really yet gone into true shock and they weren't too bad, so it wasn't terribly risky to give them a bit of something.

WB Can you explain your remark about Pearl Harbour?

ACS Well, at Pearl Harbour, the doctors were using thiopentone at that stage and they were giving normal doses of thiopentone to people who were seriously shocked and it just killed them. It became known as the Pearl Harbour syndrome. It certainly went into the anaesthetic literature. We all became extremely careful about giving anything but the very smallest doses of thiopentone to shocked people, shocked from various causes, not only injuries.

WB How much did you actually know about anaesthetics at this point because you'd only had your general medical training?

ACS I knew nothing about anaesthetics. Except that... well, that's not strictly true. I started at Salerno going out to the Field Surgical Unit and giving them a hand. And, of course, you must remember that when I did my house job in Inverness, on Mondays Arthur Hamilton did his list in the morning, his house surgeon finished off the small stuff in the afternoon and I gave the anaesthetics, that was just routine. On Tuesdays, Hugh Miller, my chief, did a morning list, I did the small stuff in the afternoon and Bill Donald, who was the other guy's resident, gave the anaesthetics. So it's not true to say that I knew nothing about anaesthetics.

WB Oh, no, no. I didn't mean that.

ACS No, I don't mean to imply that, but...

WB But, what type of anaesthetic was that? I mean, you were moving... things were changing, weren't they? I mean, at Inverness, what type of anaesthetic were you dealing with?

ACS Oh, it was chloroform and ether.

WB And by the time you got to Salerno?

ACS Then they were using intravenous anaesthesia a bit, not much. But, can I tell you a story about Inverness?

WB Yes, please.

ACS Well, Arthur Hamilton was a very large man. He was a brilliant surgeon actually and very nice. And he had an anaesthetist called Willy Bethune who was also extremely nice and very competent. But in those days, getting enough relaxation to do a gastrectomy or a cholecystectomy properly, you needed to get the people very, very deep with ether, and ether is nice stuff because you can actually drive a person to respiratory arrest before their heart stops, which is not true of chloroform. And, Willy used to give ether until the patient's breathing got very shallow and even, you know, began to disappear and I remember him saying, 'Arthur, lean on her.' So, Arthur would put his elbow on the lady's chest and lean on her a bit until they got rid of some ether and she started breathing again. But they didn't come to any harm except that of course they were terribly sick afterwards, which was terrible.

WB An interesting original technique! And after Salerno, where did you go from there?

ACS Well, the next one was Anzio and that was a funny one. It was terribly badly managed. I mean, unbelievably badly managed because we went ashore and there was nobody there. And I... we went... the place was mined, of course, but I didn't hear a shot fired for twenty-four hours. But, by that time, the Germans had surrounded a very small bridgehead, only fifteen miles, and they could shoot across it, and it was very difficult.

WB You said the place was mined. How did you cope with the mines?

ACS Well, I became what was known as a 'seasoned troop', and that meant that I wouldn't run through a minefield. I would dig a hole in the ground instead and wait for 'unseasoned troops' to run through the minefield and get blown up. It was just as crude as that.

WB Really. But digging your hole, did you have a mine detector before you dug your hole?

ACS No, no. I dug a hole well short of where I knew the minefield would be.

WB It sounds extremely hairy at this point. Was this the worst action you saw?

ACS No, Elba was the worst.

WB You went from Anzio to Elba?

ACS No. Well, there was always a long bit between when I used to go back to Sicily and help out with the ordinary medical work, and then I would be told that there was another action. And Anzio was the next one, Elba was the next one and that was horrid. We were training a French Division, the Fifth Colonial Infantry Division

commanded by General [Jean] de Lattre de Tassigny who was very good. And they wanted to show them what beach work was all about prior to the South of France, so they put this wretched lot over open beaches defended by very good German troops, a lot of Africa Corps, and without air cover and it was bothersome.

WB Indeed.

ACS The first battalion that went ashore lost every officer and a lot of men, and we lost people, I can't remember how many but I know we lost a few. So, that was far and away the worst.

WB And while you were training the French, you were treating all these injuries at the same time from these losses?

ACS Yes. I went on to the beach normally at H plus 3, that's three minutes after the H hour in the third wave of LCTs.

WB And stayed there all day and all night? I mean were you... how long did this go on for?

ACS I don't know. Well, as I said to you earlier, one was only, I was only on my own for about thirty-six hours because then the army were very good, they got their casualty clearing station going and I could take wounded people up to them. So, that wasn't too difficult.

WB But this was the time when you were awarded the *Croix de Guerre*?

ACS Yes, I was. I haven't the faintest idea why.

WB You must have worked terribly hard or saved a lot of people or something to have been awarded that?

ACS No. I think I'd just been a good boy for several actions, and they thought it was... Well, it was nice that the French did it. I was very grateful for that.

WB Well, the French don't do it lightly?

ACS So they tell me.

WB And did you actually receive it in person from the State?

ACS No, I got a chit from the War Office saying that the 'President of the Provisional Government of France gives you his unreserved permission to so and so.' But the funny thing about that was that they don't give you the medal, they give you English, British medals, but they don't give you foreign ones. So my son, who was in the Australian Navy, wanted my medals, so the next time I went to Paris I thought I had better buy one. So, off I went to the most wonderful medal shop in the Place Sainte Germain, actually, and I said to the lady, 'I want to buy a Croix de Guerre.' 'Oh, yes,' she said, 'okay, but why?' So I explained why and I had the bit of paper

with me, but they didn't bother about that. But, she rushed away and got the manager who came back with a bottle of wine, so we all had a glass of wine.

WB How nice. And did she ask you about why it was awarded and so on?

ACS No. Not that I could have told them anyway.

WB You mentioned your son. Can we go back slightly in time because I think you got married early in the war, your first marriage, and you had two daughters?

ACS Yes. Gillian, the eldest, is very bright and she has a chair at the Royal College of Art. She teaches the theory of design with computers. And she started off as a reader or something but she has a chair now and she has tenure. When I tell you that Apple Macintosh had her across to Silicon Valley for three months at their expense to find out what she was up to, she has got to have a bit of pull.

WB Very successful, yes.

ACS And Fiona is the headmistress of a middle school, a very tough one, Charing Cross. You can just imagine what her catchment area is like and she does it very well. And I have three boys by my second marriage.

WB And they came rather later?

ACS Yes. Mark started off as a teacher and went into... eventually finished up with NACRO [National Association for the Care and Resettlement of Offenders], trying to keep naughty boys out of prison. He did that for about ten years and I believe was very successful, but it nearly broke him. It was a terrible job. And now, he is teaching in a prep school and his charming wife is also teaching there and they're very happy and really doing terribly well. Tom left school with, I think, one O-Level, I can't really remember. He's made an awful lot of money, like, serious money. He started off as an electrician and found that when he started employing people, his own effort didn't make very much difference, so he got into property and now he's a bit of an entrepreneur. He has a nice little place out at Frilford Heath, eleven acres, and so he's very happy. Angus was in the British Navy, was seconded to the Australian Navy because he's a mine warfare expert and they didn't know an awful lot about that. And he was there for two and a half years and he could see the way things were going in this country and didn't like it, so he transferred. He's an Australian citizen, he's married an Australian girl and they have two little girls and a little boy and they're very happy.

WB So, half your grandchildren are English/Scots and the others are Australian?

ACS Yes, that's right.

WB So he has all your medals because he's the one who collected the *Croix de Guerre*. What other medals did you have?

ACS Oh, just the usual rubbish.

WB Sort of service medals and that sort of thing?

ACS Yes.

WB And after you trained the French Commandos, what happened next in the war? Was that really the end?

ACS Well, I went up to the South of France and did the South of France landing, which was not very much really because the Germans were already retreating. Then I got ill and nobody has ever diagnosed what was wrong. All my glands swelled up and my liver swelled up and my spleen swelled up. And the Navy were terribly good and they said, 'Well, you'd better go home,' so I did. And then they were, again, extremely... well, and they said, 'You know, you'll have to have some glands out to try and find out what is going on. Where would you like to go?' So, I said 'I'd like to go back to my chums at Inverness,' which I did. And they took a gland out and there was nothing there, so I went back to the beach party and that was that.

WB And you eventually just recovered naturally?

ACS Well, apparently so, yes.

WB How extraordinary. But that was really almost the end of the war and after that you were posted briefly to a shore job, weren't you?

ACS Yes, I was in a shore job looking after a lot of marines and then I was discharged. And I went back and did a little job in Inverness and then I started on the anaesthetic thing.

WB Why did you start on the anaesthetic thing at that point?

ACS Well, it seemed to me from doing the very little bits that I did in the Field Surgical Units that it was a very interesting job. You had a certain amount of acute stuff to do, you know, things happen quickly and you had to keep your wits about you, but also you have to be a bit of a physician, and it seemed to me that part surgeon, part physician was a very nice thing to be, so I started... I went off to Nottingham. I tried to get a grant from Edinburgh. I met a man called Pompey Innes(?), a physician, who said, 'Doctor, with your record, the sooner you get into general practice, the better.' So I wasn't prepared to accept that and I found out that the Sheffield region were very short of training anaesthetists and they gave me a grant. So my first job was in Nottingham.

WB And you worked towards the Diploma [in Anaesthetics] at this point?

ACS Yes.

WB Did somebody recommend that to you or did you think that this was definitely the way you were going?

ACS No, I didn't really. No, it wasn't until I got to Oxford that it was made clear to me that I had better do some examinations.

WB But in Nottingham, what were you... what was your post there?

ACS I was a resident anaesthetist. It was very hard work - very, very hard work. I did night on, night off with a delightful Irishman, but he used to look at the Guinness very closely sometimes and on one occasion it was clear that he wasn't fit to give an anaesthetic, so I did my night and a full day's work and his night and a full day's work and my night. But, you know, one did get some sleep during the night and also I had learned to catnap, I learnt that during the war. And it irritates my wife beyond bearing that I can still sit down and I'm asleep in two minutes. And I did that all over the place - very useful.

WB Just as well, yes. So, what persuaded you to go from Nottingham?

ACS Well, I had come to the end of my job, and actually, of course, the Oxford thing was a bit of a joke because I wanted a book called 'Chemistry for Anaesthetists'¹ by a man called Adriani, an American. And I wrote to a chum of mine in Blackwells asking him for a copy and he said, 'We don't have it at the moment, but have you read the companion volume which is "Physics for Anaesthetists" by Macintosh, Epstein and Mushin?'² - or the other way round. So I said 'No,' and he sent me a copy. And I read it and I wrote to him and said, 'How can you publish a book with so many errors in it?' I had a reply-paid wire back saying: 'What errors?' There were three, but I am innumerate, and I had to work out every example in the book, which I did, and three I couldn't make come out. So I went to my father and said, 'What is going on here?' So, he pointed out the fact that the data was wrong. So, I wrote to my chum in Blackwells who handed the letter straight to Macintosh³, and Mushin wrote to me saying 'You must have read our book very carefully.' Of course I had, but not for the reason that he was suggesting. He said, 'If by any chance you are passing this way, just come and see us.' Well, I was in Nottingham and it's not very far to Oxford, so I was on the doorstep very quickly. Macintosh talked to me for twenty minutes and offered me a job. Mushin went to Cardiff as professor and I went in at the bottom and that was the start of it.

WB What was the job that he offered you?

ACS Oh, resident anaesthetist, but of course I had the grant, I still had the grant which helped me a bit with the money side.

WB What was Macintosh like?

¹ Adriani, J. *The Chemistry of Anaesthesia*. Oxford: Blackwells Scientific Publications, 1946.

² Macintosh, R.R., and Mushin, W.W. *Physics for the Anaesthetist*. Oxford: Blackwells Scientific Publications, 1946.

Professor Crampton Smith is probably referring to the first edition of the book published in 1946. H.G. Epstein was one of the authors of the second edition published in 1958.

³ Professor Sir Robert Reynolds Macintosh (1897-1989).

ACS Oh, he was delightful - really, a very, very wonderful man. He was a brilliant teacher and he was tremendously honest and tremendously courteous. I've often said about Macintosh that if he couldn't find anything nice to say about somebody, he didn't say anything, but you could pick up a good deal from the silences. But, no, he was a remarkable man. When I had finished with Oxford, he asked me to stay, but I had become aware of the fact that the chest operations were not being very well looked after in Oxford. A surgeon would come down from Oxford.

WB From London to Oxford?

ACS From London - I beg your pardon - do an operation, and go away and there wasn't anybody really expert in the post-operative handling of these patients, so I felt that this was the next step. And Macintosh, again typically, did everything he could to get me the job that I wanted and I got it, so I went to the London Chest [Hospital] where I was for, I think, two years with [A I] Parry-Brown. I think Macintosh is the greatest influence on my career and my life, my professional life, but Parry-Brown was very close. He was again a brilliant teacher and a thoroughly nice man. So I did get a consultant job in London, but they appointed a chest surgeon in Oxford who wanted somebody who'd been trained by Parry and so I got the job.

WB So, you were definitely interested in chest surgery as a specific branch?

ACS Oh, yes, yes.

WB You saw there were improvements, great improvements that could be made?

ACS In the post-operative care, yes.

WB So when you were in Oxford, what did you see that primarily needed doing? Was it mostly the aftercare or was it the actual handling of the patient all the way through from beginning to end by one person?

ACS Well, both really. I gave most of the chest anaesthetics in Oxford at the time. And, you know, I had done a lot and I went on learning. That was great and I enjoyed it very much.

WB And were techniques changing at this time?

ACS Yes, they were. Yes, it... I should have written it up, but I had records, I kept fairly careful records of the patients that I looked after, and although I thought that I was being extremely consistent in my approach, looking at the records it all changed over about three years.

WB What was the situation at the beginning?

ACS Well, it was just a question of these funny technical intubations of bits of the lung, which became all mandatory really. It was technically very interesting and difficult to do.

WB Can you elaborate on that?

ACS Well, at that time, the problem really was pus in the chest. I mean, tuberculous bronchiectasis is a frightful disease and the amounts of pus that these people were producing were unbelievable really. So it was necessary to block off bits of the lung with various carefully designed tubes, and, you know, one could then control the situation and I found that extremely interesting. Also, we did a great many operations under local [anaesthetic], again which I enjoyed very much, because it's a skilful job, giving local anaesthetics is a skilful job. You have to be able to feel what's going on at the end of the needle. I loved that, it was great.

WB So you actually quite enjoyed the technical side of anaesthetics?

ACS Oh, I did yes. Yes, I did.

WB Yes, this is something that a lot of anaesthetists seem to have, a skill with their actual hands?

ACS Yes. I think if people don't have that, they begin to realise that this is not for them.

WB Had you worked on the intubation technique with Parry-Brown?

ACS Yes.

WB In Oxford who was the person who... who was the surgeon who...?

ACS A man called [G C] Laurie Pile. He was a very good surgeon, actually.

WB So, you were thoroughly ensconced in Oxford by now, you could see the way your life was going and you were quite happy with that.

ACS Oh, yes, yes.

WB You were in the Respiratory Unit for something like twenty-nine years, I think?

ACS I suppose so, yes. Well, again, that was just pure chance. The whole of long-term artificial respiration was started by the polio epidemic in Denmark in, I think '52, or '51 I think, or perhaps.... No, there was a polio epidemic in Oxford in '51 in which quite a lot of people died, and then there was this appalling epidemic in Denmark in which it's difficult to believe, but I think I'm right in saying that they were admitting fifty cases a week who required help with their breathing, and they had eight tank respirators in the whole of Denmark, so there was a real crisis. And [H C A] Lassen was an anaesthetist, a chest anaesthetist actually in Copenhagen. And Lassen was the head of the infectious diseases set-up, and they were walking through the polio ward when Lassen suddenly realised that these patients were exactly in the situation of a patient in an operating theatre paralysed with curare and so he said, 'We've got to intubate these people and artificially ventilate them,' which is precisely what they

would be doing in an operating theatre⁴. So that was a brilliant observation. And they got going and they intubated these people and they had students squeezing bags to ventilate them. Ritchie went across and saw this. Ritchie was the head of Neurology in Oxford, Ritchie Russell, and he said to himself, 'Well, this is the way that these people have got to be treated, but you can't have a lot of students.' So, he went back to Oxford and with a delightful gentleman called [E H J] Schuster, who incidentally made an animal pump, I think, in about 1915 for Sir Henry Dale, they decided that this could be applied to humans. So they built a pump, which was an excellent pump, physiologically very sound in spite of the fact that Ritchie didn't know any physiology. So Ritchie came back to Oxford and decided to set up this unit. He had a research assistant called John Spalding and another one called John Marshall, but he didn't come into it so much. And Ritchie said, 'Okay, John, this is your baby. We need an anaesthetist and we'd better have somebody who knows something about chests because all these people get chest complications.' So that was the way that I got mixed up with the unit and it was wonderful. I became a great friend of John Spalding and also, of course, Ritchie. And I don't know how long I worked with John Spalding, but I don't remember ever having a cross word. We had a funny relationship really. We had no rotas about being on or off. We just, you know, when both of us were around, both of us went, and if only one of us was around, one went. But, we developed all kinds of fun things. For instance, we used to be able to diagnose respiratory failure over the telephone because people would ring up from Banbury or somewhere and they'd say that they'd got this patient who didn't seem to be terribly well and so we'd say, 'Okay, go away and ask him to count. Take a deep breath, one great big deep breath and count.' Well, now normally, if you count at a reasonable rate, you can get up to about sixty if you've got a decent lung function. So, you know, if the patient could count to thirty, we'd say, 'Okay, well, we'll pop out and have a look.' But if they could only count to ten, we'd say, 'Get an anaesthetist and get him intubated.' It worked very well, actually.

WB Wonderful.

ACS We were able to look at that and show that in fact the vital capacity came down as your count got less, but that was just a joke.

WB Well, it was a very good joke.

ACS It was fun.

WB It's a wonderful bit of diagnosis. What were you mainly working on with John Spalding?

ACS Well, we obviously got interested in respiration, it was... so obvious, and in respiratory function and especially in respiratory control. We started doing a bit of work on that. Then we began to get D Phil students and the first one was a man called Lionel Opie, a South African, who was very clever. He now has written extensively. He is a professor in South Africa and has written excellent stuff, mostly on

⁴ Lassen, H.C.A., 1953. A preliminary report on the 1952 epidemic of poliomyelitis in Copenhagen with special reference to the treatment of acute respiratory insufficiency. *Lancet* 1953; 1: 37-41.

cardiovascular stuff, but very, very good, and he started off with us doing significant work. And then we got Bill Watson who became Professor of Physiology in Edinburgh and he was a one-off. He came to us thinking about being a neurosurgeon with the primary part of the surgical fellowship, that was all. He was waiting for apparatus and he thought well, if I'm going to work with a bunch of physicians I'm going to get the membership, which he did in three months. He then started doing work and in the three years he was with us he wrote nineteen papers. He got a DM thesis out of them and he got his D Phil, went back to London and got the final part of the fellowship. So he had the lot, you know, BM, DM, MRCP, FRCS, D Phil, what we call a 'nap hand', and then he went off to Edinburgh and became the professor of physiology there. So, that really got us a long way on the control of respiration.

WB So, what were the significant advances that you had reached by this time?

ACS Well, I think really keeping people alive. And we looked... for instance, we were able to show that these patients became acclimatised to different levels of pCO₂, which to a certain extent controls respiration, and as you may know people become acclimatised at altitude and that is because they hyperventilate because they are hypoxic. But our patients were hyperventilating because we were hyperventilating them, but we could show the response of CO₂ changing, and that was the kind of thing. It was just fairly basic stuff, the control of respiration.

WB And you had a particular patient who was a rather good example of this, wasn't she?

ACS Yes. Jane Deeley was one of the first patients we had. She was diagnosed with poliomyelitis and she came in and was put in a tank, and it became apparent that not only was her respiration failing, but her swallowing was also failing. So the result of that is that the tank just blows secretions into the lungs and the patient drowns. And so, Lassen and [Bjorn] Ibsen were again the... was the obvious answer. So we intubated this girl, did a tracheotomy, and ventilated her and she became almost totally paralysed. In fact, the only way we could communicate with her was by eye movement. We used to hold up an alphabet in front of her and when she came to the right letter she moved her eye, and there was a lot of anxiety around about our keeping this girl alive to be totally paralysed for the rest of her life. However, she didn't have poliomyelitis, she had polyneuritis. She recovered completely, she became a nurse, she nursed in the unit, she married a farmer, she had four children and she sent me a card last Christmas reminding me that it was forty years since we had put her on a ventilator. So, that was a nice story. But the important thing was that it meant that nobody could go into respiratory failure in Oxford any more without being ventilated, and that was a tremendous help.

WB And did that technique become universal?

ACS Oh yes. Everybody does it now.

WB It's now worldwide?

ACS Yes.

WB But how long did it take to establish the credentials, so to speak?

ACS A very, very short time. Because, I mean, it was commonplace in the operating theatre and once it was shown that, you know, you could do this for a long time and give patients a chance to get better... But, of course, the polio vaccines were a tremendous help because polio is not difficult to treat and we could envisage dozens of patients on ventilators all over the place. I mean, we sent people home on ventilators and they died of other things, but they didn't die of respiratory failure. So, you know, I can't tell you how important the polio vaccine was.

WB At about this time you were also going and fetching people from abroad, weren't you?

ACS Yes. I went with, under the aegis of British American Tobacco to pick up some of their employees in Nigeria who had become totally paralysed with polio and brought them home in an aeroplane. The first one, they hired the Guinness private plane, which was an old Wellington and unpressurised, so we flew over to Nigeria, the desert road, and you could see the road actually, and I always remember coming down at a place called Aulef where there was a concrete apron and one petrol pump. And they got us out of the plane and we went into a café which was so French you couldn't believe it and there were guys with kepis, you know, it was just like Beau Geste and things like quinquina(?) and all the French drinks. We said 'Well, we're not going to be here for very long, why did you get us out of the plane?' So they said 'Well, the last time we had somebody fuelling here, an Arab who was working on the wing dropped a spanner and everything went up!' So, it was sort of fun times with all kinds of odd things happening.

WB And quite apart from all your research work, you were getting very involved in Oxford United Hospitals and future plans?

ACS Yes, that is true, but I think about this time I really began to think seriously about medical politics in the university because I sat on the Medicine Board in which the clinicians and the pre-clinicians were all represented. And there was one pre-clinician especially who thought that clinicians were dumb and didn't make his opinion... he didn't keep it to himself. So, I became quite convinced that we had to get the clinicians out of the Medicine Board if anything was going to happen. And it was under Richard Doll's aegis that this actually happened, but I like to think that I had something to do with it. I may say that the professor who used to lambaste clinicians and I became good friends later on.

WB Oh, good.

ACS Of course, things changed a great deal once we had the Clinical Board, and most importantly the university was able to attract some very significant clinicians, and I think, particularly David Weatherall, who was not only a significant research worker who had done tremendous work on thalassaemia and sickle cell [anaemia], he's a brilliant clinician and he's a top-class doctor and a very kind man. I could give you examples, it doesn't matter. But, how he does everything that he does I just don't

know. And the other important person, of course, was Peter Morris, the Nuffield Professor of Surgery. He's a brilliant surgeon, but he's really an immunologist and had done important work on kidney transplants especially and put Oxford on the map as a kidney centre. I think his results are as good as anybody's in the world, and he is a nice man.

WB So, you had very good colleagues.

ACS Oh, yes.

WB You were thoroughly involved in the planning of the JR2 [John Radcliffe Hospital, second building]?

ACS Well, no. The university didn't have much to do with it, you know, and I was very much mixed up with the university side and enjoyed that very much. In fact, I'm rather proud of the fact that I was the only clinician, the first clinician of any discipline to be a member of the General Board, and that I enjoyed very much. I felt that the General Board was so efficient that it was a pleasure to have anything to do with them and the administrators are absolutely top-class. As you no doubt know, the Secretary of Faculties has a professorial fellowship with the college and of course the Registrar is paid better than any of the professors and so it should be. So I very much enjoyed working with them. That was fun.

WB Were there major changes made during your time on the General Board that you felt affected Oxford in the long run?

ACS I don't know. The one that I remember very much was that we tried to abolish the chair of moral theology and lay aside the chair of ecclesiastical history and Christ Church [College] fought them on a brilliant rearguard action. In fact, the references to this thing went in to the printed papers in about ten lines. Eventually, they won because they said, 'We'll pay to keep these guys.' So, there is still a chair of moral pastoral theology. And, actually, the chair of ecclesiastical history has been laid aside, so I suppose it's halfway, but, you know, that was the kind of thing that I enjoyed and of course, again, there was no nonsense about consensus government. There was a short debate because the meeting could only last two hours by statute and after two or three people had two minutes each, there was a vote, and that was the end of it, and I enjoyed that too.

WB So, you really did quite like the political side of life and trying to shape things?

ACS Yes, I enjoyed it. As I say, the General Board was so efficient and such fun; I really enjoyed that.

WB At the same time as being in the Respiratory Unit, you were a consultant anaesthetist to the Oxford United Hospitals. What did that involve you in?

ACS I did lists. Have I got the chair yet?

WB No, I don't think so. I think you got the chair in...

ACS A bit later on.

WB In '65.

ACS Well, yes. I just behaved like a consultant anaesthetist. I did a lot of chests, but I did other things. I did a lot of gynae operations and, of course, at the same time John Spalding and I were doing a round in the Respiratory Unit every evening after I'd finished a day's work. And, then we, of course, we had to nip out and fetch patients every now and again.

WB Fetch patients?

ACS From Northampton and Banbury, all over the place, having diagnosed them over the phone, so it was quite a busy life.

WB And had the anaesthetics you used again changed in this period?

ACS Oh, yes, indeed. When I went to Oxford that was in '47, curare was just in its infancy and of course Cecil Gray, as you will no doubt know, was most instrumental in getting this going. So that was a sea change in anaesthesia because, as I said to you earlier, in order to do high gastrectomies and cholecystectomies you need an awful lot of ether, and the patient was sick and it was awful. But curare enabled you to relax the patient completely and make the operation as easy as it could be with a very light anaesthetic and the patient woke up, and it was an absolute sea change, tremendous.

WB But it took a while to be established, didn't it? There was quite a fight over the introduction of curare techniques?

ACS I don't think so. When I went to Oxford, we were not allowed to use curare as residents, but by the time I left for London it was commonplace. Everybody was using it. But that was a tremendous change.

WB Were there any other significant changes that helped your work?

ACS Well, I suppose the long-term artificial respiration thing was a change. I mean, that really changed people's attitudes to a lot of diseases.

WB Which other diseases were...?

ACS Well, I got terribly interested in tetanus.

WB Was there much tetanus around at that time?

ACS Yes, it's funny. The Thames Valley is stiff with tetanus.

WB Really?

ACS You see, animals get tetanus and you can take it from me that all racehorses are very carefully immunised against it.

WB Really?

ACS Yes. Lambs get tetanus and so they're always excreting the spores, so there are spores all over the place. And so, we were unlucky I suppose in getting, I think, ten or a dozen patients who were really terribly seriously ill, and Lassen and Ibsen noticed... said to themselves, 'Well, these patients get spasms and we can control spasms with curare. We'll curarise them and ventilate them and all will be well.' Because one realised before this that mild cases of tetanus if they recovered, recovered completely. So, Lassen thought if we ventilate them, they would all get better. So, we did this and we looked at the situation after a couple of years, I think, and we found that of the patients who were seriously ill enough to be put on a ventilator, we lost forty per cent and that was not acceptable, so we started to look around. One of the things we noticed was that the patients who were severely ill got peripheral shutdown and became vasoconstricted. And it was like Socrates, if this cold white limb got above the knee they were all going to die. And eventually, I can't tell you who thought of it or how it came because you don't... it doesn't happen like that, but we became aware that the autonomic nervous system was as hyperactive as the somatic nervous system and these people were sort of hyper-adrenalined, and so we beta-blocked them and it all stopped.

WB So you really got the recovery rate right down?

ACS Oh, yes. Yes, I mean, like this... Well, there are two groups that are very difficult. Very old people are very difficult and babies are very difficult. But apart from... with fit people we didn't lose any really and they all got better.

WB Terrific. So, now there is very little tetanus.

ACS I don't think anybody has seen one for ages.

WB Really. So that's a great achievement.

ACS Except people die in Third World countries.

WB Right, because the techniques are not known or...?

ACS No, I think they really... Well, I remember being asked to go to Nigeria and treat patients and I worked out what the cost would be of two doctors and twelve nurses or whatever, and suggested to them that they would do better to buy a truck and a million doses of ATS [anti-tetanus serum] and a lot of bars of chocolate and go into the villages and offer a child a bar of chocolate to have an injection, and put a little tattoo on him and go back in six weeks and offer him another bar of chocolate. It would save a lot more lives than the few that we would have saved, so I don't know. They may do that, I don't know.

WB How long ago did you suggest that?

ACS It must have been the mid fifties, I suppose. No, no, no, later than that, early sixties, I should think.

WB And you don't know whether it's happened?

ACS No, I don't.

WB Maybe one of the big charities has done it?

ACS Maybe, yes.

WB We must find that out.

ACS It would be great fun.

WB It would be a very good long-term result of your earlier work.

ACS A bar of chocolate for an injection would be cheap at the price, I would say.

WB Exactly, brilliant. And what other diseases?

ACS Well, polyneuritis of course, we had a lot of success with that. And then of course the chest injuries because, you know, they used to do all kinds of extraordinary operations with broken ribs, wiring them, and they didn't do very well. But if you just put a patient on a ventilator and leave them for a while until their chest stabilises, they do very well. I mean this is provided you don't have other ghastly injuries.

WB Because the breathing is upsetting all the injuries?

ACS Well, it's not so much that, but you really blow the chest into the right shape, by, you know, every breath pushes the ribs out, and they stabilise after about ten days, or a fortnight, and the patients do very well.

WB Interesting. You were made [Nuffield] Professor in 1965 up until 1980 when you retired, so you had a very good run as professor. Did you enjoy that?

ACS I enjoyed it very much. It was great.

WB I wondered whether as a preliminary to that, you could just tell the story about the Nuffield Professorship being instigated by Lord Nuffield. You had the story from Macintosh, from Lord Nuffield himself, didn't you?

ACS Yes, Lord Nuffield told me. I didn't really know Nuffield but I heard him tell this. He was asked by [Hugh] Cairns, who was the professor of surgery - and surgery is important - to endow a [chair of] medicine, not surgery, for Oxford to sort of be the beginning of a medical school. So, Nuffield said that he would have to go and think about it. Nuffield thought about it; he came back, and he said, 'I'll offer you four chairs, medicine, surgery, obstetrics and gynaecology, and anaesthetics, half a million

each, but Robert Reynolds Macintosh will be the professor of anaesthetics.’ And this was because Macintosh had given Nuffield his first intravenous anaesthetic - he having had two ethers previously - and Nuffield was so excited by this that he thought that this is something that has got to be looked at. So, of course, the Hebdomadal Council said: ‘No strings. We can’t accept money with strings and certainly not a person.’ So Nuffield thought that he had better go down and talk to these guys, so he went down and talked to the Hebdomadal Council and eventually said, ‘Look, I’m going out of this room and I’ll wait for two minutes and I would remind you gentleman that you are losing a million pounds a minute.’ And this was ’37, so we’re talking about a factor of twenty. He didn’t... he wasn’t allowed to wait very long and Robert Reynolds Macintosh was appointed the professor of anaesthetics. What is more remarkable - Macintosh told me this - was that Macintosh said to Nuffield, ‘Look, I hope you know what you are doing. I’m just a good journeyman anaesthetist and you’re sending me down among all these academics who will eat me alive.’ So, Nuffield said ‘Well, I know that you are not a trained scientist and your successor probably won’t be, but his successor will be and he’s the one that I am interested in,’ which was really a remarkable insight and it was about right. I mean I was sort of half-taught, I didn’t have a postgraduate degree or anything, but Keith [Sykes], of course, is a thoroughly trained scientist. But it was very interesting that Nuffield was so correct.

WB Very interesting. And when you arrived as professor, did you see things that you thought needed doing or did you feel everything was in good shape?

ACS Yes and no is the answer. Mackintosh, his insistence was on training and he trained himself; he had courses. Safe anaesthesia was his thing and also, of course, the examination. He felt that the examination was extremely important and encouraged people to take it.

WB The Faculty examination?

ACS Yes, and so his currency in a way was the FFARCS [Fellow, Faculty of Anaesthetists, Royal College of Surgeons]. I wasn’t too happy about that because I knew that there’d been a very large body of opinion in Oxford that felt that anaesthetics was not a subject which deserved a chair and I felt that, you know, that had to change. And I reckoned that John Spalding and I had supervised D Phil students to Oxford D Phil standard and I felt that that was to be my currency. I felt that if it was recognised that we could train young men to Oxford D Phil standard, this made the department scientifically credible with criteria that Oxford could understand, and the other one of course was MRC support. So I did actually supervise the first D Phil students after Macintosh left, but then I was very lucky. I was able to appoint Cedric Prys-Roberts, who is brilliant, and after him Pierre Foëux, who is equally brilliant, and who, of course, has succeeded Keith Sykes to my delight. Pierre came across to work with John Spalding and with me in the Respiration Unit and there were no real... there was no real opportunity to do significant research in Switzerland where he came from on a Swiss MRC scholarship. So, he wanted to stay and I got him a job in the Anaesthetic Department as a lecturer, which doesn’t pay very much, and the Swiss made him pay back his scholarship, which I really thought was terrible, and they were very poor for a while, but he’s very, very clever. And Cedric, of course,

he set up the animal research lab and I was fussing around getting an intensive therapy unit set up and getting money, hard money for the department and that kind of thing. And he did a lot of very significant research, and so did Pierre.

WB And the intensive therapy unit was your idea?

ACS Well, not really. I mean, in fact, we were very late in having a custom built one, but eventually we got one in the Towler block [of Radcliffe Infirmary]. And the respiration unit had by that time settled down to neurological problems which are not very difficult to handle. We kept an eye on it but the real work went on in the intensive therapy unit.

WB Did you face opposition in getting that unit established?

ACS Well, I had to convince... I had a meeting, I remember it well, with the acute physicians and I had to convince them that they were going to look after the patients, that we were happy to do anything that was necessary and to look after the respiratory side and that kind of thing, but we would do what we were told. I really believed that, and that's the way it turned out. Some of the people felt that they could leave us alone for a good deal of the time and some of them didn't. And I mean, we offered them everything. They would put a house physician in to live in the unit if they wanted it, so that worked very well. Unfortunately - I suppose, I shouldn't say unfortunately - but the man in charge of the intensive therapy unit is actually a physician, which in a way I find a bit disappointing, but he is a member of the Anaesthetic Department. In fact, I gave him some equipment very early on in his career and the anaesthetists are always there. Pierre Foëux, who is a physician, although he gives a good anaesthetic, he is primarily a physician and he would say that this is proper and that you need a physician in charge, so that's the way it's turned out. It works well.

WB Do you feel that with anaesthetic techniques now being so well established and so well understood that it's actually easier to have that situation with the physician?

ACS Well, I've always thought that the reason for anaesthetists getting involved in the ITU was to make them better physicians because I think... and Pierre Foëux has changed things enormously. He does a ward round with Peter Morris before the major vascular surgery and if Pierre doesn't like the look of a patient, it's not done. And Peter Morris relies on him completely for the medical handling of major vascular surgery patients, and that's a great step forward. So, you know, I think that anaesthetists are becoming better physicians, as they should be, they're not any longer just technicians. They look after the patient over long periods of time.

WB And you also worked with Brian Lloyd quite a bit, didn't you? What were you working with him on?

ACS Well, again, this was started you see in the respiration unit when we were fooling around with the control of respiration. Dan Cunningham and I were contemporary at Edinburgh and I knew him a bit. He became a lecturer in the Physiology Department and worked with Brian and the two of them made very significant contributions to rib surgery physiology.

WB What contributions did they make?

ACS Well, it was mostly the effects of lots of CO₂ and not so much CO₂. They did all kinds of things, not many of which I can remember. Anyway, at some stage, John Spalding and I realised that we would have to measure CO₂ in gases and I could use a Haldane apparatus but nobody else could; it was terribly tedious and quite impractical for clinical purposes. So I thought I'll go and see what Dan was up to. I saw Dan Cunningham and said, 'We need an apparatus to measure CO₂ in gases. Do you have anything?' And he said 'Yes, it's over there.' And that was all he said. So, I ground my teeth and went away and built one. It took me eight months.

WB Out of?

ACS Bits of... Well, I was a great chum of one of the technicians in Geoffrey Dawes' lab. In fact, my first lab was lent to me by Geoffrey Dawes. It was a disused cat house in an annexe to the Tower of the Winds, it had a concrete bench and a naked light bulb and it was cold.

WB The Tower of the Winds, which is now part of Green College?

ACS That's right because Geoffrey Dawes had his labs there. So, eventually, I'd finished the thing so I went back to Dan and I said, 'Now, look, I've built this thing.' So the whole situation changed, and Dan came over and we calibrated it and started to use it. And we had meetings with Dan Cunningham and Brian Lloyd most Saturdays actually and they were tremendously helpful. I think probably the high point of my clinical career was when I was asked to give a paper at the Haldane centenary. Of course, the paper was by Smith, Spalding and Watson, but I actually did the talking and that was a great privilege.

WB What was the paper entitled?

ACS It was about the control of respiration. JBS [Haldane] was there and he lumbered to his feet - he is an enormous man - and said, 'Did you measure the pH of the urine?' So, thinking on my feet, because we hadn't, I said that it wasn't any good because all these patients get bladder infections and the urine is acid. He sat down to my great relief. But that was a great privilege and it was all borne out of his collaboration we had with Brian Lloyd and Dan Cunningham.

WB And as professor, were you involved in university planning to a great extent? Was there anything happening at that time?

ACS Well, I think the reason... I was first co-opted to the General Board, but I got voted on the next time round. I think it was because JR2 was on the horizon and I was at that time chairman of the general purposes committee of the Nuffield Committee, which became the Clinical Board, and I think they felt that they had to have somebody who knew something about hospital workings and also knew something about university workings. So I sort of filled the bill and as I said to you before I enjoyed it very much.

WB And do you feel pleased with the result?

ACS Yes, I think so.

WB Has it got everything that you wanted to see in it?

ACS As far as the university is concerned yes, I think so. There's some excellent work going on and of course as I said to you before, the appointments of Weatherall and Morris were very important. And, of course, as you know, David Weatherall has got this Institute of Molecular Medicine going at JR2 from which he managed to raise an enormous amount of money and wonderful work is coming out from that. He is no longer of course Nuffield Professor, he is regius professor, and a man called [John] Bell who is a very bright guy is Nuffield Professor. So, that's great. The University involvement in the clinical school is excellent and that makes me very pleased.

WB Looking back on your period as professor, what gives you the most pleasure?

ACS Well, I think having attracted Cedric and having grown Pierre. I mean, you know, he was a research student of mine and John Spalding's, of course. That gives me very great pleasure. I think the development of the Clinical Board is very important, but mostly I think the attraction of very high quality people to clinical professorial appointments is also outstanding. I was disappointed about my contribution nationally. I was on the Board of Faculty for a long time, but I tend to shoot from the hip a bit and that's not always a terribly clever thing to do. On one occasion I remarked in the Faculty that 'this country cannot support nineteen chairs of anaesthetics, they cannot be supported financially and they cannot be supported intellectually', and you can imagine that that didn't go down terribly well. But there were one or two occasions like that. I think the main thing was that if I had to choose between Oxford and the Faculty, I chose Oxford. If there was a conflict, it just went Oxford's way, and that's not the way to win friends and influence people, but it was the way that I felt was appropriate at the time.

WB Were you involved at all in the establishment of the Royal College of Anaesthetists?

ACS Well, I opposed it.

WB Why did you oppose it?

ACS Well, it seemed to me that what they were going to do was to have a place in Bedford Square, which was going to be jolly nice for the Board of Faculty but wasn't going to help all the other anaesthetists because there wasn't any room for them. And I think that was wrong in retrospect. But I felt that they should stay in Lincoln's Inn Fields and have an autonomous unit. Actually, I was on a committee when they said to me, 'Aren't you ashamed of the fact that you are part of the Division of Surgery?' And I said 'No, I don't care whether I am or not. I've got my own budget and they can't touch it, so what my name is is just an irrelevance.' And at that time of course the Faculty of Anaesthetists' budget was all mixed up with the college and a man

called [Michael] Rosen and I opposed this and managed to get the money separated out. So I thought if you could have an autonomous outfit within the college with all its big buildings and so on, that would be good. But, it's turned out very well and I was wrong, I am quite prepared to admit that.

WB And do you feel there is still sufficient collaboration going on between the anaesthetists and the surgeons and so on, still?

ACS Yes.

WB Perhaps a better relationship now?

ACS I think so, yes. I think the most important thing is the fact that the surgeons realise that they can't get on without us really. And I keep nagging on about this, but the relationship between Pierre Foëux and Peter Morris is a role model for the way collaboration should go on. It couldn't be better.

WB One of your best gifts to Oxford was creating an ambience in which people could work and pursue their own research?

ACS Yes, I think that's true. I got a lot of money one way or another. In fact, I was a Nuffield Trustee and Keith Sykes had been trying to get some money, which the Trustees said they would match if he could get it, but he didn't get it. The warden of Rhodes House was in the chair and he said, 'Professor, your successor is not as accomplished a beggar as you are.'

WB This was Edgar Williams?

ACS Yes. So, I think that's been terribly important, the change in the relationship between the surgeon and the anaesthetist. But as I say, I'm a little bit disappointed by my relationship with the Faculty.

WB You were examining, weren't you, for many years?

ACS Yes, I was.

WB And you were also a contributor to the *British Journal of Anaesthesia*?

ACS Yes, a bit. I encouraged the guys - it's awful trotting out these appalling aphorisms - but I used to say to them: 'Don't ever be at the top of one league, be at the bottom of the next league up.' I used to encourage them to publish in physiological journals and the work that I presented at the Haldane centenary had all been published in the *Journal of Physiology*. Pierre has published in the *British Heart Journal* and in international cardiovascular journals, which I think is the way that people should go. I mean, the *Journal of Anaesthesia* is pretty clinical, you know, whereas I was aiming for more physiological stuff.

WB What do you regard as your most important publication?

ACS Mine?

WB Or your most important contribution in literary terms?

ACS You see it's extremely difficult. I can't really remember anything that I said which really mattered. All these things I feel in research nowadays are group things and you get together with a group of like-minded people and suddenly somebody says, 'Good heavens, why haven't we thought of that!' And then you get on and do it. That is what happened with the tetanus thing. We did some work on the amount of CO₂ that these people were producing and it was enormous and that really triggered it off, but it was all a corporate thing. So, I don't know. I suppose the tetanus work was quite important, but I don't have my name on any of the papers.

WB But you've lectured all over the world, haven't you, so presumably the results of your work have been widely disseminated?

ACS Yes. Well, I always remember Ritchie Russell, whom I worshipped in lots of ways; John Spalding and I did these few cases of polyneuritis who all got better and we thought we should write them up and John very kindly said, 'Well, I think you should be the first author.' We showed the paper to Ritchie and he'd never seen it before and he knew nothing about what we'd been doing and he said, 'Well, you'd better put my name on the bottom.' So, we said, 'Okay, but why?' And he said, 'Well, nobody will read it unless they see my name on it.' So, I've always had my name on the bottom in the hope that perhaps some people might read it who wouldn't otherwise do so. But I have very few papers with my name first.

WB But you stimulated a great deal of research?

ACS I suppose so. I remember one that I published with Lionel Opie. Getting pus out of the left lower lobe is quite difficult because the bronchus comes off at a very sharp angle and we read two papers, one of which said that if you turn the patients on to their left side and pass a catheter into the trachea you can suck out the left side, and another one said if you turn the patient's head to the right and pass a catheter, the catheter will go into the left side. So, we did that and I was very pleased by the fact that this paper didn't require any more mathematical knowledge than the ability to count up to ten. We put the patient on the left side and passed the catheter ten times and nine times out of ten it went into the right side! So, then we turned the patient's head to the right and passed the catheter ten times and ten times out of ten it went into the right side, so we published this. That was one that I'm pretty proud of.

WB Since your retirement, you have been sailing a lot, I believe?

ACS Yes, I had a boat before I retired and I took it down to the Mediterranean. I kept it there for nine years, I think, and sailed it all over the Med; it was great.

WB And you financed it in a rather original way?

ACS Yes, I used to spend two months in the autumn, the fall they call it in Columbia Presbyterian, which is a third order referral hospital and it is enormously

high tech. And then I used to go to Sweden to a little district general hospital for two months in the spring and that was a schizophrenic mood shift I can tell you. It was a good change, but I loved both of them. I got on very well in Columbia because the young men there had tremendously good didactic teaching and what they want is tricks and I had tricks that I could tell them about. I had one wonderful experience in Columbia when I was doing an orthopaedic list and I came in in the morning and the orthopaedic surgeon was storming up and down because a resident anaesthetist had cancelled a case on his list because there was something wrong with the ECG. So I said, 'Well, I'll go and have a look at her and see what the score is.' So I went up and I said to this lady, 'What do you do?' So she said, 'I'm a bed-maker in the Hilton Hotel.' I said, 'Do you have to carry anything?' She said, 'I'm carrying blankets all the time.' 'Up and down stairs?' 'Oh, yes,' she said, 'up and down stairs, making beds and stuff.' So I had a look at the ECG and there certainly was something funny, but with her record of what she could do, I knew there wasn't going to be any trouble, so I said to this girl 'Okay, I think we'll do her.' She made me sign fifty-seven documents to say that it wasn't her opinion, it was mine, and so on. And so we did her and there wasn't any problem. Then she said to me, 'Why did you do this lady?' So I said, 'I rather liked her, I thought she was nice.' The girl exploded: 'This is not science, this is nonsense!' But, you know, it wasn't like that, but I remember the girl's response with great glee. But, I had a lot of fun in Columbia and I loved Sweden, except for the dark. Getting up in the dark, going to work in the dark, coming home in the dark was difficult.

WB But then spending all the summer in the Mediterranean made up for it?

ACS It certainly did. I could afford it. In fact, what was fun about that was I made a lot of money and I could say to the kids, 'Here's your air fare, come down for a few weeks.' And that would give me great pleasure.

WB Lovely. So you are having a happy retirement?

ACS Oh, yes.

WB And looking back over your quite long career, are there any major upsets or delights that you would like to mention?

ACS As I say, I was disappointed by my making a mess of my relationship with the Faculty, but apart from that I have had a wonderful life and, you know, the war was great and then the chair was great. The whole business was great and I enjoyed myself so much.

WB So, no regrets?

ACS None at all.

WB Wonderful. Thank you very much indeed.

ACS Thank you.