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**Dr Cyril Scurr CBE LVO in interview with Lady Wendy Ball
Oxford, 29 May 1997, Part One**

WB Dr Scurr, would you mind telling me when you were born and where?

CS I was born in Hampstead in a road just south of Parliament Hill Fields in 1920, in July 1920. It was always said by my mother that I was a brow presentation which must have been very difficult in those days without anaesthesia, and as a domestic delivery it's a wonder I survived. But I don't think there was any hitch at all so maybe, maybe this wasn't true that it was a brow presentation.

WB Were you the first child?

CS I was the first child. I think they had been married almost immediately after the armistice. I think they were waiting for the First [World] War to end and then they got married in February 1919, so that would be two or three months after the armistice.

WB Could you tell me a little about your background? I believe your great-grandfather was a marine painter?

CS Yes, indeed. He came originally from Whitby but settled in Wapping. His first wife died I think up in Whitby and he married a second wife. Another little bit of ancestry I have been trying to ferret out and not really found is that he married the second time down in London to Anne Hogarth(?). And we looked to see if she was in any way connected with Hogarth the artist as he was a painter, but Hogarth in fact had no issue as far as I can find out. But there were plenty of other Hogarths around at that time in London, so I don't know. Anne Hogarth's father was a florist and they got married in one of the churches in the East End which is still going. I've got the wedding certificate as it happens and I've also got my grandfather¹, Michael Scurr the marine painter, his death certificate. He died of carcinoma of the stomach in I think 1862, anyway, when my grandfather was in fact only twelve years old. So he ended up being sent to an aunt and again back to Whitby for his upbringing where he worked in the jet trade. He came down again to London when that sort of thing, when the jet trade failed and my father was born in London and was the third of four sons of that marriage. And my father became a pharmacist, later an optician and after that a teacher of optics. He flourished entirely really on teaching by correspondence. He swore at one time he'd taught more than fifty per cent of the opticians in the country because it was a good way for them to learn(?).

WB And how did he become a scientist of that nature from a very artistic background?

¹ Dr Scurr must mean great-grandfather here.

CS I just don't know. I think something must have driven him from within because his other three brothers were in no way gifted in that, in that sense although one of them, he did also train to be an optician and flourished as an optician as well. The other two brothers, one was killed in the war – Felix, and Edward got lost and we never saw him again.

WB That's very sad. So, you have no real recollection of your uncles? And they weren't a driving force?

CS I met Edward once. My Uncle Harry, the other optician, I met many times of course. He was the grandfather of a well-known surgeon in London now called John Scurr, my cousin, second cousin.

WB And you were interested in science from an early age?

CS So it seems, yes, although we are a RC family and I went to a RC grammar school where science was almost a dirty word, but I believe in the '30s that science was a dirty word even in all the public schools. I think that classics was the thing to be in.

WB Yes. But you were encouraged by your father, were you?

CS Yes. Indeed, yes.

WB But at school you were an all-rounder?

CS Yes. There was no science teaching at the school really and I was taken away when my father thought I ought to go into medicine. And I was sent to a crammer when I was fourteen and did the Pre-Medical which is like the Higher Certificate, the chemistry, physics and biology that you need to go into medicine, in June 19... lets get this right ...

WB You were fourteen, so this was 1934?

CS Fourteen, yes. 1934, yes, June 1934. June '35 it must have been, I think.

WB Yes. So, you were taken out of school before School Certificate?

CS No, I'd got School Certificate.

WB You'd got the School Certificate?

CS This was like Higher Certificate. Yes, yes.

WB Can I just ask you why your father thought you should go into medicine at that stage?

CS Perhaps he had an ambition of his own to do that, I don't know. I suppose an optician deals with a lot of sort of semi-medical things and he probably was touched by his experience with patients in that way.

WB And you didn't mind him forming your future career? You had no firmer ideas?

CS Well, I was too young to have any idea about it at all. But anyway, I was too young to go into a medical school by a good way and so I went to a polytechnic and went into a BSc course.

WB This was still very young?

CS Yes. Well, you could take the BSc intermediate exam at sixteen, but you couldn't do, you couldn't take the first MB at sixteen, you had to be seventeen. And so that was a back door thing, although they were very kind to me at King's College in London and they let me in, I suppose I must have been... I was eighteen when I finished it so I must have been about sixteen and a half, sixteen and a bit. When I got into King's College I did my second MB and was accepted to go into Westminster by Sir Adolphe Abrahams who was then the dean, so they were all pretty decent to me, I thought.

WB They were indeed. I mean, which polytechnic did you go to?

CS Northern and then Chelsea. The local authority wouldn't give me any scholarship funds because they said although I was young and had done quite well, I had to really show that I could succeed in competition and must get a scholarship. So I sat one at Chelsea Polytechnic and got a scholarship which would have given me three years education to do the BSc. Well, I did three months and then got into King's. So that was the way it went.

WB That was an extraordinarily rapid career. Were you feeling very isolated from your peers at this time, because you must have been very far ahead of most of them?

CS Yes, I don't think so. At King's we all seemed to get on. I suppose most of them were two or three years older than me but it didn't seem to matter.

WB But, you were also quite a sportsman at that time, weren't you?

CS Yes. I played cricket, and tennis and hockey mostly, well either for the college or for the town's teams. You know, for Barnet Cricket Club, and Barnet Hockey Club and places like that.

WB And did you see yourself becoming a general practitioner at that point? Or did you not envisage the future at all?

CS No, I think I always had a scientific yen, you know. If I say research I think only because of the scientific involvement in research. I think very early on I came to see that a lot of things in medicine we were told were an art. Well, science knows and art does and a lot of the art was not founded on a proper basis. And somehow or other I got infected with a quotation that I still can't trace of Lord Kelvin's who said that any research or investigation that you did of which the results could not be expressed

in a numerical fashion was of a very meagre kind.² And I still can't find the original of that sentence however I chase it. But, ever since then... That's how I came later on into starting off clinical measurement and measurement in anaesthesia in particular, because after the war electronic instruments were flourishing and of course it became possible to measure almost anything. It was therefore that I went to the hospital and tried to get the governors to start up a department, because we already had departments of chemical pathology applying chemical principles to diagnosis and so on, start up a department which would apply physical and particularly electronic methods to estimating other physiological parameters. And that was how all that started.

WB Well, that's clearly a very important part of your career but came a little bit later. Can we just go back a little in time to your early days taking the Second MB, and then... This was still pre-war, but you were too young to be ...

CS Yes indeed, two years at King's and then 1938 I got into Westminster Hospital in the old building. Not the one just discarded, but the old hospital which is now on the site of the Queen Elizabeth II Conference Centre opposite the Abbey.

WB So in 1938 what were you actually doing at that time, because did you know that war was coming?

CS I was a first year clinical student. I think we, we had a great year you see, we had a most enjoyable year. It was like my first year at university – King's didn't really count in that respect. And everybody was having a great time in 1938, you know, the hospital ball and all that sort of thing.

WB And no fear of what was coming, or no knowledge?

CS I don't think we knew. But we should have known because we'd had the Munich thing in the year 1938 when my brothers were evacuated down to Somerset and I was still up in London. And I think we were very frightened then that there was going to be a war on us in 1938. It was then of course that old Chamberlain went across and got his famous bit of paper and it was such a relief, and of course I think for a little while we thought that peace in our time was going to be real.

WB And when you realised it wasn't, were you trained in wartime emergency procedures?

CS No. Immediately after the war broke out... I remember knowing that war was going to break out because we were down on holiday in Devonshire and on a Sunday morning on the front headline on the Sunday paper was that the Germans and the Russians formed a non-aggression pact. And I knew then, and I think within about a

² 'When you can measure what you are speaking about, and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind: it may be the beginning of knowledge, but you have scarcely, in your thoughts, advanced to the stage of science, whatever the matter may be.'

Lord Kelvin, *Popular Lectures and Addresses vol1(1899)*, 'Electrical Units of Measurement,' delivered 3 May 1883. Quoted in *The Oxford Dictionary of Phrase, Saying, and Quotation* ed. by Elizabeth Knowles, Oxford, New York: Oxford University Press, 1997, p. 377.

fortnight the Germans invaded Poland once they knew that their flank was safe on that side, or they thought so.

WB How did this affect your training at the Westminster?

CS Well, when it actually came about a number of us, about three or four of us students were particularly trained in anaesthesia more intensively in case people were short-handed in that respect. So one sort of fell into that I think at that time.

WB Did you opt for it or were you told that you were going to be trained?

CS A bit of each, I think. I found it interesting and had learnt in 1938 how to give anaesthetics. And of course when the blitz came later we did a lot of it, and resuscitation and so on.

WB Were you part of the Home Guard, or how formal was it?

CS No, only fire-watching. We all had to do fire-watching whether you were a medical student or not, but of course when the casualties came in one was often working through the night at Westminster.

WB So, you actually acquired a lot of experience very early?

CS Yes, of anaesthetising the wounded and so on, yes.

WB And you still weren't properly qualified in terms of age?

CS Not qualified, no. I couldn't qualify until I was twenty-one. I could have qualified by passing the exams when I was twenty, but the GMC wouldn't allow it and so I had to wait for another term beyond my confers(?) before I was allowed to take the last bit. The Final MB is four bits and I was able to take three and just save one up until September which was two or three months after I was twenty-one.

WB So, purely on a technicality you had to wait. But in fact you were practising very hard in that time and had seen a lot of things that normally a young man wouldn't have seen at that time. Very extreme.

CS Yes, I had one idyllic interval really and that was in just after Christmas 1940 and the beginning of 1941. They were looking for student house surgeons at Salisbury which is a most delightful city as you know and I went down there for about six months. I was there when Hitler invaded Russia as a matter of fact. I remember my batman who was an ex-*Mauritania* steward coming into my room with the morning tea and saying 'I think Hitler has bitten off more than he can chew this time' that morning. But it was a lovely spring in Salisbury and I did a lot of work at really a grade higher than I was as a student; although I was a fairly senior student. I was working as a house surgeon with a man called Taylor-Young who was a St Thomas' qualified surgeon, a very nice man, and also giving anaesthetics there because the anaesthetists cover was pretty thin, no specialists really at that time.

WB So, how much teaching had you actually had in anaesthetics?

CS Oh, quite a lot really. I think, you know, when people are learning anaesthetics they sit in on and give a hand to someone who is actually giving the anaesthetic and then there's a bit of hand-over takes place and so on. And they'll stand over you while you're doing all the various manoeuvres if you take on another case. So, I'd had quite a lot really with quite well-known people: with Sir Ivan Magill, he wasn't a Sir then of course, with Geoffrey Organe who was also very well-known, with Robert Machray who anaesthetised the King later, with Ronnie Broad and Michael Nosworthy. All very well known anaesthetists at that time.

WB This was all before you were called up that you were taught by these people?

CS Yes, because once I was called up I was out of the hospital and into the RAMC [Royal Army Medical Corps].

WB Before you were called up what were your major experiences of that time? What do you think it taught you in terms of your career and were there any outstanding memories of that time?

CS Well, I suppose the bombing and the casualties there and then of course working as a student house surgeon, getting hands-on experience I suppose you might say, was enormously valuable. When I went into the RAMC they said 'What would you like to do?' I said 'I would like to go to a field surgical unit,' which consisted of a surgeon, an anaesthetist and other ranks. And they said 'Oh no, no, you're far too young,' and so on. So then they posted me on to troop ships for which they were asking for men over the age of forty, so then I realised that the higher command in the RAMC was a bunch of idiots in many respects.

WB What were you facing on the troop ships?

CS Well, there were two, four thousand on this troop ship which was *The Batory*, the famous Polish ship, four thousand troops going to Algiers. And the second medical officer was a very elderly psychiatrist who knew nothing about anything except psychiatry, so I had to do it all myself. And I had to decide when we were in convoy what were the surgical emergencies that arose that I could or could not cope with. I thought I could cope with the odd appendix and things, but things that I had to cope with mainly were dental extractions which I'd had no training in at all, so that wasn't much fun. And the only thing I thought I really couldn't make a shot at at all was a mastoid. Well fortunately we didn't have one of those either so we managed to muddle through until we got to Algiers. Then we came home again, the ships all came to pick up another lot of troops, and I fell out of trooping duties and was posted to a general hospital which was mobilising down in Wiltshire. Then I went back to Algiers again in the March and went through the first army battles up to Tunis.

WB Were you again on a troop ship to start with?

CS Only travelling there. I wasn't staff.

WB When you were on the first troop ship and there was you and this elderly psychiatrist, was there nobody else for four thousand troops?

CS No other medical officer.

WB Nothing at all?

CS Nothing at all, no.

WB It seems extraordinary. You must have been working absolutely around the clock.

CS Yes, yes, I suppose so. We had quite a good gang of other ranks to do all the hard work of, you know, cleaning and staging the thing, but I was the only doctor that could do anything. The old psychiatrist had seasickness all the time and he filled himself up with Luminal and wasn't really of much use. The other thing is that being an American theatre of war it was a dry ship and so there was no drink. And this was a great handicap and hardship to a lot of the people on the ship, I think. But coming back of course all was let loose because we only had the ships staff of about half a dozen officers and drinks *ad lib* which was very nice.

WB So, it was quite a holiday on the return?

CS Quite a holiday for that bit, yes.

WB Except for presumably worrying about being torpedoed?

CS Well, we came back in a thing that, I saw in the papers when I got back to my parent's place that I'd come back through the worst hurricane in fifty years. And it used to cheer me up because the ship was so up and down that I reckon any torpedoes would go well underneath. It really was rough, it was absolutely frightening. Fortunately, I wasn't seasick, but we did lose one or two escort vessels. Coming back through Gibraltar I saw one afternoon at teatime the sharp end of a destroyer out of the water as it was going down.

WB Oh dear. And what happened then in these circumstances? Did you stop and pick up survivors?

CS No, no. You were like a bat out of hell.

WB Really?

CS Yes. That was for the Royal Navy to deal with, not for the civilian ships.

WB So, you went back to Algiers and then you were on land all the way up to Tunis?

CS Yes, up to Tunis.

WB How much of the action did you see or were you always behind the lines?

CS Oh, we were behind the lines, but we took enormous numbers of casualties to

treat, you see. And again I was anaesthetising for a long time and eventually I got graded as a specialist anaesthetist in the army when I was in Tunis. But the day I was graded I got diphtheria which we caught from soldiers with desert sores which were in fact caused by malignant diphtheria organisms. And so I was ill for two or three months, during which period they quite kindly posted me to Anzio beach-head which was a real hell-hole so I missed that by virtue of having the diphtheria.

WB That was a relief, yes. But what sort of anaesthetics did you have available to you?

CS Well, we had Pentothal, ether, we had Oxford vaporisers, we had a field service patent Boyle machine which was capable of giving gas, oxygen and ether, we had spinals. We had a very poor selection of local anaesthetics, the RAMC was very bad on that, and of course the relaxants didn't come in until really after the war. We didn't have the relaxants at any time during all the time I was working on battle casualties right up until 1945.

WB This must have made it very difficult for you to treat some people?

CS Well, we didn't know what was to come. I mean with hindsight, if we had had curare and so on it would have been much better than having to give deep ether anaesthesia for abdominal procedures. On the other hand, it's interesting to look at the medical history of the war and to see that in our theatre of war at any rate, in Italy and North Africa, once abdominal wounds reached the Field Surgical Unit or the CCS [Casualty Clearing Station] practically none of them died. I think we got almost a hundred per cent survival. You couldn't say that for head injuries of course, they were the things that killed.

WB The head injuries?

CS Yes, head injuries.

WB Yes, yes. Did you have time for any other sort of life apart from treating casualties around the clock?

CS We used to play cricket between, we used to play cricket in Italy. I was always for some reason the mess secretary and entertainments officer which meant that if ENSA [Entertainments National Service Association] or any of these concert parties came round, I had to stage it for the troops and the patients in the medical units, those that were fit to go and watch it. And that was quite useful. Anyway, as part of that I got an enormous length of coconut matting so we had a good batting wicket to play cricket on.

WB So, you took this with you and put it down wherever you were?

CS Yes, and we had a little sawn-off man who was an ordinary private soldier in the RAMC who'd been a mental nurse up in Lancashire and played Lancashire League Cricket. And he was such a brilliant bowler – a sort of Lara type – that we used to win all the matches we played. I think he was a pretty ferocious man. Tasker his name was.

WB That sounds fun. And were you organising the entertainments because of your organisational skills or because you had any sort of theatrical ambitions yourself?

CS No, I have no theatrical ambitions or ability. I think because they couldn't find anybody else to do it.

WB Did you meet some of the stars?

CS Well, there weren't any great stars coming round. The one that sticks in my mind most was Nat Gonella who was a jazz trumpeter in the West End of London and I think he was a corporal until he got demoted for some peccadillo. I met him and he was one of the best known of them. Jeremy Hawk who was a young actor tried to get me to go into a play later on when I was in the RAMC, he wanted me to be in 'French Without Tears'³, but I couldn't do it. I have no ability and furthermore I was far too busy being an anaesthetist on call almost every night.

WB Yes, so that must have taught you a very great deal about practical anaesthetics?

CS Yes. I think Reggie Murley who used to be president of the College of Surgeons has written a book – 'Surgical Roots and Branches'⁴ he called it – and said that his time in the RAMC taught him a great deal. He called it the 'university of life.' And he reckoned that a lot of his ability to be an administrator and so on afterwards owed a great deal to that experience, and I think I could say the same.

WB After you recovered from the diphtheria, what happened next?

CS I was in Tunis at the time, wasn't it? Curiously enough the same time Churchill was ill in Carthage and we sent our staff to look after him in Carthage, our nurses and a pathologist and so on, exactly at the same time. Anyway, I got posted to Italy and picked up the CCS that I was posted to, number 12 CCS, just north of Naples. I had a horrible crossing of the Mediterranean from Tunis to Naples, it took about a fortnight, which seems ridiculous. There were still submarines and so on about, they ran a convoy, we stuck at Augusta in Sicily for about a week. That wasn't much of a trip. Anyway, up to Frosinone, a place just north of Naples. And then we got stuck behind Cassino for months because the Cassino battles went on for ages and we had a lot of troops coming down from there. Then when the breakthrough at Cassino occurred my unit which was looking after chronic cases stayed behind and I was posted to the Indian Army. And we galloped up Italy and through Rome and so on right up to the top as far as Arezzo by the late summer of that year which would have been 1944, I suppose. Yes, late summer of '44. Then they thought we ought to re-occupy Crete, I think it was, and they tore all the Indians down to Taranto, and we motored all the way down the spine of Italy to the bottom.

WB Without meeting any opposition?

CS Oh no, we'd conquered Italy right up to the top then pretty well except we

³ Terence Rattigan, *French Without Tears*.

⁴ R. Murley, *Surgical roots and branches*, Memoir Club, 1990.

were behind the Gothic Line. This invasion of Crete didn't take place because the Germans pulled out I think. And then I went all the way up again to my unit who were north of Ancona. They were in Pesaro, Rossini's town. The way I went up was rather interesting because I was in Taranto with the Indians and I was sent to Bari to pick up a troop ship, no, a hospital ship *The Lenster*(?). And I can tell you the funny thing about that is that the hospital ship which took us up, the surgeon and I up to Ancona was lit up at night. I can tell you that to go out at sea, having been in these other convoys dodging submarines all the time, to go out at sea with all the lights on at night you felt very, very exposed, albeit you had a red cross on the funnel illuminated brilliantly. Anyway, nothing happened but one felt very vulnerable, I can tell you.

WB What was your prime role with the Indian army?

CS Oh, dealing with casualties. I was with an Indian surgeon and I was the anaesthetist. And when the battles were going hard we had two attached surgical teams, so you had three operating theatres fit to go, not usually working altogether, but working eight hour shifts. So, you had two attached English surgical teams most of the time when there was anything going on, but battles are a little bit episodic. They don't go on forever as it were. You have a week or two of real hard fighting, a lot of casualties and then things die down for a bit with only dribs and drabs. But the advance was pretty fast that summer right up through Rome. And then we were in Assisi for six weeks which was an open town so that the Germans were down the bottom and we were up on the hill, and as it was an open city they didn't mind us being right on their toes as it were. That was rather a nice experience.

WB Do you speak Italian yourself?

CS I did after I'd been in Italy that time, yes. It's a bit rusty now.

WB And after that you, I think in 1945, came home on leave and met your future wife?

CS Yes indeed, yes. She was working in my bank and I thought as I hadn't seen the bank for about three years I'd better go and talk to them. I had told them to salt my money off into national savings certificates and so on because you couldn't draw your money when you were abroad, your officers pay went into your account. And there was this most beautiful girl I thought I had ever seen and I thought well, I'd better hurry, I've only got another couple of weeks before I've got to go back. So, I got myself introduced to her and took it off from there. But of course I then... When I went back after that bit of leave in 1945, I went back to Venice. We ended up in Venice incidentally which was delightful for six months.

WB What were you doing in Venice?

CS Well, my unit, the 12th CCS, was there and it was the local hospital really. Then number 22 General Hospital came up and I was seconded to them also in a military hospital in Venice, well Mestre actually which is the mainland bit of Venice. And I got posted to Greece because we had the British Army in Greece to try and keep the Communists out while they had their elections. So, although I'd been abroad

for years and years as it seemed to me, it seemed a bit hard to have to put another year in abroad in Greece. I was pretty cross about that.

WB You were not allowed to come back at the end of the war?

CS No.

WB Why was that?

CS Well, the period of service that you could do abroad was four years and I'd done three and a bit I think at that time. It was called 'python' when you'd done the full thing and I eventually got home after the four years which was another year abroad as I say in Greece.

WB And you'd reached the rank of major by this time?

CS I got that when I got back to England eventually, and even then I wasn't released until another, nearly another year. October I got home, I got out in the March, that's right, in March 1947. So I was in, allowing for the demobilisation leave which took me up to August '47... I went in at the beginning of September '42, I was five years altogether in the RAMC of which two years were after the war was over.

WB And did you get married promptly when you came back? Had you some time, enough time to get...

CS No. Not until I was out and had got another job in the National Health Service.

WB What sort of situation did you face when you came back rather later than a lot of people?

CS Well, it was very worrying. When I was being demobilised I was in group 45, and a group was two months of service and they added your service onto your age. I was in group 45 and next to me was a young sub-lieutenant in the navy being demobilised at the same time in group 83, so I was thirty-eight groups delayed in my release. So, on Thursday I shan't be voting for the Labour Party to whom I attribute this injustice.

WB Oh dear. A rather different Labour Party!

CS Yes.

WB But were you specifically looking for jobs in anaesthetics at that time? You had decided?

CS Oh yes, because by that time I was a specialist. I was a major specialist anaesthetist in the RAMC, you see, so it was the obvious thing to do.

WB And it suited you temperamentally?

CS Yes. I did originally want to do surgery and I did quite a lot of surgery in Tunis. I was working with Lieutenant-Colonel Atkins who was Hedley Atkins, later president of the College of Surgeons, and I did a year really as the equivalent of a senior registrar in surgery. I did quite a lot of operating in Tunis. When I got into Italy they didn't like this very much, the other surgeons on the unit. They wouldn't let me touch a case even if it was an easy one.

WB Really? So they were still thinking that an anaesthetist should be separate?

CS Yes, that's right.

WB When you got back, were the jobs few and far between?

CS No, you were pretty well guaranteed a job when you were demobbed from that situation and you got a thing called a supernumerary registrar's job at £650 a year and ... guaranteed a job for I forget how long. And I took the opportunity then to pass the DA [Diploma in Anaesthetics] because I hadn't been able to sit any exams while I was abroad. I'd had a correspondence course while I was in Greece and so I was all ready to sit it in the April, 1947 it must have been by then I suppose, and I passed the DA.

WB You presumably found that rather easy after all your experience?

CS Yes. Then I got a job back at Westminster as a registrar, supernumerary registrar. And then another job opened up after about a year and I became what was called a full-time anaesthetist which was a grade below consultant in a way but as far as I could make out was permanent. But when the NHS came in that was graded as a senior registrar post which actually put up a limited tenure on it which I hadn't had before, so I was really slightly down. But within a year there was a consultant post which I was appointed at Westminster and I was there ever after until I retired.

WB So, you started, you came back in 1947 and you got married that Summer, so you are just coming up to your Golden Wedding?

CS Yes, yes.

WB Many congratulations.

CS Thank you.

WB You then started a very extensive career at Westminster Hospital and met and collaborated with many of the great names like Organe and people that you've already mentioned. Could you tell us a bit about each of those men, and who were the major influences and how they influenced you?

CS Well, Geoffrey Organe was the one who always gave me a push and said that you ought to put up to be elected to the board of the Faculty or you ought to be an examiner, or this and that. And somehow I never sort of had the ambition or would never have thought of pushing myself but he said I ought to, and I put up and got elected duly and since successively into various things. Robert Machray who was

senior I think to Organe by a little bit was a great thoracic anaesthetist who'd been around(?), and he eventually came to anaesthetise the King and I went along with him which was another leg-up really that I received. I was very lucky to be chosen I suppose as the acolyte on that occasion.

WB That's very interesting. You operated on the King in Buckingham Palace?

CS Yes, yes.

WB So, you took the entire unit there?

CS Yes, and all the equipment and so on, yes, on a Sunday morning. All these things happen on a Sunday morning. I anaesthetised Attlee, I was thinking of him when you were talking of the Labour government. I can't say that I got my own back, but I had to anaesthetise Attlee on numerous occasions and he was, when it was a mortal illness... Well it wasn't the first time, it was just a gastrectomy. When he had a mortal illness he was distinguished by all the people in his brood, and they never said thank you for anything that you did for them. Never ever. He was a miserable character, I thought. But I got a lot of the politicians. Brendan Bracken... Of course I anaesthetised for the cancer expert of the time, Sir Stanford Cade, eventually. And this is why we got Brendan Bracken. This was how we got Attlee and various things like that. Being at Westminster which was next to the Houses of Parliament, we got all the parliamentarians. For example, Lady Churchill I anaesthetised twice because she fell down and broke her hip more than once and, as I say, other parliamentarians.

WB What was she like? Was she delightful?

CS Oh, she was a bit [confused]! When I used to go to see her she used to say 'Hello Randolph.' I'm not sure that that was the thing to do really. I think Randolph was dead by that time too.

WB Did you get to know many of them as personalities?

CS Some of them, but not mainly through that. By other routes mostly.

WB And what about the King?

CS Well, I sat with him while he was waking up from his anaesthetic until he came round and looked after him entirely on my own for about two or three hours. But he died before I saw him again. I was due to have had a private investiture and he died just about a year later.

WB That was when you received the LVO?

CS Yes, yes.

WB That's very sad that he didn't give it to you personally.

CS Well, I don't know. I got...

WB Did you admire him as a person?

CS I think the most touching thing was that when we went to put him to sleep in the morning, he had all the Sunday papers around him because it was on a Sunday morning, and they all had grisly details of the operation that he was likely to have. They were all hazarding a guess that he'd got carcinoma of the lung. And I thought as he was a timid sort of a person who I think was very apprehensive of the operation – more perhaps than most people, because he had a biblical quotation in his own hand on his bedside table, 'Put your trust in the Lord' and that sort of thing. I think he really was, but I think it must have made him feel a great deal worse. I think they should have kept those papers away from him on that morning.

WB Was the Queen not doing that sort of thing? Did you come across her at all?

CS No. As we arrived to go into this improvised operating theatre the present Queen and her mother and Margaret and so on were all just leaving to go off to church on that Sunday morning. So we didn't really see them except getting into the car.

WB Well that was an interesting episode. If we can go back to Westminster and again the people who were very influential, who would you pick out as the person you enjoyed working with or did perhaps the most important work with at Westminster?

CS Well, I think Geoffrey Organe because he was secretary to the MRC's anaesthetics committee and he was working on the relaxants like curare and so on, I think earlier than Cecil as a matter of fact. Cecil managed to purloin some curare from the physiology department.

WB Is this Cecil Gray?

CS Yes, Cecil Gray, up in Liverpool. But Geoffrey was working with a man called Prescott⁵ who was the medical and pharmacological expert from Burroughs Wellcome. And they had a plentiful supply of crystalline curare, the pure stuff, and they were working it up and had been experimenting on it before I went there. But after that Geoffrey had a constant flow of new relaxants and things sent to him with which I was able to help him. And in fact as I was saying to Max Blythe earlier I worked with Bill Paton who was the pharmacologist for the MRC at Hampstead and I gave them the first doses of a new type of relaxant called depolarising relaxant. I was the instrument, I wasn't the subject, but they all volunteered to receive this stuff, decamethonium. [Here Dr Scurr is talking about Bill Paton, Geoffrey Organe and Eleanor Zaimis.] And so I was in at the beginning of that sort of thing, and that was how I came to introduce suxamethonium which was an even briefer one which had been investigated originally in Italy by a man called Bovet. Of course as I read Italian I was able to pick on this very quickly and I got it synthesised by the Roche people out at Welwyn Garden City. Of course nobody had any but they made some up for me, and I had the first article on the use of this particular relaxant which is still going despite the fact that it has some quite serious complicating effects.⁶

WB Can you describe what these relaxants did and how they were different from

⁵ F Prescott.

⁶ CF Scurr, 'A relaxant of very brief action', *British Medical Journal*, 1951: 2, 242-52.

previous ones?

CS Well, as I said, during our wartime experience if we wanted deep anaesthesia which you always need to open up the body cavities – the chest or the abdomen – deep ether was a bit toxic. It gave you prolonged recovery, unpleasant recovery, difficult and sometimes prolonged induction putting people to sleep with it and so on. If we'd had the relaxants in the war it would have been so much better because we needn't have given them a deep anaesthetic. We would have done just as today, the general anaesthetic giving the lightest possible level of unconsciousness and pain relief and the relaxant purchasing all the muscle relaxation that you needed to get into the body cavities. So if we'd had these earlier... They were first used clinically in ECT in about 1940, but it wasn't until Harold Griffith brought it in about 1944 I think in Canada for an appendix that people realised that it was ideal for abdominal surgery. And of course so much of the major surgery in wartime casualties and so on was abdominal.

WB So, your colleagues underwent these experiments?

CS Yes.

WB And were you, did you eventually experiment on the patients?

CS No, you wouldn't call it experimenting because we'd got this human experience to show that they were safe and we'd got the dosage worked out and so on. And in any case the curare was on the go so that the new depolarisers which were shorter-acting presented no threat.

WB But you had worked out, because of your keenness to measure things and to turn an art into a science, you had started measuring doses and so on very accurately, hadn't you, by then?

CS Yes indeed, yes, because with these new agents we were up against the difficulty of finding out how long it was before muscle tone returned. We were using quite crude methods of squeezing a bulb and seeing what pressure you could get it up to and it did give you some measure. Blood pressure measurements were fairly well established, but it wasn't until we got electronic methods of blood pressure measurement that we were able to monitor the thing. That followed this use of the short-acting relaxants. One of the chemical group, pentamethonium, which is supposed to be an antagonist to decamethonium, produced a sharp fall in blood pressure and we used this to limit bleeding in plastic surgery and various things like that in which you really needed to be on top of blood pressure measurement. And it was then that I was able to get people onto electronic methods of doing it. And we had the first, I wrote a paper [for] the RSM on electronic methods of blood pressure recording which wasn't published because I think they thought it was too *recherché* and I was a little disappointed in that.

WB Really?

CS Mmm.

WB Did you meet with a lot of resistance?

CS There wasn't resistance. It was just that they weren't interested.

WB They couldn't see the significance of it?

CS I think not, yes, yes, and of course it's since grown. And then lots of other electronic devices came in by which we could measure blood gases and things like that. And it was then that I had the idea of getting the hospital to start off this department of clinical measurement which a man called Percy Cliffe, who was basically a physicist but had qualified in medicine at Westminster, organised most brilliantly. He taught people all over Europe into Egypt and so on, all anaesthetist classes. He had a great caravan, literally a caravan, that he towed across the continent with all his demonstrations of electronic equipment applied to measurement in anaesthesia or in other clinical fields as well.

WB Just going from hospital to hospital?

CS Well no, universities. Of course they would come from far and wide to be taught by this man. He had a team of half a dozen chaps with him as well.

WB And this was all arising from the time, sorry, the times then were looking on anaesthesia as an art and you were trying to turn it into a science, and changing the emphasis.

CS Yes, indeed. I think that measurement and monitoring is absolutely essential to safeguard the patient's physiology and so on. I think possibly even now we need a bit more electro and cephalographic brain function monitoring and that seems very slow to make advances in. It's very difficult because you need very high degrees of amplification and it's subject to interference from other equipment in the theatre. But we're always reading of people being brain-damaged by surgical procedures, birth injury usually, and I think there's a lot to be done there, but it may be unrewarding.

WB You mentioned several other people you worked with – Ronnie Broad and Russell Davies.

CS Russell Davies, yes. He was ... in the time, about the time I went to Dover when I was a student and during the bombing, those two years, he was the resident anaesthetist at Westminster and a very good man. And in the war he went down to East Grinstead where of course there was an enormous demand for really skilled anaesthetists for all these Air Force chaps with terrible facial and jaw injuries which were particularly difficult obviously to anaesthetise because of the distortion of their anatomy. And indeed, with the burns the distortion of their physiology. Russell went down there and made a big name for himself. He was very good. But I learnt a lot from him as well. He was the junior anaesthetist at the Westminster at that time.

WB How did you cope with people with deformed mouths and...

CS Well, the ultimate is to do a tracheotomy on them, of course. But if you're good at endotracheal intubation you can get a tube in. That too has been made much

easier since the introduction of the relaxants, but through the war we didn't have that of course.

WB And what other main pieces of research were you doing at the time at Westminster?

CS I was very interested because, as you know, certainly with the relaxants, you abolish the patient's ability to breathe himself, you paralyse his respiratory muscles. And therefore you have to put him either on a ventilator which pushes air in and out of his lungs, or before that by squeezing the bag of an anaesthetic machine. Now, this squeezing the bag of an anaesthetic machine was universally used in the early days of the relaxants because the ventilators were not in the theatre until a little bit later, and it seemed to me to be very haphazard. And indeed, in America they were a little bit backward. They used to give them very deep anaesthesia with an agent, a gas called cyclopropane. And it had a high oxygen concentration so that the patient stayed a nice pink colour even though he was barely breathing at all, the bag barely moving, and they did quite well. The trouble was that of course they were retaining their own carbon dioxide, and it struck me that this bag, squeezing it by hand... Again, coming back to the art, a lot of anaesthetists used to boast that they had an educated hand and they knew exactly what to do. Well this was absolute rubbish because very often there was CO₂ retention within the circuit. And in any case with a large two litre bag in your hand you'd no idea of the size of the tidal volume you were pushing in or out and the physiological signs were not very critical. And so I got on to this. What I did was to try and find ways of measuring the patient's blood carbon dioxide if I could. Very difficult because the gases that we used, particularly nitrous oxide... If you try and do a chemical analysis of the blood, usually by absorbing the gases into caustic soda or something like that and then seeing the contraction of the gas, nitrous oxide absorbed just as readily as the CO₂ so it fogged the whole picture. You didn't know whether the ten per cent or whatever of gases that were absorbed were nitrous oxide or carbon dioxide. Well I then started measuring the patient's lung gases and I had a small bag of six hundred cc, a children's breathing bag, and pumped this up and down the endotracheal tubes so that it was thoroughly mixed with lung gases, then took the bag away and analysed it chemically with saturated potassium hydroxide which didn't absorb the nitrous oxide. Or if it did by the time you had done it several times it came to a static state in respect of the nitrous oxide. And the analyser I used was a German submarine analyser, because as you know in submarines they have some difficulty in getting adequate ventilation, and the Germans used to use this little device to see how much carbon dioxide there was in the air in a submarine. I got two of these. I've forgotten how I got one of them, but Group Captain Soper in the Air Force brought me a captured one. And I used this and I found that it was quite possible to anaesthetise quite accurately the lung gases which of course are pretty well in equilibrium with the blood gases. I found that people ventilating in a haphazard way were often underventilating the patient or sometimes hyperventilating the patient. And I then also had coupled into the anaesthetic circuit a gas meter, like an ordinary domestic gas meter it was but it was calibrated in litres. And I went down to Parkinson Cowan who are the people who made all the gas meters and to my surprise the bellows in the gas meter had to be made of Madagascan goatskin which sounded a bit odd, but apparently this was the ideal thing.⁷

⁷ See Dr Scurr's article on this subject: 'Controlled respiration standardization of ventilation', *British Journal of Anaesthesia*, 28 (1956), 23-27.

WB How did they discover that?

CS I've no idea, but it was what they were doing. I got them to calibrate one of their machines for me and with a set of valves I was able to see when the patient was breathing on his own, how much gas he was shifting. We had a normogram called the Radford normogram which told us what, according to his body size or body surface area how much ventilation a minute he should be achieving, such as five or six litres or whatever it was a minute, and a tidal volume of five hundred ten times a minute and so on. And one found not surprisingly really that all general anaesthetic produced some degree of respiratory depression. In other words there was some carbon dioxide build-up in anybody who was undergoing a general anaesthetic pretty well all the time. Similarly, that people squeezing the bag were producing wildly inappropriate ventilatory volumes. So that was one thing that I chased. The other thing that I did of course was to work with this new drug dropping the blood pressure for plastic surgery and other things where bleeding was a problem, because prior to that I had been using total spinal following the example of John Gillies in Edinburgh. Total spinal anaesthetics dropped the blood pressure to about sixty systolic. This was for an operation of lumbar dorsal sympathectomy called Smithwick operation, taking out the sympathetic fibres from below the diaphragm, which led to the patient who was suffering from mortally severe hypertension ... it had an ameliorating effect on his blood pressure. Very often because they had high blood pressure if you didn't drop their blood pressure with the anaesthetic in that way the bleeding was so severe that the operation was technically difficult. Well when I got this pentamethonium which we had as the antidote for the new depolarising relaxants – it wasn't very good for that by the way – I found that I could give this intravenously and drop their blood pressure without giving them a total spinal. And this took off and has been used a lot ever since and with Magill, who brought over from America a new short-acting ganglion blocker called Arfonad, we did quite a lot of work and had a number of publications of that sort.⁸

WB So, you worked with Magill quite a bit on this?

CS Yes. The last research I did really before I retired, there's an operation whereby you can isolate the hind limb with people who've got malignant melanoma which everybody knows these days is virtually a death sentence. So, if you put a big tourniquet around the top of the thigh and then put the limb on a miniature heart-lung machine like they use in heart surgery you can fill them up with cytotoxic poison just in the limb. If it's circulated throughout the patient it would be lethal to the patient. But of course if you can isolate the limb in that way you can give them a really shocking dose for two or three hours and put the, knock the malignancy out if you're lucky. And we got quite a high survival rate from those. Well, the interesting point is that in order to prime the heart-lung machine which the limb was running on for these hours you used to take a litre of blood out of the patient's vein in the first place into the machine. So if you take one litre off in five minutes this is quite a severe sharp haemorrhage. And so I was able to do not only changes in central venous pressure resulting from this sharp blood loss, but later on I got a special thermal cardiac output probe which we pushed into a central vein and connected to a computer. You could

⁸ E.g. CF Scurr, JB Wyman, 'Controlled hypotension with arfonad', *Lancet*, 1954, 1: 338-340.

see what actually happened to the cardiac output when you took this litre off and then when you replaced it with a litre of bank blood into the patient. So we did quite a number of these patients and were able to follow their circulatory changes in that way, particularly the cardiac output which I don't think anybody else has ever done with a measured blood loss. They've done it with people having an insidious blood loss during the operation but there we were in five minutes, one litre off, you knew exactly where you were. You had a measured blood loss. This was the last thing I think I did in research before I retired. In-between various other ones I used to do a lot of paediatric anaesthesia. We did a series of cases for measuring paediatric blood loss, difficult in some of the children's neurological diseases because if you weigh the swabs a lot of CSF, cerebrospinal fluid, comes out as well and shows up as blood loss. So that's no good for paediatric neurosurgery. So, we devised a scheme whereby we soaked all the swabs in water and then used a calorimetric method to see how much haemoglobin was lost. And then knowing what the child's intrinsic haemoglobin was you could see what their blood loss was. It's quite important because even an ounce or two of blood lost in a baby is a serious proportion of his total blood volume. And the other thing we did with the babies was that they all lose temperature when they are anaesthetised. Everybody gets vasodilated; everybody loses a bit of temperature. But in small babies their temperature falls enormously and we did a series of those and found ways with a hot mattress underneath to keep them warm. It's odd that that should happen because a few years later I worked with the open heart surgery people where we used to drop their temperatures artificially with a heat exchanger to well below twenty degrees centigrade. As you know, the normal is in the thirties and sometimes we'd drop them down as low as five degrees centigrade and the heart stops, the brain stops. Everything stops and you've got a cadaveric patient on whom you can operate for an hour or two with no circulation going, no bleeding and so on and do quite intrinsic(?) operations, quite elaborate intrinsic(?) operations on the heart. And I was involved with that team for a very long time.

WB That sounds fascinating. Who was on that team?

CS Charles Drew was the surgeon at that time.

WB So, you've always worked very closely with surgeons?

CS Yes. And indeed in measurement, going back to my hobbyhorse of measurement, we had elaborate temperature measuring machines. Furthermore, of course, you see the body temperature and so on, it depends on where you measure it, and we were interested really in the brain being cooled to a certain temperature. Of course it was the neurons of the brain you were seeking to protect. Other parts of the body can be without a blood supply for an hour or two, but not the brain, only five minutes. But once you got them down to temperatures below twenty, particularly when we took them down to five occasionally, you could have a good hour operating with no circulation in the brain, no EEG showing or anything of that sort. And that was a very interesting pursuit really. I don't think we ever had one who was seriously brain-damaged after, despite quite long periods of total ischaemia, total electro and cephalographic silence. Fascinating. Again, I measured the carbon dioxide output of them when their temperature was low. And of course you were getting practically no CO₂ flow with the whole body being, having its metabolism depressed so seriously by the hypothermia.

WB How did you first discover that keeping people at these very low temperatures for that amount of time was alright?

CS Well, a man called Rosomoff in the States who came over had been doing a lot of work on this. And he was mainly doing it for people who had head injuries I think and had brain swelling, because if you cool them like that the brain shrinks and it is not compressed within the rigid cranium. I had a bit of a discussion with Rosomoff when he came over. I wasn't the main initiator of this, Charles Drew was. And I think we'd already been doing quite a lot of heart operations under modest hypothermia, we were taking them down to about thirty by surface cooling. And so step by step we got to it, I think, really is the answer.

WB I believe as a result of all your work in measurement and with Percy Cliffe, you established this department of clinical measurement and it also became a subject for the Diploma, didn't it?

CS Yes, indeed. When I was dean, there was a bit of a reaction in a way in that we were a part of the College of Surgeons, and the College of Surgeons always for its Fellowship insists on a Primary examination of anatomy and physiology and so on. And they thought the anaesthetists should also have anatomy and physiology, certainly physiology, and pharmacology the anaesthetists had which the surgeons didn't have. And so they put quite a stringent set of examiners in anatomy and the anaesthetists used to fail this really in a way that they needn't have done because they didn't need anything like the surgical anatomy expertise that the surgeon requires. So eventually we got rid of this, although we did have a concordant with the surgeons that we would always ask some anatomy relevant to anaesthetists in the exam. And I think that still goes on. But in the place of that part of the exam, because it was a four part, four subject exam, it wasn't entirely clinical measurement, but that sort of thing, and physics applied to medicine and so on which the anaesthetist is always using, you see. And so that was how it came into the, into the Fellowship exam. It's since been abandoned again as a separate subject but it's still always asked in the vivas and(?) the papers.

WB So, you've had a very influential effect on that exam?

CS Well, yes. It evolves all the time, I think.

WB Yes. Can we divert temporarily for a moment to your family because from about, I think 19... ah, now I'll probably get the year wrong, your first child was born in 1950?

CS We were married in '47 and she was born, must have been '48 I suppose, she was born about thirteen or fourteen months after we married. She was born in the September, that's right, thirteen months after we were married. So if we married in '47 it must have been '48, September '48.

WB You have four children of whom three have more or less followed in your footsteps, haven't they?

CS Yes. She [Judy] is a pathologist in Swindon and she runs a cervical smear programme for that part of the world. Interestingly enough, on her own. I think she can never get a... People don't seem to want to do it very much. It's rather a narrow, cytology is a rather narrow subject and it doesn't, a lot of people don't want to do it. Most of them are in fact women who are happy enough to do it. But you need a very good eye for a microscope, and you've got to run quite a big laboratory because you've got to have about half a dozen or more screeners doing the preliminary looking at the cervical smear slides. One person can't possibly do it and the slides come in in their thousands as you can imagine. So, that's Judy. Martin was born two years to the day after Judy, just one day apart I think. She is 23rd September and he is the 24th if I remember it right, and he's a GP in Kensington. He got Honours in Surgery in his Final – he was one of Harold Ellis' tutees – and he's got a very big, solely private general practice in Kensington with some very distinguished patients. He seems to do very well. So, that's Martin. All my children were tested except for Judy who knew what she wanted to do by the industrial psychologist to see what they were suited for because I didn't want them to follow automatically in father's footsteps, a well-trodden path. And David had no scientific bent at all and he is now an architect.

WB Which actually is probably quite scientific but in a different way.

CS He's very, very busy which architects aren't normally. He's got his own firm and he's got forty staff now and he's just bought a thirteenth century barn outside St Albans, a vast barn, which he is turning into his new office. I'm surprised that, built in 1300, that the thing is still sound but it is. It's an enormous barn and he's going to be able to put his forty staff in there. He's building a mezzanine floor inside, planning permission is all agreed and so on and there it goes. So, that's David. He builds restaurants for Whitbreads and Pizza Huts, and Tesco's. They're starting coffee shops in the Tesco's now and he is designing those.

WB So, not a doctor. The one, but the last one is also a doctor?

CS The last one is also a doctor; he's an anaesthetist, Andrew. He's now 35 and he's a senior registrar at St Mary's with a particular interest in intensive care.

WB So did he, do you and he collaborate? Have you ever collaborated?

CS No, far from it. I think he rejects anything that his father says.

WB Well, he must look back on your considerable...

CS Well, I did try to stop them all following a well-trodden path into medicine. I think his mother found him a job in anaesthesia in the end. Not in the end, he had no difficulties getting jobs but he thought he would do medicine first of all at Stoke Mandeville. But he didn't get on with that for long

WB But now really enjoys the anaesthesia?

CS But it's very useful if he's in intensive care to have had quite a long job in general medicine at Stoke Mandeville. So it was useful to him.

WB Well, I think at this point we might take a short pause.

CS Certainly, okay.