

DENIS WILKINS

Edited transcript of a recording of Denis Wilkins interviewed by Chris Eldon Lee on 3rd May 2012. BAS Archives AD6/24/1/167. Transcribed by Andy Smith, 19th April 2013.

[Part 1 0:00:00] Lee: This is Denis Wilkins interviewed by Chris Eldon Lee on the 3rd of May 2012. Denis Wilkins, Part One.

Wilkins: Denis Wilkins and my place of birth was Newcastle upon Tyne, UK. 28-4-42. So I was a 'war baby'.

[Part 1 0:00:21] Lee: So you are now in the verge of being 70?

Wilkins: I am 70. I was 70 on Saturday last.

[Part 1 0:00:30] Lee: It's nice to be interviewing somebody so young – young for this project. What were your parents? What was your father's profession?

Wilkins: Dad was a clerk in the Electricity Board in Cambridge and my mum ... I won't denigrate my dad but my mum's family is very interesting because they were Irish stock who actually were displaced during the Troubles, her family, and came over to Durham to work as miners. They came over as miners or navvies, didn't they, when they were cleared out of Ireland? So they were all miners. I remember happy days, really, up in Newcastle, and the first few years, with all my uncles' ingrained black coal dust in their faces, and coming home absolutely black all over, pulling up the old tin bath in front of the fire and just .... It didn't matter who was there, whether it was the neighbour's wife or whatever, just stripping off and getting on with bathing and then a plate of food and off down the pub. So yes, an interesting family, all miners, all died pretty well gasping their last over the fireplace from 'black lung' as they used to call it, which was miners' silicosis.

[Part 1 0:01:47] Lee: You don't have the requisite accent, for a Geordie.

Wilkins: No, of course not. I was only brought up there for the first year or two, during the war, and then we came back, down to Cambridge which was where my father's place was. A very old Cambridge family. I think the first recorded presence was in the Round Church there, the wedding register of 1750. There was an Ingram, which was our forebears, getting married there. So that is part of the family. It is interesting that BAS has ended up there now. So it has come full circle.

[Part 1 0:02:26] Lee: What sort of education did you have then?

Wilkins: Grammar school boy. Soham Grammar School.

[Part 1 0:02:34] Lee: Eleven plus?

Wilkins: Eleven plus, yes. Soham Grammar, and it was actually the school where those poor girls were murdered. But of course it stopped being a grammar school as a result of the Crosland vendetta in 1972, the Warnock Report and all that, and all those

schools became community colleges or comprehensives. I still go back to the Old Boys' reunions, still a nice old school.

[Part 1 0:03:05] Lee: And Further Education?

Wilkins: I went to Liverpool, the medical school there – terrific place – and got my medical qualification there. Then I stayed on and did my primary surgical examinations, to get a foot on the ladder and just see that I was marked out as being serious about a career in surgery before taking this career break to go to the Antarctic. Then I did a degree, a doctorate based on work I did in the Antarctic, did my MD.

[Part 1 0:03:37] Lee: Was medicine anywhere in the family, in the family history?

Wilkins: No.

[Part 1 0:03:42] Lee: So what was the draw?

Wilkins: Just a bit of adventure. 6 or 8 years of medicine in Liverpool and the rest of it, and I always liked open places. I had done a bit of climbing, not much, this that and the other. It was just a break, and something exciting to do and different.

[Part 1 0:04:02] Lee: What was the draw to medicine, though, in the first place?

Wilkins: In medicine? Ah right, in medicine. Well it's funny isn't it, how life turns on little moments and there was one Friday afternoon when the master, Mr Webb, was going round I think trying to fill in the last few minutes of the period, asking the boys what they wanted to do. I had been reading *The Practical Home Doctor* and showing off to my mates that I knew all the names of the bones in the body. 'What are you going to do, Wilkins?' I said 'Oh, I am going to be a doctor, Sir.' 'Yes, really?' Since I was in the stream which was doing technical stuff, woodwork and all that sort of thing, he reflected on that. Anyway on Monday (bless him and this is how good the school was) he came up to me and said 'Wilkins, are you serious about wanting to be a doctor?' 'Oh yes, Sir, of course.' He said 'Well go and get your books and you are moving over to the Latin stream. OK?' That was it; you were fixed. You couldn't go back even if you changed your mind. Great man, Mr Webb.

[Part 1 0:05:11] Lee: You never regretted that decision?

Wilkins: No no. Medicine gives you a key to so many different directions. I have got a daughter now who is a medic, and three other daughters two of whom are physiotherapists. Medicine is a great career.

[Part 1 0:05:29] Lee: What was your first brush with the Antarctic? When did you first begin to realise there was a place down there, called that?

Wilkins: Well I have to say I was pretty ignorant about it, like most people. 'Penguins: Arctic or Antarctic?' and all that sort of stuff. But I read an article in the *Sunday Times* when I was either first year, doing my medical house jobs, or maybe as a final year student (I can't remember). That article was about the British Antarctic Survey and that made me think 'Gosh! They have got bases down there, and they took

chaps to go down there.’ I thought ‘Fantastic!’ I am a bit of a goal-driven person; I have to see something at the end of it. So when I decided I wanted to do surgery, the first exams are pretty tough. You have to know a huge amount of anatomy, physiology, pathology, and that weeds out people really who I guess hadn’t got the stamina or the commitment to do it. So I promised myself that if I got a place with the British Antarctic Survey, I would work and get that sorted before I went. It worked. I kept my nose to the grindstone, eschewed the women (well not always) and the drink, the strong drink, and other distractions, and got on with working and passed it. I took the exam in Dublin (because it was interchangeable) and by that time I was into the application and all the rest of it, and it all came together.

[Part 1 0:07:15] Lee: Had you read about Scott and Shackleton? Had you seen the famous film?

Wilkins: Oh yes. Yes I had read all those, and once I had the spark, you start taking an interest, don’t you? So you started reading up about these heroes, and the rest of it. You realise what terrific chaps and achievements they had and all that sort of stuff.

[Part 1 0:07:35] Lee: Did you know or meet any Fids before that point?

Wilkins: Liverpool had one Fid who I actually sought out when I was thinking of going down there, and he was a chap called Henry Wyatt. He was a lovely guy. I forget which base he had been on<sup>1</sup> but he was something of a ..., not a legend but he was known around the place. He became an eye surgeon and I think he went off to Canada eventually. I sought him out and talking to him it was pretty inspirational. He reaffirmed what a great place it was, and bolstered the determination to go. So yes, he was the only Fid I met in the ‘gestation period’.

[Part 1 0:08:20] Lee: But interestingly, you were at college with a handful of potential Fids, weren’t you? There were others who were thinking the same way as you?

Wilkins: Yes. I mustn’t overplay my part in it, but whether I talked a lot about it (as you do). I just had the feeling that I had sparked that interest up. I may be wrong, and Terry Allen and luminaries like that would probably say ‘No I never ...’ but I think, talking around it ...

[Part 1 0:08:48] Lee: No, he does blame you.

Wilkins: Did he? Good, OK. And Mike Holmes, who was another guy in this dreadful house called Number 6, one of the few places where you could actually take the engine of your car to bed with you. Magic! So it got talked about and I think it probably stimulated that, these guys. And there was David Hughes as well, who was an anaesthetist.

[Part 1 0:09:14] Lee: Was there another chap called Steve Vallance?

Wilkins: Steve, yes. Now I lost track of Steve. I don’t know what happened to him. What happened to him?

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<sup>1</sup> Detaille (Base W) and Stonington (Base E).

[Part 1 0:09:23] Lee: I don't know.

Wilkins: I have to say, that rings a bell, but I can't really picture him.

[Part 1 0:09:31] Lee: OK. Tell me about Mike Holmes, because of course he frequently appears in these interviews as being the doctor who, via radio, oversaw the Ken Portwine saga. What sort of chap was he? Well is he; he is still alive. He is in Australasia somewhere, isn't he?

Wilkins: Yes. I lost track of him. Mike was a dear friend, one of the world's great eccentrics. How can you put it? Very very clever and lateral thinker in many ways, but at other times quite infuriating and he knew that as well. But dull? Never! He was madly in love with a Chinese lady, a student, and they went out for a long time together. So we kept in touch all the way through. I knew him pretty well beforehand. Then he went down there and he was down there a bit before I was, and at some point, and I am a bit hazy on this, he (generous chap that he was) said 'You can share my bedsit.' Now he lived in a one-room bedsit in Hampstead, a pretty salubrious part of Hampstead. Not a lot of space. A big house with lots of these bedsits, where people just come and go, and I dossed down there pretty well free of charge for several months. We had some good sessions together but I have never forgotten that act of generosity when I was really at a low ebb in terms of dosh and all the rest of it. So he was a good chap, Mike, good chap, and I have rather lost touch with him.

[Part 1 0:11:17] Lee: So you applied to BAS. I imagine therefore you were then summoned for interview. Do you remember much about that day?

Wilkins: Yes, I remember it was in Gillingham Street, where many of us were summoned, Victoria. One found one's way to this place and up a few flights of stairs and in you went. I just remember it being a bit like my study is at the moment. Piles of books and papers and you just sat down in an office and had a chat. It didn't seem to be any sort of formal interview. I seem to remember Maurice<sup>2</sup> was there as well as Bill Sloman. They were the two who made the decisions and they were very wise heads. They made very few mistakes. Maybe this was a mistake but they seemed to make very few mistakes with the people they sent down there. Pretty good judges of characters I think.

[Part 1 0:12:19] Lee: I was going to ask you whether they were asking you questions about your medical knowledge or just simply 'psyching you out'?

Wilkins: Well it was just a chat and I can't remember much about it. I don't have much memory of it except that it was just very friendly and at the end of the chat they said 'Yes, that's fine. We will take you on.' I think I made plain at that time that I really would prefer not to go down and sit on the base, because I could see that would be a problem. You would end up by going down and just doing not quite an office job, but that sort of work in a very nice setting. I wanted to make sure that I actually did some travelling, sledging and that.

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<sup>2</sup> Maurice Sumner

[Part 1 0:13:08] Lee: So did you negotiate which base you would go to at that point?

Wilkins: No, they told me.

[Part 1 0:13:16] Lee: Did you know where it was?

Wilkins: No. [laughs] A vague notion, but no I didn't to be honest.

[Part 1 0:13:24] Lee: It is an interesting decision to make, isn't it, because being a doctor is a bit of a conveyor belt career? If you step off the conveyor belt, you can kind of stall your career. Was that a concern, or did you believe that actually doing something odd with your life was actually better for you, than the conveyor belt?

Wilkins: Well that was what I gambled, but I looked at the chaps around me. I looked at the Senior Registrars who I worked with and respected greatly. These were the people who did all the work. They were hugely experienced and they looked after the juniors. They were pasty-faced, had got a mortgage, a family, and they had had a straight-through career some of them, most of them in fact. I thought to end up like that without actually having had a bit of adventure, seemed to me a bit of a shame. So that spurred me to do it and take a chance. I thought it was a reasonable chance that if you did something different it wouldn't go against you and basically I thought 'I don't care! I want to do surgery but if it doesn't work out, and this doesn't help me, well too bad!'

[Part 1 0:14:46] Lee: But it seems the perceived wisdom in the medical profession was the opposite, because hardly anybody applied at that point. They weren't exactly overwhelmed with candidates were they?

Wilkins: No that is because, I think, imagine: here was a chap who really had not got anything to commend him. I wasn't a great climber or any huge Antarctic experience or anything like that; just a medic for heaven's sake. I also was wanting to go off base. Not a precondition but I made it pretty clear that that was what I wanted to do, which is not a very wise thing for the only doctor to do on an isolated base where there is no other help or whatever. Indeed when John Brotherhood had his accident, that point was underlined. So yes, I think they were very good to take us on, and as you say, there weren't many applicants in those days. Of course it is completely different now.

[Part 1 0:15:49] Lee: Did you have to have a medical?

Wilkins: Yes. I will tell you about that.

[Part 1 0:15:54] Lee: Please do.

Wilkins: You had a medical exam, or rather your doctor certified that you were fit. I think I am right in saying you did not actually have to have a medical but you were advised to have your appendix out or to consider having your appendix out. Now you imagine the ethics of that. You are having your appendix out, so somebody goes along and has their appendix out and then they get a complication and they come to grief, or they die. Now who bears the responsibility for that overall in the scheme of things?

But that was the advice and you can see the wisdom of it. So I went along to my boss at that time, a chap called Mr Bennett-Jones, who was a lovely man, a great surgeon. I remember the conversation 'Mr Jones, I want to go to the Antarctic.' 'Yes, Wilkins, yes.' 'They have advised me to have my appendix out.' 'Oh really? Mmm.' 'I was wondering, sir, whether you would do that for me?' 'Yes, OK. Clerk the patients in and when you have got them all clerked in, clerk yourself in and go up to bed on such and such a ward and we will do you at the end of the list.' That was how it was done. So the appendix came out and it was jolly sore. It was a good experience because it taught me how painful it is to have an operation and I also learned something about one of the nurses who actually I thought was a very good nurse but she was not very good on the old pain relief. 'Pull yourself together.' 'I need something for the pain, Sister.' 'No, just man up!' So it was a good learning experience.

[Part 1 0:17:45] Lee: Was that that common or was it just because you were a doctor that they wanted you to have your appendix out, because you were kind of indispensable.

Wilkins: I think it was quite common. I think it was in those days, yes. You didn't have to but it was advised. You can see, in those days, how difficult it would have been if you had had appendicitis. I think the access by air certainly for the British bases, was in its infancy, and practically non-existent. So if you got that sort of thing when you were down South you were in trouble.

[Part 1 0:18:27] Lee: Well I expect the subject of appendicitis will return later in the interview, because you had to do one yourself at some point. Was there much of a gap between being told you were going South and actually sailing? What was done in that period?

Wilkins: I think it was probably about 18 months.

[Part 1 0:18:45] Lee: As much as that?

Wilkins: Yes, I think it was something like that. I am a bit hazy on that but there was a gap and they slotted me in to fit in with what I was doing at the time. Yes, the more I think about that, the more I am sure that is the way it worked. I could do the various things I had to and tidy up. Then I had to get a research project together as well. I think that is an interesting facet of that time because you were slotted into an on-going, not programme but there were a series of Fid doctors who wanted to do physiology of some sort and who went to work, or lodged, at this wonderful place in Hampstead, up at the top of Holly Hill called the National Institute for Medical Research. In that division which was the Division of Human Physiology, Environmental Sciences as I remember, were the most eclectic crowd of explorer scientists you could ever wish to meet. There were some real remarkable characters there. They went off to all places from Papua New Guinea to Borneo, to Africa. I was pretty ignorant when I started there. These people were great names in their field; they did terrific work. They had a climate chamber which was unique in this country, where they could mimic anything from a snowstorm through to tropical heat, high humidity and all the rest of it. They had other facilities: all the treadmills, and research paraphernalia for exercise testing.

[Part 1 0:20:49] Wilkins: One of the characters there was called Griffith Pugh who was a ginger-haired chap, getting on a bit. He was a bit ageless, but he had been the physiologist on the successful 1953 expedition to Everest and he was pursuing the same line of work, which was establishing the aerobic capacity of people: the work, energy consumption, oxygen consumption – all the rest of it and so forth. It was always said about Griffith by the leaders of that expedition, Edmund Hillary and so forth, that he gave them the last 2000 feet which enabled them to succeed on Everest, because he worked out that they needed oxygen flows at a higher rate than had been established. They needed more water, more fluid, etc. etc. It influenced how they staggered the camps. So a great man, totally irascible with the interpersonal skills of a bad lean brick but focussed and brilliant, a great man. Myself and John Brotherhood and John Fry, we were all keen to do young lads' stuff and go off sailing with him. He needed a crew so we got to know him very well and had some lovely journeys and times with him on his catamaran *Pelican*. So he was one character. But the point about the time there was you arrived and in the true British tradition, nobody was expecting you. It was 'Well go down there. I think that is where the Fids live, generally.' You go down and say 'Hello Mike.' 'Oh hello, how are you?' 'Fine.' 'OK well you can put your stuff there. And what are you going to do?' Then you go off and have coffee and you chat around and you gradually get absorbed into the community.

[Part 1 0:22:58] Wilkins: Tom Davies was there and he was a lovely man, He went into public health later on and was in Cambridge. He was a very good mentor. Murray Roberts, who I got to know later on, he came back; I met him in the Antarctic. Others: John Fry and so forth, all good people. I have really got to sort out a research project which got me off the base. That was a poser because you couldn't just go swanning off. You had to have ... and I was determined to get a degree out of it because coming back to your earlier question, I knew that if I didn't actually have something on paper to show that I had done something instead of just going off what you call swanning, that would be the death knell. But if I could come back and say 'I wanted to this wonderful piece of physiology, which really needed to be done.' Nobel prize winning stuff and the fact that it was at Halley Bay in the Antarctic was incidental really. If you could sell it rather like that, I don't think it would influence your surgical career.

[Part 1 0:24:15] Lee: What I find interesting about that period, well that era actually, up until quite recently really, you were taken on and they said 'What do you fancy doing?' It wasn't as if there was already a list of research work that needed to be done. 'Sorry Wilkins but you are down for this one.' It was very much a case of ...

Wilkins: It was the era, still, of the great British amateur researchers, and those were the days when you could do what you wanted. I think one has a great nostalgia for that and one wonders really whether the current approach is as effective as possible. Now Kevin Walton would probably argue, well I know he would argue with it, because now that's not allowed but it has over the years produced some great serendipitous type of discoveries and so forth. It is a different approach and that was the way it was done in those days. Universities weren't too fussed about funding: the young researcher just for a year or two under the title of lecturer or doing a postgraduate degree, a PhD, or in medicine an MD, and it seemed to work, because it ended up with people doing stuff that they wanted to do and pursuing their own line

of what turned them on, as opposed to 'You will do that.' which to me would have been much less stimulating.

[Part 1 0:25:49] Lee: Was there any mentoring? When you came up with your plan, did somebody then vet it and say 'Yes OK, that's fine.'?

Wilkins: Yes. The whole set-up was presided over, as a benign dictatorship, by Otto Edholm who was a great name in environmental physiology. He wrote a book called *Life in a Cold Climate*, which was a definitive work in its day, of the physiology of cold adaptation, covering everything from hibernation to how people adapt to cold and so forth. He was the director of the laboratories and the whole of that institute. He was your supervisor so you had to satisfy him, but you made the appointments. His secretary made sure that he knew when you turned up. He just gave you a gentle guiding hand and when you ?? [incomprehensible] he said 'Right, that's OK. You can do that.' You got the title for your thesis and you mapped out the protocol and then it was a question of getting the gear. 'Well just go down and order it.' You went down to the stores and 'Can I have this, this and this.' They said 'Yes, fine.' 'OK, what about that?' 'Yes, fine.' There was a minimum of paperwork and then gradually stuff came in and you stacked it under the desk. But the chief place where research is stimulated and done is the coffee room. You have got to have a coffee room where people mix, get to know each other, chat, go off and look at each other's work, stimulate and so forth. That is the essential thing in any laboratory I think.

[Part 1 0:27:37] Lee: You bumped into Heinz Wolff whilst you were going through this process?

Wilkins: Yes.

[Part 1 0:27:42] Lee: Was he an inspiration?

Wilkins: Oh yes, quite a chap, and he is still about.

[Part 1 0:27:46] Lee: I saw him quite recently, in a stage show.

Wilkins: Well he hasn't changed. A quite remarkable man. But I needed in the project ... Again it comes back to this business of seeing what's around. Learning, educating and then thinking 'Well I can do that for this project.' I needed to have some method of measuring the core temperatures of people. Now in those days – there are other methods now which are more reliable – but in those days that would have been quite difficult because you had to go sticking probes into unmentionable places or down unmentionable places. He had come up with these little temperature-sensitive radio pills; they were called 'endo-radio-sondes'. They were about the size of a big lozenge, I would say, a couple of centimetres, 1½ centimetres long and half a centimetre wide, and had a little tiny battery. They gave a radio signal out which you could pick up on an aerial, then translate that frequency (it was a big frequency). To be technical, you would get the null point and translate that into a temperature. You could calibrate the dial into a temperature. It was a bit of a fiddle because they needed calibrating against a thermometer in a water bath and all this sort of thing. They did tend to drift but for the day they were pretty good. And he invented the pressure-sensitive radio pill as well which I came to use later on, quite a few years later when I was doing some work



on colons and colonic pressures in Bart's, as a registrar. He had got people there who were doing all sorts of things. He had got a chap called Henry Light who was looking at measuring blood flow using the Doppler effect of ultrasound. Henry was ... I can't remember his nationality but he was a lovely man. Well actually his work was seminal. How do people investigate the vascular tree now? They do it with Doppler ultrasound. So I guess he was one of the pioneers of that, and although one didn't know it at the time, one was in the presence of greatness. And there were others like that as well.

[Part 1 0:30:19] Lee: Was Heinz Wolff enthusiastic about the Antarctic?

Wilkins: Yes, I think he was but he was a polymath and he was really just interested in anything. I remember one of his great passions was pianolas, and he put on a couple of evening sessions when he would just have his machines there and be playing these rolls. One of the great times was hearing Rachmaninoff play Rachmaninoff's Second Piano Concerto on a roll and it was Rachmaninoff who had recorded it – the man with the big hands. So he was a great man.

[Part 1 0:31:01] Lee: You had better define, then, what your physiological project was, the final version that you went South prepared to do.

Wilkins: Well at that time people were very interested in whether and how you adapted to cold and to heat. It wasn't understood properly. It was understood as a phenomenon but the mechanism wasn't fully worked out but in the field, the interaction between field conditions and heat adaptation (or I later found out cold adaptation) was at the stage where you could do that sort of work and it would be acceptable because it added to a general bank of knowledge. It wasn't mind-blowingly pivotal research but it added to the sum of ... So the idea was that you could actually go out into a very cold environment and if you were working hard, fully clothed, your body would have more of a problem getting rid of the heat than it would be challenged by cold. So very quickly your core temperature would get stressed, or would stress the body by virtue of being high, and you would become adapted to heat.

[Part 1 0:32:38] Wilkins: Now adaptation to heat, or acclimatisation to heat as it was popularly called, is evidenced by the ability to work in the heat but the surrogate marker is that your sweat rate goes up; you have the ability to sweat sooner, to a greater capacity, and to retain salt. So you don't actually lose a lot of salt through it. So you are more efficient at bringing heat to the surface and then getting rid of it. So if you measure a sweat rate, you have got a surrogate marker of someone's adaptation to heat acclimatisation and that was the theory. So the theory was: to go off and do various scenarios including sledging, to see whether in fact they became more adapted to heat than to cold, or certainly in the first instance to see whether they became adapted to heat. Practical applications? Well it did have because if you have a bunch of soldiers who have got to fly off to different parts of the world and be effective, or any other group of people, you don't want them going out there and then having to adapt. If you have got people who are already adapted, by virtue of something they are doing in a cold environment like the UK, by the time they go out there, they have got an edge. They are actually part acclimatised, so it sort of had an attraction and curiosity value.

[Part 1 0:34:13] Wilkins: So I took these radio pills to measure the stress that people were getting in whatever situation (but I hoped mainly sledging), and I took the radio equipment and the stuff to calibrate. Then I had to work out some way of measuring sweat rates, and what they had were these suits. I can't remember whether they were used in Hampstead; I think they must have been. But they were made out of PVC. You got into them and they were totally enclosed and they had these little tubes running up and down inside them, and it was sealed at the neck by a rubber latex ring. So a bit like a diving suit, I guess. How primitive. Made by Plysuit. So I got a bunch of these. Then all one had to do was to heat the person up in that suit, by whatever means. We used a bath with hot water in the end. And get them to a particular core temperature, keep them there for a particular time, and measure the amount of sweat that came off in that time, when the core was at that level. You had a rough and ready marker of adaptation and that was what we did.

[Part 1 0:35:33] Lee: Did you try this out on guinea pigs before you went South?

Wilkins: No. Now I think of it, I am sure these suits were actually being used and I think in that sense, yes. I am almost certain although I am a bit hazy on the point, I knew the system would work because that's how they did it. Yes I am sure that's how it happened.

[Part 1 0:35:57] Lee: And were you expecting certain results?

Wilkins: One hoped that one would show a trend. That proved to be the case. You would predict it. You have got young men sledging which involved actually working hard, very high calorie intakes if you are ski-joring alongside a sledge for a few days, for many hours a day for a week or two. You actually burn up about 5000 kilocalories. That's hard work, equivalent to heavy manual labouring and of course you become adapted to heat, and work in the heat. So it was really expected and it showed that. It was quite clear. I don't think there was any instance where it showed the reverse trend. But the interesting question then arose: could you actually induce cold adaptation as well as heat adaptation? I thought that was a really interesting question, and that arose while I was down there, sitting around the table with the chaps. One of the great things about the bases is that everybody becomes an expert on everybody else's work. You discuss it and you will have the diesel mechs advising the astrophysicists about the next step you should be taking to do this that and the other. Everybody has got an opinion and I have to say sometimes pretty to the point.

[Part 1 0:37:42] Lee: So were you able to actually do parts of your project? Were you able to assess what happens to people in cold conditions?

Wilkins: Yes, it became apparent. We did the sledging bit. I think that went well. It was good fun and everybody enjoyed it. Especially they enjoyed the bath because baths were in short supply on the base. So they enjoyed the bath experiment where they actually had to ...

[Part 1 0:38:05] Lee: This was a perk, was it?

Wilkins: I think it was seen as a perk. One drew off a sweat and measured it. Then one bottled a certain sample amount to take back to the UK to see whether there was something in the sodium content, and taking the lids off those bottles 18 months after they had been stored was something else.

[Part 1 0:38:24] Lee: They smelled?

Wilkins: Ah, something else. Talk about aromatic amines.

[Part 1 0:38:30] Lee: The smell got worse in the interim?

Wilkins: I don't know. These were pretty smelly characters because we only had a shower once a week. I don't know. Anyway it was amusing. So that had been done and come the winter. There was no sledging and from my point of view, once you had done the stores and looked after public health, then you would pitch in with other people, labouring and that sort of thing. You have got time to do other things. I thought it would be interesting and the chaps seemed to agree, to see whether we could get that acclimatisation. I think I had read a paper somewhere, by a chap called Graham Budd, who had outlined in the Antarctic some findings on people who had become acclimatised to cold. The evidence was that you maintained your core temperature more efficiently. I think we are better at acclimatisation to heat than we probably are to cold adaptation but none the less it is a definite effect. So exposing people to a given temperature stress for a given length of time, over a period, you will see an improved ability to ...

[Part 1 0:40:01] Lee: You build up a resistance to it?

Wilkins: Yes. You do it in several ways. You definitely preserve your core temperature by shutting down the periphery more efficiently, but you also produce more energy. Your glycolysis burns up a bit more energy. So there are those sorts of mechanisms as well. So we kicked it around, around the table, and then eventually decided to do it, but what it involved was really stressing people quite hard to cold. Sit still. I thought sitting still for 2-3 hours, or as long as you could bear it, in a very still cold environment, would be the way to go. But how to get volunteers? Now Fids are great. They are very hard men so I outlined the experiment and I said it would be really good and we would probably win a Nobel prize. But of course it was much more than human flesh and blood could stand, to sit in shirtsleeves with ear and foot and hand protection, but essentially in shirtsleeves in a cold environment, for several hours. I said that was just too much to ask of anybody, more than flesh and blood could stand, so it would just have to go undone this experiment. 'Oh don't worry Doc. I can do that. That's no problem.' [in a Lancashire accent] The only slight drawback was that when we got it all sorted out, the volunteers (bless 'em) said: 'There's one thing, Doc. You are doing it as well.' Which was a bit of a facer.

[Part 1 0:41:55] Wilkins: So the four of us did that and it was good. We sat there for two weeks, doing three hours a day, in the Armco (the fuel store). A big bladder of fuel. It was where the fuel was stored. The air was still, a constant temperature (about -20C) and you could sit there and do it. It was really interesting. Over the two weeks we did the exposures, and we did the measurements on three separate sessions. So we did day 1, end of 7 days, end of 14 days, and you could see the exposure to cold. First

off the temperature would rise; the core temperature would go up as the shell shut down, shunted the blood to the middle. This was after a period of stabilisation. Then gradually it would drift down, and by the end of 2 hours you were pretty well down. After the first hour you were down to baseline again, 37.5C. Then below that it drifted down. You went down to 35-36 by the end of a couple of hours.

[Part 1 0:43:24] Lee: 36 Centigrade?

Wilkins: Yes, and you were feeling pretty miserable, feeling pretty cold, shivering. That was on the first exposure. By the end the two weeks you had just gone down to baseline by the end of two hours. There was a very clear well-defined effect. I have to say that I was a bit cavalier really because I didn't really (if I'm honest; be careful here) know what I was doing, and it certainly wouldn't be tolerated these days. Quite rightly so. But I was aware of the slight dangers, if you like, of going out from a cold environment, hypothermia, (because I had done a lot of sailing and all that sort of stuff) into a warm environment. The shell hits the warm air, opens up to the warmth, but actually can't get a lot of warmth in from the environment (specific heat is not that great). So essentially you are perfusing a cold shell with cold core blood and the temperature just plummets. You felt very odd if that happened. A couple of times consciousness was on the margins. But if you do it to a sufficient degree then you will induce fibrillation of the heart. So it could be very dangerous. But nothing happened, nothing serious. It was fine. And that was only in the first few days while you were adapting. After that you just warmed up and didn't think anything of it. But in the first stages you were seriously hypothermic, warming up like that was not a wise thing to do.

[Part 1 0:45:11] Lee: Was there any kind of panic signal that one of your guinea pigs could make, to let you know that he had had enough?

Wilkins: No. People were all just sitting there talking, hands on their knees, and we just had to sit still. That was the only thing.

[Part 1 0:45:27] Lee: Was your sanity ever questioned?

Wilkins: No. [laughs] I think it was questioned from the word go actually. The results showed ... It was a terrific community. We all looked at it. There were a lot of scientist there you see, and it was that kind of enquiring ethos. People found it interesting. It was interesting and that, actually, was the best work because that then got published in the *Polar Record* and was still quoted ... I was in correspondence with Graham Budd, who was a serious scientist, some years afterward, and recently John Brotherhood mentioned it at a conference we had to do with the Scott celebrations. He was doing physiology and he mentioned it as well. So it is interesting you see, this business of serendipity. You do one bit of work and it leads to a much more interesting question, which if you can then go and pursue that, will often yield the greater interest or discovery, if you like.

[Part 1 0:46:36] Lee: And from the point of view of the guinea pigs, because the reactions started to vary after two or three weeks, they could actually see themselves?

Wilkins: Yes.

[Part 1 0:46:46] Lee: So I guess that kind of engendered their interest. They could see changes in their own inner workings?

Wilkins: Ideal, yes, collaborative.

[Part 1 0:46:54] Lee: Where do the radio pills come in?

Wilkins: Well we used them to measure the temperature and there were various experiments I did on base, lesser things just to get baselines, that sort of thing. Therein lay a bit of a problem one time because I only had four of these things. They were precious and Norris Riley I remember (lovely guy), he was a Geordie as I recall, Norris came to me one morning and said 'You know I have got a radio pill, Doc.' I said 'Yes, Norris.' He said 'Well you know we are supposed to use the bucket to retrieve the radio pill.' We wrapped it in a little rubber fingerstall, tied it up, and then you went through the poo and cleaned it off, slipped the rubber stall and out popped the pill, reasonably clean. Cleaned it off, put it in an oven and reused it you see. It doesn't sound very savoury but it's the sort of thing that Fids do all the time. Can you imagine?

[Part 1 0:47:58] Lee: I trust they were named, these pills?

Wilkins: No, they were spread around. He came to me and I remember it. I was sitting in the surgery doing something and he said to me 'Doc, I have just been to the pit.' which it the bog which had just been used by 25-30 people for two years and started off 45 feet deep and was now about the order of about 15-20 I guess. So you can imagine it was well-used. So I said to Norris 'Well that's very unfortunate. I really really must get this pill back. I will go and get the ladder for you.' The rope ladder was suspended from a hook over the pit. He seemed to take the attitude that it was my radio pill and if I wanted it I would jolly well go and get it, which I thought it was a bit un-Christian. I did go down and look for it. I never found it.

[Part 1 0:48:55] Lee: Oh really?

Wilkins: It had got so cold, the signal had gone, and things froze pretty quick down there. I couldn't find it.

[Part 1 0:49:03] Lee: But you came face to face with the infamous 'turdicle'?

Wilkins: Oh yes. Went through the turdicle.

[Part 1 0:49:10] Lee: So you were literally down this shaft, picking your way through ...?

Wilkins: Through faeces, ordure. That was a bit of a moment. I won't say I was shunned for a while, but I certainly had to do the washing.

[Part 1 0:49:33] Lee: There is a note here to ask you about the difference between wooden and plastic seats.

Wilkins: No I don't think I ever talked about that much. That doesn't ring a bell. You could probably tell me more about that. Is that something that's figured in ...?

[Part 1 0:49:47] Lee: This is from Terry Allen, to ask you about the retrieval process and 'your observations on the height of turdicle in the two adjacent shafts.' Perhaps one had a wooden seat and the other had a plastic seat?

Wilkins: I would have to think about that, but I do know that the turdicle was a definite phenomenon. It was your job, if you finally actually could not do your business because of the state of the turdicle, you had to go and chop it down. So that was a very fair way of sorting it out.

[Part 1 0:50:24] Lee: We've leapt about a bit, so let's go back a little bit, to that period before you set off South. I was asking you what you did in that 18-month period and there are two options here. One was you learned more about medicine, surgery. So how did you bone up on the surgery, between being appointed and being shipped off?

Wilkins: Well you are doing these Senior House Officer posts and I was at a lovely hospital called the Royal Southern Hospital. There were three teaching hospitals in Liverpool and the Southern was one of them, the Northern and the Royal Infirmary. So I stayed on, after doing my pre-registration job, to do my Senior House Officer jobs and I did them in orthopaedics and in surgery. You build up your experience. Now as a Senior House Officer you don't actually do much. You hold retractors at operations and that sort of thing. The chief thing about that time is that you are a pair of hands, you are watching and learning. You will do minor surgery, so you will learn to do a bit more practical stuff, but you won't be let loose on anything serious. Certainly it was a fairly quiet hospital. I didn't get to do an appendicectomy during that time, although one watched the registrars. And you were very dependent on the registrar you were working with, the senior registrar. If they wanted the experience, you would stand there and help and if you were lucky and got a very experienced person, they would say 'Oh well, you do this.' or 'You do that hernia.' or something like that. So the object of the jobs was to give you experience but also you were expected to do the theory in your spare time and by golly, you worked hard. Just hit the books all day, all night and overnight.

[Part 1 0:52:24] [End of Part One]

[Part 2 0:00:00] Lee: This is Denis Wilkins interviewed by Chris Eldon Lee on the 3rd of May 2012. Denis Wilkins, Part Two.

Wilkins: Yes I've been talking about the period before going South, when I was doing Senior House Officer jobs. As I say, you got experience but chiefly you were there to be of assistance and to do the theory and get the exam, because without that exam, you didn't go any further really. Happy Days. The orthopaedics, it was an interesting hospital in the sense that it was down in the docks in Liverpool and the most famous orthopaedic forefather in this country is a chap called Robert Jones and he was a Liverpool surgeon. That was where he did his work back in the heroic age of surgery.

[Part 2 0:00:55] Lee: The turn of the century?

Wilkins: The early 1900s, the First World War time, that sort of thing. I worked on his Robert Jones wards. It was a great hospital; I learned a lot. Good surgeons and a happy place. We did Casualty. We did Accident and Emergency work between 5 o'clock at night and 8 o'clock the following morning. The standards then were different. Here we were, juniors, just out of medical school, giving anaesthetics and setting bones, and doing all that sort of thing. I think we did all right but of course it would be a completely different standard now. You take several years after qualification before you are really allowed to do anything independently.

[Part 2 0:01:44] Lee: Were you learning dentistry as well?

Wilkins: Yes, I did a session at the dental school. We had a good dental school there but I didn't do perhaps as much as I should have done. The thing about this was that the medical cover in those days was in its infancy. The hierarchy at BAS expected, not unreasonably, that the doctor was a doctor and would do everything that a doctor would do. The idea of expedition medicine as a specialty and formal training programmes to go out there, was just not thought about. Why? I don't know. It is difficult to put yourself into those sorts of mind-sets, maybe. There wasn't the time, and maybe there wasn't the ... But we contrived, being sensible people, to get as much training as we could, and we went down fairly well-equipped. Eyes were something that worried me, so I went and did some time at the Eye Infirmary. But by and large, one went down and just thought 'Well, get on with it.'

[Part 2 0:02:53] Lee: Did they train you about dealing with the Antarctic, as such? How to get out of a crevasse?

Wilkins: No. You were trained when you got down there for that sort of thing, in the terms of the General Assistants would ... you said 'Well I don't know anything about this.' Other guys would say 'I am an experienced mountaineer and I can do this.' It was that sort of ethos, very ad hoc, but it worked. It worked in that we practised that sort of thing, were shown it, but I guess we weren't really very competent, looking back on it.

[Part 2 0:03:36] Lee: Were you confident when you set foot on the *Perla Dan*?

Wilkins: Confident? No. Considerable trepidation, I would say, considerable trepidation. As a doctor, you see, you are expected to be, if you like, an elder. I don't know whether it is still the case, but you are looked up to in that sense. You are not the leader; you are not the boss, but you are somewhere between the two. You are looked up to by the chaps as somebody they can confide with. You have a special role as a doctor anywhere but in this sort of setting as well. You are looked to by the boss, the leader whoever it may be, as support for him or her as well, and that was the sort of position that someone like Edward Wilson had, interestingly, in the Scott setup. If you look at the doctors in the polar firmament, the heroic age, that was always the position, and sometimes ... One of the doctors, in one of the medical reports I was looking at a while back mentioned that. He said 'It is a very difficult position to tread because you mustn't be seen to challenge the leadership side of things. That's not you. And yet you want to be supportive. And yet the chaps will come to you and say 'What about this? Advise.', and so forth. So you have to sort of be one of them most of the time, all of the time, and pitch in, do your bit, and yet there is a compartment which

puts you in a different category, and you don't really have anybody to talk to about that sort of thing. You can talk a bit to the base commander but if you really learn in those confidences which were given and which have to be retained. I think most medics ... I don't know what somebody like Terry and the others would say but most medics I think found it I think a really important learning experience down in the Antarctic to tread that path and become competent. It was a growing experience.

[Part 2 0:05:51] Lee: I found that also with the interviews I have been doing. I interviewed a doctor who had been there just a couple of years ago, and that doctor has also spent some time talking about one's position, maintaining a distance and a closeness at the same time. Was it trial and error or did you have a policy?

Wilkins: No, it was just trial and error. You thought about it and you realised you had to be careful to keep a clasp on your tongue, and strong alcohol can be a terrible thing. So I think you just learned, and I guess some people did it better than others. I don't know; it's not for me to judge how well or otherwise I did it but one coped. And the privacy was ... If there was something happening, there was no patient confidentiality in many respects. I mean if you were taking a tooth out or doing a filling, they expected to be there with their cameras. The patient obviously had to give their permission and you had control of it, but they would say ... I remember one occasion: 'Do you want this?' 'Oh yes please. Come on chaps, yes.' So it was all a bit odd but then of course there are other times when you just ... absolutely not. You just get on with it; it's not a public spectacle.

[Part 2 0:07:21] Lee: The other thing which doctors have almost uniquely to them was the fact that they actually had plenty of spare time because the last thing you were doing, as a doctor on base, was doctoring. So you were able to 'muck in' a lot more than other scientists or other professionals.

Wilkins: And that was true.

[Part 2 0:07:37] Lee: So what was the benefit of that for you?

Wilkins: Physical work. Getting to know people. Learn a few new skills, mostly about floods, shovelling snow, and you got the opportunity to do a bit in the workshop if you wanted it. But the spare time that I had, I found a unique opportunity to read. I read the whole of Churchill's *Second World War*, all twelve (I think) volumes, Gibbons *Decline and Fall*, a couple of other serious works, which if you had the time to actually do it, was very good. But it wasn't unique to me. Everybody would do that sort of thing and you would discover ... And again it comes back to this business of: it didn't matter what your background was, you actually could participate at the same level and you would get a diesel mech having read the *Decline and Fall* and discussing it with some erudition with a classicist or somebody else who was down there. So it was good; it was very good. So reading was something I did. Learning the skiing and all that technique, going to study the penguins if there was field trips to go and look at things, other scientific programmes. Participate in cartography, meteorology. So you were a general 'odd bugger'. I don't know whether the other doctors have found the same, Terry Allen and people like that. It was a benefit, I thought.



[Part 2 0:09:19] Lee: So you got out a fair bit, partly because of this plan you had concocted for yourself, but also, being a doctor, you were in charge of the welfare of the huskies?

Wilkins: Yes and that was the big part. We had about 68 huskies<sup>3</sup> and so one of the things I did was to construct a breeding tree so I developed ...

[Part 2 0:09:41] Lee: Was that the first time that had been done?

Wilkins: Yes, I think so. I don't know but I think it was, and it was down there, certainly in Halley Bay when we set up the medical unit here. One of the doctors here, Jonathan Paddle I think it was, said 'Oh it is still down there, on a wall somewhere.' So that was quite good. I think that was helpful to the dog handlers, the GA people, because it crystallised where you were likely to get inbreeding and problems, which of course you couldn't avoid. It actually enabled you to make a more intelligent choice of mating and that.

[Part 2 0:10:21] Lee: So when you arrived, were you observing inbred dogs?

Wilkins: No, but I was well aware of it because Andrew Bellars who was the advisory vet, who I met fairly recently, he had written some very good notes which told you the things to look out for: the dysplastic hips, entropion of the eyes (in-turning). So we were well aware of the sorts of things to look for. Yes, over the year there were some problems in that direction. But mostly it was just general veterinarian: old dogs needing to be put down. We had this stuff Pentacon? It was a barbiturate. It wasn't Pentothal but it was a barbiturate of some sort. Expirol, wonderful name isn't it, for putting these poor creatures down.

[Part 2 0:11:18] Lee: They just ate it and ... ?

Wilkins: No, you injected it. There again you learned what fantastic coats these animals had. It was just like duffel, the inner layers of fur. You must have seen this when you were down there. Terrific animals. So you learned how to inject, how to intubate, anaesthetise and all the rest of it and of course surgical skills were very useful. We had some horrendous injuries. If things got out of hand, they would really hack each other, to death really. It was probably the most active part of the job, actually, looking after the dogs.

[Part 2 0:12:02] Lee: Were you also playing midwife?

Wilkins: Yes, to a degree, but the dog handlers did all that and I didn't have any serious obstetric problems. They just got on with it. I think there was one pup where the bitch rolled over on it and ... No it was another bitch got hold of it and chewed it to bits. It was April; she hold of this poor newly born pup and before anybody realised it, she had given it a going over and it died from its mauling. But by and large, the obstetric side of things, they just got on and did it. Terrific animals and it was: what a privilege to be able to run your own dog team. My dog team was the Hairybreeks and it was the cripples, old men and misfits but they were just wonderful. Harry Wiggans

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<sup>3</sup> This seems high. Keith Holmes' dog database says 56 were and Halley in 1969.

had taught me how to run them and I went out with Genghis Wright as well. He was in my set and we learned together. We sort of got by with these dogs and made them run but some people never did. There was one chap who went out with the dogs for his first run in the winter and you just watched him going around the horizon with the dogs and they wouldn't do what he wanted. But others were natural at it and just got them going.

[Part 2 0:13:26] Lee: When it came to having to put a dog down, how was that decided who would do it? Was that always your job or ...?

Wilkins: Me, always me.

[Part 2 0:13:34] Lee: Never the dog handler, choosing?

Wilkins: No, it was me, but he would say 'What about this?' We would make the decision together, and do it. The important thing was that it was done properly without any fuss. So you learned how to find the right vein to inject it, and how to control the dog which was useful for later life. When you were trying to do something to a dog you had to keep it under control without hurting it or doing too much hassle.

[Part 2 0:14:08] Lee: Where were you going on these sledging trips?

Wilkins: Well Pete Clarkson was the base commander and he worked out was where I could be useful as well as fulfilling my agenda, was to go route surveying and taking Fids out for a holiday. Because here are these guys sat on the base, how much chance did a cook get to go off base? How much chance did a physicist get? They wanted a trip, a short trip and you could combine it, after winter, with reconnoitring a route to see that it was still safe, see what had happened. Then off you went. We had one or two really good adventures where we would go and survey a route which some time previously had been quite secure and we would find socking great chasms there. One time we found ourselves on a large spur, a peninsula, which was about to go out, a great crack opening up across its face, and sure enough it went out as an iceberg not too long afterwards. So it was marginally useful.

[Part 2 0:15:28] Lee: That was a near miss, was it?

Wilkins: Yes.

[Part 2 0:15:30] Lee: Were you camped at the time?

Wilkins: What happened was, as I recall, we had to call in every night on the radio sked (schedule) and our radio set didn't work, it had packed up or something. So there we were, having gone north I think it was and we were about 15 miles up this peninsula of ice with a view to getting off it. There was a route there and then obviously out and then going further up. So I guess the base commander, having been concerned that he hadn't heard from us, said to one of the other sledges that was out, not too far away 'Just go up and check on Wilkins and his thing because they should be there.' And so suddenly these people appeared at the end of the day where we were, which was great. We camped together and they said. 'You have got a remarkable dog team there.' I said 'Why?' They said 'Well, where your dog tracks

were crossing over the base of the peninsula, is 10 feet, 12 feet; that's a pretty big leap.' Then 'Farewell. That's all right. They will be OK for a while, several miles.' And then the next day they went off and on the radio schedule the next day, 'They had better get off that bit of ice, because where it was 10 feet before, it is now 30/40 feet. I lay in bed for a bit and then I thought 'No, I don't like this.' It was pretty much daylight all the time, so we just packed up and pushed off. We really had to go quite bit far west to get across onto the ice shelf again. So that was an interesting time. I remember it being a bit worrying.

[Part 2 0:17:34] Lee: What would have happened if you hadn't been able to cross the chasm?

Wilkins: I don't know. I guess we would have managed somehow but the worry was that we wouldn't, and we would go out on an iceberg. Because remember there was a famous case in Halley when the whole dog team and a chap were lost under those sort of circumstances.<sup>4</sup> That figured in our minds and we knew it could happen. They went off and were never seen again. A very lonely terrible way to die. You didn't have the communication in those days. There was no way of getting down there, rescue parties and planes and so forth.

[Part 2 0:18:23] Lee: Was that the only near miss or were there others?

Wilkins: For me? No not really. There was the routine stuff. You got used to it in the end, crevasses and so forth, snow bridges giving way after you had been over them, that sort of thing. Actually there was one time when we were sledging in whiteout, and it was with Graunch<sup>5</sup>, as he was called. It was whiteout and the sledge started to go away so we stopped and we thought 'No, this is stupid.' because again there had been accidents in whiteout, and we camped. When the sun broke through, there was a huge huge crevasse, chasm, in the direction that we would have been going. It wasn't that far. I have got a nice slide of Graunch looking over it, and a 'before' and 'after' picture. That was impressive.

[Part 2 0:19:25] Lee: Can you recall Graunch's real name? No? OK, it doesn't matter.

Wilkins: I could, given time. He was a met man.

[Part 2 0:19:35] Lee: How much doctor work did you actually do, on human beings?

Wilkins: Well we had a fair amount of sprains and minor injuries and fractured fingers and so forth, and dental work, a few eyes (nothing serious). It was that sort of level. We didn't have any coughs and colds. Coughs and colds tended to die out after about six weeks; I think that was the common experience, once you are isolated and the ship had gone. Occasional attack of D & V.

[Part 2 0:20:16] Lee: D & V?

Wilkins: Diarrhoea and vomiting.

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<sup>4</sup> Neville Mann in 1963. A four-dog training team, not a full team, were lost.

<sup>5</sup> Keith Chappell.

[Part 2 0:20:22] Lee: Oh right. Was that from the food?

Wilkins: Well, water probably, because we cleared out the water tanks when I was there, once. Your job when you were on gash, on duty to do the looking after the cooking and chores on the base, you went out and you shovelled snow into the tank, into these melt tanks for the day. They would gradually melt and that was the supply of cold water. So we thought we would clear those tanks out and we found a good mountain of dog turds and a seal's head. So it was all sorts went in there unbeknown. By and large they were pretty healthy but probably the odd attack of diarrhoea and I guess that is where it came from.

[Part 2 0:21:12] Lee: The big challenge, of course, was the appendix operation. Let me mention the patient's name to save you having to do it. It was Johnny Carter, the diesel electric mechanic. You had had yours taken out; he obviously hadn't. How did that situation arise? When were you first aware of it?

Wilkins: Well I was just called to his cabin. Johnny hadn't appeared and was feeling a bit crook. Went along, got bellyache. You felt with sinking heart, tenderness over the right ... 'Oh, this can't be happening! This can't be true.' But it was tender there. You waited 24 hours and it got worse, and there you were, stuck. It was during the winter and you thought 'What would I do if I was in civilisation? Would I just give him antibiotics and hope for the best. Hope it would settle.' I knew enough to know that if appendicitis is neglected, 60% of them will get better, 60-65%. But a lot of them won't and some of those will die. This is why appendicectomy came about. So it was a bit of a facer really, but it wasn't getting better so I thought 'Gotta do it!' I would have done anything not to have had to do it really. But Johnny was very brave, I have to say. He just said 'Right doc, get on with it.' I went and saw Rocky and we telexed base.

[Part 2 0:22:49] Lee: Rocky?

Wilkins: Pete Clarkson. I trained up a medical assistant, Bob, and he was a physicist. So the two of us were the operating team, if you like. If I recall, it was Pete Clarkson who gave the anaesthetic. We had this machine called the PJ Nunn Anaesthetic Machine which was very primitive but effective piece of kit and we set it up in the doctor's surgery and just got on with it. It wasn't a very elegant piece of surgery in the sense that the anaesthetic: he was either climbing off the table or was lying there lifeless and not breathing. But he was a strong lad and he came through it in the end all right. Then afterwards it all went OK. It was appendicitis and afterwards he just ... We watched him with bated breath. 'Is he going to be all right?' But he was, a strong Yorkshire lad. No problems. He came through it.

[Part 2 0:24:07] Lee: Were you having to 'make do and mend' with equipment? You needed an operating table, didn't you, for a start?

Wilkins: Yes, we just used the couch, the examinations couch, and we had instruments there, not a huge bunch of them but we had enough. There was contingency planned. Murray Roberts had been the medic before and he had put in a very comprehensive order for equipment. That was a good piece of work, so ...

[Part 2 0:24:35] Lee: That had arrived had it, when you ...?

Wilkins: Yes, yes. It came down with us. That was important because if the guy didn't do that, your predecessor, we would have been a bit stuffed. I can't remember how much we had and how much came down, but I know in general terms Murray Roberts was responsible for a great improvement in the amount of stuff that was down there, and Johnny made an uneventful recovery I think. He always said that he had to wear high-necked sweaters to cover the scar, but he was pretty phlegmatic about it 'OK doc, no problem.' Yes, good guy.

[Part 2 0:25:12] Lee: What was the fate of the offending organ?

Wilkins: It was put into some sort of solution and I wanted to take it back and get it looked at but I don't ever recall that. When we looked through the stuff that came back, I couldn't find it and I don't know what happened to it is the honest answer. But it was definitely taken out, of course it was. It was definitely put by, in solution, alcohol to preserve it. Lord knows where it went in the end, but it wasn't there when we unpacked all the cases. Maybe somebody had it, kept it as a souvenir, I don't know. But it would have been nice. It was appendicitis; it was inflamed and horrible.

[Part 2 0:26:05] Lee: Did you have any frostbite cases to deal with?

Wilkins: Yes, I had a few. The carpenter was the guy. That was Ron James. He was a scouse and he got some frostnip of his fingers which took a bit of time to heal up. And we got quite a lot of blistering and that sort of thing but nothing serious where anybody actually lost a digit. But certainly we got frostnip, that sort of level. It was an interesting thing: if you did get cold injury of a fingertip, and it just came back, that fingertip remained quite sore and quite sensitive. The sensation was never quite the same again afterwards. Hypothermia? No, not really.

[Part 2 0:26:50] Lee: How could frostbite happen, because all the guys down there knew all about frostbite and knew how to avoid it?

Wilkins: Well the carpenter, you see, has got to be using his hands, and handling cold metal. I think he was building a tunnel, or something like that, and just got a little bit too cold for a while. But it wasn't a bad case; it just sticks in my mind. As you say, people knew about it and so took great pains. Where people would have it continuously and I don't know whether you noticed that when you were down there, on your cheeks they were always peeling, and your nose and things like this. That was a form of cold injury or sun injury. We had a couple of cases of snow blindness as well, watery eyes and that. I think I got a touch of it myself once – people just not wearing their glasses. That was uncomfortable but it soon went away.

[Part 2 0:27:42] Lee: You were there for just about 12 months, 13 months. Were you, over that time, building up a picture of what could be improved in the health service in the Antarctic.

Wilkins: Yes. You realised that you needed a more professional approach to the training, that sort of thing. That was put in the report and the way of these things is of

incremental improvements. But of course it has to be done within the confines of what the economics will allow and the time that people could spend just getting trained up. But it did come to pass, many years later, that the opportunity arose to do something about that because the contract for provision of medical services came up and we bid for it from Derriford.

[Part 2 0:28:39] Lee: You bid for it?

Wilkins: Yes.

[Part 2 0:28:43] Lee: It was currently in Aberdeen, wasn't it? Historically it was in Aberdeen?

Wilkins: Yes, so in a sense it wasn't our business to ... You could make recommendations at that time but you weren't in a position to actually do much about it. So we bid for it and were fortunate enough to get it. Two of us, Chris Andrews and myself, we didn't really quite understand what it was that they wanted. We were guessing at what they wanted. But in retrospect (I hope I am not speaking out of turn here), I think what BAS wanted was the comfort of a large DGH to support its activity. The powers that be had seen that the medical side of things really wasn't safe, with the greatest respect to Nelson Norman and his team up in Aberdeen, it wasn't safe in a smaller unit where there wasn't full access to a range of specialist care, and professional training. So the first bid we put in was fairly small. I forget how much for but it was pretty limited, circumscribed, and during the process of iteration, after this initial sifting had come out, of the bidders, it became apparent that they wanted much more, so we put in a much more comprehensive bid. I think the clever thing that we did was to understand that the best model was as an outreach of the accident and emergency service, and once we had realised that, we could then shape it.

[Part 2 0:30:33] Lee: Like it was like an un- accident and emergency ... ?

Wilkins: Yes. Extended lines of communication but those are the sorts of skills you need. In A & E you have got to be ... Well you have watched *Holby City* and all that.

[Part 2 0:30:46] Lee: I don't actually but my wife does.

Wilkins: Yes well there we are. You have got to be a complete doctor and have a knowledge of a lot of different specialties, but you have really got to be able to deal with trauma as well, which is the big thing. So we worked out that was the thing to do, and then – was it Christmas time? – we needed a medical director, we reckoned, somebody who would really take hold of it and put the work in to get the ..., not just the contract shaped up but actually to get to supervise the whole operation. So we went to a chap called Ian Grant who was an A & E consultant, ex-naval background, young chap, and said to him 'Ian, we have got this here contract we are bidding for.' 'Yes?' I explained it to him and I said 'Would you be interested in being medical director?' He said 'Mm, sounds interesting.'

[Part 2 0:31:47] Lee: What was your position at that time?

Wilkins: I am a surgeon in Derriford Hospital there, you know. Getting on a bit there, a fairly senior surgeon for what it's worth. But nothing more than that. He said 'When do you want to know?' I said 'Well midday tomorrow is when we have got to get it in.' He came back the next day and he said 'Yes, I will do it.' And that involved him taking a great leap of faith because he would then be employed by us, not directly. We had set it up and the managers: the chief executive was a chap called Wilson at the time. He was very supportive. He said 'Yes, run it as a separate contract. If the funding comes in, we will do the employment and all the rest of it but essentially he is employed on that contract and he then goes and does it all.' And the other huge piece of fortune we had was: there was an anaesthetist down here called Anna Weiss and her husband, we found out surreptitiously, was a chap called Peter Marquis. Pete of course was a hugely respected and experienced base commander, explorer, and all the rest of it, and he was teaching in Plymouth, and he was eminently suitable for the role of being the manager of that contract. So we put a feeler out. He was hacked off (to put it bluntly) with teaching in a sink school in Plymouth where, despite his clear leadership skills and potential, it was being wasted. So he said 'Yes, I will do that.' and he has been with us ever since, over the 10 or 12 years since the contract has been running.

[Part 2 0:33:33] Lee: Were you aware of the stink that that caused?

Wilkins: No, did it cause a stink?

[Part 2 0:33:37] Lee: Yes. [laughs]

Wilkins: In what way?

[Part 2 0:33:40] Lee: Well particularly in Aberdeen.

Wilkins: Yes. We never really had anything to do with that. We just bid as we would. Go on, tell me about it then.

[Part 2 0:33:49] Lee: Well perhaps afterwards, because it is not part of your experience. I would be happy to chat a little bit. It is just from the other interviews I have done.

Wilkins: I hope I haven't said anything out of turn.

[Part 2 0:33:57] Lee: No, absolutely not.

Wilkins: That was from our perspective. It was an honest bid and we were quite proud to get the thing and personally I think it was a credit to the directors of BAS, that they realised something had got to be done.

[Part 2 0:34:13] Lee: So what happened next then? You got the contract and suddenly, of course, you had to fulfil it.

Wilkins: Yes, and that was down to Pete Marquis and Ian Grant, and they did it brilliantly. They did absolutely brilliantly and how we ran it was that the folk: myself, Chris Andrews, and one or two other key people on board within the hospital acted, if

you like, as a board of directors. I think that is probably a bit grand but that's what it was. So we would meet regularly, and do what had to be done, make decisions that needed to be made. But Ian went into it and Pete went into it absolutely wholeheartedly, set up the programme for training the paramedics, the annual conference, did all sorts of work. They revamped *Kurafid*, the manual for medics there; we modernised that. It was a good book. John Brotherhood wrote the first edition of it. They modernised that; put it on a CD as well, kept it up to date. The standard went up terrifically but the training was the thing. These guys when they were appointed, they were appointed well ahead of the time and they then did a programme, in the hospital, and outwith, to give them the skills that they were likely to need, and it paid off.

[Part 2 0:35:37] Lee: Can you give examples of that, comparing it to the absence of anything that you did, really, before you went South 40 years ago?

Wilkins: They go round all the departments. First of all they learn how to ... the trauma but most of the selection is interesting, because I sat on the initial selection panels. But it was quite clear that the best background was either anaesthetics or A & E, but we took anybody we felt was sufficiently right in the round. They were given a theoretical course on remote medicine and healthcare, anything from infectious diseases through to general medicine. Someone might get ulcerative colitis, gallstones, pancreatitis, resuscitation; all the sorts of skills that you would need.

[Part 2 0:36:34] Wilkins: The other thing that fitted – and it became apparent it would fit – was the contract for the pharmacy supplies. We have a very very big pharmaceutical department in the hospital which was actually running about 50 or 60 contracts for external bodies, anything from doctors' surgeries to co-operatives, other sorts of organisations that needed regular supplies, and the skill that they could bring was to make sure that the drugs that went out, first of all were comprehensive, all the equipment was comprehensive, but that it was kept under review so you didn't end up with a load of stuff like local anaesthetic which was ten years out of date. That expertise really appealed to BAS and that was taken on and it worked, and as far as I know it is still with them.

[Part 2 0:37:33] Wilkins: Dentistry was a bit of a problem for us in the sense that it wasn't ours; it was run from Peterborough by an RAF dentist who did it very well, and went down and was peripatetic. And we were very happy with that. When I say it was a problem, it wasn't 'our bag' but we were pushed into wanting to take that on. I remember Pete was a bit reluctant but now we have got a dental school, I think that really is not a problem and I believe, since I left anyway, it is now capable. It's funny isn't it how these things, from small beginnings, how these things sort of gel.

[Part 2 0:38:15] Lee: It's to do with individuals with the right skills or experience being in the right place at the right time. I get the impression that the doctors going South are still pretty young, are they?

Wilkins: Yes.

[Part 2 0:38:28] Lee: Is that on purpose or is that just the way things pan out because later in career you can't really disturb your career path?



Wilkins: I don't think I can really answer that at the moment but I know that you are hostage to the applicants you get. I don't recall us getting applications from many people who are hugely elderly.

[Part 2 0:38:48] Lee: Are you still involved in the appointments of these ...?

Wilkins: No, not any more. It is run by the Personnel at BAS with the help of a panel which has the medical director sitting on it and Pete Marquis and they are pretty good at it. By and large the appointments they have made have been pretty good.

[Part 2 0:39:05] Lee: What we have been talking about, just for the record, is BASMU, British Antarctic Survey Medical Unit. Are you aware of medical research work that had been done in the last few years which has actually eventually filtered into everyday medical practice? Are you across all that?

Wilkins: No, I am ignorant on that. I know that Ian Grant, one of the things he did was to take a very active part in the international collaborative on Antarctic research through SCAR and he built up some very good contacts and participated, entered in the data which our medics actually help with in collecting data on things like SAD (somatic afferent disorder) and that sort of thing, the psychology. I think the psychology profile of selection was another thing. I can't remember who was organising ..., who was the lead investigator, but it was an international effort. So that's the way the research went. It was a collaborative and you were doing ..., as research across the scientific community is. Different centres: one is the lead and you utilise a huge ... I am not aware of how that has gone since then. I know we always wanted money from the Director of Research at BAS, but we could never get any. I don't think we were looked upon as being sufficiently clued up or glamorous to run a research programme for of our own, but I still think that's something we should be doing as part of the contract, and I will go on record as saying that. And we have now got a degree in Remote Health Care which Ann Hicks, the current medical director who took over from Ian Grant who retired last year, she has worked throughout to get a degree going, based on Plymouth University, in remote health care, and that is working now.

[Part 2 0:41:11] Wilkins: But the other thing, coming back to the profile, the benefit of actually having it based on a department was that although Ian Grant was the putative head of ... – he was our medical director – all the other consultants, and there 5 or 6 of them, were equally on board and interchangeable, so they all developed the expertise and it became known that the department was running the British Antarctic Survey Medical Unit out there. So we sent down, over the years, as a douceur, as if you like a bonus but also pragmatically the consultants there on, for a six-week period during summer, to go and suss out this or suss out that and report back on what was happening. That was an attractive ... a bit of payback for the work that they did. And out of any surplus that we could make from the contract, we put in place a series of bids for grants, small grants, for people within the hospital who would not normally have access to a small amount of dosh to go and do a course or travelling expenses to go and do a course, this sort of thing. That is still running as far as I am aware and is quite popular, and is very helpful. So you see, the contract has helped the hospital and the hospital has put in their ... It is an ideal situation. I am very proud of it. I think it is a terrific piece of kit which the team has put in place.

[Part 2 0:42:54] Lee: What percentage of the hospital's overall activity would you say was the BASMU part? Was it five per cent, ten per cent?

Wilkins: Oh no, tiny. Derriford is one of the biggest three or four hospitals in Europe; it is huge. So on the scale of things it is ... but it is a major part of the A & E department, a major thrust or purpose of their work.

[Part 2 0:43:21] Lee: I understand a doctor down South can ring up, can he or she?

Wilkins: Yes. All the modern telemetering now. Don't push me on precisely what, but there is instant access, pretty well, to reading X-rays, investigations, expertise, specialist opinions in whatever area it is, from anaesthetics through to psychiatry

[Part 2 0:43:45] Lee: Did you send yourself back down South again?

Wilkins: No. I had the opportunity, but no. Actually I have been pretty busy doing other things and I have always really wanted to keep my memories intact. I don't know whether others have found this, but people who went back tended to whinge. I don't mean this unkindly but 'In my day we never had it ... It's all changed.' and the rest of it and so forth. I might go down and do a cruise sometime but essentially I would really rather keep my memories intact. I have been there and done that and I am interested in the history, but actually going back down there again, yes maybe but I made the decision that I wouldn't. It was better that someone else went down there who would get more out of it. These places are precious, aren't they, to go on that sort of trip? And you need to send somebody who is going to (a) appreciate it and (b) is going to be a benefit to the course.

[Part 2 0:44:47] Lee: The two main whinges seem to be 'Where has all the ice gone?' and 'They are not really Fids anymore.'

Wilkins: Yes, I can imagine that that would be the sort of thing. Who wants somebody like that on a trip?

[Part 2 0:44:58] Lee: When women started to go on a regular basis, that must have been a bit of a challenge to the medical teams, mustn't it?

Wilkins: Endless discussions.

[Part 2 0:45:05] Lee: Really? Tell me about that.

Wilkins: Well you are opening up a whole new range of pathology. Now the human interactions are not our business, except marginally if there is any sort of fighting or whatever. It had to happen; I can see that. Fine, they have been a complement, but it does open up a whole range of other problems: from pregnancy through to women's disorders, gynaecology and so forth, obvious things. It was a worry but it was catered for, managed and it works.

[Part 2 0:45:46] Lee: So BASMU now, if a woman were to get pregnant in the Antarctic, BASMU might step in to guide ...

Wilkins: Yes. It would have to cope with that. Now don't ask me about whether there have been any pregnancies which have caused a problem. I can't tell you. I don't know. I know that there have been occasions when people have come back pregnant, but no more than that can I say.

[Part 2 0:46:16] Lee: Now the question I suppose that is going through my mind is: what would one do, or what would be done about a potential abortion down there.

Wilkins: Yes quite, it would have to be handled – part of the training. So the guys are trained; they have to do a gynaecology slot. You see the thing is: if you appoint somebody, you are not going to appoint somebody who is a complete Antarctic doctor. You are going to have to tailor the training programme to what he or she has or has not on board, and obviously if somebody is already an anaesthetist, you wouldn't want to send them on an anaesthetic module. So there is that sort of flexibility in the scheme for training. I think that is a major consideration. The other thing that was done of course, and I think this is very popular, is in the BAS conference (the Cambridge Conference) there are workshops for the paramedics and that is a very important part of the work of BASMU, is providing that training, not just for the doctors but for people who will be going out sledging, who will be in a position of some responsibility without immediate medical help. So the paramedic training is important.

[Part 2 0:47:39] Lee: You are training ordinary other professions in paramedic skills?

Wilkins: Everybody who goes out there gets an exposure to common medical things, the chats and the talks, and they will be taught about CPR ('Resusci Annie'), the sort of thing sort of thing you would expect probably from a ship's captain, somebody at sea, first aid. I am involved with St John at the moment and so they would get that sort of training, for everybody who went down there. But also the paramedics, the ones who were likely to be in a position where they might be expected to do a bit more in leadership, they would get more training.

[Part 2 0:48:27] Lee: What is still to be done in the medical management of the Antarctic? What challenges still exist for BASMU and BAS?

Wilkins: I think selection. They can work quite well with selection.

[Part 2 0:48:41] Lee: You mean recruitment?

Wilkins: Recruitment, yes, and the profiling of folk.

[Part 2 0:48:45] Lee: Have you spotted that there are still inadequacies there?

Wilkins: Well don't forget that I am out of date here, but I know that the research was on-going about that. They get the occasional blip of somebody who is not quite fit, so there is always room for improvement there. What else? On the physical side, no I think just to keep the level and standard, the scope and the standards of training and practice up at the doctors you send down. Make sure you get the selection of doctors right. What more you can do about that I don't really know. I think it's much much

more routine. It's like all these things. They start off heroic, like surgery, Sir Lancelot Spratt, and it's all gung-ho, sweat on the brow. Like the early aviators; they go off, it was all scarf in the wind and 'We'll get through, maybe!'. But the way of things is that techniques evolve, it becomes much safer, refined and dull. Routine and that is how it should be because you have covered the bases. Occasional moments of stress, as it were, but actually by and large if it's dull and professional, that seems to me to be how it should be.

[Part 2 0:50:08] Lee: I have to ask you a slightly 'dogleg' question. It's to do with being inventive about being a Fid. Fids or potential Fids are people who can solve unusual problems with unlikely materials, and I want to ask you about your Riley car and the insulation of your Riley car.

Wilkins: Insulation? Oh yes. [laughs]

[Part 2 0:50:35] Lee: I also was a Riley owner. My first car was a Riley 1.5, former police pursuit car.

Wilkins: How lovely, good. No it struck me one time that we put this orthopaedic felt, with sticky backing, it was used to line splints and that. There was some of this lying around the place and it struck me as being eminently suitable to put on the inside of resonating panels, and it worked. Orthopaedic wool, very good. I should have followed that as a marketing opportunity really; another opportunity missed.

[Part 2 0:51:10] Lee: I think we have more or less got to the end of everything I wanted to ask you, unless you think I have missed something.

Wilkins: No I think that has covered it.

[Part 2 0:51:18] Lee: My usual final question: how does the Antarctic rate in your life.

Wilkins: Oh massive, massive. Not understood at the time. It was a jaunt. It was good to do and it worked out. Character forming. I really learned a lot about myself as I think every Fid did – about myself as a doctor and deficiencies and some positives. How to relate to one's fellow man better. So it was a real character building ... You were there in a group and you were there on your merit. You couldn't fall back on 'I'm a doctor, and therefore do as I say.' You were sussed out. Everybody was sussed out on their merits and if you weren't up to it, in whatever sphere you were, you had a worse time than somebody who was competent. How to deal with the quiet people and appreciate them and, more importantly perhaps, how to deal with the loudmouth, those who were vexatious in spirit as they say. Because you get all that spectrum and you learn a lot about how to deal with it and how you react to your own strengths and weaknesses.

[Part 2 0:52:46] Lee: So it changed you?

Wilkins: Oh yes, I think it developed me quite a lot. For that I have been very grateful so I owe BAS a huge amount really. Although I have not been one who has really never moved on from BAS ... I mean some people, you get the impression they continue to live it all the time. It is still a major feature of their life. I look back on it

as a very important area, time of development, my rounding as a doctor, and I brought a lot of those skills to my approach to clinical medicine over many years and I think it has helped me to have the patients and the people I work with. How to lead. Leadership, that is the big thing. I know it's the buzzword but if you want to get something done ... I talked to you about the business of research and imposing, not imposing but asking people to do some quite unpleasant things. You learned by watching others what worked and what didn't. It sounds a bit exploitative; it's not meant to be but you learned how you wanted to be treated, to follow, and what you had to do to be a successful leader. I have done quite a bit of that in the hospital over the years since then and I think the Antarctic definitely helped me there.

[Part 2 0:54:31] Lee: And when you stepped back onto the medical conveyor belt in the mid '70s, and presented your CV with a slightly irregular entry, was that the benefit you hoped it would be?

Wilkins: Immediately, no. I couldn't quite understand how the world didn't beat a path to my surgical door and say 'Fantastic. Come in and have a drink.' No, it was all a bit difficult and you think 'Have I made a horrible mistake?' But I got a lead, an opening, to go on to the training scheme at Addenbrookes in Cambridge, and did the locum. Then they obviously thought I was all right, took me on and I never looked back really from that. Just so lucky. Ever since then, every job or whatever, people look at your CV and they say 'Oh, you were in the Antarctic?' They want to know about it and talk to you about it, and there was an MD at the end of it. So hugely advantageous and I say to the trainees (because I was heavily involved in training, locally and at national level for a large part of my career) ...

[Part 2 0:55:43] Wilkins: Trainees, as you were saying earlier on, have been encouraged to get onto a conveyor belt. This is the Government's view of how you produce doctors. It is simplistic, it is sausage manufacturing type of view and the Colleges at various times have actually been complicit in supporting that view, and I have been the voice (or one of the voices, a few voices) to say 'This is wrong.' If you want rounded doctors, they have to have experience outside of medicine, not just before they go into training but afterwards, so even if they go to America, even if they go and work as missionaries, even if they go and do expedition medicine, climb a mountain or sail across ... Do something that is different and you interact with your fellow man on a more base level and learn about people, and you bring that back to your doctoring after that. And I feel very passionate about that.

[Part 2 0:56:52] Wilkins: Contrary to the advice that was being offered 5 or 10 years ago, with the upheaval in medical training, when trainees came to me for advice, I would say to them 'Forget about ... Go and do something different and people will look at that, they will pick it out and your CV will stand out from the other 25 who have done nothing but just steady career development. If you have done something different and you can show that you have benefitted from that, fantastic.' A few of them have followed that advice and have done all right, I think.

[Part 2 0:57:29] Lee: It has been a real pleasure, Denis, Thank you very much indeed.

Wilkins: Thank you for asking me. Good fun.

[Part 2 0:57:33] [End of Part Two]

ENDS

Possible extracts:

- How he got into medicine. [Part 1 0:04:02]
- Training at the National Institute for Medical Research. [Part 1 0:18:45]
- Memories of Griffith Pugh. [Part 1 0:20:49]
- Radio pills. [Part 1 0:27:46]
- PVC sweat suits. [Part 1 0:34:13]
- The cold adaptation experiment. [Part 1 0:40:01]
- Loss of a radio pill down the loo. [Part 1 0:47:58]
- The status of doctors in the Antarctic. [Part 2 0:03:36]
- A breeding tree for the huskies. [Part 2 0:09:19]
- Veterinary work. [Part 2 0:11:18]
- A near miss. [Part 2 0:15:30]
- Dog faeces in the water tank. [Part 2 0:20:22]
- The appendix operation. [Part 2 0:21:12]
- Bidding for the BAS medical contract. [Part 2 0:28:43]
- Recruiting Ian Grant and Pete Marquis to run BASMU. [Part 2 0:31:47]
- Medical implications of women wintering. [Part 2 0:44:58]
- Orthopaedic wool and a Riley car. [Part 2 0:50:35]