

MY TIME ON  
CITY & GUILDS  
ELECTRICAL / ELECTRONIC  
CRAFT STUDIES  
AT  
GRANVILLE COLLEGE  
1986 - 1988

By

Joe Freeman CSE CGLI RSA PEI

## P R E F A C E

This account was initially written in the early '90s for the amusement of a friend who'd gone the 'O' Level, 'A' Level, university educational route.

The reader must be warned that it is a very politically-incorrect document featuring a load of boys just out of school who thought they were men and men who regressed to childhood. Those of delicate sensibilities are hereby advised not to read it.

J F  
September 2015

## P R O L O G U E

When I was in my fifth year at Abbeydale Grange Comprehensive, I had no idea what I wanted to do when I was 16. I'd always expected that I'd stay on at school but it started to become clear that I'd not got the academic ability to pursue this option. To be honest it was part a lack of ability and part an excess of idleness.

When I had my careers interview, in March 1986, I'd got no idea what I wanted to do. The woman asked me what my interests were and I said I was interested in things electrical, but didn't want this as a career. She said it was too late to apply for any college courses any way.

I was given various options, about the only one of which I fancied was to go on a YTS scheme in a shop.

During June I had a 'phone call from the Careers "Service" saying that a new scheme was to start the following year, it had never been done before and they thought that I may be interested. It turned out it was to train as a butcher, in Handsworth. I turned this down.

A few weeks later they rang again offering a place as a trainee cobbler. Again this was not at all what I meant by working in a shop so I turned it down.

Something had to be done to avoid any further hounding. I wrote to Granville College, asking for details of their electrical courses.

I received some near impossible to understand bumf a few days later. I applied to do 'O' Level Electronics. I then got another letter a few days later saying I was to go for an interview on, I think, Tuesday 14 July at 9:00 am on Northside.

## P A R T   O N E

Before I went for my interview I found out which was Northside. I got a bus from home at five to eight as this was the only way that I could be guaranteed getting there on time. As this was the first interview I'd ever been to, I'd got tarded up a bit; new shirt, freshly pressed trousers and a pair of shoes. I'd worn boots for quite a long time prior to this and the shoes were hurting the backs of my ankles. I was limping badly by the time I was 100 yards down the road. It took me all my time to get to the college when I got off the bus. I made it however.

On entering the building it seemed to be deserted. I'd expected to find some sort of enquiry office just inside the door but there wasn't. I walked down the corridor in the hope I'd see somebody. Eventually I came into a canteen. The only other way out of this was a foot-bridge leading to Southside, or a door that lead outside. I turned around and went back down the same corridor that I'd just walked along. I noticed a side corridor with the words "Staff Only" on the door. I toyed with the idea of going down it and getting chased out by some don who may tell me where I was supposed to go. I decided against this and went back outside.

After a bit of looking I found there was a door leading on to the foot-bridge. I went through this and found I was in the canteen again. I now saw a sign saying "Reception" pointing up some stairs. I ascended these and found the enquiries office. Ringing the bell got no response. I was starting to reconsider the idea of going down the forbidden corridor when a jovial looking chap came up the stairs and asked if I needed any help. I told him who I was and what I was there for and he said he'd go and make enquiries.

After a couple of minutes another pleasant looking chap came and introduced himself as John Cooper and said that he was doing the interviews. He said he'd show me which room the interviews were to be held in and then I could explore or do whatever I liked as there was still a fair while to wait.

I went and sat on a stone seat out at the front for a bit, then stood admiring the view and concluded that I could stand seeing it for a couple of years.

When it got nearer to the time for my interview, I went back to G26, which was where the interviews were being held. Mr Cooper didn't arrive until about 10 minutes until after he was supposed to.

When we finally got started, he said that we'd got three things to do: we'd got to have an arithmetic test, have our eyes tested to see if we were colour blind then have a private interview and he'd then be able to say if we'd got a place or not.

He started to tell us about a City and Guilds course. I said I'd applied for 'O' Level Electronics. He said this didn't matter. I didn't and still don't know what he meant by this. I however liked the sound of what he was saying so I decided to keep quiet and see what happened.

Then we had the maths test. He said that no one would be able to finish it in the time allowed but this didn't matter as it was how many we got right that mattered. The paper had everything on it from 3 + 4 right up to standard form. I picked out the easy ones and left the rest.

We next had the eye test. He took us one at a time into the next room (G27). He said that my colour vision was good.

After this I had to go back to G26 and wait my turn for the actual interview. I was next to last to be seen. When I went in Mr Cooper asked me why I wanted to do the course and I said that I'd always liked playing about with things electrical. He told me how the course worked saying that it was in three parts. Part One took up until Christmas, Part Two until June and Part Three took all the second year. He also said that in Part One was some basic engineering. It certainly sounded OK. He said that my maths was very good so I realised that my tactic of only doing the easy questions had paid off. He then told me that he was in a position to offer me a place and I told him I was in a position to accept it.

He said that during the summer I'd receive details of when to start and a grant application form. I thanked him and told him I looked forward to seeing him in September.

Towards the end of the summer I got the details of when to start. I was to go to Northside at 9.30 am on Monday 8 September.

When I got there there was a milling throng in the canteen. I found a lecturer and asked him where I was supposed to go and was told to report to W13. I said I didn't know where that was. He said it was in the workshop block and pointed this out to me. I couldn't get in however as the door was locked so I went and sat outside for a while. From where I was I could see people going in and out of the workshop block. When I saw more people going in than coming out, I went in and found a group of people in W13, who I joined. A few minutes after this a scruffy looking bloke came in and sat at the teacher's desk.

During the next quarter of an hour various lecturers went in and out, but nothing appeared to be happening. After a while a short chap came in and read a list of names out, of which mine was one, and asked them to follow him. He took us to C13 and introduced himself as Harry Armatige. He said that it was the college rule that we called him "Sir" or "Mr Armatige". He said he didn't like this, but that was the rule. He said that if we ever saw him outside college and we called him "Sir" there'd be bother.

He explained that we'd have him for some classes but he was also the Course Tutor so if we had any problems, private or to do with college, he'd do what he could to sort them out. He also said that he would be the one who'd "issue bollockings" if necessary. He explained that we'd now left school and were in an "adult environment" which meant that we'd got a lot more freedom than we'd been used to and we had to be more responsible for our own actions.

He also said that the college was split in to two halves by Granville Road. He said that Northside was mainly engineering and Southside did catering, hairdressing etc. This meant, he said, "that Northside is predominantly male and all the talent is on Southside." He said we were allowed to go to Southside, "but don't go talent-spotting in your breaks and get back late for lessons".

He then took us on a guided tour of the college, showing us where the toilets, NUS office, Staff Room, etc were. He took us to Southside and explained the fire drill on the way. He said that the main thing was to get outside as quickly as possible: "If you're in the bog having a shit, cut it off sharp and get out!". He pointed out the arrows on the walls pointed to the quickest way out and said we should follow those "but if you come to the fire, don't keep going like a lot of bloody lemmings, turn round".

When we got to Southside he pointed out the library and said "Behave in there. The librarians should have been at Nuremberg 40 years since; they don't like you breathing."

After this he said we could stay on Southside and get a drink and then reconvene in C13 in half an hour. I went straight back across as Southside was very busy.

After a while the rest of the group came back. All but one of them looked to be straight out of school.

When Harry came back he gave us our timetables. When he got to Thursday morning he said "I know you'll gripe about it, but you've got General Studies. City and Guilds say you've got to do it, so there's nowt we can do about it."

At 11.00 we were told to go to the Board Room. This, it turned out, was a meeting telling us about the Student Union. After this we were told to go home and we'd start proper the next day.

Tuesdays were our half days. Our first class was in the workshop. The lecturer, a Mr Norton, gave us a talk on safety. One question he asked was how you'd test to see if a circuit was live or not. One lad said he'd use "One of them screwdrivers that lights up". Mr Norton said that he'd be inclined not to and asked if anybody knew how they worked. I said I did and was asked to explain. I got up, took the chalk off him and drew a diagram on the board and fully explained how they worked. I think this surprised him and I later learnt that it had been reported to the other staff thereby getting me marked as a smart-arse.

After break was a theory lesson. The lecturer for this turned out to be the scruffy looking one I'd seen the previous day. He introduced himself as Pete O'Brien and did a lesson on how electricity is generated. When he was on about Hydro-electric (water driven) stations, he came out with the scientific gem that "Water is bloody heavy stuff".

On the Thursday we had General Studies. The first thing that the lecturer (Geoff Brattley-Kendell) said to us was "If you don't want to come to this lesson, fuck off." Most of us accepted this kind offer; we all stayed for the first lesson though. He had the idea of going round

the group asking us our names and hobbies. There was on short thin lad from Rotherham in the group who I'd had down as a pillock since day one. When Geoff asked him what his hobbies where he said:

"Stallone".

"Eh?" was the understandable response. He thought he'd better clarify his meaning:

"Sylvester Stallone. Watching his films". This earned him the name of Rambo, though any less Rambo-like person would be hard to find.

In the afternoon we had our first Electronics lesson. The lecturer (Rory Cunningham) said that the room we were in was the best equipped electronics lab in Sheffield and was largely his baby and that anybody who damaged anything would find themselves in big trouble. His actual words were: "If anybody unscrews just one knob I'll find out who did it and I'll fucking hang the twat". He spent this lesson teaching us to solder.

On the Friday, we had Harry in the workshop. He gave us all a short piece of flex and a plug and told us to put the plug it. He then picked them each up in turn, finding fault with each.

When he came to mine he said "this one looks better, but all that glistens isn't gold, and if you look closely it's as crap as the rest".

After about four weeks, I got the distinct feeling that Harry was picking on me. During one lesson he came in to the corner that I was working in and shouted to the rest of the class to gather round. He pointed to the wall which contained the circuit I'd been working on and announced that it was "The biggest load of bloody shit" he'd ever seen. Mine was no worse than anybody else's, I'm sure of that. This incident was not unique: he did the same trick another three times.

Our workshop had a dividing wall running down it that didn't go right up to the roof. After Harry had had one of his goes at me he went round to the other side of this wall. At that point I didn't give a damn if I stayed on at college or not. I would have left but I'd probably have got shoved onto a YTS. Knowing that Harry could hear every word I was saying I turned to my mate, Karl and said: "If that little bastard doesn't stop picking on me, I'll tell him where he can stick this fucking college". Harry never did it again and we became great pals.

The only other incident that sticks out in my memory about my first term at Granville was when Karl wired up a light. It was in Mr Norton's class. Karl told him he'd finished and Mr Norton said he'd come and try it. He put the power on and the light didn't come on even though the switch was in the "On" position. Not unnaturally Mr Norton assumed Karl had put the switch on upside down. He flicked it. The switch lit up but the light didn't and Mr Norton jumped back about two feet. Karl had connected the switch straight across the live and neutral, hence the bang. It destroyed the switch and gave us all a good laugh.

The mechanical engineering we did was only like school Metalwork but the theoretical side was done to a much deeper level and was well worth doing. This was taught by a Mr Hills, who turned out to be the chap who'd rescued me when I went for my interview.

We had a lad called Mark Booth who fancied himself as something of a Ladies' Man. In quiet moments he would often lean back, sigh and say "Oh, my big cock." He must have been from a well-off family as they had satellite television, and this was years before Sky started, and he used to come to college on a new motorbike. Despite this he struck up a most unlikely friendship with Rambo.

In the run-up to Christmas he came in one morning – probably a Monday – playing hell about Rambo. Mark had got a part-time job as a waiter and had taken Rambo to the work's Christmas party. He'd danced with a girl who Mark had been interested in for a while but this wasn't the problem. The trouble was that Rambo had whispered sweet nothings in her ear; the actual words being "Do you fuck?"

On another occasion a group of us were waiting in the corridor when Mark walked past with a girl. When they were a few yards beyond us Oliver, who was a nice lad but as thick as a brick, bellowed after them "Go on Boovy! Give her one up t'shitter!" It really wasn't the place for a would-be Casanova.

About a month before the Christmas holidays, I found out that our group was to be merged with a part-time group. I thought this would be a good thing as these older people may make the idiot faction in our group behave.

I found the exams very easy. They were supposed to last two hours, but I did them in twenty minutes.

## P A R T T W O

I went back to college on 5 January 1987 and found that our timetable had been radically altered. We now did four subjects: Electronics, Plant Utilisation - industrial electric's, Appliance Servicing and Core Studies - the scientific side of things. You had to pass Core Studies and one of the others to obtain the City and Guilds 232 Electrical Craft Studies certificate.

We had Pete O'Brien for Core Studies on Monday afternoons, so it said on the timetable. When I went to the room, I found a bloke who I didn't recognise, so I asked him if there'd been a room change. He said that his name was Helliwell and that he'd be teaching us. About ten minutes into his lesson, Pete arrived, expecting to teach us. It turned out that the timetable had been altered and nobody had informed him. We had Pete for that first lesson then Mr Helliwell after that.

We had a lot of time off during the first week back due to staff absence.

Harry was supposed to give us our paper ration, but you'd think he had to buy it himself, he was so tight with it. On the Wednesday afternoon, I went to school and scrounged a ream off my old woodwork teacher.

During Mr Helliwell's lesson the following week, it started to snow hard. Gritters were going up Granville Road one after another, but were having little effect clearing it. I got home on the last bus that got through to Millhouses.

I didn't mind going to college, but didn't fancy the idea of being stranded, so I didn't go on the Tuesday and they closed the place from the Wednesday.

On Wednesday mornings we had Pat Conolly in the workshop. We didn't have him for the first two weeks due to him being off for the first week and the snow in the second. During our first lesson with him, he started me and Chris Moran wiring up a motor. The following week, I put the starter for it on the wall. Pat didn't like it because the piece of cable connecting it to the motor was really too short and therefore it didn't go in a straight line.

I pointed out that electricity doesn't mind going round corners to which Pat replied "You sound like a very well experienced BSC electrician; they don't care what things look like as long as they work and are safe". I took this as a compliment.

The following day, Thursday the 29, my results came. I'd got two Distinctions.

Monday, 9 February is a fairly typical example of the sort of record made of a Core Studies class:

"Did hard sums in Core Studies. I think I've got them all wrong". This turned out to be the case; my maths just wasn't up to it. I bet Mr

Helliwell was delighted when he was made an SL (Senior Lecturer) in the computer department and didn't have our group any more after 16 March.

On Tuesday, 3 March Geoff, our General Studies teacher, came into one of our lessons and said:

"FTEC 1W [our class code]: Thursday morning. Be there". Somebody asked him why and he said "Wrists have been slapped".

In the workshop the following day, we finally gave up on the motor. It kept blowing fuses. We put some 20A wire in instead of 10A and it tripped the main circuit breaker for the whole workshop. Pat then started me and Chris on trunking. For the non-electrical, trunking is square metal boxing that cables run in and we were learning how to bend it.

The following week, Pat had cause to regret introducing me to trunking as I nearly killed him.

The stock room in the workshop has no roof. Trunking and conduit (steel pipes which cables run through) was stored on top. I was putting a length of trunking back up when the lid fell off it. There was a bellow from below. Pat said it missed him by inches.

I soon developed a fondness for trunking as I found lots of short-cuts that made working with it very easy. The trouble was that most of them involved lots of hammering, which Pat didn't like. I tried singing to drown out the noise of the hammering, but this met with no appreciation whatsoever.

When we had Harry on the following Friday in the workshop, he'd had his hair cut. This revealed just how little he really had. We all took the Mickey out of him and started calling him "Hairless Harry". I polished his head in the dinner queue until he threatened me with violence.

On Tuesdays we had a Ray Wynn - who wasn't right - and a Melvin Keller, who was really an engineering lecturer - in the Lab.

One day Ray gave us some calculations. None of us had a clue how to do them. We asked him how and he gave us a formula. We spent the rest of the lesson trying, and failing, to convince him that it was the wrong formula. I just wrote the first numbers that came into my head on the sheet and handed it in. He gave me nine out of ten for it.

Luckily the next class was with Pete and, after hearing our grumbles, he went through it properly with us.

At the beginning of April Harry gave us a past Appliance Servicing paper to be done by the end of the Easter holiday. I did it at dinner-time in half an hour.

During the following Friday morning's Appliance Servicing workshop one of the funniest things that happened at Granville occurred. Harry asked me to strip down an upright and a cylinder Hoover so that he could show some trainee demonstrators from Southside how they worked. I got an

upright out of the store and quickly reduced it to a pile of nuts and bolts. I then went back into store to get a cylinder model out.

Karl followed me in and said "Keep out of Harry's way."

I asked him why.

"You've stripped that Hoover down too much."

I asked for more details.

"He took one look at it and said "the dozy bastard's stripped it down to far."

As I came out of the store Harry caught me and said "Joe, next time I ask you to strip something down don't be so fucking enthusiastic. How am I supposed to show people how a pile of screws works?"

Luckily we both saw the funny side. He was worried however that I wouldn't be able to put it back together again. I did of course.

I had 8 April off as it was my birthday and we broke up for Easter on the 10 returning on the 27.

During the first Friday's class Harry asked me to fix Mr Cooper's toaster. This I did.

The following week, Harry asked me to have another look at it as it was "Now acting like an electric fire". He claimed you could feel the heat a yard away. I had another go at it and completely destroyed it.

It was the middle of May before I had my first experience of Southside canteen. I'd gone to the one on Northside as normal and found that there was no gas so they were only doing rabbit food.

I asked for my usual cheeseburger and chips and got beefburger and chips. The burger was like chipboard, the mustard had no taste and the chips weren't up to much and were few in number.

The only reason I can see for most of my fellow Northsiders going to Southside everyday is that they were, to use Harry's phrase, "Talent spotting".

From that time on we didn't do much as we were revising for the exams.

When Harry went through the past paper he'd given us before Easter I found I'd got six out of the seventy questions wrong.

The Core Studies exam was on 5 June. The rest were on the 10th, 11th and 12th. I felt I'd done alright in Core Studies and Plant Utilisation. I did the Appliance Servicing exam in quarter of an hour, it was the easiest exam I've ever done. It was on election day, 11 June.

The last exam was Electronics which Pete was invigilating. He'd got a piece of black gaffer tape round his arm because labour had lost the election.

I went in a few times after the exams playing about in the workshop.

My results came through in late August. I'd got Credits in everything except Appliance Servicing. I'd got a Distinction in that.

### P A R T   T H R E E

College resumed at 9.30 on Monday 14 September. On arrival we were given our enrolment forms which we duly filled in. We had to go to a meeting about the NUS at 11.00 am. I'd have gone home at this point, but thought that we may be needed again afterwards.

After the meeting Mr Cooper told us about the difference between part and full time. Part-time students signed on and were only allowed to attend college for up to 21 hours per week; full-timers were on grants and were there for 25. What happened in reality was that the part-timers attended all the classes but were marked absent from some.

We left at 12.00 and were told to go to G27 at 9.00 the following day when we would get our timetables. There were only six of us: John Docerty, who was mad; John Holiday, who was heavily involved with the NUS and Wajid Ali, an idiot, were part-time and Raja Ali Asgar, a very quiet chap; Oliver and me as most of the others had called it a day after completing Part Two.

During the previous year there had been many rumours about our course moving to Stannington College in September 1987. We were now told officially that we were definitely moving after Christmas.

Tuesday was still our half day. We had Mr Cooper all morning but only wrote two lines as he kept getting dragged away to solve problems.

The low numbers were putting our course in severe jeopardy. Ben (an old Indian who was a pain) came in on the Tuesday but Raja didn't. Gupta (another idiot) was supposed to be coming back which made eight of us at the outside and there was no chance of running it with under ten. Mr Cooper said he may merge us with a day-release group and cook the books.

The next day we went to an exhibition at the NEC in Birmingham. I felt lousy going and I took my sandwiches out of their bag and had that on my knee, just in case. When we got out of the minibus at the NEC, Mr Cooper noticed a pie stain on my jacket and said it looked as if I'd spilt my breakfast on it.

'I thought he was going to bring it up all over me,' said John Hol who I'd been sat next to.

There was nothing of any interest at the exhibition. There was plenty of leaflets, but few samples. I got a key-ring and Mr Cooper gave me a pencil and a box of matches.

We were supposed to leave at 3.00 pm and I got back to the minibus at about ten to. I was asked by some fellow to help him bump start his car, which I did. I then sat on the back step of the minibus and ate my sandwiches.

John came back at about 3 minutes to. We'd gone round together, but he'd had to go and shit.

At about quarter past, Hairless-Harry and Mr Cooper came back. Raja came back at 20 past. We left at half past, leaving Ben and Oliver behind.

We passed them walking up the road to the car park. I waved and made long bacon at them. Mr Cooper stopped and picked them up.

I was alright coming home. We came back via the motorway. We'd gone via Derbyshire and got lost around Stafford so we had a tour of the Midlands, which had the advantage of cutting down our time at the NEC. We got back at 5.00 pm.

We had now been merged with the day-release group so from the following week, Wednesdays would be 9.00 am to 7.00 pm but we'd have Friday afternoons off.

On the Friday, we had a Mr Riggs and Pete for Electronics. Riggy decided to use the first part of the lesson revising how to use oscilloscopes. I could remember perfectly well so me and Pete spent some time making patterns on it. During the second half of the lesson all of us and Pete discussed earthing, levels of shock and anything else that came to mind. We finished at dinnertime.

The following Monday we got our final timetables. We'd now got four subjects: Utilisation of Electrical Power, carrying on where Plant Utilisation had left off, with Mr Cooper; Testing Methods for Plant and Equipment, with Bob Marriot, who we'd had with Harry in the workshop; Power Electronics, with Steve Riggs, and Electrical Control with Pete. On Wednesday afternoons we were also to have BTEC Level 2 Mathematics. This wasn't part of the course but was for the benefit of people who wanted to go onto polytechnic courses. We also had Riggy for Testing Lab on Thursday mornings. He himself said that he knew nothing about this and after having a word with Bob said that we could do what we liked on Thursday mornings. It soon turned into another maths class so I stopped going.

Late the following night I realised I'd got to give Bob some homework about power factor meters which I'd not done. John Holiday had given me some info on them but I'd barely glanced at it. I did it when I got to college in the morning. I read the info and couldn't understand it so I cut out a diagram and stuck it on a sheet of paper and copied out some of the writing.

About half way through the lesson, Bob asked if any one had done the homework. Only I had. He marked it and gave me 10 out of 10!

The following Wednesday we had a good Utilisation lesson. In the first, theory part, Mr Cooper had been talking about ways to stop motors.

He then gave some demonstrations in the lab. He was using a knife switch that was rated at 25 volts, 2 amps on 220 volts, 30 amps. By the time he'd finished there wasn't much of the contacts left.

The next day we played about with a robot arm in Pete's lesson. I made it dive-bomb Raja with a board-rubber. Ben was playing about with

it and had it heading in the direction of John Doc. Pete, looking alarmed, yelled:

"Watch John's nuts". It was most entertaining

Wednesday 4 November was a fairly typical Utilisation lab. Ben, Mr Cooper and I played about with an inductor (basically a coil of wire that does queer things) and talked about Japanese monorails.

In the next Tuesday's lab I started to make a testing module for Mr Cooper. I worked on it during Wednesday's lab also and then brought it home to finish along with the bits to make a rectifier unit (thing that turns AC into DC) to use in ordinary classrooms when they started taking the equipment to Stannington.

On Wednesday, 10th there was a half day strike, so me and my Mother went to Cleethorpes. We were waiting for a bus home by the polytechnic when Pete passed us on his push bike, complete with sea-side wind-mills on the handle-bars and his green felt hat on his head. My Mother said she was just about to say "Look at that eccentric old bugger" when I'd waved to him and pointed him out to her.

The following Wednesday we went to a small exhibition up West Street. It was about how electricity can be used for process heating, things like getting steel hot ready for forging. It was far more interesting than the NEC one had been.

When I went to Pete's lesson on the Friday, I found him wearing a hideous pink tie, with an equally grotesque green one in his shirt pocket. Best of all was a badge he was wearing: it bore the legend "Old Fart". I asked him where this little lot had come from. He said:

"It's my birthday tomorrow. These are the gifts of my caring colleagues".

We got some very good news on Monday 30. We were in an electronics class when Mr Cooper came and told Riggy to go to a meeting at 3.00 pm in G27. Knowing that we were all listening he turned round to us and said:

"Yes, it is about the move".

He then told us that he'd been invited to an RS exhibition the following day, so if we didn't mind he'd go which would mean that we'd have the full day off. Naturally nobody minded.

John Hol normally stayed after classes finished on Union business so I told him I'd ring him later to find out the outcome of the meeting.

I'd only been in about half an hour when he rang me. He asked me if I wanted the good or bad news first. I said the bad. He said:

"The course is moving to Stannington, but the good news is it's not until September 1988".

This was indeed good news.

In Wednesday's lab we saw the famed John Cooper Water Experiments. Pete had often said that Mr Cooper was insane and had advised us that if we ever saw him walking about with vessels containing water, then scarpering would be a good policy.

What he did was this: He got two wires with a potential of 220 volts AC across them and shoved the bare ends in a pot of salty water until it boiled.

I was sure he was up to some trickery and told him so. He got a soldering iron, cut the actual iron of the flex, plugged it in and shoved the bare end into the water.

The uninitiated may find this more alarming than we did, but what he was doing was giving a demonstration of the workings of Electrode Boilers, the things commonly used to heat the water for swimming pools.

While this was going on, Harry brought a kettle in which he wanted me to fix which shows how I'd gone up in his estimation since our rocky start. Mr Cooper suggested filling it, plugging the lead in and dropping the other end of it in the water.

We made a circuit in Electronics the following Monday. Only mine worked unaided. Bob spent an hour trying to make Ben's work. As I was walking past I spotted that the signal generator wasn't connected properly and fixed it in about 3 seconds. Bob looked most miffed.

On Tuesday afternoon I went and got a new element for Harry's kettle. I gave Harry the kettle back, working, on the Wednesday. He paid me with a ten pound note which took all my change. I knew the canteen staff didn't like changing big money, so I went home. That was the excuse anyway.

We broke up for Christmas on the 11 and went back on the 11 January.

I went in as normal on Tuesday. I sat in the canteen until about 5 to 9 when I went upstairs. I met Mr Cooper coming down. He looked surprised to see me. I got a nasty feeling. He asked if I'd not got his message. I asked what message. He said he'd told Riggy to tell us not to bother going as he'd got to go for an interview.

On Monday 25 John Doc discovered the genie of the burglar alarm. In G17 was a movement detector. Ever since September John had been fascinated by it. This day he got on a chair and took the cover off it. He then started bouncing his finger up and down on the anti-tamper switch and decided he couldn't work out how it worked. He'd just got the cover back on when two caretakers arrived. They couldn't understand why the alarm had gone off when the system wasn't on.

The next day I did a few jobs for Mr Cooper. He'd got a mixer that got hot - there turned out to be nothing wrong with it, a kettle that wanted a new element and a hair drier that had had a short circuit somewhere that had badly damaged the speed control circuit board. We soldered a bit of wire across the gap.

The following Tuesday I put a new element in the kettle. We then went down to the workshops to do some rewiring. W14, the one we used, had been nicked by the motor vehicle department so we'd got to use W15 and 16. Up to Christmas these had been used by YTS groups. Before they left, they'd ripped all the power out so we had to lay it on again. I put a fuse box on the wall. It was the first time I ever plugged anything successfully.

At this stage it really was a case of 'I Don't Like Mondays.' We had Electronics Theory in the mornings, which was above my head, and Electronics Practical in the afternoons. Only about 5 experiments worked all year.

Granville had a 'Special Needs Unit' which was run by a young-ish woman called Sarah. She was the object of many teen-age lustings, and lustings from grown men who should have known better - I can say she ever floated my boat though.

At the end of one of Riggy's lesson he asked if there were any questions.

John Doc replied, "Yes. Do you think Sarah's tits are getting bigger?"

Riggy just managed to splutter out "Yes" before descending into a five minute giggling fit.

On a Wednesday a couple of weeks later I had one of my run-ins with Wajid. Mr Cooper arrived about half an hour late after afternoon break. During this time Wajid started walking into me saying "boing". He did it once too often and I head-butted him, hard. This caused his brain cell to throw a wobbler and I went for a walk to see if I could see anything of Mr Cooper. As I was walking back down the corridor Wajid came to meet me. He said he wanted a fight. I told him he may also find a brain useful. He then started to push me down the corridor. One of his associates told him to behave and he let me go. After I'd gone home I developed a right head-ache. Goodness knows what Wajid's was like.

The following Monday the rest of the class went to another exhibition at the NEC. I had the day off.

The next day we had Riggy instead of Mr Cooper. He told us we'd have him for six weeks and that he intended doing maths. I therefore had six whole Tuesdays off.

The day release lads who normally joined us on a Wednesday had come on Monday to go to the NEC so, as anything we did would have to be repeated for them the following week, I had the Wednesday off as well

Pete's lesson on the Thursday was one of the best. He brought in a Mars Bar on a saucer, a handful of scalpels and a pile of tuppenny bits. He gave us each a scalpel then asked each of us to cut a slice from the Mars Bar. He then paid us 2p for doing it and then offered to sell us a slice for 2p. This was to show how that you finish up giving a lot of your pay back to your employers or summat. We then discussed black

holes, Hitler and the lack of discipline in modern society. It made a change from binary and logic gates.

We often seemed to go 'off piste' with him. One day conversation turned to big industrial steam engines. John Doc said he'd once worked in a place that had a huge one and that it was now in Kelham Island museum. Pete decided that the following week we'd go and pay it a visit. There weren't many of us and we all fit in his car.

It was the first time I'd been there and I found it very interesting, in fact I found other things more interesting than the River Don Engine.

A couple of weeks later Mr Cooper asked me to look at a Hoover for him. It was a Moulinex owned by the vice-principal. The pipe that connected the bag had got blocked and this had caused a safety switch to burn out. I was working in G26. Mr Cooper had left me to it, but said if I wanted anything he'd be in one of the rooms on the top floor. When I discovered what was up I went and told him. I found him in a computer room. While I was talking to him, I looked at his VDU. It looked hellishly complicated and I thought that I'd never be able to make any sense out of anything like it. I now realise that it was Wordstar Version 3 I was looking at. Mr Cooper and I decided that it'd be our best policy to short out the safety-switch. I only had time to clean it and decided that I'd put it back together after the week-end. He said this would be OK and that we could leave the bits spread out in G26 over the week-end.

I went to Riggy's theory lesson as normal on Monday morning. We got talking about radio control. He said he once made a radio controlled 'plane.

"It was lovely, till it got smashed up. It just fell out of the sky. I had to take it home in a bucket"

I went into an uncontrollable hysterical fit for quarter of an hour and he had to abandon the lesson.

In the afternoon I fixed the Hoover and took it into G27 to show Mr Cooper. He pulled the flex out. There was a horrible noise from the recoil spring and the flex refused to go back in. He asked me to fix it. On the Friday, the recoil spring had flown off and slashed my hand. I told him that I'd rather not fix it. He said:

"Come on, we'll bleed together".

He left Pat in charge of his class while we went back to G26 to fix it. It worked fine, despite the fact that there were 2 screws and one and a half springs from it in my pocket.

By now doing these sorts of jobs was getting quite a regular thing. When I went up to Norton the following year our IT technician, who had also come up from Granville, claimed that Mr Cooper and I had been running a business.

We broke up 25 March. I finished on the 23, because we were told that we'd got Bob instead of Pete the next day and we never did much on Fridays. We went back 11 April.

After the holidays, we didn't do much except revise, which is something that I've never gone in for. I also stopped going to Electronics lessons and missed a lot of Control as I didn't think I had much chance of passing these and that I'd be best concentrating on Testing and Utilisation.

One of the Control lessons I did go to was on 12 May and Pete smuggled us upstairs to C22 and let us play on the BBC computers. We didn't do anything much, but it aroused my interest. Stuck to the top of most of them was a notice saying:

"Trying to get a print out from this computer will prove frustrating."

On the following Tuesday Mr Cooper brought his kettle back and said it was leaking. I found that the water-level gauge had cracked. I got a replacement that afternoon and fixed it.

One day a strange lecturer walked into one of Pete's classes. Wajid was sat on one of the benches and, by sheer co-incidence, as this bloke walked in he raised a buttock and farted loudly.

The unknown lecturer said "Fair comment" and Pete added "That's the most sensible thing he's said all year."

We broke up for Whit on 27 May.

The Testing exam was held on Wednesday 8 June. I found it easy and did it in an hour. We were allowed three.

The following day Mr Cooper went through the exam, and I felt I'd have at least got a Credit.

The following Wednesday was the Utilisation exam. I'd felt very confident about this one, but found it hard. It took me about three quarters of an hour.

The Control exam was on the 20th. I did a lot of guessing and did it in 57 minutes.

The next day it was Electronics. I guessed most of it in three quarters of an hour.

When I'd finished the exam, I went over to Southside to get my grant. They said that it wasn't there. I went home and rang the LEA who told me that they'd sent it 29 March. They said they'd get on to Granville, then get back to me. After a while they rang back and said that it was there but it was made out to "Miss F A J Freeman."

The next day I went to town with my friend and we called to get my money. I had always had a very low opinion of Granville admin staff. They had a daft rule that grants would only be given out at certain

times. I got to the office at about 10.05. The woman gave me a form to get Mr Cooper to sign to say that I really was a student. I told her that by the time I'd gone to Northside, found him and come back it would probably be after 10.30. She said that in that case I couldn't have my grant. I started to give her Paddington-type hard stares and said that I'd had to go in specially that day. She said, reluctantly, that therefore I could have it outside hours. I bumped into Mr Cooper as I came off the bridge on Northside. I got him to sign my form and then got some breakfast.

After that I went upstairs to say good-bye to the other staff. There weren't many around but Pete was and while bidding him farewell it took all my strength to keep my emotions in check.

I then returned to Southside and at last got my grant before leaving for the last time. Ironically it was the only time I used the gate on that side.

## E P I L O G U E

When my results came through I found I had indeed got a Credit in Testing and passed in everything else. This was a bit of a surprise as I'd really struggled with Testing but this had obviously down to Bob pushing us hard so that when it came to the exam it seemed easy. I'd practically written off Electronics and don't know to this day how I passed that.

Following Pete's letting us loose on the BBC computers I'd applied to do an Information Technology course at the then new Norton College. The interview was conducted by Paul Helliwell who was the SL up there.

I finally left education in February 1990 - an odd time to but that's another story.

After being on the Dole for six months I applied for a job at Eric Grant's Hoover Service Centre. This turned out to be Employment Training and I only stuck it for six weeks. It did however give me the confidence to start my own business repairing small appliances. I'd never learnt to drive so could only do things which could be brought to me.

I came to that party a bit too late as for all that there was a gap in the market for such repairs the day of disposable appliances was dawning. I did OK mending vacuum cleaners but it quickly became cheaper to replace toasters, kettles, hair-dryers and the like - even if you get the parts at any price - than mend them.

By the time I should have been looking at other ways of earning a crust my parents health had started to deteriorate and I was more use at home than out working, and I did make a few bob.

By the early 2000s business had really dried-up and my Mum and Dad were taking nearly all my time so my business activities effectively ended then. Besides my personal circumstances both local suppliers I'd used had gone bust.

Following my parents' deaths I was comfortably enough off to live in the style I required without having to get a job. I still do electrical/electronic things as a hobby and do odd bits for other people. I've never formally ceased trading and do remember that I'm a business when it comes to things like dealing with companies who won't sell to the general public.

John Cooper certainly had a big influence on me as I quickly evolved a hairy arse with a 'stuff the theory and Regulations' attitude. I'm still no good at theory and stick some juice up things and see what goes bang. Despite Pete's best endeavours digital electronics has remained a closed book.