

PART 5: AN ENGINEERING CAREER, 1942-55 AND 1959-1962

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INTRODUCTION

This section¹ is about my engineering education and career, which dominates thirteen years of my life, 1942-55. It started with a scholarship which transformed my life and dramatically changed its course and ended when I went into Richmond College to train for the Methodist Ministry in 1955. During this period I was on National Service in the REME. Whilst a national serviceman, I was converted to Christianity. On completing two years in REME, I returned to work at the RAE after my marriage. A year or so later I experienced a call to the Methodist Ministry to which I responded. Therefore, two major spiritual experiences dominated the final five years of my time in engineering and transformed my personal and professional lives. These experiences are noted in this section but, as it is dedicated to my life in engineering, they are described in Part 7, Religious Background, Experiences and Development, 1930's-1955.

My time at the RAE, Farnborough was bisected by my National Service. For the purposes of these notes, I have discussed the whole of my time at Farnborough in one part and then my time as a national serviceman in the following part. This served the purposes of these notes better than writing about each of them in historical sequence. The sequences of my education and employment are presented clearly along with the details in my engineering career CV presented in the third section in the Files.

1. JUNIOR TECHNICAL SCHOLARSHIP

Working on the farm was a somewhat idyllic life. Undoubtedly it helped me to cope with my bitter disappointment of my failure to pass my eleven plus and the deep psychological wounds it inflicted. Educationally I was freewheeling along towards leaving school at the statutory age of 14. I had resigned myself to that, I think. But to my disappointment, I am not having much success in accessing my feelings and my state of mind at that time. I cannot recall any discussions about the implications of my failure with my parents or anyone else for that matter. My impression is that the response was, "Well that is that and we must just get on with it". Not that those words were necessarily said, although they may have been, but was communicated attitudinally. Having failed the eleven plus it was assumed that my place was to be an artisan in the working class community. There was loving support and concern and genuine regret but no recognition of

¹ 5.10.10

the hurt and therefore no help in dealing with it. It was accepted that you yourself had to get over it and get on with life. I am finding this hard to write. Things are emerging which I have not previously acknowledged and faced. The absence of discussion about the implications of my failure is painful. Perhaps I have blanked it out or simply forgotten it. Some parents in similar situation to mine paid for their children to go to grammar school. My brother-in-law, Eric Beaghan, was paid for. As far as I am aware this option was not considered by my parents who could have afforded it nor by me. Nor have I felt that they should have done. I wonder why? Had they done so I think I would have felt a second rate student, at grammar school through being paid for not through merit. And that could have compounded/reinforced/exacerbated the damage already done by the eleven plus failure. I rather think that the underlying philosophy of my parents was that educational success could only be gained through your own ability and effort, it could not be bought. Whether or not this was their philosophy I cannot now ascertain. However, whilst learning and knowledge is acquired not purchased, opportunities to learn and study can be bought in the educational market. When I started to write this piece I had no idea that this was going to emerge. I regret that the implications were not discussed openly. I am glad I have looked at this to my surprise for the first time. Having done so, I can honestly say that I have no regrets that they did not pay for me to go to grammar school or offer to do so because I think I would have accepted this offer and that could well have had the disadvantages noted above. I am convinced that I could not overcome those difficulties, I am glad that I did not become a failed fee paying grammar school boy because I would have missed out on so much that has made me what I have become. I reversed my fortune by winning a scholarship and I was formed in ways which developed my ability for original thought and for 'thinking outside the box'. Writing these notes is in fact helping me to connote my failure at the eleven plus examination and the ways in which it was dealt with positively and not negatively and to value myself. This justifies the writing I have done so far and indicates the potential in what I have still to do!. God brought good out of that which seemed bad. (cf Genesis 50:20).

²Back to the scholarship after doing work on Section 3 and other things.

I remember quite distinctly the day Billy Shaw told me about the scholarship and said that he would like George Bentley and me to enter for it. He thought it would be a good opportunity for us and gave me a note for my parents. My parents were quite keen for me to take the entry examination, George B decided not to do so. I took the exam, and passed

but I discovered only just, I was 22nd in a pass list of 23! But pass I did and I entered into another educational world. Browsing through the notice of the award, I see that the value of the award was means tested. I had always thought that I had a free place but I have a feeling now that they might have had to pay towards the fees. No mention was ever made to this unless it was implied in a conversation with my father in the backyard of 25 Clarke St after I had got the award. He said that they were glad that I had got the award and that I could go to the College and that my mother would go back to work in the mill in order to meet the cost. I had always thought that that meant the costs of my staying at school an extra year but it now appears they may have had to contribute to the fees and possibly travel. This was never made clear to me and I am only now aware of that having been a real possibility. He went on to say that they were only prepared for me to stay on the course as long as I worked diligently and made progress. That was the deal which I accepted. I am finding this a bit disturbing even though I do not think that it would have been a lot of money even to them – or was it? I will never know. It shows just how committed they were to further my education and to ensuring that their money was well-spent and valued through my industry. My father made a contract with me. That was clear to me at the time: their offer plus my promise to work diligently formed a binding contract between us. At the time, pleased as I was that I was going to be allowed to take up the place, I thought this was a bit hard and heavy handed. I wonder how much it was my father making the conditions rather than my mother. Sometimes I have felt it was harsh and somewhat threatening if not bullying. Such views are somewhat softened by the possibility of their contributing to the fees that I have uncovered. But in a sense it was quite unnecessary because I do work at things; always have done; I have a propensity towards serious application. There was enough inner self-generated pressure to work and a deep seated desire to do well. In view of this, the external contractual pressure was redundant. No, worse, had he said, “I know you will work at it and do your best”, I would have felt he understood, knew and trusted me. That would have induced a better father-son relationship from that that smacked of being the contract manager of my education. As things transpired, he enacted this role. Throughout the two years at the Junior Technical Collage, the standard practice was that each student had a course work log book. Each week this was completed, I took mine home on a Friday for my father to sign and returned it on a Monday. He was always pleased if I had done well which I generally had but a recurring comment if I had, for instance, got 80% was, “What happened to the other 20%?” Such comments were made in a humorous way but I knew they were meant to keep me on my toes. They rankled me. I knew he was serious about the contract.

These comments would upset my father and more so my mother. They did what they thought was best for me and paid the cost gladly. Given the context in which they lived their lives they were enlightened and progressive parental approaches. They knew the value of technical education, my father had pursued it for himself and his family at great cost to him and my mother but with great benefits. Its nature and potential would be better understood by them than would a grammar school education. I am deeply grateful to them for what they did for me. Writing this has made me think painful thoughts about whether I acted in similar ways, albeit unconsciously, to Janice and John. God forbid. Thank goodness that Janice certainly isn't.

2. A TRANSFORMING BASIC ENGINEERING EDUCATION, 1942-44

ACCRINGTON JUNIOR TECHNICAL SCHOOL

Accrington Junior Technical School transported me at breath-taking speed into a glittering and exciting educational/academic world previously completely unknown to me. Seemingly instantaneously I was awakened intellectually and transformed. Entering the College in 1942 inaugurated a six year exponential steep engineering learning curve which culminated with Higher National Certificate with endorsements in Mechanical Engineering. When I entered the College I did not know how to calculate the area of a circle. Before I left I was into differential calculus and enjoying it. And all this in two years full-time education and four years very much part-time, evenings for the first two years at the end of a full day's work and one day release and evenings for the final two years.

³This rapid development resulted from many stimuli and opportunities in the College experience but Mr Laurence Marsden (Loll) was undoubtedly the primary catalyst. He was a towering figure in every way: tall, gangling, slim built who loped along. His subjects were mathematics, science and occasionally drawing in a nine subject syllabus if you count PT and Games as one; English, history, geography, maths, drawing, science, workshop practice, workshop processes. I had never met a teacher such as he was: he clearly loved his subjects and was a master of them; he treated us with respect and fostered adult egalitarian relationships; I never knew him to abuse anyone or to put them down; he taught with great clarity and patience; he would go over and over things until we understood without becoming impatient or showing any frustration or berating us and bemoaning our ignorance and stupidity, moreover he did not simply repeat what he had said, he explained things in different ways until he hit upon

one which enabled us to see things for ourselves and grasp the point. Loll was the antithesis to Billy Shaw. He opened my mind, my soul to learning and studying; here was a new freedom distinctly different from common attitudes in the working class culture in which I had been nurtured. And I betrayed him to my lasting shame. It happened in the cloakroom on a Friday evening in my second year. Uncharacteristically I was entertaining a crowded room of boys and getting a cheap laugh by imitating the way he illustrated the direction of flow or an electrical current by going down on one knee, pointing his finger upwards and this thumb outwards and rotating his arm as he stretched himself upwards saying, "And that is the direction of flow." As I was halfway up, the room went silent. He delivered a message to a boy and left. He was in the doorway! I had the most terrible weekend. What would happen on Monday morning? An apology would be hollow and would not communicate what I really wanted to tell him, just how I valued him. I didn't know how to do that so that it would convey my sincerity. On Monday morning he behaved exactly as always. In fact he came to me specially to tell me about something he had obtained for me.⁴ His stature soared in my estimation and I was very sorry for what I had done on the Friday. When I left I thanked him for all his help but I regret never going back years later and telling him just what he had meant. I mentioned this in a sermon that I preached in Great Harwood many years later. A man in the congregation came to me afterwards and told me he too had been taught by Loll and that he still lived in Haslingden. I asked him to give him my best wishes and to tell him how much I had valued his teaching but I should have done more. As I write I am comforted by the thought that perhaps he knew. I think so. If my memory serves me right he had been in the early part of the war and invalided out. His mouth was slightly lopsided and every so often his face was partially and temporarily paralysed down, I think, the right side and his mouth dropped even further. I loved the man and thank God for him. My first great teacher. There was only to be one other of the same stature and importance, T R Batten – apart that is from Jesus to whom I was converted in 1950 through seeing him as the greatest of all teachers.

Reports on work and conduct were issued at the end of each term. I have five of these missing one at the end of the two year period. Two things stand out: after the first two terms I was in the second position in the form; frequently, but not always, there was a wide disparity between my examination results and my course work results. Generally speaking that has been a feature of my academic life.

Soon after writing the previous entry I came across some correspondence

4 Some work at a farm or an appointment for a job interview.

by chance almost that brought me up with a start. There were two letters in my father's papers which he had kept in their original envelopes which indicates that he treasured them. They were dated the 23rd December 1974, the day after I learnt officially that I had been awarded a PhD. One was addressed to my father by Dorothy (Household) and the other was to my father and Edith by me. One thing that intrigued and moved me was that in a conversation that I had with him on the previous day I had learnt that the news of the degree came on 'such an appropriate day'. For the life of me I cannot remember what he told me and what that date was. I suspect it was the date on which he married my mother. If so why would I not remember it? As far as I can remember that is the only time he was explicit about it. I recall one or two occasions when there was some vague references to it being their wedding anniversary. But they quickly changed the conversation presumably because they did not want to field any questions about the year in which they were married. How sad that they felt so bad/guilty about it that they had to be so secretive and could not celebrate it the way they deserved to be able to do. Social mores can be so punishing. I remember well the effect upon me of discovering that I was conceived out of wedlock. Rummaging through papers I should not have been I came across their marriage certificate. It shook me. I felt that at the point of conception I had not been wanted, quite the reverse and had caused them great embarrassment and problems. My father would, I know have been most upset by the hurt he would cause my Grandmother. Much later my feelings were mollified by something my Aunt Constance told me about a conversation between mother and my Grandmother I presume when my father and her broke the news. According to Auntie C my mother declined to say she was sorry about what had happened, she did not regret it and would do the same again. I do not know whether that is a precise rendering of the exchange. What I got from the conversation when I was told of it was that my mother rejoiced in her pregnancy and wanted the child, wanted me and she lived that out with love and devotion to her dying day even when we disagreed so profoundly about my entering the ministry.

⁵[Thoughts keep coming to me about my mother or father. I am becoming more and more positive about them and loving towards them and appreciative of what they did as I work on these notes. Also I am increasingly more pained by how hard they had to work and the things they had to endure. How I wish I could have given back to them things which would have to some small degree compensated for their privations.

I deeply regret that my mother did not live to see more of the developments of my life. I am sure she would have rejoiced and been proud. My father

was of what he showed. They must have been deeply committed to me even though they could not enter into it all. I recall with a little pain one evening when Dad and Edith and Jim Poore were stopping with us. (Jim was on some course or other). Jim and I got into a conversation possibly about what was emerging from the course. After a short while my father said “Edith and I will go to bed and leave you to talk.” He said it without any sense of annoyance or umbrage. I was sad that he was out of his depth even though he was gracious. He knew I was in a world he could not inhabit or thought/felt he could not. I pray they can see now.]

What brought me up with a start was what Dorothy said about my appreciation of what my mother and father had done for me and the start they had given me in life and the example of determination and persistence that they had set me. Another thing that brought me up with a start was the way in which my father was ‘proud and pleased’ you have obtained your PhD George – more than you may think and we all send our heartfelt congratulations”. (letter on the 22nd Dec 1974). He immediately wanted to celebrate it in some way and did by a new gown and hood (to his chagrin, Auntie C pipped him to the post in regard to my gown and hood and cap, he was determined that would not happen again!). In a note with the money for these he wrote, “We are proud to do this for you and your Auntie and Frank are pleased as well. Any change either have a meal with us or something” (20.5.74) All this moved me deeply and chastened me. In trying to express my thoughts and feelings I had done his motivation an injustice or at least I had not done it justice. Doing justice to all parties is impossible.

Acknowledging that this is very much a biased personal perspective is not easy but necessary: and the more personal that it is and the deeper that it goes into my side of the story, the more likely that it is to be somewhat out of balance; it is eccentric because it is egocentric. How others see things in which we were jointly involved must not be inferred by how I see them nor simplistically extrapolated from them. How I see others is not how they see themselves; how I think or presume others see me is not necessarily how they see me; etc.

My parents were thoroughly for me; utterly dedicated to my well-being, that is the bottom line. How well I remember my father making a desk for me by putting a plywood top on two sets of drawers from an ancient dressing table and carrying coal up for a fire in my bedroom so that I could study in comfort. And above all how he went down the pit day after day for us. That must have cost him. He had a love/hate relationship with it; on the one hand he would talk mining for hours; on the other he counted the

shifts to the next holiday and eventually to his retirement.

⁶Undoubtedly my two years at Accrington Junior Technical College were a time of intellectual and academic awakening. The principal and two members of staff were university graduates, one being Lawrence Marsden. This was the first time I had met graduates (apart from doctors and possibly ministers). There were no graduates in my family. Certainly it was the first time I had been taught by them and conversed with them. Of itself this was a ground breaking experience. Marsden was a gentleman as well as a brilliant teacher. There was no condescension or arrogance or patronage in the ways in which he related to his students. That was an extraordinary experience for me. It really helped me to develop. Mrs Archer who taught English etc. was quite different. She was patronizing, condescending and bossy. Sadly I think of her as a middle class snob. An incident is etched into my mind which occurred quite early in our first term. In high dudgeon at the beginning of one of our classes she berated us about our table manners which she had observed at our midday meal (we called it dinner time, she called it lunch). She was quite disgusted at the way some of us drank tea and ate food at the same time and ate off our knives and guzzled our food. It was common. Drinking tea with food negated its value; water only should be drunk when eating; tea or coffee afterwards. These were the points that I recall vividly. I certainly didn't eat off my knife. That was not allowed in my home. Eating and drinking properly was. The overall effect was a quite devastating culture shock. I had never experienced such a dismissive and arrogant onslaught on the culture in which I was nurtured. It had several effects: anger that anyone should attack the cultured people I loved and who had denied themselves to send me to this college and therefore an attack on my people; defensiveness; confusion; feeling under judgement. It enhanced the insecurity I already felt when I moved outside the culture zone of my own culture. It also made me feel guilty that I was also beginning to feel critical of my own culture. For much of my childhood I had never felt entirely at home in my native culture: I felt out of it as though I did not really or entirely belong, it was as though it was not my natural culture even though it was my native one. It was an uncomfortable feeling about which I was uncomfortable and self-conscious and kept entirely to myself. It was as though I came from or belong to or was destined for another culture. When my Uncle John (my mother's younger half-brother) claimed that he was related to local gentry (which I believe has been proved wrong) I felt that might explain my feelings. What Mrs Archer was representing so forcibly resonated with these feelings. In all a confusing mixture of feelings

6 5.6.09 [See Journal note for this date re six months gap between last and this entry!]

of loyalty and disloyalty. I found her attitude and approach repulsive, and still do, but instinctively knew that she was touching nerve endings of my own nascent alienation. Undoubtedly, I am reading into the experience more than I could have drawn out at the time but I believe that essentially I am remaining true to it.

Howbeit, subsequent events show that I spiralled out of my native culture fairly rapidly. Now some sixty seven years later I find myself thoroughly middle class in my life style, and, to my shame, uncomfortable about some aspects of working class culture, unsympathetic about some of their attitudes and even repelled by some of their behaviour and attitudes – but then I am of people of other classes. I have moments when I find I have become a snob and that appals me. I hope that my approach to development has saved me from Mrs Archer's attitudes and approaches.

⁷I have been tempted to re-write by sections: it is discursive; it had more to do with my personal than my vocational development. On reflection I have decided not to do so. It could lead to an editorial process which I am trying to resist. What is happening, I think, is that I am getting on paper thoughts and feelings in the form that they present themselves to me now and that is enabling me to work at than a little more constructively which ties in with my reflective writing style.

And as will become evident below this is happening in relation to this topic. I am becoming more aware that these notes will facilitate a more succinct and structured account of the issues. Another reason why I have decided to continue with this theme is that I realise that there is a close relationship between my personal, social, spiritual and vocational developments. This is particularly so in relation to class and educational issues.

To return to the Archer saga. I was somewhat surprised by the strength of my feelings about this incident and, of course, of two years of experiencing her approach and attitudes. Without doubt the incident was disturbing in the ways that I have indicated. But I am beginning to see and admit to myself that my feelings are generated not simply by the one incident but by a cluster of them, their impact upon me, the issues they raise and especially those I have not resolved and residual guilt about aspects of my position and attitudes. Whether or not I can examine these things perceptively and to good effect, I am not sure. But I must try!

This led directly to a period of free association thinking during which

I noted the thoughts and ideas that came to me on the theme of my experiences of classes. This prolonged period of brain storming was most revealing: it showed me that my experience was multifaceted and complex; it revealed that my previous thinking had been somewhat simplistic and naïve and consequently my judgements about myself and feelings of guilt had been of a similar order; it opened up large swathes of my experience if not the whole of it in an exciting and releasing way. Now I am struggling to find a way of giving a coherent and reliable overview of what is emerging in order to draw out the conclusions and implications. Part of the problem is that it breaks out of the structure of the notes and refers to my vocation as a whole so I have written them up in Section 6.

⁸On Returning to these Notes

Little did I imagine when I wrote the pieces in June 2009 that it would be fifteen months before I got back to them! For most of that time I have been working on Sustaining Preachers and Preaching and CLPD. Then I decided to have a leisurely summer but it did not work out just as we planned because of ill health.

Orientating myself to the remainder of this section, I decided to concentrate of trying to:

- draw out the nature and the characteristics of the phases of my career and development as they evolved.
- describe incidents which influenced my vocational development and formation;
- and those which influenced my personal development and formation
- assess my engineering ability and potential;
- reflect on the positive and negative impact of my engineering formation and experience on my subsequent ministerial career.

Perhaps this should have been/shall be an orientation to all the Notes!

⁹Four days after writing this, I came across these lines by Richard Hoggart in his Preface to *An Imagined Life (Life and Times, Vol III: 1959-1993* (1992) pp x-xi.)

So the many incidents I describe are not offered simply as instances of more or less important public moments, nor as homely little incidents typical of ordinary life. I may not have succeeded but my aim has been, in choosing and describing any kind of incident to do so in a way which might bring

8 17.9.2010

9 21.9.10

out a somewhat more ‘representative’, ‘telling’, meaning than would have been at first assumed. This is a matter of selection, angle, tone and much else; and sometimes one succeeds more than at others. If it works, the incidents, public or private, may suggest half-hidden elements in the nature of this society, and perhaps of the changes going on in it over almost three-quarters of a century. And a few incidents found their way in just because they seemed too funny – laughable or curious – to leave out.

They will help me to sharpen up my approach. I very much like the emphasis on ‘representative’, or ‘telling incidents’ and the importance ‘angle’, ‘tone’, and much else!

¹⁰This section is turning out to be quite discursive: it has grown like Topsy! One of the reasons for this is the long break between starting and finishing it. Another is that writing one part and sorting papers out has led to new insights and that, of course, is a desirable and hoped for part of the process. A considerable amount of editing is required to make them publishable. I am resisting doing this – although I intend to structure future notes more tightly by reflecting on the material before I write in a more thorough going way. But writing and mulling over papers is, as I noted at the outset, a reflective activity and a valuable creative one. And I do not want to lose the spontaneity of expressing as frankly or truthfully as possible my feelings and thoughts in order that the notes represent reflections and activities of my heart, my mind and my spirituality. I want to think as I write, write as I think and think anew through writing.

Much of this section concentrates on the impact of Marsden and Archer upon my intellectual and social awakening. Undoubtedly they were primary catalysts. But there were others in an overall educational context biased towards teaching us more as adults than as children in relationships and educational methods: a halfway house between school and the workaday world of industry. The headmaster, Mr E Overend (?) was a quietly spoken gracious gentleman who treated staff, students and parents with respect: the antithesis of Billy Shaw. He suffused a gentle but firm authority, a discipline but relaxed learning ethos and warm relationships. Having such a headmaster was healing and releasing. A T. Nuttall was a rough diamond raw from industry, who taught engineering practices and processes. He was a good artisan who taught us good praxis and gave us a taste of people with whom we would work! His way of disciplining and punishing physically and psychologically brutal. For instance, he would strike you if you made a mistake and sometimes, especially in relation to a safety issue, cover your nose with black engine oil or grease which you were not allowed to wipe off

for the remainder of the lesson! Mrs Archer, to her credit, remonstrated vigorously and indignantly: it was barbaric and unhygienic she said. I had a love/hate relationship with him. I learnt much from him about engineering, leadership and management as well as praxis but I did not like his bullying nature. Two things I recall which promoted my development. Leading a team of fellow students in a production programme had involved several different procedures on various machines and had output targets was one of them. The other was setting up and demonstrating some equipment at an open day.

The student body was entirely male. My previous school had been co-educational. I have just realised that my entire engineering education was with boys and men! There was not a single girl in any of the classes over the seven years of my technical education. I suspect it would be very different now. So I was being educated in a masculine environment and all my teachers from 1944-49 were males. Students at the Junior Tech came from a wider geographical area and I feel they were from more socially varied backgrounds than those at the Rishton Wesleyan. My closest friend, Eric Barlow, was from a middle class background. I learnt much about how such people live from our weekend sleep-overs. (See P.2 to 4 about my relationship with him and key experiences and P.4 about my friendship with George McArthur.).

Another telling incident occurred after the exams at the end of the first year it must have been. There was a week or two when we were freewheeling: there were no formal classes and students were left to pursue their own interests. So I decided to go on a slightly later train which enabled me to get in on time providing it was not delayed. (My normal train got me in with plenty of time except in exceptional circumstances.) By chance my father heard about this (he left home for work at 5am). He was furious and ordered me to catch my normal train to ensure I got in to the school in good time. Whatever the situation in the school I had to be punctual. Any question of indiscipline was unacceptable! Even though I considered his attitude unacceptable and unreasonable, I had to obey. Whether as a consequence, or out of my own nature, I have been and still am punctilious about punctuality.

My time at the Junior Technical School (or College as it was sometimes referred to), was, undoubtedly, the first major watershed of my life. It was, to change the metaphor, the entry into a new world infinitely bigger and more exciting than that which I left behind. I found new dimensions of myself and my abilities. I discovered and revelled and blossomed in non-authoritarian, non bullying relationships with key teachers and found them

to be created. To some measure I was freed from the repressive relationships at Rishton Wesleyan School. Gaining the scholarship was a providential event. I am eternally grateful to Billy Shaw who suggested I enter for it (whatever else I feel about him) and my mother and father for allowing me to go forward.

Incidents at Accrington Junior Technical College, 1942-44

¹¹I was unable to swim when I went to the college but determined I would learn to do so after a frightening incident of bullying in the first few weeks at the college. We were taken to a local swimming baths weekly. One of the initiation ceremonies was for second year boys to duck the first year ones. I was short and skinny at the time and a large built six foot boy initiated me by pushing me underwater and sitting on me. At the point of panic when I thought I was going to drown, I bit him and gained my release. Immediately I decided to learn to swim and took lessons. Eric Barlow, one of my best friends at the college who was a good swimmer, helped and encouraged me. My year discontinued this barbaric initiation 'ceremony'. Ironically, at the end of our second year some of the first year students responded to this gesture by ducking us, Eric and me that is, who had been prime movers in the reform. A large group of them found the two of us in the pool at the end of a session when there was not a supervisor around. Each time that we attempted to get out of the pool they threw us back. I fared quite well and decided to wait until they had dispersed or tired of this game before trying to get out. Eric fared very badly. Incensed by the irony of it all he became enraged and good swimmer that he was, after he had been thrown back in many times in quick succession, he was in serious trouble, thrashing around in the water having swallowed quite a lot. Somehow I got the group to see the seriousness of the situation and between us we got him out.

Eric Barlow, one of my best friends if not my best friend, and I did a lot of things together, weekend stop-overs, cycling and fire-watching in the Grammar School. On one cycling day out we went to Malham Tarn on a beautiful hot summer's day. Even though we had no trunks we swam in the Tarn, it was very cold I remember, and dried off in the sun with the consequence that I got terrible sun burn. I really was in agony that night. My mother said, "Did you go swimming?" I said "We didn't have trunks." Her response was, "I didn't ask you whether you had trunks but whether

you went swimming!”. A more receptive response than she made when I came in late when I was in my late teens, after 1 or 2 am. She did not go to sleep until I was in and would say from the top of the landing, “Is that you, George?” Having got my reply she would say, “What time is it?” My invariable reply was “After eleven”. Then she would say, “Goodnight”. After this had been going on for some months my father said to her, “Don’t you realize 1 am is after 11 pm?” For a long time I thought she didn’t, but on reflection and in the light of the Malham anecdote, I think she did all along. She was very intelligent and astute.

Another cycle ride was through the Trough of Bowland and down to Garstang where we got caught in the most horrendous thunderstorm; we could not go on and had to find B&B accommodation. This was a major incident for 14 year old boys: there was no way of letting our parents know what had happened directly as they were not on the telephone. I cannot remember what happened. I have a vague feeling we told the police and they informed our parents. In retrospect I am surprised we had the money to stay.

One of the things we did was to fire-watch. This involved staying overnight in the Grammar School and surveying the premises during the unlikely event of an air raid. It was quite well paid by my standards. At a point when I thought our friendship was secure, Eric suddenly announced to me that he would no longer be able to continue the programme of activities we had built up and enjoyed because he was going to spend all his time fire-watching to make as much money as he could. I took this quite badly, because it was presented as a *fait accompli*, there was no discussion or redress and because money came before friendship. We didn’t have an argument but we drifted apart and hardly spoke to each other. I was sorry and hurt. As I write I think this incident points to cultural and personal incompatibilities.

Another close friend was George McArthur, he lived in Huncoat which is in the opposite direction from Accrington to that in which we lived. Temperamentally I was much closer to him than I was to Eric but our association was limited to college life. Frequently but irregularly he was absent through asthma attacks. Strangely I always knew when this was going to happen. On one occasion when the register was read, I responded spontaneously when his name was called, “He will not be here today, sir, he has asthma.” The master paused and looked at me, as did everyone else and said “How do you know Lovell?” All I could say was, “I just know sir”. And I always did and never got it wrong even though we were unable to communicate outside college time except by letter and that we never did.

3. A PROMISING CAREER: APPRENTICESHIP, EMPLOYMENT AND FURTHER EDUCATION, 1944-49¹²

Employment

During this period I was employed at three different firms as an engineering apprentice and studied engineering at Burnley Municipal Technical College. Details of my employment and of the courses and examinations are set out in the cv of my engineering career. First, I describe briefly my work experience and draw out key factors in moving from one place of employment to another. Then to consider critical issues in my further education. From fairly early in my time at the Junior Technical School and throughout this period, I was considered by my tutors and employers to have a promising career and I felt that I had

From school, I went to the Bristol Aircraft Company as an office boy and apprentice draughtsman in the Jig and Tool Drawing Office. There must have been twenty or thirty draughtsmen and tracers if not more in a long narrow office. We worked on large boards slightly elevated from the horizontal. It was an airy, well-lit modern office building (still standing). The office was a happy one, the outlook progressive and the standard of work high. Some of the senior draughtsmen were very able. I had wanted to work here and deliberately fluffed an interview for an apprenticeship in a heating and ventilating unbeknown to my father who wanted me to get this job in a prestigious firm in order to have a chance for it. (Making ducts and ‘thin-plate bashing’ did not interest me at all.) My time here, however, was short-lived – about ten minutes – because production ceased when the war was over in Europe and we were all made redundant. But not before I had become interested in ‘tooling up’ for complex engineering processes.

In looking for work to continue my apprenticeship, my dominant motive, I remember very clearly, was to get practical experience on the shop floor and using traditional ways of doing engineering. This led me to getting a job as an apprentice fitter in the general fitting shop of Cherry Tree Machine Company who made heavy laundry machinery in somewhat old fashioned and traditional ways. Engineering-wise it was largely self-sufficient having a foundry, turning shop, drawing office (I never entered it!) blacksmith’s shop and maintenance crew and I think it had a pattern making shop and carpenter’s shop. I found it all fascinating and could not get work early

enough. During holidays I worked with ‘Spike’ an old man in charge of maintenance on all kinds of jobs. Without much formal education, he was highly intelligent, a very clever engineer, a master craftsman. I loved working with him and often travelled on the bus with him to work and listened to his fund of stories. As I recall he was referred to as the millwright presumably because he was responsible for the engineering plant eg all ¹³the overhead driving shafts run by the steam engine. The fitting shop foreman, Mr Borrowdale, was a horrible little man who ruled by intimidation and threat. Before the war when there was much underemployment he would taunt me for hours until they lost their tempers or came to the end of their tether. Then, spitting on the floor in patterns – tobacco chewing he could indicate where holes had to be drilled and outline shapes – he would say in broad Lancashire, “Na, let me see tha has three kids and there i’na work in B’burn and there is a queue of fitters at door. Tha doesn’t want to go home, does’t?” Gradually, having learnt all I could although I could have honed my fitting and fitting skills much more, and becoming disillusioned with the antiquated practices and the stick in the mud engineering, I decided that I should leave for the good of my future prospects. This inner conviction and some help from an influential friend, Mr Redman, of my Uncle John’s led me to get a job as an apprentice draughtsman at Messrs Howard & Bullough Ltd, a large long established prestigious textile machine manufacturing firm. Looking back now, I realize that I was missing a good mentor or role model. There was much well-meant advice but it was not always of the best kind. My Uncle John – my mother’s younger half-brother – was an eccentric flamboyant entrepreneurial businessman who made a fortune during the war and subsequently lost much of it but remained quite wealthy. But he was in no way able to guide me professionally. He and his friend Redman were trying to develop a business making fire grates and accessories and got me involved in helping them to set up their workshop and I suppose had the idea of employing me had I been interested (which I would not) and the project succeeded (which it did not).

Clearly, the unfolding of my engineering career was not following a standard, smooth, orderly pattern. I was taking personal initiatives to try to shape it as best I could. But things were not working out as well as I would have liked. Various I had wanted to be a mining engineer (my father was against this and when he relented there were no vacancies), to build and make large steam engines (heaving engineering has always attracted me) but that didn’t happen and to be an engineer in the merchant navy (this was inspired by a fitter I worked with at Cherry Tree Machine Co. who had travelled the world in that capacity) but that didn’t happen either. With

hindsight these would probably not have been good career choices – the first and the last because in my adult life I became claustrophobic and the mining and steam eras passed away.

During the interview for the Bullough's job I became quite excited. The job was an apprentice draughtsman in a drawing office specializing in spinning machinery. At college we had been studying the lateral oscillations of long cylindrical bars at high speeds. I found this fascinating. When I told those interviewing me about this they said that would be useful. Consequently, I felt that this post would enable me to use and pursue further my engineering studies which I had not been able to do at Cherry Tree Machine Co. That was one of my main causes of my dissatisfaction and reasons for leaving.

On what I now realise was slender evidence that it would meet this need, I accepted the job gladly and built it up and talked about it in exciting terms. Within hours of starting in the job I knew I had been seriously misled or misled myself. It was a routine production drawing office as bound by custom, tradition and past practices as Cherry Tree Machine Co. had been but in a different way. There was simply no original design work at all. The work consisted of putting together standard components to fit the needs of particular machines and customers.



Research Drawing Office and my colleagues

Below left: From the right standing: Alan Bland, Jimmy Wood, Me, ?

Below right: Jim Brook seated



I knew I had made an awful mistake. I felt I had been misled and even betrayed. I was angry with myself and with the chief draughtsman who had interviewed me. I thought the bottom had dropped out of my world – and my stomach! I felt sick. I am reliving this experience as I write. My studies were of no more use here than previously! However, I stuck with it and became very proficient at the work. (Indeed at some stage I took a course in textile machinery and processes.) I was rewarded by being appointed to a newly formed ‘Research Drawing Office’ some fifteen months later.

A group of textile machinery makers and 3 textile mills had federated and, in conjunction with a research institute, were investigating centrifugal modes of spinning at very high speeds on spindles running on air cushions rather than bearings. This would be much more efficient than traditional methods. The office was a small one—five draughtsmen and chief draughtsmen (see photos).

One part of the room in which the office was situated housed experiment spinning machines which ran much of the time and made an intolerable noise which made conversation difficult. Working in the office was a good experience and I learnt much about draughtsmanship, designing machinery particularly from the young gifted senior draughtsman Jim Brook who had trained as a pattern maker and had an unusual ability to conceptual drawings and designs in three dimensions. But the title ‘research drawing office.’ was a misnomer. A certain amount of learning from rough and ready means of trial and error went on but it was by no means rigorous research. Within a year it became clear that the project was faltering mainly because ways of repairing broken threads at high speeds had not been found and the signs were that the office would be closed.

Realizing the way things were going, I became deeply convinced that I did not want to go back to the kind of unimaginative work that I had done previously; it would be a retrograde step which I must avoid at all costs. I must use the position as a stepping off place to something similar or preferably better. This came entirely from within myself. It was one of the most creative things that had happened to me although I did not realize it at the time. Taking it seriously was a significant step in taking my life into my own hands and to the redemption of my career. By this time I was in a serious relationship with Molly who backed me. Before it became apparent that this would happen, I had taken the initiative to further my education after I completed my HMC in May 1948. I applied for a most generous scholarship to study first for a BSc in Engineering and then for a MSc. (The grant for each of my first three years was £500, I was earning £2.5 at the time!). Two things tripped me up. Possibly the one that failed me was the

interview I describe in [Part 6](#) and particularly the class based exchanges. The other was the questions in one or was it two papers were in metric when all my education had been in the English imperial system. To answer the questions I had first to convert all the measurements! But I do not think this failed me: I had got my HNC. at the early age of 19 after four years of study and I think they complimented me on that. I was bitterly disappointed. I prepared myself for the exams and the interview. With hindsight I should have had tuition and coaching but the idea never occurred to me, nor to those around me. All along there was this deep inner prompting and urge to break out of the mold in which I was cast and in which I did not want to be imprisoned; I needed and wanted to transcend it.

By chance or was it providence, I saw an advertisement for assistant experimental officers in the Ministry of Supply. I didn't know what such a post would involve but 'experimental' spoke of research and so I applied for it. An interview with the Civil Service Commissioners followed and I was offered a post at the Royal Aircraft Establishment in Farnborough. I had never heard of the RAE nor had anyone I knew and I didn't know where Farnborough was, (my father did because he had been stationed on Laffans Plain when he was in the Army where the RAE was located.) Encouraged by all my friends, my parents, Molly and her father and convinced that it was a good step, I accepted the post. And so began a great adventure which was not without its difficulties not least of which was being separated from Molly. But before I turn to the RAE, it is necessary to describe features of my studies to give a balanced picture of this period of my career.

¹⁴When I came across the [memorandum on the Introduction of Liberal Studies](#) into Pibwrlwyd Rural Technical College I tried to find prior reference in these Notes to the anger I felt when I realized when I was 18 or 19 years old at the narrowness of my engineering education. To my amazement I could not find any; it may be somewhere but if not it is a major omission which I cannot understand.

It occurred in the third of these three phases, sometime after I had completed my HNC diploma. I had been long painfully and embarrassingly aware of what I had missed through not having had a grammar school education and the proper introduction to English, French, history etc. Now I was aware that I had suffered a second deprivation. I had indeed had an advanced, fast tracked technical—with the emphasis on technical—education. The image that came to me then and has remained with me is of a narrow swath of technical instruction and training cut through

a vast area of knowledge about ‘engineering’. What purported to be an engineering education was nothing of the kind. As it cut through the area it left unexplored or even acknowledged the science, history, philosophy of engineering. It did not begin to open up the meaning of an engineering career, profession, ethics, and responsibilities; nor to locate it in the wider field of science and the subsidiary technologies.

I was very angry. Taking an English course was, in fact, a response to that anger, howbeit a feeble one. I just did not know how to redress the situation in which through no fault of my own I found myself. Starting a course in German in my first period at the RAE before I was called up for NS, was another. Then, during my time in the Army, I started to read text books on ethics and chose English and General Knowledge in Part I and in Social and Natural Sciences in Part II of the Civil Services Forces Preliminary Examination in 1951.

I feel I have never rectified my unbalanced education.

However it was not until I studied the history and philosophy of education for my PGCE in 1969 that I realized that I was a victim of government policy which, at various stages of history, had vigorously promoted narrow based technical ‘educational’ programmes to produce people to do the work that was necessary as Britain was progressively industrialized. That confirmed what I had discerned and felt deeply in 1948, twenty one years earlier and focussed my anger at politicians who had enjoyed privileged liberal education at public schools and leading universities deliberately denying others a fair measure of a liberal education to satisfy labour needs and demands. On the other hand I did get a form of ‘education’, a way forward.

A book by T.L. Jarman, *Landmarks in the History of Education: English Education as part of the European Tradition* (John Murray, 1951, 2nd Edition 1963) was one of the books I was studying at the time. Chapter XIII helped me to see the functional nature of my education. This is not the place nor am I equipped to examine the development of liberal and technical education and the interaction between them. Education for all was one of the outcomes of the Industrial Revolution and there were many people committed to liberalising it. These notes are about my early education and what I felt about it and the psycho-philosophical impact it had upon me and how I came to understand what had happened. One quote from Jarman must suffice for this purpose:

Modern education has followed the liberal ideal in making its work non-

vocational and cultural. The technical schools on the other hand devote themselves to education for immediate practical use (p238)

Much working class culture, and especially that in which I grew up, colluded with that as I have already noted.

At the time I was greatly influenced and inspired by A. N. Whitehead's *The Aims of Education and Other Essays* (Ernest Benson Limited, 1932, Sixth Impression 1966).

My rebellious anger has diminished somewhat as I have mellowed, but some remains. The Church and Batten liberalised my education.

¹⁵**Further Education**

From September 1944 to May 1949 I was variously and heavily engaged in evening classes and part-time study of engineering and allied subjects. The academic year ran from September to May when the examinations were held. A simple table gives an overview of the work-study pattern.

Bristol Aircraft Co. August 1944 – June 1945	Second year of the Ordinary National Certificate in Mechanical Engineering (s2 of the ONC) Evening classes at Accrington Technical College (3 evenings) (ATC)	
Cherry Tree Machine Co. June 1945 – May 1947	Third year (s3) of the ONC. First year of the Higher National Certificate in Mechanical Engineering. (A1 of the HNC) at Burnley Municipal Technical College (BMTC)	

The first year of the HNC I think I did get day release and I can no longer remember whether I had evening classes – I suspect one.

College life was good and I made a very good friend, Keith Wilkinson; I was best man at his wedding and he came to mine but we drifted apart sadly.

I got much help and encouragement at home: my father made a desk out of two drawer pedestals of a piece of old bedroom furniture and lit fires in the bedroom where I studied but there was little support at work. No one else on the shop floor was doing any studies and very few of them had done. And the work was physically hard but not mentally so. Interested as I was in the subjects and keen to learn, I remember struggling by 9 pm (classes went on to 9.30 pm) to keep my eyes open I was so tired.

The third period was different again. I was back to office work which was less demanding physically and not over-demanding mentally. It was conducive to study, most draughtsmen had done or were pursuing ONC or HNC courses. Management certainly encouraged it and expected it of people like me. During 1947-48 I had day release and possibly had evening classes and completed my HNC.

The next year was quite different from my previous years of study. With an eye to membership of The Institution of Mechanical Engineers I took and passed a course in English required by the Institution. I also studied a course in Industrial Administration and Organization but for some reason was unable to take the examination. Feeling the need to improve my command of the English language I attended a course at Accrington Technical College taught by an American man. [On one memorable evening I embarrassed myself and others. The principal had from time to time dropped in and had quite lengthy conversations with the tutor on golf. We were told to get on with private work. This annoyed me: I was desperate to learn; I had paid for the course out of my own pocket; I had given precious time to it. What was intended to be an expostulation under my breath came out quite loudly in my anger and exasperation at being interrupted at an interesting point: “Oh, bloody hell, not again”. The principal looked at me and said, “It seems an inconvenient time” and left. He never came again!]

Considering it would be advisable to supplement my mechanical engineering studies and training with a better grounding in electrical engineering science I took and passed the S2 course and examination in that subject. Then, I was flattered to be asked by the Principal of the

Engineering Department to act as his assistant one night a week when he taught either theory of machines or strength and electricity of materials. That was a boost to my confidence and a challenge. Dr J Riffkin, Ph D, DSc, BSc, AMIME, was my favourite tutor, certainly he was the best qualified member of staff with the widest experience – he had worked on the Boulder Dam (now known as the Hoover Dam) in the Black Canyon of the Colorado River in the USA which was built between 1931 – 36. He was a brilliant charismatic lecturer. I can still hear him almost chanting that in relation to the properties of steel the basic assumptions are that it is “homogenous, isotropic, obeys Hooke’s laws and is the same in tension or compression...”. Early in the war when engineering firms in Burnley traditionally skilled in building steam engines started to work on jet engines, he was asked to address a mixed audience which packed a large theatre on how jet propulsion engines worked and the theory on which they were based. Present were lecturers in engineering, industrialists, fitters, turners, students interested citizens. I was not present but people talked about it for years. By common consent he enthralled them and everyone learn something new. An incredible ability to engage with people and to communicate to them. He was a hero to me, model of an engineer. He had a fund of telling stories. A favourite is of a young civil engineering student in an exam stuck on a question, about a river, rocks and the dam. Utterly despairing he scribbled across the paper ‘Blast the rocks and dam the river!!’ and stormed out. Yes, you have guessed, he passed with distinction. I learnt much from Dr R about not only teaching methods but the wonder and joy of it.

So during that year I was attending classes five nights a week and doing some private coaching in mathematics to make some cash but mainly because I got much satisfaction from doing it.

Writing this has led me to see in new ways that something deep within me was driving me hard to do all I could educate and train myself to be as thoroughly prepared and qualified as possible for a successful and satisfying career in engineering as possible. As far as I can recall, however, I do not think I had a picture of what that might mean or what I wanted it to be other than a good if not outstandingly able engineer. Then, right out of the blue, came the RAE

4. A PROMISING CAREER: ROYAL AIRCRAFT ESTABLISHMENT (RAE), 1949-50 AND 52-55

¹⁶My two periods at the RAE were rudely and unexpectedly interrupted by two years as a National Serviceman: the first was from the 19th September 1949 to the 26th January 1950; the second was from the 29th February 1952 to 31st of August 1955. My personal position was quite different during the second of these periods from what it was in the first. During the first I was single (courting but not engaged) healthy, committed to an engineering career and ambivalent about Christianity; during the second period I was newly married, seriously ill during the first part, progressively uncertain about my career until I experienced a compelling call to the Methodist ministry in 1953, a committed enthusiastic Christian and eventually a local preacher. I became a Christian whilst I was in the Army but it was only during my second term at the RAE that the vocational implications of my conversion became clear. In both periods Molly and I experienced earth shattering events which inaugurated irreversible changes in us and in our lives. For me they were times of transformative personal, professional and spiritual learning from new insights and understandings. On reflection I am quite amazed at the quality and amount of professional learning that took place in the first period which was only four months in duration. Amazingly it was deeply and permanently rooted in the depths of my being. The second period of three and a half years saw it consolidated and extended. As we shall see, what I learnt then has developed and been refined over the years and has informed and profoundly influenced the whole of my subsequent ministry especially from 1962 onwards when I became involved in experiential Christian Education and church and community development.

It would be quite impossible to trace out the critical learning path through the two periods and even if it were possible it would add little to the value of the Notes, so for the purposes of this exercise I treat the RAE experience in a unitary way. Similarly it is not possible nor advantageous at this stage to attempt to describe interactions between the personal, professional and spiritual discoveries. That will in part emerge later. Therefore, as this section is primarily about my engineering career, I will focus on the ‘professional’ learning. Then, in section 7 after drawing out the professional implications of my experience as a National Serviceman, I will focus on my spiritual development. What I am for want of better terms calling ‘professional’ and ‘spiritual’ are, of course, personal. During

the second period I was quite ill from 1952 to 1953, this will feature in the notes about my call to the ministry in Parts 7 and 8.

THE RAE

¹⁷Glimpses of the history of the RAE are recorded in the Golden Jubilee issue of the *RAE News: The Journal of the Royal Aircraft Establishment*, 1955 which happens to be the year I left for theological college.¹⁸ During my time it was an enormous and thriving research establishment employing an incredibly large number of scientists (some of them with international reputations), engineers and technicians.¹⁹ Every aspect of aeronautical science and engineering was covered and researched. The campus was extensive – a frequent minibus service would take you to any one of the countless sites.

MY WORK

Throughout my time at the RAE I worked in the Mechanical Engineering Department on problems related to safety and escape of personnel in aircraft under crash conditions. See the staff charts in my RAE file.²⁰ This Department shared the same building as the Structures Department where my dear friend Norman Heaps worked,. (Tradition has it that Nevil Shute worked in this Department or was attached to it during the 1939-45 war and that he drew upon his experience and some of the characters for one or two of his novels particularly ‘No Highway’ which was about metal fatigue.) I identified one or two of these characters. Our offices and lab were off a huge lab which housed a testing rig large and powerful enough to stress a whole fuselage to destruction. It was known as the ‘cathedral’

I saw many subjected to such experiments.²¹ My boss, team leader,

¹⁷ 15.11.10

¹⁸ Various articles on the RAE and its subsequent history are to be found on the Internet. Wikipedia outlines ways in which it has been renamed and merged with other organizations and now is part of the state-owned ‘Defence Science and Technology Laboratory (DSTL) and/or the privatised company ‘Qineti Q! A print off in my file on the RAE.

¹⁹ Lodged in my memory is the figure of 3,000 graduates at the peak of its life but this seems unlikely.

²⁰ See the staff charts in my RAE file.

²¹ I cannot resist recording an incident when the usually high commitment to scientific standards lapsed in an attempt of the Director and his party of heads of the Mechanical and Structural Engineering Departments who were showing the Duke of Edinburgh around during one of his visits. A fuselage was in place

for most of the time was Ian Keiller, one of the Keiller marmalade manufacturers. When it was known that I had been appointed to the team, people speculated whether a member of the Lovell toffee people was to join the Keiller marmalade producer – alas I had only the name! Our team section's brief included: seat ejection, escape facilities; harnesses; seats. And later was added: escape methods, hood jettisoning, emergency exits and crash protection. My especial responsibilities as a junior member of the staff focussed on the following aspects of this agenda. During my first period I was set to work calculating the stresses on the cockpit structure of Austen a/c (I was horrified to find that my calculations indicated that the engine would move through the cockpit under a forward moving collision). Another of my jobs was to set up a pendulum rig to test the strength of seat harnesses. A seat was suspended on a pendulum with a 'dummy man' strapped in it, raised to the horizontal position, allowed to fall freely until it was arrested rapidly in a short distance by the assistance of a hydraulic retarder. I am not sure it worked very well. Calibrating the retarder proved to be problematic. I also assisted with experiments on escape from emergency exists, design of a representative dummy man and seat ejection.

²²During my second period my main work was: development of mechanical instrumentation; design and development of a drawing of the standard airman. Testing and using the instruments and the dummy man involved experimental work and trials at Farnborough, Chalgrove, Pendine Sands and North Africa. Various reports I wrote describe aspects of this work and incidents related to them are described to illustrate what I learnt from it and how I did so. (See list of reports on my Engineering CV and copies in the RAE file).

NB An appendix to this part is the handwritten notes of a talk that I gave (possibly in the late 50s or early 60s) on my work in the RAE.

ready to start to tests in the cathedral so that was a focus of attention. The Duke saw a pressure gauge reading an extraordinarily high pressure. He stopped and asked about this observing that in his Navy days any such gauge would have an engineer monitoring it and the system to which it was connected. They variously said that things had developed and there were safety devices inbuilt into pressurised systems and he could be assured all was in order. The Duke was having none of it and could not be moved. He asked to see the engineer in charge who was primed to tell the same story as was the foreman who the Duke asked to see. As he was still not satisfied, he asked to see the fitter who had connected the system. He arrived unprimed to give the 'official' answer. When the Duke asked him directly about the gauge, he said, "O, sir, that bloody thing has been broken for some time!"

RADICAL TRANSITIONS

Leaving Lancashire industrial engineering, moving south, entering the RAE and taking up this very different kind of work, involved making several radical transitions: personal, cultural and professional. They were amongst the most profound and far reaching of any that I have made. Going to Accrington Technical School was arguably the first, going to the RAE was the second. Work wise it was a glorious mind-blowing transition from hidebound traditional practices to a research-experimental culture. The RAE was the antithesis of all my previous engineering experience and to a less extent my education. It was a research and experimental institution through and through. Every aspect of its praxis was dedicated to breaking new ground and overcoming or solving practical and theoretical problems. Imaginative ways of approaching things were normative whereas in my previous experience, it had been traditional practices. For me it was an exciting and liberating new world in approach, underlying assumptions, attitudes and praxis. Entering this world was a born-again professional experience, a kind of religious awakening. Or, to use another metaphor with religious overtones, it was like entering the Promised Land. Undoubtedly it was a spiritual experience although I did not think of it as such at the time. The RAE was my way out of a constrictive if not a crippling praxis mind-set to a new intellectual freedom which allowed my innate 'ability to think' to flourish. I count myself fortunate and blessed to have had this liberating experience.

Writing this and reliving the wonderful experience unexpectedly caused my mind to run fast-forward to my subsequent life. Unquestionably this was the gateway to a promising and fulfilling career and whilst that was cut short it profoundly influenced my ministerial vocation but not until I got into experiential education and community development in the 1960's. I have been long aware of this and the way in which my theological education repressed this exciting culture in me. More on that later. What has just struck me for the first time is that my conversation combined with my army engineering experience stifled it. Again, this comes out later, but what I want to note whilst it is fresh in my mind, is that I need to reflect further on the way in which my post-conversion acceptance of a biblically conservative if not fundamentalist approach to Christianity, howbeit for a short time, affected my whole attitude to life and work. I cannot help but wonder whether a downside of my conversion was that it took me into another traditional culture with its own forms of constriction which again, in different ways, inhibited experimentation, extolled adherence to standard doctrine and dogma and was suspicious of and frowned upon

original thought. This partly explains how my enthusiasm for the RAE was not as great in my second period as it was in my first. Certainly it made me open to the very different culture of theological college and the disparagement of my engineering career – it would, they suggested, have been better had I had a classical education. And I became convinced of this and still wish I had. Consequently it took ten years after I left the RAE for the culture I took into my system there to become part of my ministerial praxis and to revolutionize it – and that of others. A priceless gift that would not have come from a classical education. But more of that and liberal education elsewhere.

FORMATIVE INCIDENTS AND EXPERIENCES

Turning from the overall impact of the RAE to aspects of it which also have had a profound lasting influence upon my formation as a human being, an engineer and as a minister. Here I identify them and some of the experiences which engendered them. Whilst I can pinpoint some of these creative experiences which were dramatic, they were reinforced by the ethos and cultural environment of which they were an integral part. They illustrate the nature and quality of the air on breathed in Farnborough.

1. Focussed courage and commitment

One of the things that made a deep lasting impression on me was my experience at Farnborough of courageous commitment carefully and professionally focussed on achieving purposes. Courage and bravery was not a concept new to me as I lived in a mining community and through the Second World War: my father was a miner and my grandfather had fought in the Boer 1914-18 Great War and I knew of their bravery. It was my mother's courage and dogged determination that saved my brother's life as a child through nursing him night and day. Courage was in the air. But this was the first time I had observed it closely in action. Soon after I had started work at the RAE I assisted with an experiment which greatly impressed me. It was to discover whether personnel would be sucked out of a 'plane in flight if a door came off. To test this the side of a fuselage had been mounted so that a large blower could simulate a wind stream of 200 mph. A net was in place to catch anyone sucked out of the fuselage through an open doorway. RAF medical officers offered themselves as experimental subjects, guinea pigs. In the event they were not sucked out, they had to force themselves out and that they did several times at some risks. These officers were from the Institute of Aviation Medicine at Farnborough who worked closely with our department. On the grounds that they would

better understand what was happening to their bodies than lay people, they submitted themselves to seat ejection tests on a ramp to simulate ejections.

²³Another telling incident occurred a few months after my return to the RAE. I went to North Africa with a team to do tests about countering the negative effects of freefall from aircraft at high altitude. We were based at Castel Beneto²⁴ air base near Tunis. People who escaped from or were ejected from aircraft at high altitude had to freefall to survive – they would freeze to death if they glided down with their parachute open. Several people had died because they did not open their parachutes. The theory was that they spun about their own axis, in downward spiral and became ‘seasick’ and lost the will to save themselves. A Major Willans had come up with the idea that he could use his arms and legs to prevent himself from getting into a fatal spin: in fact to do what we now know as sky diving. (My job was related to mechanical instrumentation). I shared a room with Willans – between times he wrote articles for women’s magazines. I was impressed by his courage and his thoroughgoing preparation. He packed his own parachute and kept it with him day and night to guard it from anyone tampering with it. Also, he built up his resistance to freefall sickness. In a large hanger he had a stretcher suspended from the girders so that it could be rotated like a conical pendulum. He laid on the stretcher and people rotated it in a wide circular path. As it was rotating he sat up. This caused him to be violently sick. However he persevered until he could do this with minimal discomfort. Then he had the speed increased in stages and sat up increasingly more quickly. Again, at each stage he persevered until he overcame any sickness, courage, carefulness with equipment and training was an impressive approach to dangerous research!

This was the time when pilots were trying to break through the sound barrier. Attempts were made to get the required speeds by diving very steeply. This took great courage because they did not know what they would experience at the other side of the barrier – would they vibrate to destruction or would they go into a steady flight condition after the initial shock? No-one knew.

So all in all courage was in the air. Risks were taken purposefully, not for ‘kicks’. Pilots doing fast test runs in straight and level flight at 20’ or so from the ground had to have nerves of steel because the slightest twitches in the wrong direction would spell disaster. And I saw at first hand the awful cost of such courage in the crash of the DH110.

²³ 19.11.10

²⁴ I am finding it difficult to establish just what went on in these trials.

The DH110 Crash

Five months after we were married, Molly and I took Bob²⁵ and Joan Cottam the RAE Flying Display and Exhibition on the 6th September 1952. We were standing about halfway between the runway over which the DH110 crashed and Observation Hill. During a low-level supersonic flypast along the length of the runway the plane broke up immediately in front of us. Instinctively I held Molly close to me as did Bob with Joan. After the boom of the disintegrating forces I remember a deathly awful silence amongst the spectators which seemed to hold us together in its cohesive power. A silence charged with shock and fearful but resigned anticipation. No-one moved. It was as though time stood still. Parts of the plane flew in all directions seemingly to me noiselessly. A large part of an engine flew in a parabolic flight path directly towards us. I was used to observing such things in flight as part of my work and was utterly convinced it was going to land on us. During the seconds that I watched it which seemed like hours I remember thinking very calmly, "So this is the way in which my/our lives are to end. How strange." There was no panic, just waiting for what seemed to be the inevitable. Then, suddenly at a very close distance, the engine seemed to somersault and turn into a different flight path which took it over our heads into the crowd on Observation Hill along with other projectiles with devastating consequences. Silently and in shock and grief we made our way home thankful to be alive. There was nothing we could do for the victims but pray.

2. Experimental and Investigative Research

It was at the RAE that I was first introduced to, inducted into and became committed to experimental and investigative research. I found it exciting, conducive to my nature and deeply interesting and satisfying. The various reports I wrote indicate some of the work in which I was engaged. (See Engineering cv and copies of the reports in my RAE file.). The 'Free Drop Civilian Clothing Trials on Dummy Man MKV.' was the first of an enormous number of reports to be published as helped research into the Comet Crash. I also helped with the development of the escape chute.²⁶

²⁵ Bob and I travelled to Egypt together and served in REME at the Base Workshops in Tel-el-Kebir. He was a regular soldier posted at that time to Arborfield and living in Reading. How strange are the ways in which our lives crisscrossed and then diverged... how I would like to know what happened to the Coltains – and so many others.

²⁶ Another incident that occurred which I want to record relates to the development work on an escape chute partly because it has amused my grandchildren.

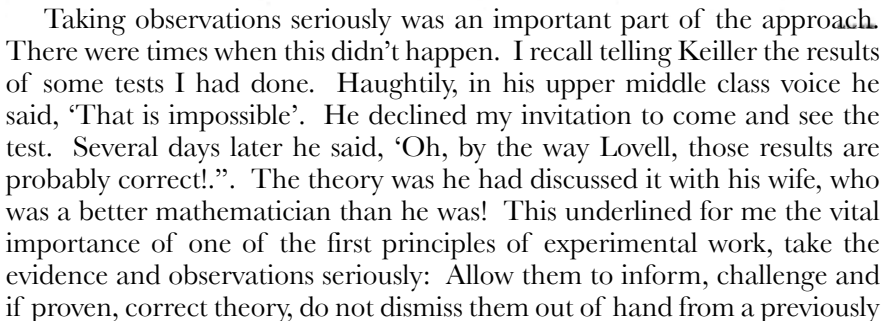


FIG.4. PASSENGER ESCAPE CHUTE TYPE II

Scientist Sir Arnold Hall, below, had some detective work to do in charge of the protracted accident investigation report



SAGA APRIL 1999



(There is a report of the work on the chute in my file with a photograph of me holding it, photocopied above). On one occasion we demonstrated it to a deputy chief scientist from MI5 HQ,. He was impressed but then became concerned at the thought of ladies coming down the chute feet first and ending up with their skirts around their midriff with the embarrassment that would cause. Our attempts to persuade him that in dangerous life and death situations such incidents would cause no concern whatsoever and in any case, even in those days some might be wearing 'slacks'. But he remained unconvinced and concerned. Then, all of a sudden, he became excited, cried out, "I've got the solution", rushed to the ladder, ascended to the platform and threw himself down the chute head first (as in the picture someone else is doing). Second later he arrived at the bottom with his trousers around his ankles – he had self-supporting trousers, not braces, which didn't remain so! Hardly able to contain our embarrassed amusement, we formed a cordon around him whilst he adjusted his dress, regained some measure of composure and withdrew with as much good grace as he could.

held theoretical position, work inductively rather than deductively. Much later I was to come to the same position through Batten's dictum, respect the authority of the working situation.

3. Inter-disciplinary Collaboration

As already said, there were at the RAE experts in every field of aeronautical engineering and research: the comprehensive nature of it all was breath-taking. A glance at the structure and staffing of the Mechanical Engineering Department indicates the detailed and precise way in which the research programme was sub-divided. Collaboration and co-operation between departments, sections and personnel was normative in my experience – although lack of it, rivalry and competition was probably around but I did not meet it. This was enormous experience. I saw a little of this personally in the work that was done into the investigation into the Comet Accident Investigation and my small contribution through experiments on the civilian clothing trials (see Test Note No 530 which was the first of a great number of such pieces of work on all kinds of aspects). All the reports were collated into an enormous report which Sir Arnold Hall is holding in a photograph opposite from an article on file. I was privileged to attend one (or possibly more) of the sessions at which Sir Arnold presented the report and gave evidence to a public enquiry into the accident. The report was a masterpiece of collaborative experimental research. Co-ordinating it was a major achievement. I was astounded, thrilled and excited by Sir Arnold's mastery of the Report. With relaxed ease he answered complex questions clearly, having all the details at his fingertips including page numbers. I had never seen such competence and confidence in operation. It was a model beyond my ability which has nonetheless inspired and motivated me throughout my ministry.

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4. Report Writing

My first experiences of report writing were at the RAE. I wrote no fewer than four and some technical notes during my second spell there, mostly in 1954. It was a hard but excellent introduction to and an apprenticeship of report writing. The process was taken very seriously. All reports had to go through set stages of rigorous vetting. Heads of Departments decided whether reports should be published and if so in what form and into what classification and their circulation. What I learnt and the confidence gained through this aspect of my work at the RAE has served me extremely well.

My Promotion Eclipsed by My Call to the Ministry

Eventually I became an established civil servant in the scientific side of the Ministry of Supply. However, there was a major set-back to my career following my participation in the Castel Benito trials in 1952. Accusations about my approach to the trials cast a shadow over my professional reputation. Eventually this was cleared but not until 1954/5. This incident is best described in relation to my call to the ministry.

By 1954/5 my work was sufficiently well regarded by my superiors for me to be considered for promotion to Engineer Grade III to which I aspired from the beginning. Such promotion would have doubled my salary in a stroke, enhanced my career prospects and enabled me to do the kind of work for which I was most suited and best trained and qualified and which I would have enjoyed. But, after a period of personal uncertainty about my career – further study for a masters degree, teaching engineering, ministry – my future was eclipsed by a compelling call to the Methodist Ordained Ministry. So I concluded my time at the RAE in August 1955.²⁷

²⁷ Writing the latter pages has been somewhat bitty due to various interruptions and distractions. Also I have indulged in various anecdotes, some of which were not directly illustrative of the Notes. Consequently the text is somewhat discursive in places. So much so that I felt I should rewrite sections but eventually decided not to do so. This is another exercise for different purposes.

5. A Promising Career Rudely Interrupted: National Service in REME, 1950-52,

*Choosing the Army rather than the RAF*²⁸

Originally I was down to be conscripted into the RAF, as would be expected of someone employed at the RAE. Whilst at the pre-service tests, interviews and medical I decided that I would rather serve in the army in the REME or Royal Engineers. It happened like this. Having successfully completed all the procedures and being pronounced fit to serve, I was interviewed by three senior officers and asked to sit outside whilst they conferred. As I sat there dressed in my trousers and braces but nothing above the waist it occurred to me that I would have better engineering training and experience in the army than in the RAF. So I knocked on the door and when invited to enter I asked if it would be possible for them to enrol me for the army rather than the RAF. They were a kindly board. The chair looked quizzically at the others and then said to me, “Young man, do you feel all right?” Having answered in the affirmative he then said, “I think you ought to sit outside quietly and think about this”. Which I did, only to reaffirm my request and to explain my reasons when I was called back into the room. So, to their credit and my surprise they put me down for the REME, a fairly new regiment.

I have never regretted my decision even though in one sense it would have been much more sensible given my intention to pursue my career at the RAE when I was demobilized. Also, my life would probably have been much easier in the RAF than in REME and given my RAE background my chances of getting a commission would have been greater: the RAF was less snobbish and hidebound than the Army and more technically sophisticated. But it wasn't a decision based on advantages or disadvantages: it was a gut reaction reminiscent of the one I made about my future occupation when I left Bristol Aircraft Co – a desire to be involved in good engineering praxis, the best. All a bit irrational but it worked out well for me in many ways.

²⁹Overview and Focus

During my period of National Service in the Royal Electrical and Mechanical Engineers' Regiment I was employed officially as an engineering draughtsman and eventually took charge of a drawing office. This aspect of my service was mundane apart from my failure to gain a commission. My extra mural activities are more noteworthy and have greater significance for

28 28.11.10

29 25.11.10

my subsequent life and ministry. Basically they were threefold. One was an entrepreneurial educational enterprise in engineering further studies which is described below. The other activities grew out of profound religious and spiritual changes that I experienced through my conversion to Christianity, which occurred on a troopship on my way to Egypt in 1950. Whilst in Egypt I pursued a Bible correspondence course, attended what were called 'Christian or moral leadership courses' organized by chaplains.³⁰ Also, by default and force of circumstances, I became a local church leader and a preacher in the base interdenominational church for 'other denominations' (than Anglicans and Roman Catholics). Also during this period I experienced a call to serve overseas as an engineer missionary. Much of this is described later in Part 7. Attempts to liberalize my education constituted a third extramural activity which I describe below. By and large, however, in this section I concentrate on my engineering career as I did in the previous part.

All in all this was another formative period in my life and the beginning of a major reorientation of my life, spirituality and career.

My Service

Blandford

My first posting was Blandford in Dorset on the 2nd February 1950 for basic army training. Entering the army as a conscript was a traumatic and humiliating experience as it was intended to be. Moving from the RAE to the army was an awful transition from a free, open, civilized, creative working environment suffused by respectful relationships to one which was almost the opposite in every way. During the initial stage the established staff set out quite deliberately to demean, insult, demoralize, humiliate and control us rookies. They aimed to break our spirits and to force us into mindless and unquestioning obedience to all forms of authority and to make us march or drill like robots, to keep our kit and to dress in prescribed ways and live regimented lives following petty rules and regulations. In short to be and to do things I had reacted against all my life! An incident still deeply imprinted upon me illustrates some of this. At the very first meal I had the orderlies put our first course of meat, veg and gravy in my mess tin and then in the same tin my sweet and awful looking custard. As I started to remonstrate somewhat angrily, I found an enormous sergeant major in all his finery and with a cane towering over me and invading my private space bellowing at me the most abusive and foul language that I was in the army now and this is the treatment I could expect and warning me of the dire consequences for me if I complained or stepped out of line. As I

30 These feature in Part 7

recall the incident I find the emotions I experienced then returning, feelings of devastation at being imprisoned in a system I loathed and in which I was at this stage without defence other than my inner sense of worth and integrity.

On the first night the banter and conversation after lights out in the large barrack room increased my depression and anxiety. I found that I was in with a rough delinquent if not criminal gang from the East End of London. Their stories about stealing and house-breaking were hair-raising. Nothing in my previous experience prepared me for this. I got out of bed and put all my valuables such as they were under my mattress and took great care of them from then on but that did not stop them stealing all my cigarettes more than once until I was 'accepted' and then the stealing of my possessions stopped.

Honiton

Fortunately thirteen days later I was transferred to Honiton in Devon to continue my basic training as a potential candidate for a commission. I had much more in common with most of the people on the course except for boys from privileged backgrounds and prestigious public schools. So the company was congenial but the training was tougher. Assault courses were horrific and the overnight exercises strenuous and I remember sleeping for several nights on concrete in old huts. I was pretty useless at drill and ceremonial marching. I was reminded of my difficulties when I was reading Richard Hoggart's book, *A Sort of Clowning*. During the war he was in the army and one day in the early part of his service a Colonel who was standing in for the General 'stopped his parade and said, imperiously but also in wonder and regret, as he pointed towards someone in our troop: "That man (Hoggart) is congenitally incapable of walking in step. Lose him in the middle somewhere".' (p.15) I was very much like Hoggart in that respect only and always tried to get out of view.

I remember standing for an hour or two on several occasions in PT kit early in the morning on an exposed parade ground on, I think, Honiton Plain, in bitterly cold conditions. It was agony, standing waiting for inspection. Some of the junior NCO's were horrible, ignorant, uncouth bullies. One in particular had it in for me. He provoked me mercilessly. Standing with his face right up to mine as was standing to attention he abused me verbally spluttering his words which was like someone spitting in my face. On one occasion, at the end of my tether, I started to lose my temper and raised my clenched fist towards him. "Do that you..... and I will have you behind bars'. Realizing that that was what he was trying to

provoke me to do, I somehow controlled my temper and simply stood to attention. So, the NCO's were very much as before, the training much more arduous and demanding, the ragging and bullying by the senior intake more unpleasant but peer relationships were much more congenial.

³¹At Honiton I passed my basic six weeks of military training, my trade test as a draughtsman, mechanical, class III and failed my WOSB1 i.e. I was turned down for a commission.

Bordon

From Honiton I moved to a REME workshop at Bordon in Hampshire to work in the drawing office on the 26th April 1950 (3 Central Workshop). I cannot remember anything about the work in which I was engaged but I think I was greatly relieved to be back in engineering rather than playing soldiers. However, I must have made a good impression because eventually I was told that when the sergeant in charge of the DO was posted in the summer I would take his place. But that didn't happen; the post went to another draughtsman in the office with me. He was not a good draughtsman, lazy and troublesome to work with. One day in mid June '50 he was called to the guard room to see his uncle. A short time afterwards I found myself on two drafts one to Europe and the other to Egypt and down for embarkation leave from 30.6.50 to 15.7.50, (so I spent a birthday – it was my 21st I realise at home and with Molly but I do not remember any special party.) Returning to Bordon, the sergeant who had been in charge of the DO had been posted, the troublesome colleague promoted and in charge. His uncle, it transpired, was a major general at the War Office! On the 17th and 18th I took my class II draughtsman tests and passed them; on the 3rd August I left Bordon for Arborfield, a transit camp; on the 9th August I embarked on the Empress of Australia at Liverpool at 2.30 pm and sailed for Egypt at 6.30 pm.

At that time I would have dismissed out of hand any suggestion that ten years later in July on my birthday, I would be ordained a Methodist minister in the self-same city!

Arborfield

³²Behind those bald facts about my transit, embarkation and voyage there are many unforgettable events the most important of which is that I became a Christian and have remained one ever since. The story of my conversion is to be told in Part 7. Here I restrict myself to a few incidents

31 22.11.80

32 29.11.10

seared in my memory.

The night before we left Arborfield for Liverpool was the army at its most farcical for those of us in our barrack room. We sat by our beds all night cleaning and ‘blancoing’ our kit under the ‘supervision’ of a drunken sergeant until our transport arrived just before dawn. When our kit was ready for inspection we stood to attention and the sergeant looked at it and with oaths kicked it up and down the room and told us to do it again. We gathered he did not want to go to Egypt! Looking back it is incredible that thirty or forty young men should put up with such ridiculous behaviour fit only for a farcical play. That we did is a measure of the effectiveness of our institutional formation and the internal power of the military system to make its soldiers do and suffer almost anything commanded. It is frightening, repulsive and dangerous, when it is not laughable; it was that which compelled men to mount the trenches going over to almost certain death in the great war of 1914 – 18 and to obey countless irresponsible and ridiculous orders down through the years. Before I was conscripted when friends of mine told me of similar incidents I said that I would simply rebel. They replied, “That’s what I said, but you wouldn’t!”. And I didn’t!

The Troopship

On the dockside the following morning I found myself alone amongst two or three thousand troops having been separated from my original company. To leave my kit to get something to eat or to go to the toilet involved risking losing it or valuable items being stolen. Nearby was a tall thin REME soldier who I felt I could trust. So I went over to him and asked him if he was alone as I was and if so whether he would be willing to team up with me for the voyage: he was alone and welcomed the suggestion. He was called Robert Cottingham, Bob, a regular. It proved to be the beginning of a long and valuable friendship. We managed to get on the same mess deck (my memory says it was twenty decks below waterline (but that sounds incredulous) and right forward (it was that!)). We slung our hammocks together- when all 250 hammocks were up they formed a ceiling under which one had to walk to get around! Providentially we went to Tel-el-Kebir (TEK) together, he joined my courses, lived in Reading (he was a regular soldier) after I was demobbed and we and our wives saw quite a bit of each other when we lived in Aldershot. Over the years we lost touch but strangely a few years ago I saw a Colonel Cottingham on TV. He looked like Bob. I wrote to him but got no reply.

The voyage was a great experience which on balance I thoroughly enjoyed: it was my first long voyage and trip abroad; the weather was not

bad in the Bay of Biscay and in the Mediterranean it was beautiful, a few of us slept on deck and that was great. Seeing Gibraltar was a moving experience because I knew my father and grandfather had both passed that way and anchoring in Valetta, Malta was even more moving because my grandfather had been there on his way to the Dardanelles and got his Maltese farthing which I think he had viewed as a good-luck charm or talisman. I loved sailing.

But there was, as always in the army, a downside. Every soldier was allocated to a fatigue party supposedly to do something useful but I suspect to keep us occupied and fit. Bob and I were on a party which had to carry 2 cwt bags of sugar from one end of the ship to the other in the morning and the same bags back to where they had come from in the evening! A sweaty sticky back breaking job! Halfway through the Mediterranean the NCO's on our mess deck decided that a considerable number of people had been skiving and decided to sort it out. So on a scorching hot afternoon we had to sit at our tables on the mess deck. The NCOs took their place at the only exit equipped with two lists which did not match: one of those on the deck; the other of those on fatigues. Each man was called in turn and checked out on both lists after the roll had been called. When cleared they were allowed to leave the deck. I sat there for 2½ hours, perspiration running down my face and back. They were so incompetent and easily duped that they did not find a single skiver nor did they reconcile the lists! The staff sergeant was a terrible bully making some men's lives intolerable. On one or two occasions he took Bob and me to the ship's prison – a hell-hole – and threatened us with imprisonment if our insubordination continued. We had no idea how or when we had been insubordinate. He too was posted to TEK. A month or so after we arrived there I saw him badly bruised about the face and limping. I discovered that late one night he had been badly beaten up presumably by people he had so cruelly abused on the troopship.

Disembarking at Port Said

³³Arriving at and disembarking at Port Said was a profound culture shock, in fact a double one. To get to our transport we had to cross several railway tracks. As we did so Egyptians shouted abusively at us in English and Arabic and some of them got close and spat upon us, one of them spat all down my back. It would have been much worse in my face but sensing their hatred of the British was a very unpleasant and disturbing experience. Then there was the shock of being in an Eastern culture, an African Arabic one. My first experience of such a different environment, climate, way

of life and living was exciting and disorientating. Adjustment had to be made to so many things and to their combined impact: heat, dust, squalor, dress, exuberance and throbbing vitality, poverty, smell, noise, language, unsophisticated buildings and shops. An abiding memory is of sitting in a train in a siding (we must have travelled part way by train and part by military transport because there was no station at TEK) and seeing a man and a woman squatting and defecating in full view of trains full of troops without any sense of embarrassment.

2 Base Workshops TEK

The Commander of the Garrison was Brigadier B.G.Cox, CBE, who was a qualified engineer. I was the only other person in the Garrison with an engineering qualification.

My posting was to 2 Base Workshops, REME, Tel-el Kebir ('The big heap'). It was the biggest workshop in the Middle East Land Force which it served. Established, I understand, to help service the North Africa Campaign during the 1939-45 war. The workshops and the garrison covered a vast desert area surrounded by a perimeter fence which was regularly patrolled by jeeps and armoured vehicles. A truck-bus service was provided to transport people to and from workshops and the mess etc. I don't think that I ever covered the entire camp and I am finding it difficult to visualize it now. TEK proved to be my base until I started the long journey home. That was later than I anticipated because nine days after I arrived in TEK (22nd August 1950) we learnt that National Service had been increased from 18 months to 2 years! Quite a blow. It meant I left TEK for UK on 10th of January 1952 instead of June 1951.

So I stayed in TEK for about 17 months. For most of this period my military duties were very light, minimal in fact mainly because I managed to get myself on picket duty in the drawing office buildings. As the buildings were so isolated and vulnerable to Egyptians breaking through the perimeter fence and into the buildings to loot them, they were 'guarded' night and day. Three or four men, in our case, were based in the Drawing Office (DO) outside working hours and had to arrange between us that at least one person was always there. In short we worked and lived in the DO. From my point of view this was an ideal arrangement even though the conditions were primitive: we were excused almost all parades and other regimental duties and were generally out of the range of military and regimental police. Also I had the use of the office at any time for my studies and preparation for services and the courses I conducted. Very much more privacy than was in barrack room of say 20 men. But we had

to wash and shower in a large square sink using a rubber tube which carried the water, which throughout the day was always warm, if not hot because the pipes were only a few inches under the sand outside and heated by the sun. Eastern toilets were the order of the day, four 'deckers' i.e. four in a row with no partitions! One afternoon I remember standing in the sink showering when an officer appeared. For quite a few minutes I stood to attention naked until he eventually said, 'You may stand at ease!' The stupidity of it all! Being on picket gave me an enormous amount of time and quietness for my private life and work.

Nonetheless, I did manage on one occasion to be put on 'jankers', punishment for some long forgotten misdemeanour. I had to report daily at noon in full battle order kit which was heavy to the guardhouse. For those of us who were normally law-abiding, it was an awful business to fall under the power of the police, in this case regimental police. They tended to be thugs if not criminals. Criminal friends of theirs when in custody had an easy time of it, let out of their cells in the evenings to gamble and drink. With people like me they were merciless. They made me double around in the sun for an hour or so. I think this went on for a week! Fortunately this was a blip on an otherwise comfortable time as far as military duties were concerned.

Cairo-Luxor-Aswan Tour

Christian leadership courses and a memorable holiday were welcome breaks in the routine which could become tedious and camp life claustrophobic. A holiday trip to Sinai and Mount Catherine had to be cancelled because of an uprising much to my lasting disappointment. However, a group of us went on a YMCA holiday tour to Cairo and Luxor and Aswan. Using a small Coronet Cat camera I photographed the tour and mounted the small prints in an album on my time in Egypt. Our son John was well acquainted with this album. Some thirty seven years later he went on a very similar tour to Aswan. Using a sophisticated camera he took a series of pictures of the sites I had visited, produced lovely coloured prints and mounted them in an album which he presented to me for Christmas 1988. I was deeply moved by this pictorial account of his pilgrimage in my footsteps. Memories of that trip abound which I revisit from time to time: sitting up all night enchanted on a train from Cairo to Aswan as it followed the Nile in glorious moonlight, the heat during the day in Aswan which was so great that the streets were watered to cool the pavements; the wonder of the Valley of the Kings and the blinding intensity of the sunlight which I have never encountered again; walking in the marvellously colonnaded

Temple of Karnak in the moonlight; a meal in the Arab home of our guide – women peering at us around partitions but never appearing and teasing Seddon, one of our members that because he was seated at the head of the table he would be required to eat the sheep's eyes until he excused himself, went out and was sick!; the guide's lackey riding on the running board of our ancient ford car ... sleeping on the floor outside our rooms to be on continuous call but who drank a bottle of methylated spirits at sundown religiously; the wonder of Cairo museums and the guide's much repeated dictum as he described ancient exhibits, "There's nothing new in the world/under the sun"; being molested by a guide high in the minaret of an ancient mosque in Old Cairo asking for money and saying as he did so, "Several tourists have fallen from here to their deaths in the courtyard below."

But I wander from my stated purpose of these notes!

During my time in TEK I had bouts of illness. In the first month or two acute chest pains disturbed me. When they came on I had to bend double to get some relief from their intensity. The MO said that it was muscular rheumatism brought on by the move from a temperate to a hot dry climate. He thought I was trying to get out of the army on grounds of a heart condition and told me so. A very unpleasant experience occurred one evening an hour or so before one of my classes. I took some aspirins to relieve a headache. Suddenly I found I had lost my voice, the left side of my face was numb and drooping and my left eye and nostril streaming! This was alarming. It reminded me of Laurence Marsdens's semi-paralysed face. However, to my surprise I was back to normal in time to take the class. For many years this happened whenever I took aspirin. Forgetting the incident, I took some aspirins just before we went to church soon after we were married. During the service I felt the symptoms returning and they did. I seemed to have grown out of it now and take a 75 mg tablet of aspirin daily. Boils and carbuncles were very painful and debilitating. I had them on my neck or arms – twenty carbuncles on my right arm at one time. Eventually I ended up with septicaemia which developed from a large carbuncle on the centre of my forehead which I thought was caused by the irritation of the band on my beret.

Overall Observations About My Time in TEK

³⁴After writing the preceding notes I have read through my diaries for August 1950 and February 1952. They are not extensive (40 – 50 words

a day for the 1951 period and part of 1950, slightly longer for 1952) but they do highlight key issues for me at those times. Several things struck me forcibly:

- my devotion to Molly and the importance of her letters to me;
- that I was extraordinarily industrious, a diligent steward of my time wasting very little of it;
- the breadth of my activities and the multiplicity of my studies, engineering courses, bible study, study to improve myself, preaching and leading Christian discussion groups, church leadership, Christian leadership courses, travel, research on motor bike suspensions all in addition to regimental duties (minimal) and drawing office work;
- continually feeling tired, unwell, stressed and complaining of lack of sleep and energy;
- several health problems;
- my spirituality and careful attention to the means of grace and religious development;
- my entrepreneurship;
- difficulties, problems and tricky relational problems I had to work through in the church, in the DO, on the course and with my father.

Some of this dealt with in various places in these Notes.

In Hospital

Long standing problems with ingrowing toe nails became critical and were resolved by operations on both big toes in June 1951. A very fine young NS surgeon did the operations. I remember him with gratitude for the work he did and for the way in which he treated me as an equal. Surprisingly in the light of today's procedures, it involved three weeks in hospital and many days confined to bed in the heat of an Egyptian summer in acute pain. Unfortunately I got on the wrong side of the sister in charge of the ward and that delayed my recovery. From the time that I entered the ward I had made it clear that I was a Christian and witnessed to my faith. I read my bible and said my prayers. On the day after my operation my diary reads: "I was the most privileged of men in being a mouthpiece of God in the evening when I delivered to the whole ward the message of Christianity..... I prayed by my bed being moved to such for the first time openly! (23 June 1951). That involved kneeling, how on earth did I do it with my big toes heavily bandaged? I am a little embarrassed by the tone of this entry which also says that two men conversed with me presumably about their spirituality. It shows me as an evangelical Christian in a way I

am not now. The significance of this here is that I must have appeared to the Sister as pious and possibly morally judgemental. She was having an affair with an officer who visited her at night. One night about half way through my stay, I went to the treatment room. I interrupted their love play purely by accident. Her attitude to me changed for the worse and she made my life very difficult although I did not say anything to her or to anyone about the incident. A few days later the doctor said I could get up, she pushed me off the bed and told me to start polishing the ward floor ('bumping it' by swinging a heavy polisher from side to side). One of my toes split open. She turned colour when she saw it, rushed me back to bed and arranged for the wound to be re-stitched. It was a lesson in the kind of negative reactions people can make to what they see as self-righteousness.

Serious dental problems were another of my health troubles. Treatment was somewhat brutal and cruel and involved extracting several – too many? – of my teeth. At the time I feared I was going to lose them all! Then towards the end of my time at TEK I started to have severe stomach pains - ? the beginnings of the duodenal ulcer that I had in 1952. At one point I note that I cut down on cigarettes and felt better. (I was a moderately heavy smoker throughout my time at TEK, cigarettes and a pipe.) During the last few months when under stress due to the Abrogation of the Treaty, I smoked much more heavily as did others. I ceased for good when doctors advised me to do so when I was diagnosed with an ulcer in 1952.

Now I focus on several critical and significant features of my life in Tel-el-Kebir in order to introduce a career and vocational focus to what has become a rather discursive set of notes!

Non-commissioned status

³⁵Earlier I mention that I failed my WOSB1 but gave no details. I need to revisit that before turning to another incident. There is little doubt in my mind that I failed to be recommended for a commission entirely on class and educational grounds, in fact no doubt at all. All those with whom I candidated who passed were ex public school boys who had just left school. The panel gave me a real grilling, the boy interviewed after me said that the chairman knew his father and they discussed what his father thought about the new flat-horse racing season and the performance of some of the horses. He passed as did all the other public school boys; I failed. Technically speaking, there was no-one in the group with any engineering experience or qualifications – nothing near my qualifications for a commission in REME.

Nearly sixty years later, as I go over it in this detail for the first time, I find myself imagining what might have been. Molly and I would have seen more of each other and that would have been great. I would most likely have become an officer and who knows where I would have served and experiences I might have had and what that would have done for my self-confidence and self-esteem. I would have moved up the class scale or would I? What would have happened if Molly had had a say in the decision which was prevented by the circumstances. All that is speculation. What I did was to decide how I should respond to the offer on the basis of the need of others, my commitments to helping them and my sense of 'my work', my divinely appointed task, my 'providential way'. In retrospect I can see how important and far reaching this decision was and I am surprised that I did not have to agonise over it. I opted for vocational deployment in relation to human need rather than for personal preferment. And that is what I have done at key points in the evolution of my vocation as a minister and of that I am proud. I now realise that making the decision that I did, although I did and could not have known it at the time, made it easier for me to opt for human and spiritual need against preferment at subsequent critical and vocational junctures. It was a formative decision; it gave the line of purposeful thrust to my life and moulded me. It meant I stayed in a lowly context, worked from below for change within the restrictions of a craftsman and then a corporal. My status was determined by what I was and my ability and what I did, it was acquired not prescribed. Going for a commission could have meant following – and possibly being conditioned to follow – a very different career trajectory. That career path is normative in the secular world and, sadly, not uncommon in the church. The one I took is nearer to the vocational path taken by Jesus although I did not in any way conceive it in that way at that time nor until now. Thank God I decided as I did.

It took me quite a long time to face up to writing these lines. Doing so has been moving, revealing and I think therapeutic.

One thing I must add is that my service in the ranks has combined with my working class background to make it easier for ordinary people to relate to me.

As I was sorting out some correspondence, I came across two letters from Bruce Nelmes (appended to this section which presents him in a very positive and different light. I had entirely forgotten about this. We did not meet sadly and did not keep up correspondence. I would love to know what happened to him. Clearly he became a minister/missionary.

Life and Work in the Drawing Office

Throughout my army career I was employed as a draughtsman: D'man III, 20.2.50 – 19.7.50; II 19.7.50 – 30.12.50; I 30.12.50 – 31.1.52. Passing the trades' tests and qualifying for these grades was not difficult. There were 6-9 people in the 2 Base Workshop drawing office. The work was not demanding, in fact it was rather dull. The only jobs I can recall involved designing fittings to secure implements and tools in a Land Rover and drawing maps and plans when the Treaty was Abrogated. For most of my time a Sergeant Butler was in charge of the office: I was variously one of the draughtsmen, deputy to Butler as a L/Cpl and a Cpl and then in charge when he left for the UK. My relationship with him was tenuous and not helped by him attending my courses to become better qualified. I did not like him and I found him inefficient, incompetent, petty, childish and a bully. Another of the draughtsmen, a fellow Christian and preacher, Bruce Nelmes who was also on my courses, I found difficult at times on the course, in the office and in the church. Given the complexity of the role reversals it would, of course, have been difficult to avoid some confusion and difficulties.

One of the senior officers with jurisdiction over me and the DO was Colonel Spann who had married into the family that owned the firm that produced AJS Motorcycles. Somehow he knew of my work on oleos at Farnborough and discussed with me a problem the firm was encountering with front suspension of some of their bikes and got me working on it. (Spann had raced in the Isle of Man TT. Presumably that was where he met his wife.) I got on very well with him so much so that he came and addressed a session of the course. I did quite a bit of work on the problem which he seemed to appreciate but I never felt I cracked the problem. One of his fellow officers was quite dismissive of my work and tried to put me in my place as a L/Cpl but Spann would have none of it and put him in his place. He respected my engineering ability. In fact the only person in 2 Base Workshops with better qualifications than mine was the Brigadier in charge. For the most part the commissioned and non-commissioned staff had no significant academic qualifications as far as I remember.

The heights that great men reached
 I kept,
 Were not attained by sudden flight,
 But they while their companions slept,
 Were toiling upwards in the night.

DEC. 1951.

T.E.K.

To

G. HOWELL.

From the Students of the Technical
 classes for Institution of Mechanical
 Engineering Examinations held at
 Tel-El-Kebir, during 1950-1951.

G.R.E. APPS.

*Notes prepared from lectures delivered by
 Dr. J. Riffkin, P.H.D., D.Sc., B.Sc., R.M. I.M.C., Warr. Secoc.
 at Burslem Municipal Tech. College.*

*Revan's Theory of Machines.
 Theory of Machines — Goff & Kersay.
 Strength of Materials — Mosley.
 Hydraulics — Lewitt.
 Heat Engines — Moorfield and Winstanley.
 Mechanics for Engineers — Mosley.
 A Mechanics & Applied Maths — Hills.*

*Examples taken from the above and also the exam-
 ination papers set by the I.M.C. in Oct. '49,
 April '50 & October '50.*

³⁶Entrepreneurial Engineering Education Project

During my service in TEK I organized and taught courses in Mechanical Engineering up to National Certificate standard (S3) designed to prepare students to take examinations in Cairo. This project was undertaken at my own initiative. Whilst the details of the discussions which led to it are long forgotten, it was on my part a direct personal response to concerns expressed by fellow conscripts with whom I was serving about the adverse consequences of the interruption of their vocational studies caused by their conscription. As I recall, some of them had failed one or other of their exams. Somehow the idea emerged, and had a ready if not enthusiastic response, that I should run courses for them. What amazes me is that I record in my diary on the 30th Aug 1950 that the arrangements for 'lecturing going forward in full swing! That is eight days after arriving in TEK and six days after starting work in the drawing office. Less than a week later I note that I gave my first lecture on maths (4th Sept) followed by one on applied mechanics (6th) and one on strength of materials (8th)! I find this to be incredible. How on earth did a 'craftsman' i.e. a private soldier in a new post in a military institution get permission and make the arrangements to start such an ambitious entrepreneurial project that

eventually ran successfully for over a year? And how did I find the energy and the technical resources to prepare the lectures – I had helped Dr Riffkin in Burnley but I had never been responsible for a course of this kind – simply pursued it as a student. A letter from Captain Humphrey (to which I will refer later) simply confirms that I started the course of my own free will and without authority. But I had his full support; he obtained payment for me even though in the authorities' eyes I was not actually qualified to undertake the instruction, and arranged for me to be excused all regimental duties so that I could do the work. (cf letter 13th March 1952). Without his support I think the project could well have floundered.

As I reflect on all this, I can only surmise that discussions about the need took place on the troop ship, possibly and probably with Bob Cottam in the first place. He was a regular soldier but he wanted to become better qualified and was one of the keenest students along with National Servicemen whose studies had been interrupted. And I probably got text books and notes sent from home. The considerable amount of energy required to start and to maintain the course came from a confidence I must have had about myself and my abilities and no less than two driving forces: the needs of the students and my own need to serve them; to use my time well, for status and the feedback that comes from being valued and doing something that is satisfying.

The courses continued until the end of 1951. Brief diary entries note highlights when lectures went well and depressing sessions caused by difficulties with people being absent, the subject matter and relationships. As noted this last point was not surprising because of the combination of roles in my relationships with the students and between them: Some were peers and friends, others were subordinates. On the whole it seemed to work. Some students took exams in Cairo with varying success. The preparation could be heavy and demanding. Some weeks I took three or more two-hour sessions.³⁷ At the end of the series of courses the students gave me a book on engineering which my son John now has. A copy of their inscription which I have treasured over the years appears below.

Since writing this I have found the following note about my refs:

So these must have been sent from home. But I don't think I now have the notes of Riffkin's lectures on the ones I gave at TEK.

There were two unplanned and unexpected but highly valued outcomes

³⁷ On the 21 Aug 1957 I wrote in my diary that in addition to my day's work in the D.O. I gave 2 x 2 hr lectures and note that 'it is quite hard going'.

from the course. First, George Apps, a lapsed Catholic, returned to Church and regained his faith. After he had been attending the course for some weeks one of the students happened to say to him that he could hear me preach at the garrison church for other denominations (than Anglicans and Roman Catholic). Apparently this shook him. He had been of the opinion that all scientists were unbelievers because science and Christianity were incompatible. There and then, so I was told, he said, 'If anyone who can do maths like he does believes in Christianity it must be true.' And he went back to church. Eventually, however, he became most concerned about the eternal wellbeing of my soul because I was not of the true faith and tried to persuade me to convert. When he failed he 'set his priest on me.' This proved to be a nuisance to me and I had to say to George that if this continued it could damage our friendship. (Strangely, after demobilization, when I went to Tripoli on an RAE project the first person I saw in the Officer's mess was that priest!). George and I became very good friends. I spent much time in his home whilst in TEK then in the early part of our marriage Molly and I spent a lot of time with George and his family when we were in Aldershot; he was by then an officer with lovely quarters in the annexe of an ex-Admiral's house in rural Hampshire, South of Aldershot – I can't remember the name of the village, but I think it was near Bordon. The house was at the end of a long drive lined with beautiful rhododendron and azalea bushes. We spent weekends there babysitting. When they emigrated to Tasmania after he had completed his service we lost touch. But there was an uncanny aspect of our relationship. Apps was born and brought up in Thornton Heath and he talked at length about it and his family. His father was a champion swimmer and trained people at Thornton Heath Baths, but had become mentally ill and was a patient in the local mental hospital.

When I became the minister of Parchmore Road, I already felt I knew Thornton Heath from George's description. I made contact with his family. My first visit to his mother and brother was on Christmas Eve 1966. His younger brother answered the door. I could hardly believe my eyes, he was the split image of George and at first I thought it was him. They asked me to visit the father and that I was keen to do. We struck up a close relationship and when he died I was asked to conduct his funeral service. How wonderfully mysterious are the patterns of life and relationships.

The other outcome was that I found people coming to me for career advice and to discuss problems of life and faith.

Strangely I had not previously connected and compared the work I did on this course with that I did on P70-75 and Avec. These projects have

much in common: they focus on need; they involve entrepreneurial action with all the associated risks that go with it; they are vital to the vocation of people in their institutions but they are extra-institutional activities; they involve working with institutions without having the authority of them for the work and therefore depend upon the entrepreneur's having achieved rather than ascribed authority and power; they operate from the margins of the structures rather than being integral to them; they are essential to the purposes of the institutions but not seen to be so by many within them; they are innovative and therefore developmental and consequently institutional authorities tend to treat them with caution if not suspicion. Strange I did not make the connections and see that I have a propensity for such action when that is the only way to meet real needs effectively and promptly.

[Recently, whilst reading Richard Hoggart's *A Sort of Clowning*, the second volume of his autobiography, I was quite excited to find that whilst in the Army he had engaged in a similar kind of activity, howbeit much more ambitious and sophisticated, in Naples in 1944. With others he set up what they called the 'Three Arts Club' and organised extra mural activities for men of all ranks from the three services and all Allied countries. (pp53-62). When demobbed he became engaged in extra-mural educationist extension work. This interests me greatly and resonates with the reading I did about Alan Norman Jepson's work for a memorial piece about him in the Autumn. A hard copy of this article is in my Archives and a copy is in my computer documents.]

³⁸Correspondence with Captain B.J Humphrey after I had been demobilized about outstanding payments due to me for lectures I had given proved to be a painful but profound learning experience. On the 6th of March 1952 I wrote to Humphrey's about these payments in a belligerent and strident manner which he rightly described in his most courteous reply as 'extremely discourteous' (13th March '52). The copy of my letter is lost but I found draft notes I probably dictated to Molly from which she typed it. I am ashamed of writing it. How could I have done so to someone who supported me so wonderfully in the project? It was an act of displaced aggression: now that I was safely outside the military system and its reprisals, I simply let my feelings about the indignities and discrimination I had faced in the army (not from Humphrey of course) run riot. Underlying and reinforcing those feelings there was a submerged reservoir deep in my psyche from previous experiences in my childhood and youth expressed and explored in various parts of these notes. That is the only explanation I can think of, apart, that is, that I was ill and needed the money! Phrases in

the letter bear that out; I speak of being ‘insulted in that my services have been readily used but payment is simply being treated with contempt’ and that ‘my circumstances had now changed’ and that I was not now ‘bound by the fetters of military rigmarole and the distinction of rank. I threaten to take my case ‘to civilian authorities’ that I may be properly reimbursed ‘not as a gift or favour’ but by the proper payment of the small amount of money for long, hard service’. After other pathetic phrases I up the threat saying I would take the matter to the Minister! Awful. It pains me to report it.

But what a gracious and magnificent reply: measured, caring, challenging, and educational. He could so easily have retaliated. It is a model answer. He changes the nature of the exchange from conflictual to reasonable and rational; from wild statements and accusations about actions which he belied to a carefully worded factual account that throws light on what really happened. It gave me a way to redeem myself and to restore our relationship and points me to a profound learning point. (Letter copied on the next page).

I am eternally grateful to Capt Humphrey and wish I could communicate with him now. His subsequent letters show just how fine a person he was and how gracious.

It must have been painful for Humphrey and it certainly was for me. It took me some time to get over it all. But I have never rushed into print in that way since. Looking back, I only wish my replies to this letter and subsequent ones had more adequately matched his. The whole affair is reminiscent of the incident over Mr L Marsden in the cloakroom at Accrington Jr technical College.

³⁹Widening and Deepening my Education

Another main activity of mine was widening and deepening my education. One aspect was a continuation of what I was trying to do through the study of English after completing my HNC, a liberalization of my narrow technical education. I threw myself into the study of ethics and got a lot out of this. Also I studied for and passed the Civil Service Commission’s ‘Forces Preliminary Examination’ for two reasons: to widen my education; to get a qualification that would help me to gain entry to the Institution of Mechanical Engineers and a degree course.⁴⁰ In addition to maths and physics I took exams in English, general knowledge and social

39 15.12.10

40 Took the Exams on 8-11 May 1951

Captain B.J. Humphrey,
2 Base Workshops R.E.M.E.
M.E.L.F. 11.

13 March 1952:

TQ1-

G. Lovell,
'Fresco'
14, Highfield Gardens,
Aldershot. Hants.

Mr. Lovell.

Receipt is acknowledged of your extremely discourteous letter dated 6 March 1952, at least signed by you, so I presume those are your sentiments expressed therein.

Might I point out a few facts which you seem to have conveniently forgotten. You were told that Education Branch B.T.S. received a yearly grant to cover extraneous instruction; this money is never large enough for their activities, therefore payment is made in turn to instructors in order of merit. Your instruction, though possibly excellent, was only beneficial to a very few men in a small area for an examination that the Army does not consider necessary for the students involved.

It was of your own free will that you started the course without authority, and to me you stated that you were not worried about the money, but would like it, if it could be obtained. I personally gave this matter my fullest support, in spite of all the difficulties, perhaps you might remember the number of forms to be filled in, the letters I wrote and the various phone calls and visits I made to Staff Education. Why I had to fight for payment was because in the authorities eyes you were not actually qualified to undertake this instruction, and it was only limited to a few personnel.

Even after you left the Service my efforts did not cease, and in front of me now I have two files absolutely filled with correspondence concerning your part-time instruction and payment thereof. Payment for this instruction was finally authorized by A.T.E. on the 23 Feb. 1952, we have since published a Part Two Order, and no doubt you will receive the money from Regimental Paymaster, Devizes in due course.

In closing, may I point out that you started these courses of your own free will, and question of payment did not at first enter into it, and you were so keen to start, that I had you excused all regimental duties. Therefore now that I hope your memory has been jogged, you will realise that a letter of apology is necessary to me, and one personally written by you. Remember too, that before you rush into print again, that much harm can be done to yourself by such rash and wild statements.

Quel:

By Humphrey S. G. b. b.
S. G. b. b.

Dear Mr. Lovell.

Dated 26 March 1952

Type in scan.
whichever earlierI do not
have a
copy of
my
letter of
the 21st

I have received your letter dated 22 Mar 52, and took great pleasure in reading it, it was definitely more like the Cpl Lovell I used to know and admire, and I fully accept the apologies therein expressed, and I hope our friendship will continue in this strain.

It is agreed that 100 lessons @ 6/6 amounts to £. 32/10/0d. not £. 35, my Part II Orders clerk copied this from the B.T.E. Education authority.

The money will be paid to you by Regimental Paymaster Devizes who should by now hold your account, presumably it will be paid by cheque.

If I can be of any further help please drop me a line as I can assure you my interest in the chaps does not terminate on completion of their service, and I am always glad to help them at anytime.

Furthermore if you wish to take up this matter of the few outstanding lessons please let me know, and we will put in the necessary forms.

Yours sincerely.



Capt.

Captain B.J. Humphrey,
2 Base Workshops, R.E.M.S.,
H.E.L.F. 11

Dear Captain Humphrey.

Many thanks for your letter dated 26th March, 1952 which I received yesterday. It gives me pleasure to know that the whole of this affair has been brought to a pleasant conclusion.

With regard to the outstanding lessons for which payment was rejected by the education people, I would rather that this matter be forgotten, but thank you for your offer to proceed even further in an endeavour to obtain the necessary moneys.

Thanking you for your attention, ~~and assistance~~, and ~~friendship~~

I remain,

Yours sincerely,

W. Lovell.

OP
5967

sciences/ethics. In the event it was only of marginal help to these two aims but it contributed to my general education. The other aspect was seeking membership of the IME. I failed to get initial membership (I think they called it 'student' membership) through some sort of an administrative blunder over the National Certificate second year exam in electrical engineering (S2) which I passed but was not registered with the Institute.

D Officers Mess,
2 Base Workshops REME.,
MELF 11.
February 9th 1952.

My dear George,

Many thanks for your welcome letter. I had already heard the day before yesterday of your visit to Blackpool, and my wife was delighted you were able to go along. Janice was very pleased with the delivery of her pen and pencil case, and wrote to say what a lucky day it was!

Your good news that you will be married on the 16th of this month was joyfully received. Knowing you as I do, I need not merely HOPE that you will be happy, for I certainly know you will, and will make the best of husbands. Accept my warmest congratulations for the great day, and may you have long years in which to know all the wonders of Christian married life at its best. It must be wonderful to have all the hopes of young life before you with the partner of your choice. God bless you both, George, and bring you all the rich joys of marriage.

Things in TEK are much the same as usual, with the morning congregations still holding their own. The evenings had gone down badly until last Sunday, when things improved again, due to the BMF men now being in TEK Garrison and giving us their former support. I shall pass on your greetings to all who knew you when I see them tomorrow.

Joe, Ivan and Reg are very faithful, and help in practical ways, such as cleaning the Church and looking after things in general. But I miss you sorely at All Saints. No one can quite take your place.

All families have now left TEK and the BMF has occupied the village. It is very quiet here now as far as the terrorists are concerned, for the Cairo riots seem to have frightened the King and his government into being less violent.

I'm so glad your luggage arrived so soon, but am sorry your lecturing money has not come through yet. I think you will be wise to apply for this through civilian channels, which will certainly be more prompt and courteous than the Army! But if I get any information, I shall pass it on to you.

Every blessing to you, George, and my great gratitude for all your friendship and help in TEK.

*Your very sincerely,
C. G. Davies, RSM.*

Then there were bible studies which I describe in Section 7.

Friday.

Dear George,

Mr Metherill asked me to write to Mr Deakin concerning your contact with me in the work in the Canal Zone. I am sending you a rough copy of the letter I am today posting to Mr Deakin.

Congratulations on the arrival of the baby! I hear everything is quite perfect.

Needless to say, you have my prayer and good wishes for the venture you hope to undertake in training for the ministry. I trust you will have your heart's desire and that the future will be promising. If there is anything I can do at any time, you know that I shall be only too glad to help.

My best wishes to you, and Mrs Evans joins me in congratulating you both on the addition in the family. Mr Metherill failed to mention whether it was a boy or girl! Just like a man!

Yours very sincerely,

Garfield Evans

Abrogation of the Anglo-Egyptian Treaty

⁴¹King Farouk unilaterally abrogated the Anglo-Egyptian Treaty five years before the lease of the Suez Canal expires on the 15th October 1951 according to my diary. So, roughly three months before I left TEK, life at 2 Base Workshops changed dramatically from leisurely and relaxed to busy and tense. Life in the DO became frenetic. Immediately after the abrogation we had to work all night drawing maps, there simply weren't any available!

Picket duty became much more demanding as we had to take it in turn to stay on guard all night. Notes in my diary say that I must work out how to use these nights for the best and rejoice that it will give me more time to study! Sounds of shooting were frequently heard and some men were killed. (On the 30th October 1950, i.e. a year before, we had an incident that now became more common. I record "wogs came in the D.O. sometime between 11.15 pm and 12.30 am. Wakened up at 1 am by armed picquets – wogs around". The language is awful. I am ashamed of it. I record it here to show just how deeply I was corrupted by the ethos in which I was living. Apparently we nearly missed being killed. We understood that intruders stood by each man's bed whilst their colleagues searched the place for anything of value. Had we awakened they would have cut our throats to prevent us raising the alarm.) Food ran out: 'nothing for breakfast', 'bread, butter, jam and fruit' for main evening meal. My diary entries complain of being hungry and feeling unwell as a consequence. ⁴² Consequently the last three months of my time in TEK were stressful and health threatening. All of us smoked much more heavily than normal.

Students took their exams in the beginning of October (cf entry for 2nd) which was fortuitous, but I must have continued lecturing after that but not at the same intensity.

⁴³According to my diary (which had much longer entries for the first part of 1952 and then ceases on the 17th March!) there was considerable confusion about departure dates and final preparations had to be made at a few hours notice. Saying goodbye to people proved to be emotionally trying. At the last Sunday morning service I attended the Rev. Garfield Evans 'paid

41 16.12.10

42 I write of having the first proper meal for days when I visited the Apps' on 31.10.51. How did they manage to get the food? Privileged!

43 18.12.10

Return to the UK, Hospitalization and Demobilization

¹On the 10th January 1952 I left TEK to embark on the SS Carlton Star in the Canal (safer than Port Said) with a group of other NS men due to be demobilized. We travelled in a truck. Being the senior member of the party, I was in charge, issued with a sten gun and had to ride in the cab alongside the driver. A bullet hole in the middle of the door faced me as I turned to get into the cab; on a similar trip the previous day a Corporal in charge had been killed. With some considerable emotion I remember thinking as I gripped the gun firmly: 'I am going home and so are the men in this truck for whose safety I am responsible.' I knew them well. Some, like me, were going home to marry; I was the only one armed; I knew I would shoot to disempower even if that meant killing to save the men and myself; I also knew that under other circumstances that I would be ill at ease with that and find it despicable. Had I not felt like that, I would have in all conscience handed the sten gun to someone who would have used it in defence. As things worked out, thank God, we travelled safely and boarded without incident.

SS Carlton Star was a liner cum troop ship. Recently it had been described in the press as a 'hell ship', but I did not find it to be so bad. Certainly the accommodation was superior to that of the Empress of Australia. We slept in two bunk cabins off a small corridor which twisted alarmingly in bad weather! And the weather was bad in the Bay of Biscay: large ships sailing besides us appeared and disappeared in the heavy swell! I was in charge of a corridor and one poor fellow took to his bunk in the Bay in terror and stayed there until we were in Southampton Waters!. We sailed on the 11th and arrived in Southampton on the 22nd January '52.

For me, the voyage and the joy of returning home and being reunited with Molly, was marred by being quite ill, progressively so, with a large boil, carbuncle, on my forehead. The MO on board did his best to help me. Soon after standing on deck to see the land and lights as we sailed up Southampton Waters, I was moved into the sick bay² and when we

1 16.12.10

2 I describe in my diary laying in bed in the sick bay listening to all our lads disembarking and wishing that I was amongst them. However, my turn eventually came and I walked down the gangplank to the awaiting ambulance. 'At last I have my feet on English soil, the same soil that Molly has her feet on. Thank God for having led me safely through all these months and overall these miles.' Entry for 23 Jan 1952.

. . . Albert Lodge,
The Depot and Training
Establishment,
Royal Army Medical Corps,
Crookham. Hants.
April 29th 1955.

Rev. C.E. Deakin,
Gate Grove,
Worsley.

Dear Mr Deakin,

I understand that Mr George Lovell is applying for
ministry to the Methodist ministry and as one who knows him very well
would be a great pleasure to commend him to you.

I first met Mr Lovell in the Canal Zone, where I
served in June 1951 as chaplain for the Free Church Centre in
-el-Kebir. For some time the Church was without a Padre and Mr
Lovell was largely responsible for maintaining regular Services each
day and doing a fine work in looking after the men and promoting
Christian fellowship. During this period before my arrival, I
doubted very much whether there would have been any regular worship or
activity in this large camp without Mr Lovell's devotion and service.

Then, during my stay in the camp, I had ample opportunity
to get to know Mr Lovell, where he proved a great personal help to
me in work and fellowship. It would be no exaggeration to describe
him as a Chaplain's Assistant. He unstintingly gave his time and
energy to every project in the Church to attempt to reach the great
numbers in this large camp. The result was a growing fellowship and
active membership.

There is no praise too high for all Mr Lovell did, not
only in the Church itself, but in his contacts outside. He was a
great example to the other men by his Christian witness and integrity
character, and respected by all ranks.

I feel, without any sense of hesitation, that Mr
Lovell would make a very fine minister and pastor, with a wealth of
experience to help him bridge the gap between the Church and the
world in these difficult days. And I am perfectly confident that
his powers of concentration would enable him to go through his
large training with great profit.

With every good wish,
Yours sincerely,

docked to Netley Hospital, The Royal Victorian Military Hospital, with septicaemia. It was an enormous place. When it was built, the main building was the world's largest building - I have in my mind that it was half a mile long, the Americans used jeeps to get from one end of the long corridors to the other during the war.³

I was in the hospital from the 23 to 28th.

Whilst in hospital I befriended a man called Harold Tomlinson strangely from Accrington who suffered from fits and was being examined for a medical discharge. We went to the service in the chapel on the Sunday morning (27th) and to my dismay he had a fit.

Reading my diary in preparation for writing these notes I came across a record of an incident long forgotten for the entry for the 27th Jan 1952.

Two nights ago I realized that I had dreamt about this place (Netley Hospital) and just what would happen just before I came into the army. How strange that it should come true and yet still stranger that I should remember such a dream so long.

It was not the first, nor the last time that I experienced such a premonition. Being in hospital was disconcerting and worrying particularly about the wedding. Becoming separated from one's unit and therefore from the firmly fixed schedules is always problematic. When I was discharged from Netley, I was given a travel warrant and ordered to make my own way to Arborfield and rejoin my unit. I remember standing on Southampton station feeling terribly forlorn and almost in a state of panic. Suddenly jettisoned out of the military machine in poor health I felt very vulnerable and in fear of the freedom for which I had yearned and the independence that I had managed competently and confidently before my conscription.

⁴Eventually, but not without difficulty, I managed to get back into the demobilization programme in Arborfield. Whilst there, I was able to catch up with Bob Cottam and to meet his wife Joan in their billet. Then on the 31st January I was on my way home. I was still not fully recovered but I was rejoicing in my freedom and the promise of reunions. It was a slow horrendous journey. I had a lot of luggage. The weather was bad. Trains were delayed and crowded. I seem to remember that trains from Euston stopped at Rishton. Mine was an hour or two late when I arrived

3 All that remain is the Chapel. All the other buildings were demolished in 1965 having been gutted by fire in 1963.

4 19.12.10

in Rishton between 11 pm and midnight. It was bitterly cold and there was no one to meet me – my Father and Frank had been to the station a couple of times. Leaving my heavy luggage at the station, I walked home slowly. A journey I had done hundreds of times. Whilst I was bitterly disappointed that there was no-one to meet me, I was glad to walk alone, reminisce, acclimatize myself and to try to compose myself for reunions. I had left home 18 months or so earlier a non-Christian and returned a born again Christian. Then there had been disturbing correspondence with my father about my sense of call to the mission field: at one very low point he had said that if I responded to this call, I need not come home. In the event, it was ‘a wonderful reception, I had no words to say, I simply could not speak and only kiss and hold mother and Molly...’ (Entry for 31.1.1952). I was worried about my mother’s health (entry 1 Feb). Little did I know that she had only just over 5½ years left to live. I record that other people hadn’t changed much but I had, as Ruth’s remarks about my talking posh indicate.

The next few weeks was a frenetic round of activities – meeting up with people, making wedding arrangements, negotiating with the RAE when I should resume work, finding somewhere to live, organizing furniture removals... Then on the fourth day of my return I note that ‘my father was on to me about many things I had left undone and other things I had done which I shouldn’t have done. I knew it wouldn’t be long before it came to this – I expect much more.’ I have long forgotten the details of this unpleasant confrontation and how I responded. The missionary question would undoubtedly feature. But the feelings engendered in me I have not forgotten. Indeed they return and make me realize that after all my working at it and agonizing over it, there is unfinished business in my relationship with my father. This particular retrospective encounter makes me feel rejected, desolate, resentful, sad, disappointed, a little angry and deprived of a relationship I would have loved to have had. But through it all he did do his best for me as he saw it. This is not the place to pursue this further or rather I don’t feel I want to. Suffice to say that I left home to pursue my married life in Farnborough with as good a send off as my father and mother could provide and for that I am thankful.

And, so they return to the second phase of my work at the RAE, a story that has already been told above in [Part 4](#).

⁵6. Pibwrlwyd Rural Technical College, Carmarthen, 1959-62

Any account of my engineering career would be incomplete without reference to three years as a part-time staff member of this college teaching City and Guilds of London Institute Motor Mechanic's Certificate maths and engineering science. It was undertaken out of financial necessity during my Carmarthen Ministry but became an integral and significant part of it. It features in my notes on that period of my ministry. Again, this brought out the teaching side of life. It proved to be my last foray into engineering but by no means the last use of my engineering nous and formation which later had a profound influence upon my Methodists ministerial praxis.

⁶7. My Ability and Potential as an Engineer

These notes show that I had some considerable ability to do and to teach mechanical engineering. I developed my potential as much as I possibly could through diligent application to learning and doing enormous amounts of hard work. But I am not sure that I had an aptitude – ‘a natural propensity or talent’ (COD) – for it. Possibly I had more of an aptitude for teaching than for practising engineering. Often I have thought (and felt) that academically I would have been much more at home with the social and behavioural sciences and particularly anthropology than with engineering. My subsequent work in community development would indicate an aptitude for that field. During my time in the Army – possibly through my sense of failure to get on top of the motorbike suspension problem⁷ - I felt the growing need to develop and strengthen my grasp of and ability in engineering theory. And I had come to the conclusion that to develop my career in engineering I needed to do a degree in mathematics. When I returned to the RAE in 1952 I made some tentative enquiries about doing this as a part-time student.

Be all that as it may, and against the setback of the Castel Benito experience which I describe later, I did establish myself during the second phase of my work at the RAE not least by writing some major reports on my experimental work which were well received. As indicated earlier, I was

⁵ 22.12.10

⁶ 20.12.10

⁷ It is, of course, unreasonable to think that I should do so in the situation in which I was placed with recourse to research colleagues and experimental facilities. AJS engineers had not been able to solve the problem with all their resources.

in line for promotion to Engineer Three Grade which was what I wanted and it would have doubled my salary. During this second phase, I applied myself diligently to my engineering work but not to any further studies. My interest in engineering was gradually being eclipsed by my growing interest and involvement in preaching and in the work and ministry of the church. Engineering was becoming less important to me. My career sense was weakening; but it was never as strong and overpowering as my sense of vocation to the ministry became; engineering was a career, ministry was a vocation and by the grace of God it never became a career although at one or two points it could have become so by default. To borrow words from Richard Hoggart about his professional characteristics which chimed with mine about this period in engineering: it was marked by ‘the lack of clearly-defined sense of direction, and yet a drive to go on, usually to the point of overworking’. (*A Sort Of Clowning* p89). One of the options I was considering, was teaching engineering.

I was in a good position to develop my career in either engineering praxis or education, providing that I found some driving purpose. Possibly that is what I was feeling after when I felt the call to be an ‘engineering missionary’. Anything beyond that is speculation.

8. My Engineering Formation and Experience and my Ministerial Vocation

Whatever my aptitude for engineering might have been my formation and experience in this field of work has undoubtedly affected me profoundly and permanently: the formation is indelible and suffuses my being, my praxis and my spirituality. I note them briefly here with a view to developing them later.

- One of my primary and basic orientations is towards discovering how things work, how they can be made to work better, why they are not working when they are malfunctioning and how they can be made to work. This is quite different from a prescriptive approach which majors on how things should work from some predetermined theoretical or theological basis.
- Closely related to this because it flows from it is my commitment to experimentation and praxis based research.
- My commitment to interdisciplinary collaboration.
- The commitment to and interest in writing.
- The nature of vocational commitment.

All this and more was carried forward into my ministerial life and, after it had been suppressed for some years through my ministerial training, it broke through in the 1960's and played a major part in the radical reshaping of the praxis of my vocation.⁸

What am I learning?

One of the things I am learning is just how demanding it is to write a section like this. I started it on the 25th October, that is almost two months ago.⁹ Getting back into events that took place from 68 to 55 years ago in order to write about them reliably and insightfully is a painstaking exercise charged with a range of emotions. But it is profitable: it reveals unfinished emotional business; it heals and corrects; it informs. For me it has been an incredible inner journey to work slowly over that formative period of my life. I am grateful for the leisure to do so.

To get at the learning I feel I would need to read through what I have written in a reflective mode. I am not in the mood to do that at this present time: I feel I need to bring the work on this section to a close before the Christmas break and return to it later. There are things, however, which stand out.

One is my entrepreneurial nature which led me to promote the educational project in TEK against all the odds and the way that that prefigures my work in -70-75 and Avec and later in the consultancy course.

Another is my early induction into and natural propensity for: action – analysis, experimentation – research – writing up findings.

A third is my ability, propensity and love of working on my own, private work, what Hoggart calls 'solitary work' (ibid p89). It is natural to me, I thrive on it and it has been necessary for the secret of all I have achieved.

Fourthly, I was an angry young man because of my utilitarian narrow technical education. This emerged in many ways. A creative one was the

8 Reading about Keith Kinsella's journey into consultancy from civil engineering (in *Systemic Work With Organisations*, (pp 171–174) started me thinking in an excited way, about the possibility of writing something on my professional life in engineering and ministry drawing out connections, making things work; the way in which I was impressed by structures and she was etc. Unfortunately, I gave this book to David Dadswell, 5.2.15!

9 But I had forgotten that I spent a substantial amount of time on the piece I wrote about Alan Norman Jepson and the research I did for it.

action to liberalize my education; a destructive one was outbursts such as the one about outstanding tutorial payments.

Fifthly, just how early was my commitment to working to human need rather than for one's own career development.

¹⁰Reflections on the January 2009 discussions of Sections 1 to 5

In January Molly and Catherine read the Notes up to Part 5.9 and discussed them with me. This was a searing experience because of the disparaging way in which Molly questioned my motives and the value of writing up the Notes. It was so devastating that it has taken me six weeks before I could return to the Notes and write about the incident. (We have both been unwell which in part kept me from them. But I simply could not face up to returning to them until now. They had been tainted for me. I knew that I eventually would return to them and give myself to the difficult, very demanding but interesting, revealing and satisfying task of sorting out background papers.)¹¹ Molly knew that she had hurt me. Wrongly I said that I thought that she was attacking me. I should have said I felt she was, as indeed I did. Her major criticism was a milder version of a terrible unprovoked outburst in December about my motives and the way in which I was presenting my progress such as it was as entirely of my own effort and ignoring all that others had done and sacrificed to enable me to achieve things. She accused me of trampling on other people. Another point was that I should not be writing the notes but it was up to others to write about me. She had not grasped the notes in Part 2 (eventually these will go to the Journal notes). She described them as the 'ramblings of an old man' but admitted she had not read them properly. Re-reading this section this morning I can see that it would appear rambling to her. Possibly it would have been better not to show them to her. (The lesson here is to show her the text but not the Journal.) I have realized today that I must edit them for content and put them into the Journal for process. Also she felt that my hidden or covert purpose was to publish the notes as an autobiography.

Molly mellowed as the conversation proceeded and the discussions in Parts 4 and 5 were quite different. Some interesting points emerged which I will note below. But I am not entirely sure that she accepted the points I made or that she was convinced by them nor by those made by Catherine.

¹⁰ 27.2.09

¹¹ Also there was other work including that related to *Sustaining Preaching & Preachers*

However she did agree somewhat condescendingly with my continuing to write it if it helped me. I fully intend to do so but to be circumspect in what I show her and discuss with her.

The interesting points re Sections 4 and 5:

- Each participant in an event or series of events experiences and sees them differently. (Molly started to talk about her experience of growing up in Rishton and getting a scholarship etc).
- She felt my time on the farm had been an education.
- She recalled the supply teaching during College vacations.
- We discussed the scholarship group and what had happened to them and paying for those who failed.
- We explored the way in which my engineering education and experience had been subsequently denigrated at college and by me at times
- We agreed that discussions of this kind about the Notes ie all my expenses add useful other perspectives and dimensions to them.

Writing this makes me feel a little better. I must try to find an opportunity to tell M that I am writing again and the things that came out of the fraught January discussions.

I have covered a lot of ground in a short time today.

Worth waiting for!

