

This document is the first part of my autobiography; maybe the story will be carried on later, who knows? I have no interest in telling personal stories; all I want to do is to set down what I can remember of my early life, and to say rather more about my formative years at the University of Queensland; for the latter I have included rather a lot (maybe too much) from contemporary writings, my own and those of others, to show what was happening to my physical and mental landscape at the time. The first source has always been my memory, sometimes amplified or even corrected by certificates or writing from the time. Other information comes from Marie's research, mentioned below, or the books mentioned in the bibliography. There is no unified story, just a kaleidoscope of memories.

Early years

I was born on 23 January 1947 in Toowoomba, a town which then had a population of about 50,000 situated 82 miles inland from Brisbane, on the crest of the Great Dividing Range, and the centre for the agricultural and pastoral area of the Darling Downs sloping gently away inland to the west. There are fine views from various points along the range, over the Lockyer Valley and further afield.

Two of my great-grandparents appear in the genealogical tables in the official Clan Cameron history by John Stewart [6]. (They are Elizabeth, one of the four – not two – daughters of Donald Charles Cameron of Barcaldine, Queensland, on p. 182, and William Justin Beauchamp Cameron, on p. 200, of the 4th edition.) The remarkable story of their chance meeting in the Queensland outback and their life together is told by their grand-daughter Margaret Reeves (the daughter of my grandfather's brother) in *Strange Bird on the Lagoon* [5]. My sister Marie has done further research on our family history, and has traced the majority of our ancestors for six generations back; the stories of these people, builders (my great-great-great-grandfather built the foundations and substructure of King's College London), lawyers, sailors, clergymen, convicts, slave-owners, etc., can be found on her Web page [2]. Marie has also published our father's diaries and writings from before and during the second world war [1]. Our mother was a champion sailor and a keen bushwalker; we think she was present at the remarkable first Christmas camp at Binna Burra described by Arthur Groom [4].

My parents lived in a house next door to my grandparents' house on the 1250-acre property Aughamore in Biddeston, a farming district and tiny village about 16 miles west of Toowoomba. The house was called The Cedars: my father had been in Lebanon in the Second World War. After that he went to New Guinea where he was injured by a shell splinter and sent back to Brisbane; he met my mother in the

repatriation hospital at Chelmer, and married her in 1944 in St Thomas' Church, Jephson Street, Toowong – the street sharing his name. My sister Marie was born on 15 February 1945 and my brother John on 22 September 1950 – he was given the middle name Charles after the recently-born Prince.



The property had been selected by two Irishmen, John O'Reilly and Michael Nugent, when Westbrook Station was broken up and opened for settlement; they sold it to my great-grandfather, William Justin Beauchamp Cameron (the "wild Irishman"), who named it "Aughamore" after the house where he grew up in Ireland. (According to Marie, the name "Reilly's" of our dry paddock, where the cows were put after their milk dried up to gain strength for their next lactation) commemorates John O'Reilly.) Margaret Reeves describes the wild Irishman as "wasting almost two decades slopping around in cow-yards" before he could get back to being a grazier in the West. His son Allan Ewen Cameron (my grandfather) took over Aughamore.

My father was one of five children, and my mother one of four, so inevitably we had quite a few cousins. Of my father's siblings, Bartie married Geoff Clarke and had six children (one of whom, Duncan, who was one of twins, died in infancy). After my grandparents' death, they lived on the south-west corner of the Aughamore block; the children were Ian, Jenny, Kenny, Lance, and Colleen. Cecil married Mollie and had a son, Christopher, a month older than me; Mollie died, and Uncle Cecil married Jean. Betty never married; Helen married twice but had no children. (Betty and Helen lived in the original Aughamore house for a long time.)

My mother's brother Tom Bentley married Joan and had three daughters,

Pamela, Jennifer and Patricia. He was a bank manager for the Commonwealth Bank, and was moved around the State quite a bit, but after some time in the far north he had a long stint in Gatton, in the Lockyer valley just below the Toowoomba range, so we saw these cousins quite often. The two sisters, Edna and Marion, both lived in Cooma, in the Snowy Mountains in southern New South Wales, so we had rather little contact with them and their families. They occasionally came north, but we never managed to get to Cooma. (In fact, the only time I went interstate before I went to University was during a holiday at Coolangatta, on the Gold Coast, where we walked over the hill to Tweed Heads in New South Wales.)

Aughamore was a dairy farm with some cultivation. When I was born, horses still played a role in farm work. Aughamore had a blacksmith's shop with a forge and anvil. But mechanisation had begun, with tractors, milking machines, and so on, and the blacksmith's shop was very little used. But there was a meat-house which was used; we butchered and ate our own animals then.

The house had a fine garden, with masses of honeysuckle, oleander, plumbago, and a date palm. Every year, the church garden party would be held there, with various games and prizes. The games included a slow race, at which I wasn't very good. Another game involved removing pegs from a clothesline with one hand without dropping any. My father, who had very large hands, was undisputed champion at this. There were also assorted word games.

We collected butterflies, of which there were many lovely species. There were two ways to do this: either catch the butterflies, or collect caterpillars in the garden, and keep them until they pupated and hatched into butterflies. There were some very nice ones that lived on the oleander. I should have felt sad for the butterflies but can't remember being so.

At Christmas the large family would all sit down to a feast at the huge Aughamore dining room table. Times have changed but we found nothing strange in the idea of eating a huge meal in the middle of the day in the middle of summer. I had a reputation as a good eater for an early age, and would send my plate up for seconds or thirds. After lunch the kids would run around in the garden while the grownups digested. This ritual continued even after we moved house. If the rains came early, there was a risk that the car would be bogged on the black soil track on the trip to Aughamore. One year we went to Christmas dinner on the tractor.

My first schooling was at home by correspondence, with my mother as teacher and lessons on the radio. We were three miles from the school, and there was no school bus in those days.

I used to give names to the trees visible from our house, or rather (as I would

have said at the time) I knew what the correct names of the trees were. Some of them were Love, Az, The Queen, The bye bye cross of sticks, and G goes round round round. I did get mocked a bit for this, but some of the names survived as names of paddocks.

(Why was I so sure? Marie used to write poetry, mostly about fairies who lived in places on the property, which meant nothing to me. It occurs to me with hindsight that perhaps she was as certain as I.)



The house looked over the property towards Gowrie Mountain, an extinct volcano near the Oakey–Toowoomba road, and a line of hills beyond. The picture shows the view from our front verandah, painted by my great-aunt Marjorie, the wife of my maternal grandmother’s brother.

There was a dip in the hills; perfectly centred in the dip was a small round hill further away. I learnt something about space when I saw that, as we drove into town, the perfect alignment of this hill disappeared, and even the shapes of the mountains changed. Our horizon was somebody else’s neighbourhood. The world was bigger than I had imagined.

(Oakey was a small town of a few thousand inhabitants about ten miles north of Biddeston, and was the administrative centre of Jondaryan shire at the time. Though it was closer, we didn’t often go there, since most essential business had to be done in Toowoomba, and the road to Toowoomba was bitumen, that to Oakey mostly gravel. Later the shire administration was moved to Toowoomba.)

The barn was a good place to play, with piles of hay, straw, and grain, as well as horses’ harnesses. One particular thing fascinated me: the barn acted as

a pinhole camera on the universe! Under the roof of the barn, it was hot and airless. Dust swirled in the half-light; the specks were almost invisible until they crossed a beam of sunlight from a nail-hole in the galvanised iron roof. Far below, on the floor, the beam spilt an egg of light, and I knew that, if a branch outside intervened, the egg of light would show it faithfully. The spots moved across the floor, keeping solar time. Eclipses were the best; all the spots of light became identical crescents. Those nail-holes were my peep-holes into the great mystery of the universe.

Indeed, the earliest theological and philosophical speculations I remember are from this time. If I decided to go from the house to the barn, did I need to thank God for making it happen? Indeed, should I thank Him at all, given that it was impossible that it could not have happened?

As a child there are always things you hear and misunderstand, so that the wrong version becomes fixed. One example for me was the camphor-wood trunk in which woollen jumpers were kept to discourage moths from attacking them, the wood having a noticeable smell of mothballs. I always thought that this object was a “camp-ford trunk”. (Toowoomba has many fine old camphor laurel trees, but recently these have begun to spread through the countryside and become a serious weed. The leaves have a wonderful smell.)

When my grandparents died in 1956 and 1957, the property was divided between their children, our share of 500 acres being almost entirely undeveloped but nearest to the village and school. The new property took the name of the house. Betty and Helen took the original Aughamore home and the land in the south-east of the block, and Bartie and her husband Geoff Clarke had the piece in the south-west. (Their other child Cecil had a property near Chinchilla. I had little idea then where that was; the main road through Biddeston was the Cecil Plains Highway, and I assumed that it went to Uncle Cecil’s place.)

We moved house, literally: the house was a large Queenslander with wide verandahs, stood on stumps, and had originally been brought to Aughamore from somewhere else. Chappel and Co of Kingaroy put a trailer under the house and brought it to the stumps on the new site, where it was lowered and re-attached. This was so carefully done that pencils on the table in the playroom, and even a half-completed jigsaw puzzle, were still there when we moved back in.

While the house was being moved, we had the use of a factory worker’s cottage in the village, and we children slept in a caravan. In the morning, we were awoken by a knock on the door, and looked out to see a kangaroo. (At that time kangaroos were quite rare, but they are more common now; a walk along the lane a block behind the school gives a very good chance of seeing one or two.)

The house had wide verandahs all round; all except the front verandah had been closed in. Going anticlockwise from the front verandah brought you to Marie's room, the playroom (where my meccano set was kept when I was a bit older), John's and my room, the back verandah (where muddy boots lived), the laundry, the kitchen, and the side verandah where we usually ate. The laundry had a copper for boiling the washing, tubs for rinsing, and a wringer; the washing lines were outside the back door. A Reckitt's Blue Bag was kept in the laundry; as well as whitening clothes, it was used to relieve the pain of bee stings. The kitchen had a wood-burning stove, which made two more chores: chopping and bringing in wood, and clearing out the ashes. In the centre of the house was the dining room and living room, our parents' bedroom, the breakfast room and larder, and the bathroom; the toilet was outside the back door.

In a low bookcase in the dining room lived Arthur Mee's Children's Encyclopaedia in ten volumes. I read it avidly. I can't remember specific things I read (which probably just shows how well I internalised the information).

From the front verandah of the house in its new position, the view was quite different. The land sloped down to Oakey Creek, and the Bunya Mountains, some fifty miles away, were visible on the horizon. To the left of the picture was the beginning of the village, which contained the shell of the old cheese factory, the church of St Thomas, the general store, the garage, and a few houses. (The school, which had been founded before the final site of the village was chosen, was a mile and a quarter to the west along the Cecil Plains Highway.)

On the east side of the house we established an orchard, with fig, peach, apricot, and other fruit trees; the chooks had the run of the orchard during the day but were shut away at night because of foxes. Beyond the orchard was the pigsty. The house was on the side of a hill; on the flat ground at the top of the hill were the barn and the milking shed and cowyards, and beyond them the paddock for the night-horse (kept at hand for getting in the cows for the morning milking).

I spent some time as a fire-raiser. We needed to clear and cultivate some of our land, which had never before been under the plough. So my father ring-barked the trees and we hired a bulldozer and driver to push them over; my job was to set fires in the logs and burn them. Best of all were some dead trees that were hollow but still standing; fires shot up the hollow trunks and made spectacular firework displays at night.

Water was a perpetual problem. Aughamore had had a small creek running through it, but the creek just missed our portion, and we needed to find a supply. We called in water diviners to tell us where to put the bore down, but they were not very accurate, and the supply from this bore was never really adequate for the

house. Other boreholes had windmills to pump up water for the cows. In search of further supplies for irrigation, my father built a dam on a dry gully. It trapped water after rain, and usually had some water in it; we could build rafts and sail them, but it never served its purpose, and when it was washed away in a flood it wasn't rebuilt. Water for drinking and cooking was rainwater, runoff from the galvanised iron roof of the house.

My grandmother had taught me the rudiments of the piano, but I wasn't a very satisfactory pupil. I have perfect pitch, and rather than practise sight-reading I always found it easier (once I knew what the pieces sounded like) to play them by ear. I would give demonstrations to visitors, identifying notes played on the piano, or a particular note in a chord, with my back turned.

In addition, my father (who was himself tone-deaf and had no idea whether I was right or wrong) would tap fence wires as he tightened them, or stones that gave out a ringing sound, and ask me the pitch. This was more challenging than the piano: as with bells, their overtones have a more complicated harmonic structure.

We three children were members of the Argonauts, a sort of national club run by the Australian Broadcasting Commission in connection with their Children's Hour programme. Children were encouraged to send in their work, some of which would be read or played on air. Good work was rewarded by a blue certificate, and six of these could be exchanged for a book prize (if my memory serves me well). They were normally quite hard to get, but I found out soon enough that sending in a musical composition to Mr Melody Man was practically guaranteed to earn a certificate, so I did very well out of the scheme. The Argonauts were organised into "ships" of fifty rowers, named after Greek heroes; I was Gorgyra 1. (I don't recall that being number 1, or captain of the ship, gave any special privileges; it was just the luck of the draw.)

In addition, we listened every week to the hit parade. There was a prize for predicting the positions of songs in next week's hit parade; we kept charts and had earnest discussions but never won a prize. There were also children's programmes including Mr Mulligatawny's Academy and The Lone Ranger. The radio had a serial for grown-ups, called Blue Hills, at lunchtime. The theme music was the signal for us to turn off our attention; this was boring grown-ups' stuff. I have been trying to remember the tune, but it escapes me.

Primary school

After we moved house, Marie and I (and later John) rode horses to school, about a mile and a half. The school pupils were divided, not on racial or religious

lines, but into horse and bike riders. Having learnt by correspondence, we were somewhat ahead of our age group. I was put in third grade, a year ahead of the normal grade for my age, while Marie was put two grades up, in sixth grade. (But she repeated the public Scholarship exam, so ended up only two years ahead of me.) The school had just got its second teacher when we started; the head teacher Mr Bannerman took grades 4–8 in the new school building, while I went into the group taught by the assistant teacher Miss Mulroney, who took grades 1–3 in the old building, moving up at the start of the next year.

On arriving at school, we would unharness our horses and put them in a paddock behind the school, and leave the harness in the shed near the tennis court. After school, we would catch and harness them and ride home. The bike riders certainly had an easier time of it! But whoever saw the hero in a Western riding his bike across the prairie? (This was long before “Butch Cassidy and the Sundance Kid”.)

A fantasy I often had when riding home from school was that we were sailing round the Southern Ocean, blown by the prevailing winds; the culverts under the road that we passed were the southern tips of land masses, South Africa, Australia, South America.

A history of the school, entitled *From Tent to Triumph*, was written by my cousin Ian Clarke, published by Biddeston State School in 1994 [3]. It has a lot of information and reminiscences about the district as well.

A small country school could not pick and choose its teachers, and Mr Simpson (who followed Mr Bannerman) aroused the ire of the parents by telling the pupils that it was correct to say “You was” if the subject was singular. He took a dislike to me, and once when I was off sick he taught the class square roots, and set a test when I got back; I had to discover the algorithm for myself in the test. Rumour had it that his wife had “run off with a Yank” in the war. Eventually he went and Mr Strachan, a disciplinarian, arrived and stayed for the rest of my time there.

Stationery was not readily available: we had copybooks to learn to write (using steel-nibbed pens and dip inkwells), but for the most part we wrote on slates. This suited me better since, with pen and ink, I could turn any page into an indecipherable mess; my teachers despaired of my untidiness.

One of the best features of the school was that, because two teachers had to manage eight classes, we were given a lot of autonomy: older children were set to teach the younger ones, and learnt the stuff very well themselves in consequence. Also, a class was often sent out to the schoolyard under the bottle tree to recite spelling and tables. I still think it is very important that these should be so in-

grained that no conscious thought is required, having seen how many of my own pupils are disadvantaged by their lack of familiarity with numbers.



We ate our packed lunches under the new school building. At lunchtime, we would play “One potato, two potato, three potato, four”. We also played skipping games: the girls were the ringmasters, but they got the boys to play as well. One of the games was called “Help”. The victim skipped while the two people turning the rope chanted “High-water, Eyes-shut, Low-water, Pepper”. On whichever of these you first fouled the rope, you would then have to do a spell of that. “High-water” meant that the rope was swung several inches above the ground, so that the skipper had to jump high, while “Low-water” meant that the turners crouched down and the skipper had to do so as well to avoid fouling the low-swinging rope. “Eyes-shut” meant what it said, while “Pepper” was very fast. We would also play hide-and-seek, where the aim of the hidiers was to get back to the base before the seeker did.

At school sports day, there were races (in which I was always last, being young for my year and without a turn of speed), and plums (which we hardly ever ate at home, though we had peaches, apricots, citrus, and huge quantities of figs). We also sent teams to the inter-school sports at Cambooya, with games like tunnelball (played with heavy medicine balls).

As well as getting to school, horses were also essential for bringing in the cows for milking, and other farm jobs. Marie’s horse was Dandelion, or Dandy for short, a brilliant trotter. She rode him in shows and won prizes, following the family tradition represented by Betty and Helen at Aughamore. Once I rode Dandy in the Oakey show, as Marie was away. I was absolutely hopeless at dressage, but in the trotting race I just gave Dandy his head and he flew, and won

by a huge margin. My horse was Jimpy. John first had a half-Shetland called Rhumba, but when he outgrew her he got a stubborn plug called Mickey, who couldn't be induced to go unless he wanted to, and who had a trick of rolling on the ground (preferably in the mud) with John aboard. After a while John learnt to spot the warning signs and leap off in time. No wonder he was completely turned off horses, and when he had a farm of his own would bring in the cows on his old motorbike.

One day I was galloping rather fast on Jimpy when he decided to go under a low branch. I crouched down but not low enough. The next thing I knew, I was sitting in the bath, having found my way back to the house completely unconscious. I think I had slight concussion from this. But there was a family saying "It takes seven falls to make a good rider", so there was no question of not continuing. I had many more than seven falls but never became a good rider in Betty's and Helen's (or even Marie's) league.

My best friend was Robert Rooter, the son of the village storekeeper, a Dutchman who had married an Australian girl in the East Indies and ended up in Biddeston. We had our own "secret legion", with model planes painted in livery of our own devising; we invented secret codes and launched hydrogen balloons. (There was no sewerage, and our toilet used caustic soda to digest the waste. I found from the book "Popular Scientific Experiments" that a strong alkali was as good as a strong acid for turning aluminium into hydrogen. I did have soda burns on my hands most of the time.) We sent a small battery-powered light aloft, and wanted to launch an aerial camera but never managed to get enough lift. We always put on our address and hoped that the balloons would be returned, but they never were.

I found, when I learnt chemistry in secondary school, that if I neutralised the sludge resulting from the hydrogen production with sulphuric acid, I could produce very fine alum crystals from the solution. I managed to grow quite big crystals. I also found that treating potassium dichromate or potassium permanganate with sulphuric acid led to different sorts of "alums" which gave the same shape of crystal in different colours. These chemicals were widely available; indeed, permanganate was used to treat snakebite. (There were dangerous snakes around, though none of the really deadly ones for which Australia is famous.) Also, substituting potassium dichromate for saltpetre in the recipe for gunpowder gave a very good explosive, which we used for fireworks and primitive breech-loading guns.

We discussed much else too, such as music. My favourite song was "I walk the line", by Johnny Cash, for quite a long time after its appearance in the hit parade. At some time while we were at primary school, we got an electric gramophone,

in place of the old wind-up machine we'd had which only played 78s. So it was possible to buy records, though we didn't do much of this. My first 45 record was "I walk the line".

Robert later worked as a pilot: he changed the spelling of his name to Roater, since the Dutch vowel was misleading for Australian tongues.

We also spent a lot of time in tree houses, of which I had several very good ones. At first, my father would put up the beams, fastened to the trees with strong fencing wire, and I would nail planks to the beams to make a platform. Later I would do the whole thing myself. I fenced in the tree containing my favourite tree house, and planted my own vegetable garden there, but it didn't thrive; the tree took the goodness from the soil, and it was a long way to carry water.

I had the run of a huge choko vine that grew up a tree behind the milking bails. I tried to devise a gadget to pick the chokos without having to climb the tree, but really I didn't care about that since I loved climbing. (I remember falling out of a loquat tree at Aughamore at a very early age; I had various other falls, none serious.)

Another impressive vine was the chili that grew up the side of the house. One afternoon, when I was home by myself, I decided to eat one of the shiny luscious-looking fruits on the vine. It was a very long and painful afternoon until someone came to rescue me!

The yard holding the cows before milking was post-and-rail, and I soon became skilful at balancing while I walked along the high rail, an ability I have not totally lost.

I got up to many other experiments, often from the book. The one about sucking a hard-boiled egg into a milk bottle by air pressure was impossible, since milk bottles were completely unknown to us; but I had an old car battery with which I managed to electroplate keys and run a small motor. I also made a telescope by putting a couple of lenses into a long tube. When television came, they built transmitters on Mt Mowbullen in the Bunya Mountains; I could see them through my telescope (upside down of course!)

The house in its new setting was on the side of a hill, so the stumps were high at the front and much lower at the back. The car was kept under the house; next to it was my father's carpentry bench, and then my workspace, where I kept the battery, supplies of chemicals, etc., and did my experiments. At the back, there was just room for me to slip down beside the water tank, until I grew too big.

Sometimes, with friends, we would have a campfire, toast marshmallows, and then lie on our backs to watch for shooting stars. I didn't learn many of the fixed stars, but I knew how to use the Southern Cross and the Pointers to find the south

celestial pole. Occasionally we would see an eclipse of the moon. I looked at the moon through my telescope too.

Living on the farm, I ate well: plenty of fresh meat, vegetables, and fruit. We had porridge followed by a cooked breakfast in the morning. If you had to be up early to do farm chores, there was johnny cake for morning tea. My chore was to assemble the milking machines for the morning milking before school; Marie got in the cows, and John fed the chooks. Our pocket money, or “wages” as we called it, was an (old) penny per week for each year of our age.

The milk from the cows had been taken to the local cheese factory in the village. One of my earliest memories, before my grandparents died, was of riding on the back of the horse-drawn cart taking the cans of milk to the factory, counting up to a thousand. The factory made excellent cheese, and it was fun to watch the mechanical paddles stirring the milk and rennet, and even more fun to go into the cool dark room where the huge cheeses were stored, and smell the indescribable aroma. I once had an argument with the manager, since one of his pumps had the inscription “self-oiling”, and I didn’t believe that this could be so. So pedantry is just as ingrained as mathematics.

But at about that time, the technique of cutting up cheese and sealing it in plastic for the supermarkets came in; the Biddeston factory could not compete, and closed down. After that, we had a separator, sent the cream to the butter factory in Oakey, and fed the skim milk to the pigs, who went to the bacon factory in Toowoomba. One of my jobs was to put the end of the hose in the drum by the pigsty. One evening I forgot, and all the skim milk from the entire milking poured out onto the ground.

The pigs ate household scraps, leftover fruit from the orchard (including rather a lot of figs), and also pumpkins. When we picked the pumpkins (by hand), we would lay them out on the ground, not quite touching each other (they kept best this way). When we needed a pumpkin for eating (always roast, with roast meat and roast potatoes), someone would go and select a good one; the rest would be chopped up and fed to the pigs. Early on, while we were still at Aughamore, my father established the tradition of making a pumpkin maze, with passageways, dead ends, and sometimes sticks of wood for impassable barriers. As the pumpkins were used up, the maze would change and evolve.

The pigs were sent off to the bacon factory in Toowoomba. Their cheques used to show a picture of a couple of fat pigs. When fashions changed, they were re-designed to show two much longer and leaner pigs.

As well, we grew other crops, mostly as feed for the animals. The most exciting was corn (which to us meant maize, of course, not wheat). Technology was

changing fast, but when I was young we picked the cobs by hand; I can't remember whether we had to strip off the husks by hand also, but then the cobs went into a machine with a hand-operated handle, and the grain came out of one hole, and the empty cobs the other. Corn husks were to us what autumn leaves are to English children; there were huge piles of them, fun to jump into. But by the end of my childhood, a harvester went round the field and separated the grain at the same time.

With the corn and pumpkins, we also grew watermelons. The family had produced a very good strain of watermelons by simply saving seed from the tastiest melons each year. It was important that the corn and melons were not grown in a paddock next to the road! We also grew jam melons, and my mother made melon and lemon jam, and melon and ginger jam. These melons didn't have much taste but made an excellent carrier for the stronger flavours of lemon or ginger.

The pigs and crops were subsidiary to the main thing, the cows. We had a good herd of Jerseys, who gave very rich milk. A pan of milk was put over warm water overnight, and by morning the thick cream had risen to the top and could be scooped off with a special skimmer. After we started supplying the butter factory, things changed a bit: the cream was separated mechanically, and we would simply fill a vessel for household use; it was not as thick as the other method produced! (At the time, I didn't know the term "clotted cream", which is what this was; I heard it first in a song by Procol Harum.)

There was enough cream that we could churn it for butter for our own use. There was a churn with a handle to turn; after some effort, the butter separated from the buttermilk. The last of the milk was worked out of the butter with wooden paddles. To finish, with these paddles, the butter could be made into various shapes: snakes (by rolling it out long and thin), logs (by patting it into a flat disc and then rolling it up), or eggs (by rolling it into a ball). The paddles were plain on one side and grooved on the other, so the snakes, logs and eggs could be plain, patterned with lines, or patterned with a grid. It made choosing butter for our bread very difficult!

There was one thing we had which was much more valuable than our weekly wages. On the new property, we children were each given a cow. Her milk went into the farm output of course, but her calves were ours. It was like playing monopoly with a big element of luck: bull calves went to the butcher and the money was put into a bank account for us, but heifer calves eventually grew up and had calves of their own. So with luck, you could own a significant part of the herd. I think my parents had to buy back some of their own cows on at least one occasion!

We had pets, though mostly they were required to earn their keep just as we were. There was a three-legged dog called Teddy that we had at Aughamore, whom I don't remember clearly. Dogs were expected to help round up the cows, while cats were to keep the house and barn free of mice. Two stray black kittens who turned up once were given the name The Kooka-birds by John; they never got individual names, but stayed for good. There was also a pet lamb called Lambkin. My father used to say, much to Marie's annoyance, that when he grew up he would be Sheepskin. (You see where I get my sense of humour from.)

As well, we had various birds, mostly galahs, who were rescued after falling out of their nests. One of them was fed with porridge, and would always grab hold of the spoon and shake it, spraying porridge all over the place. The galahs could learn to say a few words, typically "Hello cocky" and "Scratch cocky"; and they did indeed like having the rough skin behind their crests scratched.

There were many other birds around. Butcherbirds were the best songsters; one of my compositions for the Argonauts was based on their song. I was surprised to find later that this song was local; butcherbirds in different parts of the country sang different songs. One of the butcherbirds was quite tame; it would wait in the tree outside the kitchen window for someone to throw it a small piece of meat, and would invariably catch it on the wing. Magpies abounded, with their characteristic carolling sound. In the evening we might hear a mopoke.

These birds were valued, but crows were a pest, and I was allowed to take the rifle and go after crows (or indeed galahs). Sometimes, in the absence of other prey, I would shoot hairy caterpillar nests hanging from the trees. If there was a bad infestation of these caterpillars they would strip a tree, and then walk in a long line nose-to-tail to another tree. I doubt whether shooting them really had much effect, though.

John reminded me of the time we went out with Robert to shoot pigeons for a pigeon pie. I cannot at all remember whether the pie was edible.

Occasionally we would find a koala in a tree, and all go and take a look. A baby which had fallen from a tree was probably doomed, since they have very long appendices and are very easily injured.

Twice we came close to fire. We had a kerosene fridge, since at Aughamore there was no mains electricity (only a generator and a shed full of batteries). Once (I can't remember when, but my mental picture of the event puts it at the new place) we came home to find that the fuel tank had just caught fire. Any later, and the house would have burned down. As it was, we were in time to carry the tank out to the back yard, and no damage was done except for a bit of soot. I think it was after this incident that we got an electric fridge. (Another advantage

of the new place is that we were close enough to the power line that we could be supplied from the grid. Four wires came to our place; two-phase for the house, three-phase for the milking machine.)

Later, we were sitting down to Sunday lunch when John came in to say that there was a little fire on top of one of the fuel drums by the barn. We laughed at him for his fantasy, but it was true. My father rushed out to try to put it out. He failed, and got badly burned; the barn, with the tractor and quite a lot of grain, was destroyed. He said afterwards that he should have concentrated on saving the contents: driven the tractor out, and then used it to take loads of grain out. The barn was rebuilt, but he had to have his extensive burns treated. Worse than the burns was his reaction to the penicillin they gave him.

One of the cats was in the barn at the time, and got its feet burned making its escape. From that time on, we could always hear it coming; it had lost the stealthy tread of a cat and sounded more like a small elephant. I have tried to remember which cat it was, but can't. Another cat (and I also can't remember) used up many of its nine lives: it had hot ashes from the stove inadvertently thrown on it, and it was sleeping under the bonnet of the car when the engine started.

We (usually just my mother and the children, since the cows were a 365-day-a-year job) went on holiday to Alexandra Headlands, where Aunt Eda (my mother's aunt) had a holiday house right on the headland. The cliffs seemed enormous, though we did scramble down paths to the rocks below, where there were rock pools in which many shellfish and other creatures lived. On revisiting the place years later, I could hardly believe how tiny the cliffs had become! We painted and made charts of the tide times as well as going swimming in the sea at the surfing beach or the Cottontree arm of the Maroochy river. At Cottontree there was a slide that went right into the water.

We made the journey by train, getting reservations from Toowoomba to Woombye, which impressed me very much, and then taking the bus from Woombye. The journey up and down the Toowoomba range was spectacular. We would dutifully save newspapers and throw them out of the train for the track workers in isolated spots.

One year (I think it was 1956), a cyclone came fairly close. We had no trouble at the seaside, but on the train home I was impressed with all the waterfalls making the trip up the range even more spectacular. When we arrived in Toowoomba, we found that the road from Biddeston had been cut by the floodwater, and we had to spend the night on sofas at my maternal grandmother's flat. (This was at Fernside, an old house on the crest of the range with terraced gardens and spectacular views, and, best of all, a goldfish pond.) The next day the waters had gone down and we

could be collected and taken home.

This was the last time we went to Alexandra Headland; the holiday in Coolangatta was later. Marie thinks that there may have been a scheme in those days whereby women and children who lived west of a certain line could get one free trip by train a year to the coast, and that we may have taken advantage of that for the holidays in Alexandra Headland; but we have not been able to verify this.

We went to picnics in other places, such as Helidon Spa, where a spring of fizzy mineral water bubbled out of the ground and filled a large swimming lake.

Very often my parents would have business in Toowoomba or Oakey, and we would have a trip into town, and often would go to the pictures. Sometimes we even made a special trip to see a good film. One of these was “Robbery under Arms”, for which I remember the advertising slogan, which appeared on posters all over the place: “Post no bills, not even for ‘Robbery under Arms’.” At the time I only knew one meaning of the phrase “post a bill” – plenty of bills came our way, and went onto my father’s desk – and missed the nice self-reference in the slogan. Once we went to the pictures in Toowoomba with Betty and Helen, who took us to a Chinese restaurant afterwards: I remember this as delicious and mysterious but cannot at all remember what we ate.

We learnt to drive, on the tractor (I did quite a bit of ploughing), and in the car on quiet country roads where my father would stop the car and say to one of us, “Take over”. The tractor was simpler because there was no gear changing: you start out in the gear you want. (I did once, perhaps foolishly, change gear on the tractor. Rolling along a straight track, I depressed the clutch, throttled down, and changed up a gear. Fortunately I had judged it right and it went straight in.)

A week after my seventeenth birthday, I took my driving test in Oakey. The test was quite perfunctory: the examiner was the local policeman, and I had to drive out to the abattoir through the very wide Oakey street, turn around, and pull up in front of the police station, and then answer a few easy questions. Afterwards, I drove from time to time but never owned a car; I did occasionally borrow the family car.

I used to draw pictures of enormously complicated machines with myriad wheels, belts, gears, axles, etc. These drawings assumed that somehow the machines would generate motive force, as an “emergent property” of their complexity (though I think that, even then, I was seriously worried by this assumption). Many years later it occurred to me that the same error was made by people like Douglas Hofstadter, who maintain that consciousness is an “emergent property” of sufficiently complex neural circuitry.

Meanwhile, I had made mathematical progress on my own. I knew how to sum

arithmetic progressions with common ratio 2 or 3. I remember finding the rule for common ratio 3 while riding behind the cows, bringing them in for milking. Once my father asked me the problem about the man who invented chess, who asked as reward for one grain of wheat for the first square on the chessboard, two for the second, four for the third, and so on. I explained to him that you would have to add the first 64 powers of 2. He started to explain that there was a simpler way, but I beat him to it by telling him that all you need do is to find the next power of 2 and subtract one from it.

At the age of twelve, I took the Scholarship exam as a prelude to secondary school. The exam consisted of three papers: English, Mathematics, and Social Studies (geography and history). I did well, but I think not quite as well as my teachers had expected. (I got 90%, just beating Marie, who had scored 89.2% two years earlier.) But just before, I had taken the Sunday School exam (the Bishop Webber prize examination) and come top in the State. (My family were strong supporters of the Church of England church, St Thomas', in the village: my grandmother had run the Sunday school, and my father was a churchwarden.)

In passing: Sunday school was a little bit sectarian. We learnt about the Anglican missions in the Gulf of Carpentaria, but not a word about Weipa, the mission that was making the news because of the discovery of huge reserves of bauxite there: Weipa was run by the Presbyterians.

I was rather religiously inclined in those days. I was confirmed on St Luke's Day in 1963 (I tried to feel the marks of the nails in the bishop's hands, but couldn't), and took my first Communion in Oakey on All Saints' Day. For some reason, we were driving along the Toowoomba to Oakey road (perhaps the creek was over the road), very fast, when the back tyre of the car blew out. Had it been a front tyre, that would have been that. Possibly as a result of the stress, I passed out in the service. Several times since then I have fainted: always when I am stressed, and often in church.

A few years after I took the Scholarship examination, it was abolished and the education system reformed so that children began secondary school after Grade 7.

Secondary school

There was no high school in Oakey in 1960 (one was opened the following year), and even had there been, it was still ten miles away with no school bus. So it was inevitable that I would go to boarding school. Marie was already at Fairholme, the Presbyterian girls' school in Toowoomba. (Although none of our family were Presbyterians, and the Glennie, named after the Church of England "apostle of

the Downs” Benjamin Glennie, would perhaps have been a more obvious choice, Fairholme had been our great-great-grandmother’s home. The story is that she gave the house to the Presbyterians for a school after having a disagreement with the Church of England minister.)



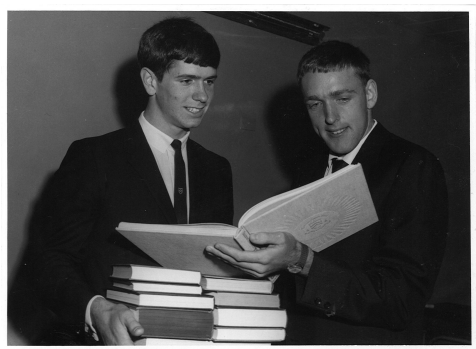
We had family connections with the Toowoomba Grammar School, and that was obviously the place for me: I would be the third generation of Camerons at the school (John and my cousin Chris would follow me there), and my father had been Dux of the School and won an Open Scholarship to the University in 1929. The school, loosely modelled on an English public school, was rather different in nature. When the Queensland education system was established in the 1860s, the government could not afford large numbers of secondary schools; TGS had been built by public subscription, and many boys who lived in the country would come as boarders to the school, often assisted by government funding.

So I turned up as a “squirt” in the third form at the Grammar School that year. I was not very socialised, and got quite a lot of teasing, but managed to find a circle of close friends, notably Gordon Findlay, who later became a patrol officer in Papua New Guinea.

Early on, my then best friend, Mitchell Achilles, was diagnosed with hepatitis. Anyone who had been near him had to traipse down to the doctor’s surgery for a very painful injection; but none of the rest of us caught the disease.

I did well academically. I was Dux of my year for each of the four years I was at school, obtaining 7 As and a B in the Junior Examination (the As were in English, French, Maths 1 and 2, Physics, Chemistry, and Geometrical Drawing and Perspective; the B, raised from a C on appeal, was in Geography), and six As in the Senior (English, French, Maths 1 and 2, Physics and Chemistry). In the

Senior, I was fifth in the State overall, but first in Maths and Science, for which I was presented with a medal by BHP, the mining company. At each Speech Day, I would carry off a load of books, most of which I never read until years afterwards.



I was certainly stronger in sciences than in humanities. French was always difficult for me. There was no chance to speak it – the nearest French-speaking territory was New Caledonia, a thousand miles away in the Pacific – and my accent was and remains terrible. The French teacher, Mr Colesnic, tried his best to kindle our interest. He told us that he had been in the Vice Squad in Paris, and that he knew how to tell whether a man or a woman had slept in a bed by the creases in the sheets. I remained sceptical. The class believed that he was a Russian called Kolesnikov.

Although I did well in examinations, I cannot remember doing any original thinking, about mathematics or anything else, at school. I also gave up reading, apart from set books. I seem to have been marking time intellectually, by comparison to what happened at university; but maybe this was a necessary pause. Certainly, this was the only period of my life when I was not a compulsive reader of anything printed that came my way!

I made one very important discovery in my second year at school. I had always been bad at sport: no speed, no strength, no hand-eye coordination. I had tried to get around this by various means: playing in an under-15 cricket team (helped a little by being a year younger than my contemporaries), and coaching a rugby team. (Cricket and rugby were sports that almost everyone played. We had some competitions with other Toowoomba schools, but most of our efforts were devoted to the GPS, or Great Public Schools, competition. There were nine schools in this organisation, six in Brisbane, and the Ipswich and Toowoomba Grammar Schools and the Southport School. The term “public school” was taken from English usage but its meaning was rather different; Brisbane State High School was one of the

nine, which also included two Catholic schools and one Anglican school. On days when we played away at a Brisbane school, maybe half-a-dozen teams would travel in tedious and noisy coaches. The road was slower than now, winding slowly over the Minden and Marburg ranges where now it goes through deep straight cuttings.

But I found that I had some ability as a long-distance runner, and was placed fairly highly in the school cross-country race. I decided to train more seriously for the following year. Possibly nobody before had ever trained specifically for the cross-country race, but I did want to do well at something, and did feel it was within my grasp. (The cross-country course started in the school grounds, went up to Picnic Point, then took a suicidal plunge over the edge of the Range, and came toiling up the Old Toll Bar road and back to School, about five or six miles.)

My career nearly came to an abrupt stop. Jumping off a bank, I hurt my knee. The doctor said that if I kept running I would be a cripple by the age of 40. Even the headmaster called me in to warn me. But I knew this was rubbish, and kept on. I was third in the cross-country next year, and made the school athletics team. In my final year I won school and local championships and was second in the GPS under 17 mile and the State schoolboys' open mile. (A mile was the longest distance schoolboys ran in those days.) More about this later.

We slept in fairly large dormitories, the unlucky ones in bunk beds, in our junior years, but the seniors had smaller and better accommodation. Some ritual teasing of the squirts went on, such as penny derbies, and getting us up early for "rowing on Drayton harbour". But I certainly wasn't miserable at school. My parents had suggested that I should take Latin; but this was only available as private tuition from the headmaster, Mr Heenan, and I didn't want to be singled out to this extent.

The year began with a "squirts' concert". I don't remember what I did in my first year. In the second year, when Chris came, I was hauled up onto the stage with him; we did "Let's twist again", going through the motions at the same time.

On Sunday mornings we were expected to go to church, and crocodiles of boys wound down Herries Street to the appropriate churches. Usually we would go, sit in reserved spaces at the back, and just sit through the service; but occasionally we would hide under the East Creek bridge until the crocodile came back.

Sunday afternoons were the emptiest time, especially in winter and early spring when the cold westerlies blew. We would steal as much bread as we could at lunch, roll it into balls, and eke it out to get through the afternoon. At first, I went for long walks; later, it was more likely to be a long run. Sometimes we would find some secluded sunny hollow on the edge of the range, and camp out there,

smoking. (I smoked occasionally at school, but gave it up as soon as I left school and it was no longer forbidden.) I also was fortunate in having relatives to visit: my grandmother, who had left Fernside and had a flat in Lilley Street, near the showgrounds; and Aunt Isobel and Aunt Helen, my paternal grandfather's sisters, who were excellent company and made spectacularly good fruit cake.

Once I started to make my mark as a runner, I began to have a small fan club of younger boys who were keen on running; I helped them as I could, and they did well. It gave me a lot of satisfaction when they did well at the school sports day or got into the athletics team. These were primarily Russell Alley, from Brisbane, and Paliau Lukas, a Papuan boy. Ian Elkington, from Honiara in what was then the British Solomon Islands, was also in this little group, though he was not interested in running.

My other activity, which almost everyone had to take part in, was the school cadet corps. (The school had a proud military tradition, and most of its more eminent old boys were generals.) We had parades on Friday afternoon, and once a year went camping in the sandstone country below the range.

In the summer vacation of my third year, the school, realising that I was not officer material, sent me on the quartermasters' course at Wacol. I think they hoped that I would come top in the course and reflect glory on the school. But for some reason, the Army decided that no marks would be given, and simply announced that everyone had passed. It was the cushiest job in the cadet corps: no parades, no rifles to polish!

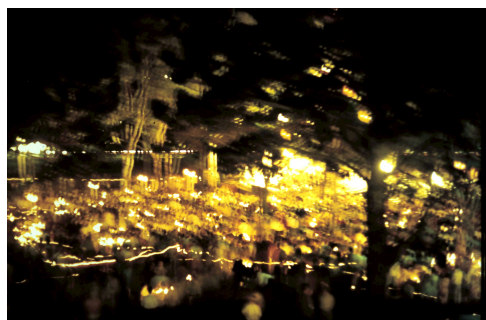
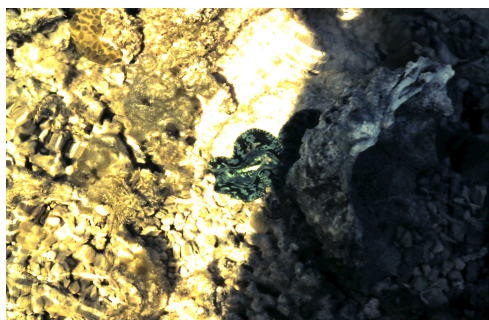
As part of the cadet corps, I did some shooting on the rifle range, and earned my marksmanship badge with the bren gun.

I did the usual things one does at school: debating (I wasn't very good at this; my arguments were convincing to me but not necessarily to others), running a music society (one of the teachers gave us the use of a gramophone and records on Sunday afternoons, but the records were things like Bach fugues and the society didn't last long), and writing for the School magazine. (An essay, really just a piece of coursework, is printed in the 1963 School magazine, with the title "Noise". This showed that already I was not just a hard-nosed scientist; I claimed that whether a given sound is noise or not depends on the context and the state of mind of the person listening to it.) I was involved with the Dramatic Society. One year I had a bit part in a play about Ned Kelly (Ian Lord and I were the railwaymen dragged out by the gang to pull up the tracks, with two lines each). The next year I did light and sound, with which I was much more comfortable. (At one point I had to make the doorbell ring "in a Wagnerian manner"; at the time Wagner was just a name to me and I probably didn't quite get the emphasis right.)

When I started at school, I had piano lessons on Saturday mornings. But the practice facilities were not very good, and this was something else which marked me out as different from the others; so it soon lapsed. (My classmate Geoffrey Saba became a successful concert pianist – but he was a dayboy!) But I wasn't completely without music: Gordon had a transistor radio. Our favourites were men with high or falsetto voices, such as Roy Orbison, Del Shannon, the Four Seasons, even Frank Ifield (one of whose songs, "I remember you", we parodied as a tale of boarding school life). I got a shock towards the end of my time at school when Del Shannon brought out a cover version of a song by a new pop group from England that nobody had heard of, The Beatles, and his version was not as good as the original!

While at school, I acquired a cheap black-and-white camera. As well as pictures of landscape (I had a couple of pictures of Queen Mary's Falls, near Cunningham's Gap), I took some experimental shots, including one of a younger boy holding a sparkler which turned out rather well. Some of my pictures were fogged by light getting into the camera. I noticed that the ones affected were those where the film had been left for some time after winding on, and suspected that there was a small hole in the camera body; I found it and covered it with black tape, after which the problem was fixed.

Later, at the end of my schooldays, I bought a Fujica single-lens reflex camera, which served me for many years. At the time, colour photography usually involved producing slides rather than prints. The first serious outing for the camera was a trip with Gordon Findlay and his mother to Heron Island. Through the clear water I was able to photograph the bright colours of the corals and clams of the Great Barrier Reef. I also experimented a lot with long-exposure photographs, climbing a tree to take pictures of Carols by Candlelight at Picnic Point; pointed the camera through binoculars, or at a reflecting sphere (a Christmas tree decoration); and making title slides by superimposing a picture of writing on a background shot.



We were allowed a few outings a term; my parents would pick me up, sometimes with a friend, or I would go off with someone else's parents. We often went for picnics to Cooby Dam or Helidon Spa or other such places. Eating was a very important part of the activities: we were all growing very fast and never got enough to eat!

In my sixth form year, I wasn't a prefect (certainly I was not prefect material), and they had to do something with me. By that time I was established as a successful distance runner, so they made me joint captain of the athletics team. I had my hair cut in a crew cut, supposedly for psychological warfare (to persuade opponents that I ran so fast that wind resistance was significant). Actually a distance runner does a lot of training alone, and has no need of all the strengthening exercises that sprinters or field games people do, so I didn't actually have a very big involvement with the team, apart from coaching my fan club and some of the other younger distance runners.

Gordon Findlay was also in the athletics team. He was a talented high jumper, being able to jump higher than his own height, and did well in competitions. But the very different nature of our events didn't bring us together; he would patiently jump and jump, perfecting his technique, while I as often as not would be out on the roads or round the school grounds.

I remember clearly from that time that, when I first took up running, one of the teachers mocked my running style, pointing out that my stride was much too short. I consciously worked on it, pushing each leg up just a little on the forward stroke. The next year, I was pointed out to everyone as an exemplar of an excellent running style!



The team triumphed in the Darling Downs schools' athletics competition, taking first place ahead of the Toowoomba State High School and Downlands College. However, the big event of the athletics calendar was the GPS competition.

At the time, our overall performances in GPS athletics were fairly woeful. There were high hopes for me in the under-17 mile; I led most of the way, but a very big strong athlete from Brisbane State High School, Paul Morgan, out-sprinted me in the final straight to win by a second. (This was to be a fairly common pattern of my running career, as I shall relate). My time was 4 minutes 34.8 seconds. Gordon Findlay won the high jump, but the team brought home the wooden spoon.

I went home in the vacations, and farm life continued much as before. I spent long hours on the tractor, ploughing dusty paddocks. When I thought I might become a cricketer, I dug up some anthills to make an “ant-bed” cricket pitch to practise my bowling. It was no good for batting on, since some of the ants stayed in residence and made standing still very uncomfortable! It was easier when I turned to running; I simply had to measure out a 440-yard circuit and use the tractor to smooth it a bit. Later I would go for longer runs, around the block. (The old Aughamore was bounded by roads on all sides, gravel except for the Cecil Plains highway on the north side, making a circuit of about 5 miles.) Robert and I got together and went on picnics on our bikes (I had defected to the other camp by this time), and discussed our favourite songs, as before. Once we climbed Gowrie Mountain; another time we picnicked and swam in a pool in Oakey Creek.

In the summer vacation after my last year of school, I was recruited to the University of Queensland Athletics Club. The club competed in inter-club competitions at Lang Park in Brisbane, and I would hitch-hike down on Saturday morning and back on Saturday afternoon. Usually I would get a lift into Toowoomba and start hitch-hiking at the start of the “New Toll Bar”, the road down the Range. I wore my school Blues blazer, on the theory that drivers were more likely to stop for me if I did this. One terrible time, I completely failed to get a lift home; by dark, I was stranded on the outskirts of Ipswich. In desperation I phoned home, and my father drove all the way down to pick me up. Another time I got to Toowoomba late and was offered a bed in a dormitory at the school; I heard the news there of the assassination of President Kennedy.

The competition also included State trials and a Queensland versus New South Wales match. More about all this later.

University

My four years as an undergraduate were a time of great change and ferment for me, as well as for society as a whole. Significantly, there was my mother’s illness. She was diagnosed with breast cancer in my last year at school. She was at St Vincent’s Hospital, which was very close to the school grounds, so I was able to

see her frequently. It became clear that she was not going to die immediately, but she would be very weak; the time had come to sell the farm. Thus, at a stroke, I lost access to the places of my childhood, and had only my memories thereafter.

Many years later, thinking about memory, I wrote in my diary:

Once I found myself wandering freely around the farm where I lived from the age of eight. I could examine almost everything, even the shapes of individual trees, but things that changed (like the barn that burned down) were unclear in the picture.

In my first year at University, we moved into Toowoomba, buying a house at 65 Crown Street, quite near the school, with a sunny kitchen and a cool front verandah where my mother could sit. My father took a job with the Irrigation and Water Supply Commission. This involved designing and helping build dams for farmers all over the Darling Downs, so he spent a lot of time outdoors, which suited him very well. It also made my journeys to Brisbane and back easier, since it was in easy walking distance of the top of the Range, the best place for picking up a lift.

The education system in Australia, as in many other parts of the British Empire, owed much to the Scots. At University, we had the option of a three-year pass degree (suitable for most students, the education being broad rather than deep) or a four-year honours degree (for those bound for an academic career). Even the honours degree was considerably broader than, say, an English university education, as I shall relate.

I went to the University for an interview at some point, I don't exactly remember when. I do remember thinking that the people on the other side of the table did mathematics as their day job, and realising that I could do that too. (Before that moment, such career plans as I had involved a job that would have some mathematics in it, such as physics or engineering. But here was the real thing, and from that moment I had no doubt about my career.)

Most students went up to University with a Commonwealth Scholarship, which paid their fees and gave a living allowance. In my case, having been in the top 25 in the state, I also held a State scholarship, which gave me a small but not negligible lump sum. It also, curiously, gave me a voucher for the train journey from my local station, Aubigny, to Brisbane. In fact, no trains had stopped at Aubigny for many years. I probably could have used the voucher from Toowoomba, but never did.

I enrolled for a B.Sc. in the Mathematics honours programme. (In fact, I also took Physics and Chemistry to honours level in the first year, and Physics in the

second year.) Coming from a Church of England background, I applied to St John's College and was accepted. I stayed in the College for my entire time at the University, never moving from the corridor in Goodbury, the then new block standing at the front of the College. The Mathematics building was a short walk up the hill, and had a back door, which saved a few minutes in the morning. In my small honours class were several people who went on to become successful mathematicians, including John Meakin, Des Fitzgerald, Bill Longstaff, and Peter Anderson.

The colleges were mostly situated at the bottom of the hill on the south side of the campus, very handy for the mathematics and engineering departments. At one point, when the engineers decided to start lectures at 8 o'clock instead of 9, the college students would show up in their pyjamas. (The experiment didn't last for long.)

The Mathematics building provided me with a metaphor for the subject. It stood on the side of the hill; as you walked in the front door, you could either go down to the basement, or up to the higher floors. So, studying mathematics, you come in with your previous knowledge of numbers and how they behave; you can either go down to the foundations, and see how the logic of mathematics works and how numbers can be constructed from more basic concepts, or up to higher levels, taking numbers for granted and building up algebra, analysis, and so forth.

The metaphor is not helped by the existence of the back door in the basement, convenient for those of us living in colleges, and for the lecturers who came in cars. (Students were not normally allowed to take cars past "Checkpoint Charlie" on the campus.) Certainly I felt no special affinity for the foundations of mathematics at that time!

Unlike most departments, Mathematics put on a special honours course right from the start, so we were segregated from the non-mathematicians. But we met them in physics and chemistry lectures and practicals. The practicals, especially in chemistry, were my particular bugbear. I knew what I was supposed to do and what should happen, but it never worked out as it should. Fellow students would come and ask me questions, and go away and get their experiments to work; most unfair!

The College had its "traditions" for intimidating freshers, rather more elaborate than the treatment of squirts at TGS. We were unceremoniously "laked" early on; we had to answer the telephone; and when there was ice cream at formal dinner, we had to tell a joke to the satisfaction of the senior man on the table to get our portion. I had no time for all this. The "laking" (when we were all dragged from bed and thrown into the very muddy lake) occurred during the athletics sea-

son, and I was not at my best for competition the next day. When I had survived my fresher year, I had absolutely no interest in passing this treatment on. In fact, in the spirit of the times, it was tending to wither away anyway.

But its effect on me was to make me less of a college man than I might otherwise have been. So the thumbnail portrait of me in the 1967 issue of the College magazine *Argo* shows puzzlement rather than familiarity:

Cameron, Peter

I have nothing to declare except my genius

Rather slow with figures, but fast cross country, Peter is secretary of the Athletic Club and goes off on mysterious trips, presumably to run. Owns a loud record player, and plays the guitar for the 16th Precinct Repair Shoppe. His psychedelic eyes, now and again turned on, have attracted the odd female.

(Each “Gentleman of John’s” was the subject of such a summary at the end of his third year.)

My College room was immediately under the television room, where the College band (boys who had known one another at school) would practise: Deric Samson on lead guitar, Graham Coghill (whose son later outdid all of us as a member of the successful group Powderfinger) on rhythm guitar, Chris Hyne on bass, and Dean Patterson on drums. They played Shadows numbers and similar material. Rather than playing from music, they worked out their own arrangements. Some of what they played was wrong, as I could hear, so I went up to tell them so – what a cheek! But quite soon they roped me in. Since I had learnt the rudiments of piano, and since electric organs were then in fashion, I was persuaded to buy a Teisco organ and join in. I also played harmonica and an assortment of percussion (tambourine and maracas mainly). We called ourselves the Black Stumps.

In our first summer, Deric was drowned on 11 February while swimming in the sea. This hit the band hard, not least because he was a very talented guitarist. (He had worked out a lot of the complex Hank Marvin riffs, and he and I had continued on this, slowing the records down from 33 to 16 to try to figure out just what Marvin was doing with his fingers in some of those complicated boogies.)

But a band cannot survive with a single guitarist, so I was shut into my College room with a guitar, and not let out until I could hold down a chord. (Well, not literally – but it certainly felt like it.) So we would swap roles around; at first Graham and Dean would play lead, Graham or I would do the rhythm. Some

Shadows' numbers (especially "The Savage") were an incredible ordeal; I broke through new pain barriers in that one.

We also felt the need of a singer, as music changed as the Sixties went on. Our paradigm changed from the Shadows to the Beatles and the Rolling Stones. We recruited Robert Shallcross as singer, but he was not really harsh enough, so we all took turns. My speciality was "Route 66", in which I played lead as well.

My musical tastes expanded enormously as a student. My favourite pop group was the Animals; I was devastated when Alan Price (my hero at the time, who played awesome blues piano and organ with the group) left and began churning out soft jazz, while the remaining Animals left R&B for more mainstream pop. I also loved the Beatles, Rolling Stones, Zombies, Moody Blues, Jimi Hendrix, Manfred Mann, Yardbirds, and other mostly British groups on the bluesy end of pop. But I also explored the wilder fringes of jazz, as well as modern classical music (especially from Czechoslovakia and Hungary, which produced very cheap records on the Supraphon and Hungaroton labels).

The band's invariable routine on Saturday mornings was to go into town, either on the bus or, to save our pennies, across the West End ferry and then on the tram; into the record shops, to check the racks for new releases by our favourite groups. (LPs cost 52/6 in pre-decimal days; Australia changed to decimal currency on 14 February 1966, ten shillings becoming a dollar, so that one cent was just a little more than an old penny.) Then we would hurry back and, before lunch, listen to the records. Often we knew right away that there was a track we would have to play, so after lunch we got out our instruments and figured it out. The oft-repeated story of Jimi Hendrix playing "Sergeant Pepper's Lonely Hearts Club Band" the day after the Beatles released the LP is quite believable; we did the same thing several times.

Many of the British pop groups made it to Brisbane, and I would often go and see them. This included the Beatles, though they were without Ringo at the time, and Jimmy Nicol was in the drummer's seat. I went more to see how they played than to listen. It was impossible to hear a thing over the wall of female screams, and anyway we had already analysed the music from the records and only needed to see how some of the more spectacular riffs were actually played.

There were other concerts as well. I was really knocked out by hearing Sonny Terry and Brownie McGee, the American bluesmen, in front of a very small audience, I think at the Foco Club. I really wanted to play like that!

In the second summer, we had the use of a house in Bargara, on the beach near Bundaberg, for a couple of weeks, so we did what many groups were doing at the time, and took our instruments, spending our time playing, eating and drinking,

and surfing, or just lazing around. Later, Jack van Lint and I made much of this connection: as a child, he had also spent some time in Bargara.

We never made enough to pay for our equipment; most of our gigs were parties for friends. (On one memorable occasion, a rugby team from the University of California visited, and friends in the Rugby Club arranged to have us playing at the airport when they flew in at 6 o'clock in the morning. The newspaper report described us as a jazz band!) So our kit was in poor shape, and eventually our stage set inspired us to a new name: the Sixteenth Precinct Repair Shoppe.

Since we played mostly in front of people we knew, they were not shy in coming up with requests. Other people's taste was not the same as ours, so we had to be able to churn out the latest hits by the Monkees, Neil Diamond, etc. when we would rather have been moving in the direction of rhythm and blues.

Ironically, in view of the "jazz band" comment, one of our last and most successful performances was in a venue that had a piano. I was drunk enough to have lost my inhibitions, so I sat down at the piano and we played some very good jazz. I managed to play in such a way that my missed entrances seemed like deliberate syncopation.

The others were taking pass degrees, so after three years we had to call time on the band. But Dean remained in Brisbane the following year, and he and I recorded some of my compositions together, on a motley variety of instruments. I still have the tape somewhere.

One of my most lasting musical loves came about quite by accident. At the end of my third year, the University offered jobs in the Registry to students who had done well in their exams, processing enrolment forms (this was not mechanised in those days) and working to process admissions. I thought this would be a softer touch than the tutoring that I had done the previous two summers, so I accepted. The UQAC newsletter noticed and awarded

... to PETE CAMERON an EXHAUST-ANT for "Stamp, stamp ...
Keep the small piece and hand the large piece in ... Thank you,"
while operating in the Fingerprint and Mug Shot Dept. of Enrolments.

The few of us there would also socialise together. At one of these parties, Sue McElwain, the daughter of the Professor of Psychology, brought some records of Indian music. I fell in love with it on the spot, and combed the record shops for more. There were several LPs of Indian musicians available at that time; it was about then that George Harrison picked up a sitar and Indian music suddenly became fashionable.

One of my prized records featured V. G. Jog on violin. Many years later, in 1988, I attended a conference in Calcutta, at which there was a cultural evening featuring him and an Indian dancer. As is the way of things in India, there was a considerable delay in starting; it was decided that the foreign guests would prefer the dancer, so V. G. Jog's performance was cut down to about twenty minutes, probably one of the shortest performances he ever gave! But I had a chance afterwards to talk to him briefly, and told him that I had first heard him on record more than twenty years earlier, and that I wished he had played longer.

My record player was unique. I had two identical old valve radios, which were used as amplifiers for the two stereo channels coming from the turntable. The speakers were in boxes which I had made out of chipboard from a design in *Popular Mechanics*. They had lids, to reflect the sound, and looked a bit like thunderboxes. One stood on either side of my desk chair, and the stereo effect was magnificent, both in quiet passages like Alan Price's piano introduction to the Animals' "I believe to my soul", and in things like Manfred Mann's Mingus-inspired "You're for me" (with a saxophone duet, one instrument on each side, starting with call and response) and Jefferson Airplane's "Won't you try Saturday afternoon" (beginning with a repeated cymbal stroke jumping from side to side).

Also at the time, I acquired an acoustic guitar. I bought it from a fellow student at St John's, Russell Handyside, whose habit was to get drunk on Friday night and then put his guitar on the back of his motorbike on Saturday morning and ride down to the coast. So it wasn't in very good condition, but I think the treatment had mellowed its sound. I had it for many years until finally the body split and it was useless. I learnt to play in finger-picking style on such songs as the Beatles' "Norwegian Wood" and Donovan's "Catch the Wind" and "Colours". Since then, a guitar has been my solace and the barometer of my mood. If I go for months without picking it up, I know I am in bad shape!

I also discovered Bob Dylan at this time, specifically *Highway 61 Revisited*. Strangely, I never listened to much of his earlier work until some time later (though I remember showing the chords for "Gates of Eden" to a fellow guitarist, who was amazed that they were not more complicated). More about Dylan below!

But certainly my most time-consuming interest as a student was running. As I mentioned earlier, I joined UQAC before I had even enrolled in the University. Before term started I was competing regularly in inter-club competition. Also, there was a Queensland versus New South Wales meet on 18 and 19 January; by a few days, I qualified as an under-17. I made the State team in 880 yards and 1 mile in the trials held two weeks earlier, and finished 5th in the 880 and 4th in the mile in the event. Later in the season, running as an under 19, I came fifth in

the mile and third in the 2 miles State championships, a clear pointer to where my talents would lie.

The main difficulty was getting down to Lang Park in time for the competitions, as touched on earlier. Once I was a student, this part of things became much easier; I took my bike to Brisbane, and cycled the couple of miles from the University to Lang Park before the competition. Lang Park was used for Rugby League in the winter; in the summer, the athletics competitions were held there, and the relatively few competitors and almost no spectators rattled around in the large stand.

The structure of the athletic year consisted of inter-club competition in two phases either side of Christmas; the University season in the autumn, culminating in the Inter-Varsity track and field competition in May (a great trip if you could make the team); the cross-country season in the winter, with Inter-Varsity cross country in August; and a few meetings against schools in September and October, to give the pupils some race practice. In my first season, I won the Freshers' title at 3 miles and was second in the mile, but was not good enough to make the Inter-Varsity team. I ran solidly through the cross-country season, winning the State novice championship (despite taking several wrong turns and having to wait for another competitor to show me the way). I made the cross-country team for Inter-Varsity in Centennial Park, Sydney, where I was 8th out of 30 or 40 competitors.

My second year was much less successful. I made the Queensland team for the Australian championships in February. These were held in Hobart; it was much too cold for me, I came down with a bad sore throat just before the race, and could only manage 8th. I placed 3rd and 2nd in the State under-19 titles over a mile and 2 miles, and once again made the University cross-country team (after an indifferent year), finishing 25th in the competition.

However, things looked up in my third year; I am still astonished by what I achieved then. In open competition in the State titles, I managed 2nd in the 1500 metres and 5th in the 5000 metres, and won the University 3 miles title. But there were two very significant races which I didn't win: second in the 3 miles in the Clem Jones Shield meet against the University of New England, and third in the Inter-Varsity 5000 metres in Perth. In each case I was beaten by Alan Blackburn, from the University of New England, who had a withering turn of speed; each time he sat on me for most of the race and then unleashed a kick which I was completely unable to match. (I have never had much basic speed.)

In the Inter-Varsity match I was also 5th in the 1500 metres. The UQAC Newsletter said,

Cameron, Peter: Another long distance type, who alternated between resting in bed and training. Don't know how much Peter saw of Perth apart from his training, however his fifth in the 1500m (4min 2.6sec) and third in the 5000m (15min 3.6sec) were very creditable performances.

At this Inter-Varsity, my running briefly crossed with my mathematics. While the Inter-Varsity was on, the Australian Mathematical Society was meeting at the University of Western Australia. I gatecrashed a talk, on class field theory. I didn't understand much in detail, but it was an inspiring talk!

I had a successful cross-country season, coming second in the State championships. I was also second in the Clem Jones Shield cross-country match, again beaten by Alan Blackburn in what was a virtual replay of the two track races.

The Inter-Varsity cross-country was once again in Sydney; this time it was hosted by the University of New South Wales instead of the University of Sydney, but it was again in Centennial Park, on 27 August 1966. From two years earlier, I knew that the course was very sandy, and I decided to run in bare feet. I also decided that, however I fared overall, my goal in the race was simply to beat Alan Blackburn; the way I would do this would be to pour on the effort in the third quarter of the race and try to get so far ahead that I would be out of reach of his savage kick.

In my training diary, I described the race like this:

I thought Al Blackburn would be the man to watch, and had decided to kick just after half way to try to shake him off. The early pace wasn't as fast as I had expected, but (not feeling in top form before the start) I wasn't going to set the pace myself. I reached the 5km in 16:22, 12 seconds faster than the last race, running 7th. I kicked according to prearranged plan here and although passing in the sand was difficult I had moved up to second by the start of the last grassy loop. As soon as we got on to an easy stretch, I went past the leader, Graham Thompson, who put up very little struggle for it. I expected him to pass me soon afterwards, but as we ran I was feeling better and better (possibly the thought of victory) and fear that he would pass me caused me to use every bit of my new-found speed. I came home 13 seconds clear of him in a great time of 32:57.2.

The title of Australian Universities champion won me a full blue from the University, and was to be one of those things which can change the course of a

life, as I shall describe later. I was even written up in *Sports Illustrated* as “a name to watch in the future”.

The rest of my athletics career in Brisbane was an anti-climax. In the track Inter-Varsity in my fourth year, also in Sydney, I was third in the 10000 metres, in a UQAC club record time of 31 minutes 20.8 seconds; the runner in 4th place set a new Australian under 19 record. But the cross-country season was less successful. I made the Queensland team for the Australian championships in Launceston; but it was foggy and frosty and the ground was very rough (English conditions, had I known it), and I had a bad race. The same happened, for much the same reasons, in the Inter-Varsity cross-country in Melbourne later in the season. By the following year I was a graduate and was playing a different role.

On the Launceston trip, when we came to fly home, the airport was fog-bound; we had to be taken by bus to Hobart and flown out from there. We saw little of the renowned Tasmanian scenery, because of thick fog most of the way. All I remember is roadside topiary, a lifetime’s labour of love by a road worker.

So in fact all my interstate travel as a student was for athletics in one way or another, including trips to all the state capitals except Adelaide: Inter-Varsities in Sydney, Melbourne and Perth; national championships in Hobart and Launceston; and to Armidale for the Clem Jones shield competition. We drove to Armidale but the other trips were by plane.



My training diary records the ups and downs of my athletic career. Once a

week, at least, I would go for a longish run, often up Mt Coot-tha (about 10 miles from the athletics oval, a little further from College, with a very substantial hill), or a circuit involving going on past the kiosk and the television transmitters and back a different way (an extra 3 miles).

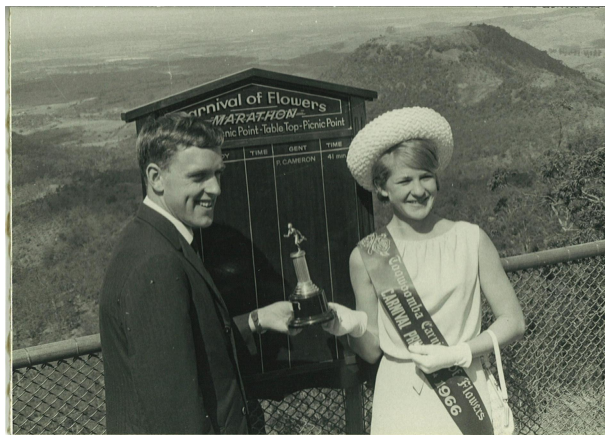
I also did a lot of track work. The most fortunate thing that happened to me was to spend a lot of time in my second and third years training with Tony Blue, who had represented Australia and won a medal in the Commonwealth Games at 880 yards. A standard training session for him would be 10 or 12 times 440 yards, walking 110 yards between efforts. (The track was marked out for relays, so the start points were clearly indicated.) This kind of repetition training was very popular with top athletes at the time, and it certainly worked for me! I adapted it for the oval next to St John's, which was about 520 yards around, by increasing both the efforts and the recoveries proportionally. Tony had a dog which could outrun both of us without even raising a sweat.

Another component of my training was fartlek, the Scandinavian method, which we adapted from pine forests to the sub-tropical grounds of the university. Ideally, one ran as one felt, putting on effort or taking a rest, but soon I adopted two standard courses, short and long, with efforts up hills or round ovals on the way.

Once, I had an experience which persuaded me that I was not a morning person. Al Jones proposed to me that we should go for a morning run. These runs were not too far or too fast, but after a couple of weeks I was a complete wreck and had to cry off.

In the vacations, which I usually spent at home in Toowoomba, I had less opportunity for track running, but in mountainous Toowoomba there were plenty of opportunities for hill work: Picnic Point, Mt Lofty, Prince Henry's Drive, or a longer run to Mt Kynoch. The stunning views made these runs a special pleasure.

In 1966, during the Carinval of Flowers (the famous Toowoomba festival held in September each year), they inaugurated a race from Picnic Point to Table Top and back. This involved going down the steep slope of the Range, and up the extinct volcano of Table Top on the other side, with a lot of scrambling over rocks and scree, and then returning. No route was prescribed; runners had to find their own way. As a local, I had an advantage; I was able to try out various routes ahead of time. Anyway, I won the race, and had my name inscribed on an honour board which was kept in the kiosk at Picnic Point for a while before being stored away in a lumber room somewhere. I think that this exploit impressed some of my family more than winning the Inter-Varsity in faraway Sydney!



In my fourth year, I was persuaded to take on the job of Honorary Secretary of UQAC. I learnt a lot about keeping minutes, writing formal letters, producing Newsletters (on the rather primitive duplicating equipment) and so on. The UQAC Newsletter profiled me (before the Sydney Inter-Varsity):

Peter Cameron: Our distance-running Secretary who gets his training done by running in circles. Tho' girls in Sports Union office run rings around him.

I also took on various other administrative jobs for the club, including membership of the Track and Field Committee and the Cross Country Committee of the Queensland Amateur Athletics Association, and the Sports Union's Blues Nominating Committee. I would cycle into town for evening meetings of the QAAA committees. These involved a certain amount of tension: most clubs were made up of ordinary working people for whom athletics was a hobby, who envied the freedom of students without understanding that if we didn't show up in November it was because of exam pressure. I would report back to the club on matters discussed there through our Newsletter.

The Newsletter was produced once a month (except in the summer), and contained information about competitions, training notes, news of social events, and so on. One of my innovations was to produce a weekly one-page Newsletter supplement during the cross-country season. This was partly to make the job of getting together a team for the competition easier, by getting the information out in good time so that people could let me know and I could put the registrations in to the officials. I also wrote articles about training, our anonymous roving reporter Aardvark produced some mildly scurrilous material about the social activities of

the Club's cross-country runners, and David Hobson volunteered his thoughts on various things. Inevitably I wrote a lot of it myself, and a good idea of my training methods can be obtained by reading the unsigned articles.

The publication soon acquired the name "Roadrunner" after the cartoon character. It was mildly controversial, since some non cross-country runners in the club were annoyed that they were not getting it. So at the annual general meeting it was agreed that it should continue, and those who didn't get it weekly would get all their back issues with the monthly Newsletter. "Roadrunner" did a lot to improve the Club's performance in cross-country competition, and even persuaded some of the track and field athletes to turn out and have a go.

I can't resist quoting a couple of things published in "Roadrunner" at the time of my departure for England. An unsigned piece (possibly by Don Kerr) entitled "Tribute to Peter Cameron" said

It is with due regret that we bid farewell to Peter. He has been with us for a few years now and he has served the club very well. His quiet, easy going nature made him many friends, especially among the distance men in the club, who got to know him even better through cross country.

Peter's efforts in organisation have been noteworthy, he being a very efficient secretary during his term in office – his "log table" mind had Sports Union girls really bluffed to say the least! On the competitive side his major success was undoubtedly his I/V cross country win in 1966, for which he was awarded a full Blue. I myself often wonder how much of that memorable I/V dinner in 1966 he remembers!

This season he has really organised Cross Country well, mainly through his weekly newsletter "Road Runner". With his brilliant academic mind "Moose" should go far in his chosen career and I'm sure everyone in the Club, including Aardvark, will join me in wishing Peter all the best at Oxford, and that we will see him again in the not too distant future.

Aardvark simply said,

Aardvark wishes the best of luck to the new "Road Runner" editor, and hopes he can keep the girls in Sports Union office under his thumb as well as the present editor does. No explanation is offered for this fact, but Aardvark would like to point out that since Peter Cameron became an office-bearer of the Club, the turnover in Sports Union

typists has hit an all-time high (with numbers 5 and 6 currently employed).

The University Sports Union had an office in the Students Union building with three staff (a director and two secretaries), and I would have to pop in to see the secretaries quite often to do some business, especially when “Roadrunner” went into production. But the company was congenial, and soon I was spending more time there.

One of the secretaries, Gabrielle Chicoteau, was doing a degree part-time in the humanities. She had a bundle of “cultural” books that she had read for some course or other, including David Piper’s *Enjoying Paintings*, and Richard Hoggart’s *The Uses of Literacy*. She unloaded them on me cheaply, and soon I was a voracious reader, something I hadn’t been since the days of Biggles and Jennings before I went to secondary school. The Sports Union office was also a congenial place to discuss these things; Gaby and Joanie were always ready to engage in debate!

Most significant of the books was Aldous Huxley’s book *The Doors of Perception/Heaven and Hell*. In the first part, he describes his experiences under the influence of mescaline, and relates them to the experiences of mystics and visionaries from all cultures. In the second, he generalises somewhat, maintaining that one of the most important functions of art is to provide everyone with an experience which should properly be called religious. These ideas had a big influence on me. Though I didn’t take drugs myself at that time, these things were in the air, with the Beatles’ *Sergeant Pepper’s Lonely Hearts Club Band* and American west-coast groups such as Jefferson Airplane.

This meshed with another book I read at the time, which has remained with me: T. S. Eliot’s *Four Quartets*. I had read some of Eliot’s early poems at school, but poetry was very remote from me at the time. At University, I fell in love with Mary Hayhoe, a psychology student and the cousin of a girl in my honours year, Nada Godber. She didn’t feel as I did, so as an affair it was quite unsatisfactory; but she was a good friend, and pointed me in some new directions. In particular, she gave me a copy of “The Hollow Men”, and I was encouraged to delve deeper into Eliot’s work.

I have remained true to *Four Quartets* despite reading a couple of critical assessments of it which seem to me to miss the point completely. The poem is about time: the key is contained in the lines

Time future and time past
Are both somehow contained in time present

and

... to apprehend
The point of intersection of the timeless
With time, is an occupation for the saint

All we have is now, and if we are to realise the highest aspirations of the mystic, it must be now that we do it. Ten years later, I found it succinctly put in the writing of Thetis Blacker, in her dream of “Mr Goad and the Cathedral”:

Eternity is always now, but now isn’t always eternity!

All this tied in very well with a beginning interest in Hindu and Buddhist ways of looking at the world, a natural development from my interest in Indian music.

In fact, it was at about this time that I really stopped being a Christian. Apart from the pulls I described, there was a big push from behind. During the vacation I was still hitch-hiking between Toowoomba and Brisbane for athletics competitions. Once I got a lift with an evangelical Christian; we got onto the subject of religion, and I must have admitted some doubts about Christianity. He stopped the car so as to prolong the discussion, and told me that, unlike pagans who had never heard the message of Christ, as one who had heard and rejected it I was eternally damned. I couldn’t help contrasting this with the Buddha’s message of wisdom and compassion. However, I kept up the formality for some time, attending church moderately regularly (and enjoying the ceremonial aspect).

Inevitably too, at this time, I started writing poetry. My early poems were not very good and should not be preserved (though I have not resisted the temptation to quote one below as an example). I was very much influenced by T. S. Eliot, and got to a point where, when I was a bit drunk, I could reel off blank verse almost like a Homeric bard. The other big influence was Bob Dylan, especially in songs like “Queen Jane” and “Desolation Row”. Again, the latter is much misunderstood: it contrasts salvation and damnation; the damnation is a bizarre street carnival, but the salvation is *inside* Desolation Row. On *Blonde on Blonde*, this was even clearer in “Visions of Johanna”, one of my favourites among Dylan’s songs; visions of the absent Johanna are contrasted with a slide into paranoia and despair. I guess I was a bit paranoid myself at the time. In a poem, I used the phrase “paranoia of moonlight”; Mary, who was my audience and critic, felt she had to point out to me that, as well as delusions of grandeur (which could describe moonlight) the word “paranoia” also meant delusions of persecution; I replied that that was exactly what I had intended.

It was Bob Dylan who pointed the way, and I believe that the lesson he taught me with his next album, *John Wesley Harding*, has influenced all my writing since, even mathematical writing. Faced with the ever-increasing complexity of pop culture in the mid-Sixties, Bob took a step back to simplicity, with songs of Biblical clarity set to a backing of acoustic guitar or piano, bass and drums only. The song “Dear Landlord” has been interpreted by the critics as addressed to his manager and landlord Albert Grossman, but it was clear to me, especially from the line

If you don’t underestimate me, I won’t underestimate you

that he is talking to God, like an Old-Testament prophet.

Here are two things I wrote in this period, before and after I had learnt the lesson of simplicity. The first is from a time when I was still drunk on words; some time later, it appeared in *Argo* under the title “Reflections”, as I shall relate. It is clearly influenced by Dylan’s “Visions of Johanna”, though darker and less redemptive. The King of France is of course based on Bertrand Russell’s analysis of the proposition “The present King of France is bald.” I later recycled part of it as a song in Jimi Hendrix style, with the title “Walls of Despair”. (The original had a couple of extra stanzas, which were pruned for publication.)

The roses blush in a song of sunshine splashed by the sparkling summer,
The waterfall creeper’s corona – misty fine spray of perfume-painted bloom.
Wearing God’s finest-woven veil, you were waiting for me.

The sunset spreads its yellow veil of loneliness across my room
A single street light cries out against the massing forces of gloom
As the night prepares for its marriage to evil, you were waiting for me.

At moonrise all the spirits in the scintillating dewdrops on my lawn
Arise and weave phantasmagoria through the crystal air,
Beauty made for your dark eyes as you were waiting for me.

Autumn’s mellow sherry speaks seductively softer than summer’s lemonade,
Its breath rich incense from the country of the soul, pleasant kiss,
At the shrine in the apple orchard you were waiting for me.

The music of the sitar writhes and turns as it waits for its medium
While my conscience burns with incense in an oriental chamber
Far from, but inexorably part of, the day when first you were waiting
for me.

Through mist and distortion of tears I watched my neighbour
Making love with the man who travels for electric toothbrushes
Because I felt so all alone you were waiting for me.

The King of France, toupéed, cravated, preaches on purity tonight
Beneath two ravens patrolling the sky in spirals of fatalistic power
Through the bars of the rejection grate you were waiting for me.

The second is a song in *John Wesley Harding* style, but also influenced by
another book I read at the time, Schrödinger's *What is Life?/Mind and Matter*:

I put my fingers against the glass and listened to my breath
I heard the sunlight whisper in a voice as still as death
And not of children's laughter and not of joy it spoke
It chilled my heart and echoed in my head when I awoke

It told me of the ambulance that crashed into the sea
And how the patient lost his life while struggling to be free
It told me of the actor who believed he couldn't die
I saw him with a broken neck, a tear was in his eye

It told me of the priest who found his soul one winter night
And found he was no longer sure of God and Truth and Right
It told me of the girl I loved, who never could love me
Who didn't say goodbye before I sailed across the sea

(Repeat first verse)

The first half of the second verse picks up the following idea, inspired by reading Schrödinger. Let us suppose that Laplacian determinism is true: from the position and motion of everything at one instant, the entire future can be predicted. Now imagine a car crashing over a cliff on a stormy night, killing the driver. Suppose that at some future moment, the very unlikely but not impossible event that all the particles of car and driver are in the same position as at the moment of the crash

but with velocities reversed. What will happen? The car will reassemble itself and fly back up the cliff to the road, where it will reverse the way it came. A miracle, the onlookers say, the hand of God. I believe I even defined a miracle as a local reversal in the direction of entropy change.

Mary lived in Hill End, across the West End ferry, and so inevitably I spent some time sitting by the river waiting for the ferry. I took much profit from this, watching the way the water moved, the reflections it made at different points of the tide, the mangroves. In the spirit of the ferryman Vasudeva in Hermann Hesse's *Siddhartha* (with whom I became acquainted later on), I learned much from the river.

I think I was a green before my time. I loved the environment where land and sea met, and I hated what the developers at Surfers' Paradise were doing. They would build expensive hotels right on the edge of the beach. A cyclone would come and wash the beach away, and because the reservoir of sand in the dunes had gone, it wouldn't be replaced. The rich people would complain, and lots of money would be spent, but the problem was not solved then. I don't know what it's like now. (Dean's parents had a penthouse apartment at Burleigh Heads, further down the coast, where we would sometimes go for weekends. I learnt to ride a surfboard, not very well; I never managed to hang five!)

Everybody now thinks of the Sixties in terms of marches and demonstrations. These did indeed occur, though certainly they were not the main thing! There was a feeling that we were going somewhere, changing things for the better without demonstrations or violence; as George Harrison put it,

With our love
We could save the world
If they only knew.

Queensland had always been a redneck State, and inevitably in the Sixties there was a demonstration by university students against police powers. I was there. The police demonstrated their powers by grabbing a few of the students sitting in the road, chucking them in the Black Maria, and carting them off to the cells. I was one of them. They kept us in overnight and then let us go without charge. Clearly, even in Queensland, sitting in the road was not a criminal offence.

I also made my first venture into art, combined with mathematics. I submitted a one-dimensional rainbow to the College winter art show (a piece of cotton thread, laboriously coloured in with felt-tip pens), and won first prize – not, I think, for any artistic merit!

What about work, during all this?

As I said earlier, I took Mathematics (two subjects, Pure and Applied, both at Honours level), Physics and Chemistry during the first year. In the exams I got High Distinctions in all four. The Chemistry Department wrote to me inviting me to take the Honours Chemistry course. I was not interested. Not only had the practicals alienated me, but the non-mathematical presentation of things like covalent bonds seemed a bit dishonest.

The Physics department, on the other hand, offered us a special course for Maths honours students, which I was happy to take in the second year. Among other things, this is where I learnt Probability, as a prelude to Quantum Mechanics. The lecturer on this course had been involved in the construction of an early particle accelerator called the Betatron, but he knew quite a lot about gambling, and most of our non-trivial examples were taken from gambling games. A very stimulating course, but it didn't wean me away from mathematics. Again I got High Distinctions in both my courses. (All the honours mathematics was rolled up into a single course.)

In the third year, I found that the Mathematics department had revised the second-year honours course to include some statistics. I asked whether I could take the statistics part of the course; this was agreed. When it came to the exams, I did the statistics paper, but the University registry credited me with a pass in the entire Maths IIIH second year course! Statistics was much too dull to tempt me away from mathematics. The third year courses were not unified, but again I got high distinctions in everything.

Because of the way the system worked, I graduated with an ordinary degree of B.Sc. early in my fourth year, while taking the honours courses. The courses I was taking were not very specialised: I did everything from Galois theory and number theory to relativity and quantum theory, including a measure theory course which was a much more abstract version of the probability I had learnt in the physics department.

I did my honours project on the simplicity of the group $\mathrm{PSL}(n, q)$. I took this from Dickson's book, written in the early twentieth century and now almost unreadable because of changes in terminology: he called the groups $\mathrm{LF}(n, q)$ (for "linear fractional") and used the term "abelian" for what we now call "symplectic". In the presentation, I shied away from giving the proof, and spent all my time on the context and outline, to the disappointment of one of my lecturers who had hoped to see a complete proof of the theorem. I don't remember who it was, but it may have been Sheila Macdonald, as she was then. She and her husband Ian had come to Australia for Bernhard Neumann's group theory conference at ANU in Canberra, and had both taken positions at the University of Queensland. Sheila is

still there, though now married to Neil Williams and retired. Anne Street arrived at about the same time.

Despite this algebraic project, I was fascinated by various topics in applied maths at the time, especially quantum mechanics, an eye-opening view of how the universe might work at small scales. Among the books I chose for prizes from the university were both volumes of Courant and Hilbert's *Methods of Mathematical Physics*, regarded then as the essential mathematical background for quantum theory. I have to admit, though, that partial differential equations were never an open book to me.

I again obtained High Distinctions in everything. The following year, when I graduated for the second time, with a B.Sc. (Hons. Mathematics), I was awarded first class honours and a University medal.

Many of my fellow students spent the lunch hour playing bridge. I would never have had time for this on top of all the other things I was doing; and, while I had played auction bridge as a child, I had never been introduced to contract bridge, so the most important part of the game was a mystery to me. Although I avoided this, I was really rather lazy. My training diary is full of excuses, and I spent a lot of time playing patience or just listening to the radio.

How did I study? I had two secret weapons. First, I had a reputation in College as someone who could explain things, and I believe that explaining things to others is the best route to understanding them. (I must admit that very often it would go like this: someone would come in, explain the problem to me, and then say "Oh, I see now what I'm missing", almost without any intervention from me!)

The second was my note-taking method. I have always valued notes which are both good and immediate. I concentrated very hard in lectures, and made for myself the best set of notes I could. Then there was no need to look at them afterwards; taking the notes fixed them in my mind. Before exams I would condense the contents of each course onto two sides of a sheet of foolscap, fold it, and put it in my shirt pocket. I claimed that the material got into my brain by osmosis; in fact, of course, it was the process of condensing the course onto a sheet of paper that did the trick.

In my final year, the next stage of my career was determined. I applied for the 1968 Queensland Rhodes Scholarship. The qualifications required were not just academic; sport and community service were also taken into account. As Australian Universities cross-country champion and secretary of UQAC, I was in a strong position.

I don't remember much about the interview. One old buffer had got it into his head that one of my interests was mountain climbing, and asked me why I climbed

mountains. He expected the answer “Because they’re there”, and I think that after a bit of prompting I managed to give some approximation to this. Anyway, I won the scholarship.

This made a bit of a splash at Toowoomba Grammar, where I was only the third student to win a Rhodes Scholarship. In the assembly hall was an honour board listing names of Rhodes Scholars, with just two names on it during my time, unlike the other honour boards which regularly filled up with the names of the Dux, Senior Prefect, etc.



So there were various preparations to be done; filling in forms, applying to the Mathematical Institute, and to a college (I chose Balliol, since one of my lecturers, Henry Finucan, had been there, and they accepted me), and so on.

Since term at Oxford didn’t start until October, the University offered me a temporary position as a Tutor Grade 4, and an office which I shared with Bill Longstaff. I was used to tutoring, having taught classes of engineers already in my second year as an undergraduate, and the amount of work I was given was far from overwhelming. So I had time to take part in the academic life of the department. Ian Macdonald started a reading seminar on the mathematical foundations of quantum mechanics, based on George Mackey’s book, which I attended. (I was a little puzzled; it was all about projection operators on Hilbert spaces, and seemed quite a long way from differential equations.)

In the vacation, there was a meeting of the Australian Mathematical Society in Brisbane. I got to talk to Bernhard Neumann, having no idea at the time that his son Peter was to be my doctoral supervisor.

I also started a couple of small projects off my own bat. I got a taste of research in this way, walking round the campus turning the problem over in my mind, or coming back to bounce ideas off Henry Finucan.

One of these projects was quite revealing in terms of my future direction. Mathematicians had devised many tools for giving structure to the set of ordered

pairs of elements from a set (direct product and such like); what about the set of unordered pairs? So I assumed that the set X carried a structure of some type (metric space, vector space, ordered set), and tried to devise a natural way of getting this structure onto the set of unordered pairs. For algebraically closed fields, I stole an idea from a book of Stan Ulam. There is a bijection between ordered and unordered pairs of elements of an algebraically closed field (taking the coefficients of a monic quadratic polynomial to its roots), and one could use this bijection to transfer the structure.

The other was a generalisation of the Cauchy–Riemann equations, kind of analytic differential geometry, whose details I don’t now recall. The idea was to replace Laplace’s equation with an arbitrary second-order partial differential equation and try to “reverse-engineer” the analogue of the analytic structure of the complex numbers. I think it was an attempt to come to terms with PDEs, my least favourite subject.

On a more discrete subject, I had been fascinated to learn that the free distributive lattice on three generators contains twenty elements. I made a model of the Hasse diagram of this lattice out of matchsticks. It was a beautiful structure, except for the fact that the protruding matches connecting the top and bottom element tended to be rather vulnerable and broke off from time to time.

As well, Bill and I had long discussions about life, the universe, and everything; the definition of a miracle was formulated at about this time in an attempt to reconcile revealed religion with strict physical determinism, though I don’t think it was much more than a game for either of us. My thoughts were more taken up with Eastern philosophy. The *Toowoomba Chronicle* had a religious column called “Wayfarer’s Rendezvous”, by an old friend of the family and uncle of one of the teachers at TGS. He invited me to write a piece for this column. What I wrote was called “The Nature of Science” and was by-lined “By Guest Writer Peter Cameron, Rhodes Scholar 1968”. I’m not sure I would subscribe to the arguments now, but it seems fairly well-written and contains some sense. It is interesting to see my younger self worrying about research grants! I also sailed fairly close to the wind in conservative Toowoomba, probably deliberately.

Science is exclusively the product of modern man. The creation of science is a phenomenon which must be explained by the sociologist. The most usual explanation is that it resulted in a stirring of man in the Renaissance from his complacency and blind faith to a realisation that he could improve his lot if he could control certain natural processes and use them to his advantage.

Of necessity, understanding had to precede control. The order of emergence of the three branches of science—physical, biological and psychological—was determined, not only by the availability of means of attacking their problems, but also by the difficulty of overcoming man's unwillingness to question and examine things formerly regarded as sacred or supernatural.

However, the attitude of the scientist to his work is usually very different from the utilitarian ends of society. The commonly used phrase, "love of knowledge", is a good though imperfect description of the motivation of most scientists. A diversion to my own field, pure mathematics, may illustrate.

In most universities, mathematics is included in the faculty of science. This is done because it is more useful there than, say, in the faculty of dentistry. Whereas mathematics depends on science for problems to tackle (and so for research grants), science depends on mathematics for its very existence. Science without mathematics is like learning before Galileo, which left itself open to the incorrect assumption that "heavier bodies fall faster". An attempt to express this mathematically would necessitate experiments, which would have shown that, neglecting effects such as air resistance which, though important, are quite inessential to the basic problem, all bodies fall at the same rate — the verification of this fact was an early triumph of science.

Pure mathematics is very nearly a self-contained discipline: it is inextricably associated only with philosophy. Thus many mathematicians regard themselves as artists. While the work we actually do depends on the problems brought to us by physicists, engineers, economists and others, much of it expresses our own tastes.

Many mathematicians (and other people) believe with varying degrees of conviction that mathematics embodies some kind of absolute truth. Some would go so far as to agree with E. Everett, who said (in a speech at Gettysberg on the same day as Lincoln's famous address) "In the pure mathematics we contemplate absolute truths, which existed in the Divine Mind before the morning stars sang together, and which will continue to exist when the last of their radiant host shall have fallen from heaven".

Most people would accept that once we have laid down the rules for the game of mathematics, a game in which there is no place for the element of chance, the course of the game is determined, our math-

ematical skill affecting only the rate at which the discovery of new mathematical “truths” proceeds.

The same fact applies to the similar game of Nature, although here the rules are laid down, not by us, but by God.

A very popular slogan of “Relativity for the Layman” has been “time is the fourth dimension”. This seems paradoxical because of our limited perception of time; we can think of ourselves as flowing through time, but cannot comprehend that we are in fact extended through time. When I speak of myself I mean myself as a little boy, and myself in the distant future, as much as myself now; the three of us are all part of a single being in a four-dimensional world.

It is not inconceivable that a supernatural being could be aware of the whole four-dimensional universe, from beginning to end: that this is reasonable can be seen by considering Yuri Gagarin’s view of our planet, which from the beginning of man’s existence has been for all practical purposes our universe. To him was given a vision no previous man had shared and most had not dreamed of. It is not hard to believe that God is a Being with such a view of the universe.

Many of us will have pondered the first words of St John’s Gospel: “In the beginning was the Word, and the Word was with God, and the Word was God.” To me this is the basis of a scientist’s faith and the cornerstone of his work. The Word is something of which the whole body of our science is an imperfect copy, something which the scientist spends his life trying to understand. He uses different tools and methods from those of the religious thinker, but the goal of both is the same.

Scientists now have good reason to believe that man is incapable of knowing, by observation and reason alone, the complete truth about the universe. Known in quantum mechanics as the “uncertainty principle”, the theoretical basis of this fact is related to the self-evident observation that, in the process of observing or making a measurement on any system, we disturb the state of the system.

For example, if we measure accurately the position of an object, the interaction of our measuring apparatus with the object causes it to move with unknown velocity. Thus its future state is unknown, and so perfectly accurate prediction is impossible.

The conclusion is that, by observation and reasoning, we can never fully understand the nature of God; this can only be obtained (if

at all) spiritually. When “the Word was made flesh and dwelt among us”, He revealed His complete understanding of (and identity with) the nature of God by performing miracles. Perhaps the reported miracles performed by Indian yogi and other contemplatives can also be explained in terms of spiritual understanding of God.

This belief that God is Truth is fundamental to the work of the scientist and the pure mathematician. It has something in common with meditation, fasting, serious drug-taking, and to a lesser degree, many other forms of art and religious experiences — all are concerned with the experience of something which is a manifestation of God, whatever name it may be given.

This common factor gives reason for expecting that in future the branches of science may be more closely linked, and science itself may be brought closer to religion and art.

St John’s appointed me as a tutor, so that the informal advice service I had run for my fellow students became formal tutorials for my juniors. (I had been doing class teaching for the university, mostly of engineers and students from other faculties, since my second year as an undergraduate, but this was my first experience of individual tutorials.) This also entailed membership of the Senior Common Room, increasing the gulf between me and the students: dining on High Table, sherry before dinner, etc.

Somewhat curiously, in view of my increased distance from the student body, it was in this year that I had three pieces published in *Argo*: one called “The Beatles—1968”, which told the story of the group through their own lyrics, and two poems, “Couplet” and “Reflections” (the latter printed above).



Argo also included a photograph of me playing the organ and tambourine simultaneously with the band, wearing a leopard-skin shirt I got in Sydney at the

1967 Inter-Varsity competition, captioned “Did He who made the Lamb make Thee?” (Aardvark awarded me a VOMIC-ANT for this shirt, and said “The Rifle Club has been commissioned to shoot it on sight”).)

July came round, and with it the time of my departure for Britain. I would travel on the Shaw Savill Line ship “Southern Cross”, which at the time sailed round the world, connecting up the former British Empire. There was a scheme for giving free passage to students in the off season: room and full board for five weeks, in addition to transport around the world. There was one condition: we had to sign to say that we would accept free passage back home after three years. (At the end of three years, I didn’t want to return home permanently; nobody came to chase me up, since Shaw Savill Line had given up their imperial role and did cruises in the Caribbean instead.)

I took the train to Sydney, with far too much luggage. (I hadn’t then learnt how to travel light, and couldn’t imagine three years without my possessions.) I stayed overnight with relatives there, and boarded the ship in Darling Harbour the next morning, 16 July 1968. Hundreds of streamers from ship to shore stretched and broke as the ship pulled away, and I was on my way.

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