

# PERPETUAL MOTION

The Making of a Mathematical Logician

by

John L. Bell



Llumina Press

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ISBN: 978-1-60594-589-7 (PB)

Printed in the United States of America by Llumina Press

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*My mother in the 1940s*



*My parents in the 1950s*



*Granddad England and I, Rendcomb, 1945*



*Myself, age 3*



*My mother and myself, age 3*



*Myself, age 6, with you-know who*



*Granddad Oakland and his three sons, 1938*





*The Four Marx Brothers, 1969*



*Mimi and I (The Three "Me's"), 1969*



*Myself, 2011*

*When you're both alive and dead,  
Thoroughly dead to yourself,  
How sweet  
The smallest pleasure!*

— Bunan

*Some men a forward motion love,  
But I by backward steps would move;  
And when this dust falls to the urn,  
In that state I came, return.*

— Henry Vaughan

*We shall not cease from exploration  
And at the end of all our exploring  
Will be to arrive where we started  
And know the place for the first time*

— T.S. Eliot

*My past grows vast  
My future's much diminished  
Everything considered  
It looks as if I'm finished.*

— J. Bennhall

WHEN I WAS A CHILD I entertained the fantasy of travelling somehow into the future so as to be able to view my life as a whole, from the other end, as it were, so placing the exigencies of day-to-day living safely behind me. (Perhaps this was an unconscious death-wish.) But now that I have reached the dispiriting age at which one's hopes for the future begin to fade, looking forward offers little attraction. I therefore throw in the existential towel and take refuge in time past—no longer at one with Magritte who bravely declared that he despised everybody's past, his own included. On the contrary: as my mental horizon contracts and what remains of my life slowly congeals around me, I embrace the idea of alleviating *tedium vitae* by squeezing the desiccated lemon of memory. Here, for better or worse, is the result.

My parents met during World War II while my father was stationed in England as an officer in the U.S. Army<sup>1</sup>. My mother, Helen Lane (1920–1960) was a pianist, and my father, John Wright Bell (1918–2003), a civil engineer. After a whirlwind courtship they were married in 1943. On 25 March 1945 I was born in Cheltenham, a genteel town in Gloucestershire (my mother's family's county of origin) noted both for its posh Ladies' College and for its numerous retired colonels reclining in Bath chairs. At war's end my father returned to the United States along with the bulk of the American army, and a year later my mother and I travelled to join him in California, crossing the Atlantic on the *Queen Mary*, which had been requisitioned for the express purpose of reuniting the many European war brides with their American husbands. This was to be the first journey of a childhood spent in a state of perpetual motion.

A mnemonic fog quickly gathers in my mind when I try to recall details of my family life in California before attaining the age of seven<sup>2</sup>, a life which seems to have been spent on the move. Nevertheless a few isolated memories stand out from the mist: of a childhood friend, Richard Gilliland, whose mother, I was later informed, committed suicide by throwing herself off the Golden Gate Bridge; of my father's running children's story, "Stripy the Skunk," written in his flowing hand on ruled sheets of yellow paper; of my father describing to me the various sorts of clouds—cumulus, stratus, cirrus, nimbus, etc.—and of his pointing out constellations such as the Pleiades; of a book of dinosaurs, in which both the name and the squat form of the *Eryops* I found amusing; of "Tootle", the cautionary tale of a locomotive that strayed off the tracks; of a

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<sup>1</sup> It follows that, along with many other "war babies" I owe my existence to Adolf Hitler. For if Hitler had not initiated the Second World War, leading to the involvement of the United States, my father would almost certainly not have been sent by the military authorities from his native California to Britain where he met and married my mother. Years later I would joke that I could claim to be a "Hitler Youth", only not, thankfully, in the actual historical sense. It's curious to have to acknowledge one's existence on a historical monster.

<sup>2</sup> Years later I was to learn a little about my five-year-old self from a letter my father sent me just after I received my doctorate. I quote from it:

*The fruition of your plans in Fresno in 1950 is finally a reality—however a little late. You probably don't remember do you?... we were discussing atoms and molecules, or at least that's when you found out about them from me. I can remember verbatim the conversation. You asked what the coffee table...was made of. I said glass & wood—bright eh? Anyway, you said "I know, but what are they made of?" so I said "Little particles" "What are they made of?" "Molecules", etc. to atoms. At that you asked if everything was made of atoms. Oh yes. You looked at the fire and asked about the flame—yes—gas, etc.... Then, you asked about light, as the lamp was burning—No—but out of the blue, you asked how fast light travelled. Yore ole Dad gave you that answer. Anyway, following that you said that you wanted to be a scientist and get a Ph.D. Where you heard of that I couldn't figure but you knew what it was in general terms. Then you wanted to know when you could get one and I told you probably under the age of 30. Then you told me that you'd like to have it by the time you were 21. I guess you figured that when you had reached manhood you should have a Ph.D.*

Halloween skeleton suit and a T-shirt from the period of World War II bearing the repeated message “Keep ‘em flying”; of my fascination with the curious names of the colors in my crayon set – magenta, gamboge, burnt umber, ochre, sienna; of a plain grey teddy-bear.

My chronicle begins in earnest with our move to New York in 1951.

## NEW YORK AND ROME, 1951-53

MY FAMILY TOOK UP RESIDENCE in one of a clutch of high-rise apartment buildings each bearing an English place name—Eton, Middlesex, etc.—I believe ours was called “York.” I can still recall my panic at being trapped in the building’s elevator as the result of a power failure; to this day I cannot enter a lift without a lingering sense of apprehension. I attended a large public school, an experience which evokes no pleasant memories. On the occasions when the school bus failed to show up, I and my fellow enrollees from our apartment complex were paraded to school by a granite-faced guard whose appearance alone would unquestionably have sufficed to deter any potential child molester lurking along our path, or, more pertinently—New York being a far safer city then than now—in our parents’ anxious minds.

Much more agreeable is the memory of my violin teacher, a certain Mr. Mendelssohn, whose M-shaped belt-buckle arrestingly proclaimed his common surname, and thereby his family relationship, with the illustrious Felix. Despite my cacophonic efforts on the fiddle, exposure to which may well have caused the unfortunate man to regret his choice of occupation, I have a diffuse recollection of the patience and kindness he showed me. This surely attests to the inherent sweetness of his nature, rather than to his seeing in me a future violinist *manqué*.

I also recall being taken by my parents to see what may have been my first movie, “When Worlds Collide”. Leslie Halliwell may dismiss this film as “stolid science fiction with a spectacular but not marvellous climax following seventy minutes of inept talk,” but I was thrilled when I first saw it! Its final scenes show the protagonists escaping from the earth (in accordance with the film’s title, about to collide with another planet) in a spaceship launched, not vertically—as the space program of the sixties was to make familiar—but on a curious curved ramp, the memorable, if technologically unlikely product of a Hollywood scenarist’s febrile imagination.

I recall being presented with a collection of “children’s classics” of which the only volumes I can remember actually reading were Grimm’s and Hans Andersen’s *Fairy Tales*, which delighted me. I also remember with diffuse affection *Richard’s Topical Encyclopedia*—a junior edition accompanying the imposing set of *Encyclopedia Britannica* (complete with its own bookcase) my parents had bought some years before. The front cover of each volume of *Richard’s* was embossed with what I took to be the image of a Viking ship. I was particularly impressed with the article on “atmosphere” because it began with the striking phrase “We live in an ocean of air.” I can still visualize the curiously unsettling photograph of a chubby young man imprisoned up to his chest in a curious airtight box. He is yawning away, so the photograph’s caption declares, “not because he is tired, but because he is not receiving enough oxygen through his skin.” My favorite book of the time, *The Rock Book* (no longer in my possession, alas!) had probably been bought for me by my father because of my liking (which I have never lost) for those miniature collections of rock fragments—“jewels in the rough”—attractively displayed on cards and obtainable in tourist gift shops. The sonorous names of these minerals—chalcedony, quartz, obsidian, turquoise, alabaster,

agate, jasper, malachite, beryl, jet, galena – still echo in my memory. Another book, *Chess the Easy Way*, by the outstanding American chess player Reuben Fine, and which, I am happy to say, still occupies an honored place on my shelves, was given to me, as its inscription testifies, by a Mr. Thackwell, a friend of my father's. The inscription reads: "To John Bell Jr., from Larry Thackwell. I hope you will be as good a chess player as Reuben Fine, and I think you will be if you stay with it." Given my subsequent lack of achievement at the chessboard, it is less than surprising that the serious chess players I was to meet in later life found these words risible. But I treasure them – and the book in which they are inscribed – as a moving token of the past.

We had spent less than a year in New York when my father was offered a job in Rome with the Arabian-American Oil Company Aramco, the cartel controlling the bulk of the world's oil production at that time. As an aficionado of all things Latin, my mother must have welcomed our move to Italy, and as a liberal she must also have been happy to escape the anticommunist hysteria then sweeping the United States. In Rome my mnemonic fog begins to lift a little. I can remember, for instance, the address of our apartment: Via Nomentana 222 (*due cento venti due*). I also recall being sent initially to the International School of Rome, an establishment providing an attenuated form of instruction for the offspring of busy foreign diplomats, actors, and other peripatetic achievers sojourning in that city. In my case the curriculum apparently failed to extend beyond basic spelling and the multiplication table, both of which, as a normal seven-year-old, I had already mastered. My parents must therefore have felt it necessary to place me in a more stimulating scholarly environment. So it was that I came to attend Marymount<sup>3</sup>, an international Catholic day school staffed by anglophone nuns. Although the details of the school's daily routine escape my recollection, I recall enjoying both Roman history and my first exposure to Latin. I have retained only a vague impression of the crude likenesses I drew, in orange exercise-books, of the various Roman ruins I was taken to see, but the strong smell of urine in the passages of the Colosseum still lingers in my nostrils. I was also deeply impressed by the legend of Mucius Scaevola, who, to show his indifference to death, thrust his hand into the fire and allowed it to be burnt off.

Still vivid is the memory of my burgeoning stamp (*francobolli*) collection. I had become a fanatical philatelist, a seemingly harmless passion which my parents were happy to indulge, even to the extent of obtaining for me not only a capacious stamp album, but also a copy of the philatelist's bible, the *Stanley Gibbons Stamp Catalogue*. My passion for stamps was to have unfortunate consequences. At that time, my parents were, as Americans in postwar Europe, in the enviable position of being able to afford a resident maid. This was Maria, with whom, as far as I can remember, I got along very well. But on returning from some family excursion – perhaps to the beach at Fregene or at Ostia, which latter I recall had black sand – I was dismayed to find that my stamp album, bulging on our departure with what I regarded as philatelic gems, had been stripped bare. After a frantic search, the missing stamps were found sandwiched between the pair of mattresses on one of the beds in the apartment. Since Maria had been left "in charge" in our absence, she was quizzed about the curious affair, and finally admitted that she had

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<sup>3</sup> The continued existence of this school is confirmed by its Internet entry.



removed and hidden the stamps “as a joke” on me. At first I accepted this story, only later to discover, after refixing the stamps in the album, that several of my favourites – from Afghanistan or Tannu Tuva, or other exotic places – were missing. Upset, I informed my parents, who hastened to humour me. This seems to have led to the theory that, guided by an accomplice (perhaps, like me, a student of Stanley Gibbons), Maria had extracted the more valuable of the stamps she had removed from the album before hiding the rest. On discovery the affair was – so the scenario continued – to be passed off as a joke on the young squirt (*ragazzo*), who would be unlikely to notice the absence of a mere handful of stamps. I cannot recall whether the correctness of this theory was ever established, nor whether Maria remained with us after the event, but neither circumstance seems likely.

I have just a few fragmentary further memories of our stay in Rome<sup>4</sup>. I recall being told by my parents that they had bought me a complete (hardback) set of Franklin W. Dixon’s “Hardy Boys” mysteries from a couple who had apparently obtained them originally for the amusement of *their* son. From the unthumbed condition of the books it appeared that their original recipient had taken only minimal interest in them – an indifference attributable, possibly, to a comparatively well-developed literary taste on his part, at least in comparison with mine at that tender age, since I then regarded the adventures of Frank and Joe Hardy, Tom Swift, and Tarzan as the acme of literature. The idea of acquiring these volumes *en bloc* came to grip my small mind with such a passion that in some way I managed to thwart my parents’ intention of doling them out one by one. This led to a veritable orgy of reading, the first I can actually recall. My Hardy Boys books were, alas, mistakenly cast aside long ago. Although I have no desire to reread *While the Clock Ticks*, *The Disappearing Floor*, *The Twisted Claw*, or *Tarzan and the Jewels of Opar* (to say nothing of *Tom Swift and his Iron Lung* and *Me Tar, You Zan*), I still regret the loss of books bearing such evocative titles.

At that time I read Jack London’s *The Call of the Wild*, which I found enthralling. One of my parents’ friends subsequently gave me a copy of London’s powerful socialist novel *The Iron Heel*, presumably in the belief that it was a further story of Yukon adventure. I recall my surprise on opening the maroon covers of the book and seeing the extraordinary chapter headings: *The Roaring Abysmal Beast*, *The People of the Abyss*, etc. It seemed, at first glance, to be some kind of horror story (which in a way it is, but not the kind I was expecting), but I found it quite over my head. Only when I read the novel through some years later did I come to understand that “Abysmal Beast” refers to the downtrodden proletariat.

In Rome I had an older friend, David Muss, whose parents were often away. In their absence he was looked after by the household cook whom he affectionately, and appropriately, called “Cuoca.”

It must have been at about this time that I first became acquainted with a phenomenon I later termed *negative sound*. Lying in bed at night, what I came to think of as the “positive” sounds of the numberless goings-on of the external world (traffic, human voices, etc.) would gradually subside, to be replaced by the hiss in my ears, an aural “zero” in its turn quickly replaced by the

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<sup>4</sup> I was to come across the remarkable palindrome *Yawn a more Roman way* many years later.

“negative” sound of my own pulse. This would grow in intensity until I became sufficiently alarmed to break the spell by uttering a word, or pinching myself, throwing off the covers, or the like. There was also an analogous visual phenomenon. As my eyes closed in the welcome expectation of oblivion, the boundary between full consciousness and sleep would be flooded with a curious flux of visual images. In my mind’s eye a face would float, unbidden, into view, its features, perfectly innocuous at first, then commencing to undergo a slow but sinister transformation, like the picture of Dorian Gray. The process would gradually accelerate, and with mounting alarm I would grasp that it could only terminate in a visage of inconceivable horror. At that point a nervous spasm would mercifully intervene, breaking the grip of my overheated visual imagination, so finally enabling me to fall into an uneasy sleep. Later I learned that these disturbing images have been studied by psychologists under the name of “hypnagogic hallucinations.”

It may also have been in Rome that my parents attempted to explain to me the rudiments of the human reproductive process. All I have retained of their account is that the man somehow “shoots a seed” into the woman, an action which mysteriously results in the woman giving birth to a baby. Unhappily, I visualized this “seed” as an avocado pit, leading me to believe that the process of insemination must be something of an ordeal.

## THE HAGUE, 1953-54.

GIVEN MY MOTHER'S PASSION for all things Latin, she can hardly have welcomed our move from Rome to The Hague in early 1953. But I was taken with the city from the start, since it offered an environment in which I could roam free of parental constraints – indeed, with my parents' blessing. Unlike New York or Rome, The Hague was at that time (and likely still is), a safe and child-friendly city. Its inhabitants got around mainly on bicycles, using the many cycle paths, of which I was now old enough to take advantage. The city also possessed an efficient and inexpensive public transport system, with an extensive network of streetcar, or "tram" lines. As a child I was strongly attracted by the idea of a network of tracks along which wheeled vehicles are constrained to move<sup>5</sup> - indeed I am to this day drawn to abandoned railway yards with their overgrown tracks - and the tram tracks embedded in the asphalt of the city's streets exerted a strange fascination on my young mind. All this quickly grew into a fixation with tramdom in general. Still vivid is my recollection of the tram conductor's hinged wooden box which opened like a folding chessboard to reveal several columns of small stacks of tickets of various colours, each indicating a particular stage along the line. I was very taken with the conductor's ritual of completing a search for unpaid fares by snapping shut his ticket-box with a flourish accompanied by a distinctive clapping sound, as if wielding a single enlarged castanet. Even greater was the appeal of the colour and orderly arrangement of the tickets. I set my heart on collecting a complete set of these irresistibly attractive slips of paper, in my eyes right up there with my beloved stamps. Whether I succeeded in achieving this I cannot now recall, but it seems unlikely, since in its pursuit it would doubtless only have occurred to me to take tram journeys of predetermined numbers of stops all over the city. I lacked the savvy to save sufficient pocket-money so as to enable a complete set of tickets to be purchased from an accommodating conductor in one go.

In The Hague I came also to be enchanted by model trains. At the time we lived there, The Hague – Den Haag, s'Gravenhage – and its environs offered unique attractions for the model railway enthusiast. To begin with, there was the superb railway system of Madurodam<sup>6</sup> – *De Kleinste Stad ter Wereld* ("The Smallest State in the World") – a lilliputian version of the Netherlands. This miniature of a miniature was replete with evidence of its creators' devotion to detail. I recall tracing its footpaths, noting with delight the microscopic street number of each lovingly fashioned minuscule house, the minute revolving vanes of the pocket windmills, the scaled-down traffic crowding the scaled-down streets. Equally vivid is my recollection of the swish of the realistic model trains as they moved smoothly along the rails, pantographs in tight

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<sup>5</sup> I still associate mathematical proofs with track networks: both exhibit order, constraint and complexity directed toward a definite goal.

<sup>6</sup> According to its Internet entry Madurodam, named after Mr. and Mrs. Maduro who provided its initial funding, was officially opened in July 1952. Its profits were originally donated to the Dutch Student Sanatorium; since 1964, when the sanatorium was closed owing to the disappearance of tuberculosis among the Dutch population, the profits have been used to support social and cultural institutions for young people.

contact with overhead wire, their passage causing the gates at the tiny level crossings to descend, and then rise, automatically.

On a still smaller scale, but in my eyes even more impressive, was the labyrinthine complex of Märklin HO-gauge trains set up in a hall in Scheveningen, a coastal town not far from The Hague. The creation of a genial elderly gentleman by the name of Bastet, this truly resplendent layout was assembled on a vast table whose dimensions seemed nevertheless insufficient to prevent overspill. The table's edges were studded with pushbuttons allowing spectators to change the settings of the switches or "points" over which clicked the dozens of miniature trains threading their way through the system's intricacies: it is a testament to Mijnheer Bastet's ingenuity that these random interventions never led to collisions! A further novelty had been introduced in the form of a maze of tracks over which ran a single train, with a small prize promised to anyone successful in setting the relevant switches in such a way as to coax it to enter a particular section of track: the cunning construction of this maze made the task very difficult; I cannot recall if this Gordian knot was ever unraveled.

My family's first residence in The Hague was a suite in the Hôtel des Indes, a solid old-fashioned establishment in the centre of town. After we had languished there for some weeks we were offered the chance of renting for a few months the house at 93 Benoordenhoutseweg of the vacationing Aquarone family, whose daughter Michèle I had recently met at school. Years later I was told by Madeleine Aquarone that, in a humorous effort to clinch the deal, my father had assured her that his offspring "were not the sort to write on walls." Even given the benefit of the doubt, the remark could scarcely have inspired confidence in a European hesitating to entrust house and home to an American couple attended by the customary squad of unruly offspring. And indeed her hesitation was justified, for on her return home she found to her dismay that we had penetrated into domains—locked closets and the like—which she had, with good reason, declared out of bounds. Later we moved to a new house at 217 Wassenaarseweg, not far away from the Aquarones'. I visited Michele frequently to swap stamps or to go bike-riding in the woods across the street from their house. I was struck by the orderly, even formal regime prevailing at 93 Benoordenhout since the Aquarones' return there. This was exemplified by the restoration of the drawing room, with its isolating double doors, to exclusive grownup use. When we had occupied the place, no room was sacrosanct, and chaos reigned supreme.

Like many of their generation, my parents were fond of night life and in its pursuit would entrust us to the care of a babysitter. (The worry that an accident might prevent my parents from returning before I awoke—reminiscent of the beautiful, but logically redundant line "lest I die before I wake"—haunts me to this day in the form of a fear of potential loss.) Of the several persons left *in loco parentis* one, Jan Grobben, stands out particularly. He was a musically gifted medical student, who delighted us with his performances of his own compositions on my mother's piano. These were short pieces with descriptive titles, of which, sadly, I can recall no more than a few phrases—one, entitled "Raindrops", reminds me of the dance theme from the film *The Red Shoes*. I also recall Mrs. Quintus, a sturdy middle-aged woman whose spartan habit it was (so we were informed) to take midwinter dips in the North Sea. Not having yet learned to

swim, and shivering at the thought of the cold, toughness of such an order seemed to me doubly impressive.

The English School for expatriates' children Lynette and I attended in The Hague provided a foretaste of the British education to which I was later to be fully subjected. To get to class each morning I boarded, not a beloved tram, but one of the succession of boring, lowly buses growling their way up van Alkemadelaan. The English School shared a group of buildings in Scheveningen with a tiny American school and a larger Dutch one, and so it was all but inevitable that during each break the anglophone contingent would ally against the "Dutchies" and do battle with them in the common playground. The struggle often took the form of "cockfights", in which pairs of allies, one perched on the other's back, attempted to pull their opponents down.

Of the venerable ladies teaching at the English School, the first who comes to mind is Mrs. Donaldson, a battleaxe known to all as "P.D." (the "P" standing for "Phyllis"). She delighted in subjecting her pupils to mind-bending exercises in mental arithmetic, which would customarily begin with a phrase like "taking pi to be  $\frac{22}{7}$ , calculate..." Her exasperation with my constant chattering in class led her, with withering aptness, to dub me "the babbling brook". I also remember Miss MacDona, the headmistress, who conducted the choir into which the pupils had been dragooned, and whose superior piano playing contrasted strikingly with our ragged vocal efforts. I recall her rendition of Bach's "Jesu Joy of Man's Desiring," in the piano transcription I later learned had achieved a measure of popularity during World War II through the recitals and broadcasts of Dame Myra Hess.

In accordance with the view, then widely held by educators, that school curricula should be enlivened by amateur dramatics, my classmates and I duly found ourselves treading the boards in the 1954 school Christmas play, "The Princess Does Not Dance." While its plot is now beyond my recall, Michele's spirited performance still stands out in my memory. I remember that she was required at one point to address an impassioned plea to the Almighty that began "Dear, good God...". The remainder of her supplication is beyond my recall, but, whatever it was, I was moved to take up prefacing my nightly prayers with the same phrase. My natural loquacity<sup>7</sup> failing to offset a total lack of acting ability, I was assigned the nonspeaking role of a minor courtier. That our parents attached some significance to our theatrical efforts may be gleaned from the details of a photograph taken at the time of the occasion. Bearing on its reverse a professional photographer's imprint and, in Madeleine Aquarone's handwriting, the date "Le 16 Décembre 1954", it shows the 13 members of the youthful cast (8 girls, 5 boys), bedecked in eighteenth-century costume, perching on the steps of the elegant marble staircase of the Pulchri Studio, the theatre in which the school Christmas concerts were held. Pictured in the photograph are: Vera

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<sup>7</sup> This had emerged at an early age. Years later my father told me that before the age of two I had coined a number of curious words as names for food and familiar objects, for example *noonite* "cottage cheese," *cummick*, "ice cream," *boney* "anything round," *feck* "anything long and thin," *boney feck* "flag pole," *tooty feck* "searchlight," *dandy feck* "handrail," and the onomatopoeias *tuwituwa* "knife sharpener," *vuvu* "eggbeater," and *eeaw*, "saw." According to my father I used the word *talking* for "overhead tram wires," thus uniting two of my chief obsessions. I myself remember calling (in unconscious metonymy) my father's business papers *customers*. It may be in dubious taste, but I cannot resist the temptation of mentioning that our family term for "faeces" was *OD* and "to defecate" was *to go OD*. I believe that the term originated as an abbreviation of my mother's exclamation "Oh dear!" when my sister or I as small children expressed a need to perform that natural function.

Somebody, Terry Cloudman (whom I, displaying an early command of cliché, jealously nicknamed “Michèle’s heartthrob”), Peter Moogk, Tim Kessinger, Johannes Brand (later, I was to learn, to be killed by falling between two railway carriages) Sue Whitty, Unidentified, Monica van Kramer, the twin sisters Elizabeth and Vanessa Hudson (known as “Cowface”), the pretty (but prissy) Carol Hoag, Michèle, and myself. With the exception of Carol Hoag, who rejoiced in a mass of gleaming blond hair, we are all sporting wigs, mine (needless to say) absurdly askew. My hangdog expression would seem to indicate that I found the proceedings tiresome, no doubt because, not being able to dance, let alone act, I was far from being the centre of attention. In any event my doleful appearance contrasts markedly with that of Michèle, who, gripping her diminutive sword with determination, looks ready, and able, to act the rest of us off the stage. Many years later Michèle’s father Stan would still sometimes jokingly call her “Mancini”, after the character (Marie de Mancini) she played in this splendid production.

I have an isolated memory of being invited by Peter Moogk to visit him in his parents’ apartment in their absence. When I arrived, I was mystified when he quickly marched into the master bedroom and extract from a closet a couple of curiously-shaped rubber bulbs which he proceeded to fill with water. Creeping to the open window (on the second floor overlooking the street), he thrust the nozzle of one of the bulbs into the aperture and proceeded to demonstrate his prowess at spraying unwary passers-by in the street below, after each successful shot cunningly ducking down to avoid being seen. Indicating that I should join him, he handed me the second bulb, which I was only too happy to squeeze. We spent the remainder of the afternoon engaged in this droll sport, which in retrospect seems as if it had come straight out of a film by Jacques Tati<sup>8</sup>.

My sister Lynette was a strong-willed and independent-minded child whose relationship with authority was never to be smooth. She touched off an uproar one day by running away from

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<sup>8</sup> Many years later I received the following letter from Peter Moogk himself, in which he reveals *inter alia* the intended purpose of the intriguing rubber devices with which we caused such mischief:

*Almost half a century after the events described in the chapter "The Hague" in your autobiography, I happened upon PERPETUAL MOTION. Indeed, from the second floor of the house my parents had rented on Balistraat we had squirted water upon unsuspecting pedestrians below. The weapons were rubber bulbs with metal spouts taken from a game called "Blow Ball" in which each player had four anchored, squeeze bulbs and tried to force a cork ball into the opponent's goal on a miniature soccer pitch while deflecting the ball from one's own net. I found that the bulbs made excellent, long-range water pistols. The fun ended when an irate Mijnheer descried the source of the mysterious, local downpour and banged on the downstairs door to express his outrage to a parent or maid. The analogy with the boys in Jacques Tati's "Mon Oncle," who distracted pedestrians with a whistle to cause them to collide with a lamp standard, had not occurred to me. I had seen that film at Den Haag's Flora Cinema, which had more fleas than paying customers. That tall house on Balistraat had its charms [proximity to a toy store that sold Dinky toys, decorative statuary on the facade, and miniature cannons on the main staircase] but I had to sleep on the cold, topmost floor, which was reached by a staircase so steep that one's nose could graze the upper steps while ascending. I was not disappointed when the antique dealer who owned the building defaulted on his promise to redecorate the interior, thus violating the leasehold agreement, and allowing my parents to rent a pleasant home in Wassenaar from a naval officer who was going to be the Dutch naval attache in Washington, where he became a friend of my future father-in-law.*

school with a couple of her classmates in tow. She was, rightly or wrongly, assigned most of the blame for the escapade, although two of her teachers, the sisters Dora and Erna Siegel, whom I was to meet again years afterwards, were fond of her and took her part in the affair. Lynette disliked her given name, and was also vexed by the fact that she had been given just one, while both of her brothers – in her view, most unfairly – had been endowed with two. (Later she would insist on being called just “George.”) It must have been at that time that she expressed the belief – delightful in its symmetry – that as children grow older their parents grow younger, in the end exchanging roles.

My brother Pete, who had been born in Rome, was a delightful child and the darling of the family. We nicknamed him “Ernie Elfin”, probably after some character from the “Beano”, an English children’s comic paper of the period. When my mother bathed him, Lynette and I would sing nonsense songs which began with such lines as “Look at the elfin’s little toes”, etc. He displayed impressive physical coordination very early on, and would persistently climb out of his cot. I recall that my parents, seeing that the four-foot fence at the bottom of our back yard presented no serious obstacle to their infant alpinist, had the fence’s height doubled, figuring that this would dampen the boy’s urge to ascend. In that belief they were mistaken. For not long after, my mother had left him to play in the yard unattended, but – so she thought – safely confined. Glancing outside, she was startled to see his diminutive figure poised atop the now eight foot high fence<sup>9</sup>. Rushing into the yard, she caught him just in time, so preserving this born acrophile for his future calling as a flyer.

My mother had been trained as a pianist at the Royal College of Music in London. Above all else she treasured the Blüthner baby grand piano she had been given as a birthday present by her father. This noble instrument, which accompanied us throughout our wanderings (at least, before my mother’s death), became a nucleus around which the family would gather, and my mother made as much use of it as she could. In addition, of course, to Chopin, her musical preferences tended mainly toward the Latins: she was fond of Debussy and Ravel (I can recall her playing movements of what I was later to identify as Ravel’s *Tombeau de Couperin*), the Spanish composer Albéniz (especially his *Iberia*), and the Brazilian composer Villa-Lobos (particularly his piano suite *Prôle do Bêbê*: these virtuoso pieces were, in all likelihood, beyond her technique, but I recall that she had a set of the 78 rpm recordings that Arthur Rubinstein – their original dedicatee – had made of them). I have the impression that she did not care for Beethoven (although I cannot recall why), but she seems to have liked Bach. I still have the shellac-on-tin 78 rpm recording she made of the *Allemande* from the Fifth French Suite; this was probably recorded in the United States on my parents’ Hoffman radiophonograph whose image lingers in my memory. Through the scratchiness and general deterioration of this recording can still be discerned both the fluency of my dear mother’s performance and the rich sonority of her beloved Blüthner. While she loathed rock and roll, she was fond both of the popular songs and the jazz of her generation (that is, of the thirties and forties). She had a particular liking for Fats Waller and would (as I later realized) often play tunes such as *Ain’t Misbehavin’* in his style. I recall her accompanying my father – who

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<sup>9</sup> A feeling for accuracy compels me to admit that I am not sure of his exact position on the fence when my mother spotted him. He may even have already climbed over it and started to crawl rapidly away. But, wherever he was, I recall my mother’s alarm at the fact.

had a pleasant tenor voice—in Rodgers and Hart’s immortal thirties song *Blue Moon*, whose lyrics “Blue Moon/you saw me standing alone/without a dream in my heart/without a love on my own” I still remember. She was very fond of Latin-American popular music, and loved dancing to calypso and rhumba bands. On occasion she would shoulder and skilfully manipulate the bulky old accordion which I believe had been with her since her student days. I was impressed by the number of operations that she had to perform simultaneously in order to coax sounds from this contraption. With a miniature keyboard on the right and an array of buttons for the production of chords on the left, not only did playing the thing engage all my her fingers, but at the same time she had to squeeze and stretch it in a manner resembling artificial respiration.

My mother also furnished the piano accompaniment to the family singsongs in which I would shrill out the lyrics of selected numbers from a large volume of (mainly folk) songs—the “Fireside Book,” I think it was called. Songs I recall trolling my way through—to my own enjoyment if surely to nobody else’s—include *Green Grow the Rushes Ho!* and the Christmas carol *Adeste Fideles*<sup>10</sup>. What little ability at reading music I possess derives more from my participation in these sessions than from my unrewarding struggles with the violin.

At that time my parents had an amusing American friend, Walter Johnson. Known to Lynette and me as “George P. McFoofnick,” on each visit he would bring us the latest British comic papers such as the “Beano,” and the “Dandy,” and entertain us with nonsense songs, one of which began: “Don’t smother Mother on Mother’s Day/Mother can smother herself!” Years later I was to meet him again in California. Other friends of my parents I recall from that time, and whom I was also to meet again, were Irving and Jane Riswold, for whose son Peter I developed a special attachment. Being, improbably, even smaller than I was, I affectionately nicknamed him “Shrimp.” The Riswolds lived in a detached house of singular thinness in Wassenaar, a fashionable residential district of the Hague. On the one occasion I recall staying overnight there, Shrimp and I shared a bedroom, and spent much of the night chortling our way through Lewis Carroll’s *Through the Looking Glass*. I remember that we found uproarious the White Queen’s description of a thunderstorm: “And part of the roof came off, and ever so much thunder got in—and it went rolling round the room in great lumps... till I was so frightened, I couldn’t remember my own name!” For some time afterwards the mere uttering of the word “thunder” would suffice to send us into fits of giggles.

My parents seem to have regarded The Hague as an environment sufficiently safe to allow me to roam relatively unconstrained without exciting anxiety on their part. I was surely, at that tender age, more anxious about my parents’ whereabouts than they were about mine. Many years later Michele told me of her astonishment when she learned that my parents had allowed me - a nine-year-old - to go downtown to buy a pair of shoes for myself. This “shoe episode” was to become a permanent joke in my future relationship with the Aquarone family.

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<sup>10</sup> Other songs and carols that I recall: *Home on the Range*, *The Foggy Foggy Dew*, *A Frog He Went A’Courtin’*, *On Top of Old Smokey*, *Alive Alive Oh*, *Meadowlands*, *Funiculi Funicula*, *Lili Marlene*, *Loch Lomond*, *The Blue Bells of Scotland*, *Song of the Volga Boatmen*, *The Erie Canal*, *Jeannie with the Light Brown Hair*, *Joy to the World*, *O Little Town of Bethlehem*, *Silent Night*.



For me the greatest fruit of independence was the freedom to go to the movies unaccompanied. I loved Danny Kaye in *Knock on Wood*<sup>11</sup>, which I must have seen at least five times. I wept when James Stewart died tragically at the end of *The Glenn Miller Story*. The swordplay in *Scaramouche*, a jaunty swashbuckler set during the French revolutionary period, so impressed me that for a time rapping out “On Guard!” and brandishing an imaginary épée became my normal form of salutation. I also recall visits to the “Nieuws” theatre in the centre of town, which ran a continuous program of news and cartoons. The Dutch news program carried an image of the map of Holland in relief which so resembled a piece of meat in shape that the theatre became metonymically known as the “Beefsteak.”

Attending an English school meant that I did not learn any Dutch in a formal way. Moreover, the fact that many Hollanders knew—and seemed to be happy to speak—English rendered superfluous the effort to enlarge my command of their language (at the same time—surely unintentionally—putting monoglots like myself to shame). Nevertheless, my slender abilities as a linguist did not prevent my acquiring enough of the language to enable me to carry out essential transactions such as the purchase of ice cream and tram tickets. As a close relative of English, the Dutch language (in its written form, at least) contains a number of words and phrases which strike the anglophone as being in a kind of burlesqued English: for instance, *slaap* “sleep,” *slaapkamer* “bedroom,” *appelmoes* “applesauce,” *witbrood* “white bread” (and the curious amalgam *casino witbrood* “white loaf”), *ijs* “ice,” *boter* “butter,” *kokosnoot* “coconut,” *stroopwafel* “syrup-waffle,” *suiker* “sugar,” *zout* “salt,” *politie* “police,” *nieuws* “news,” *U* “you,” *uur* “hour,” *uit* “out,” *let op* “pay heed.” My own amusement at this resemblance soon expanded to embrace a number of Dutch words which came to seem intrinsically funny, for example *slagroom* “whipped cream,” *fiets* “bicycle,” *bromfiets* “motorized bicycle.” I was to later to learn from Stan Aquarone the delightful word *tegenliggers*, which means “those coming towards you,” the reverse, that is, of the (doubtful) English word “overtakers.” Since Dutch personal names such as *Jaap*, *Joke*, and *Wim* also tickled my puerile sense of humour, my delight at discovering the name *Dr Theophilus Dingboom* embossed on a brass doorplate can easily be imagined.

It was in The Hague that I had my first encounter with dentistry, that nemesis of even the strongest. With the emergence of my second teeth, my dental profile had begun to resemble that of a potential Dracula, and to correct this my parents naturally engaged the services of a “reputable” orthodontist. This was a Dr Bertram, whose name later came to be linked in my mind with that of Torquemada and De Sade. Every few weeks I would be dragged to his torture chamber to allow him to “adjust”—that is, tighten—the fiendish apparatus of wires with which my teeth had been festooned, and which caused them to ache unremittingly. While it is true that the good doctor’s efforts were, in the end, successful in imposing some sort of order on the random heap of dentition with which I had been endowed, it came as a shock to see the mass of cavities that the braces had left when they were finally removed.

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<sup>11</sup> His best, of course, is *The Court Jester*, with its memorable “chalice with the palace” routine, and its expert supporting cast, which includes Cecil Parker, Angela Lansbury, and the inimitable Basil Rathbone. Since this film was made in 1955, I cannot have first seen it in The Hague.

There is one last incident I feel I should mention because of the physical immediacy it has retained after so many years. At that time, my mother often used a pressure cooker<sup>12</sup> to prepare the family meal. It was hissing contentedly on the stove one evening when I marched into the kitchen in search of dinner. Taking the cooker to the sink, my mother sluiced it down with cold water in the customary way to reduce its internal pressure. The pressure cannot have fallen sufficiently, however, for when she returned the vessel to the stove and opened its lid, the scalding water inside—presumably accompanied by a major part of our dinner—burst forth and landed straight on the upper part of my leg, with excruciating results. A doctor was summoned and my jeans cut away to reveal that a sizable portion of epidermis had been peeled off. The doctor assured us that it was just a first degree burn and not really serious, but it looked, and felt, as if my leg might require amputation. As it happened, this minor drama took place on the very evening my father was due to return from a month in Saudi Arabia on Aramco business: he can scarcely have been pleased to be confronted with a domestic crisis immediately on arrival. The doctor was finally proved right, though: the burn healed up after a few weeks leaving no trace, and, while I can recall the pain, I am no longer even sure which leg was affected.

Holland is the first country I lived in which I recall with some degree of clarity, and, also, as it happens, with genuine affection. The pleasantly well-ordered structure of The Hague and its inhabitants' tolerance for children made it an ideal environment in which to grow up. There I also had the good fortune to meet the Aquarones, whose friendship came to mean a great deal to me. I regret that my time there was so brief, and that I cannot recall more of it.

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During our stay in Europe we journeyed several times to England to visit my maternal grandfather, Sydney (David) Lane, whom we knew as "Granddad England" (my paternal grandfather being known as "Granddad Oakland"). A tall, imposing man, in his youth he was keen sportsman, becoming amateur boxing champion of Gloucestershire. After the First World War he had embarked on what was to blossom into a highly successful business career, winding up the owner of a number of paper mills: later he sold his interest in his businesses and retired to the country to lead the life of a gentleman farmer. My mother was the youngest child of his first marriage, to Elsie Norman, with whom he also had three sons, Peter, John<sup>13</sup> and Tony. Elsie died in the 1930s and Sydney married Margie, my step-grandmother, with whom he had three children, Jenny, Sally and Roddy. The sons of his first marriage were all to die heroically as pilots during World War II—I believe that Peter and John were killed during the Battle of Britain. This tragedy had had a devastating effect on my mother, who adored her older brothers. For Sydney the tragedy did not end with the deaths of his sons, because with Helen's shocking death in 1960 he had to face the almost intolerable pain of having lost all the members of his first family.

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<sup>12</sup> We used the term *newt* or *nute* for the detachable weight regulating the efflux of steam on the pressure cooker's top. I have no idea why.

<sup>13</sup> Hanging on our living room wall are two charming watercolour portraits commissioned by Sydney from the artist C.M.Gere. One, dated 1918, is of John, the other, dated 1932, is of Helen. Here Helen is 12, John perhaps a little younger.

My most vivid memory of my grandfather was the skill with which he would strum for our amusement the pretty banjo, inlaid with mother-of pearl, that he had learned to play in his youth.

Northmoor, my grandfather's residence, was an imposing mansion of Cotswold stone set in three hundred acres of woodland in the heart of Gloucestershire. Close by was the Dell, a delightful flowered enclosure, bright with butterflies. My grandfather's splendid collection of these beautiful creatures, displayed in glass cases, made a deep impression on me, and I resolved to create my own collection. I spent many happy hours in my grandfather's dell chasing, with billowing net, these winged delights, whose names - fritillaries, painted ladies, Camberwell beauties, ringlets - appealed to me in almost equal measure<sup>14</sup>.

Many years later I was told by Sally that on my first visit to Northmoor (at the age of eight or so) I was so taken with the place and its contents (in particular, no doubt, my grandfather's impressive stamp collection, which contained several pages of rare Victorian penny blacks) that I blurted out to my grandfather "Who will inherit all this when you die?". (In the end the whole estate went – to the chagrin of the elder sisters – to Roddy, my grandfather's youngest son.) With the tolerance of the elderly, my grandfather must have excused my scandalous lack of inhibition – probably attributing it to an American upbringing – since I believe he remained genuinely fond of me, as I was of him.

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Early in 1955 we left The Hague and returned to San Francisco, crossing the Atlantic on the Holland-America liner *Nieuw Amsterdam*. On the voyage my mother, Lynette and I went to see the film being screened in the on-board theatre, *Night of the Hunter*<sup>15</sup>. This is a powerful and disturbing moral tale, set in the Deep South, in which a sister and brother (of about the same ages as Lynette and myself) flee their mother's murderer, chillingly played by Robert Mitchum. My mother became increasingly agitated during the screening; after a time she got up and insisted that we leave, announcing that she thought it "unsuitable for children". On the last night of the voyage a tremendous storm brewed up, producing a mountainous swell. Immediately after dinner, which had finished up with a sticky confection made from dates, I became violently seasick. This had the effect of instantly extinguishing any nautical ambitions I might foolishly have come to entertain after a week at sea, and, at the same time, induced a permanent aversion to dates.

I recall little of our sojourn in San Francisco. We spent a couple of months in a shabby<sup>16</sup> residential hotel, the "Hillcrest," at the intersection of California and Jones Streets. The place was noteworthy for the fact that part of its ground floor was occupied by a nightclub, the "Alexis

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<sup>14</sup> Of course, sixty years ago butterflies, and insects generally, were so abundant that "collecting" them seemed a harmless activity. This is no longer the case given the alarming global decline of the winged insect population.

<sup>15</sup> Made in 1955, and based on the fine novel by Davis Grubb, this is the only film directed by Charles Laughton. Acknowledged as a monochrome masterpiece, it was described by Pauline Kael as "one of the most frightening movies ever made." Certainly Robert Mitchum, as the sinister preacher, was never more menacing, outdoing even his later performance in *Cape Fear*.

<sup>16</sup> On a visit to San Francisco some years later I noted that it had been demolished, and an apartment building erected in its place.

Tangier", whose presence on the very doorstep my nightowl parents must have found most welcome.

Lynette and I attended the Hillwood School, a small private school located in the Pacific Heights region of the city. I don't remember much about this place but it has left a somewhat unpleasant impression. At prescribed times, I recall, we boys and girls were required to line up and proceed in sequence to the respective "rest rooms" to relieve ourselves, whether we needed to or not. Of the teachers at this institution I can recall just a Miss or Mrs. Austin. One day she asked me if I knew "why time passed so quickly in Italy" — possibly because I had, with my usual artless loquacity, informed her that we had once lived there. Replying, presumably, that I did not know, she told me, "Because whenever you turn around you see a *dago*." This latter term was new to me, and so, ignorant of its derogatory nature, I was surprised at my mother's shock when I later asked her what it meant. Demanding to know where I had heard the offending word, she was doubly outraged to learn that I had heard it from one of my teachers. As a result she may well have then decided to remove us instantly from the school. But in any case we did not remain in San Francisco long, for we were soon to decamp to Bangkok, my father's next place of employment.

## BANGKOK, 1955-56

WE WINGED OUR WAY ACROSS THE PACIFIC in a Pan American clipper. These majestic propeller-driven behemoths<sup>17</sup> of the sky, their sumptuous twin decks equipped with bar and sleeping berths, were the emblems of a bygone and more gracious age of aviation, a far cry from the flying cattle cars of today. The impression that one was travelling in an ocean liner, miraculously airborne, was reinforced by the presence of a genial steward attentive to one's every whim. I recall being escorted by this gentleman to the cockpit where the pilot and copilot patiently explained to me (a mere kid) some of the functions of the numerous dials, toggles, and lights making up the plane's intricate control panel – to my disappointment, however, wisely stopping short of allowing me to “pilot” the aircraft. Along with the rest of the juveniles on the flight, I was presented with various mementos of the journey (none of which, alas, is still in my possession): for example, a wing-pin and a certificate attesting to the fact of having crossed the International Date Line. The palatial conditions on board these aircraft compensated, as with the pre-war dirigible, for the unconscionable length of time one had to spend aloft. But, unlike the dirigible, they had to be refuelled every couple of thousand miles or so: on our trip this necessitated making three stops – at Honolulu, Guam, and Wake Island – before touching down in Hong Kong. (Of our brief stay in the latter place all I can recall is a visit to the Tiger Balm Garden.) From Hong Kong we flew by Cathay Pacific Airways to Bangkok.

Exotic Bangkok (*Krungthep*), famed for its Buddhist temples, was known as the “Venice of the East,” for originally its trade was conducted in sampans and junks anchored in the river<sup>18</sup> on whose banks it is built, and most of its populace lived in houses supported on stilts on the edges of canals. At the time we were there, these canals, or *klongs*, still crisscrossed the city. While the larger canals continued to be used for commercial transport, the smaller ones seem to have served chiefly as breeding grounds for mosquitoes. The streets in the city centre were crowded with *samlars*, bicycle rickshaws pedalled by wiry desiccated-looking men with bulging calf muscles. Above all I recall the pervasive heat<sup>19</sup>, which was infrequently relieved by brief tropical downpours of such intensity as to sluice one off the streets. Once the rain had stopped the air would be suffused with the characteristic odor of moist teakwood.

We took up residence on the outskirts of the city in a villa rented from a gentleman of Filipino origin, whom we knew as Mr. Sai. The house lay off the main road on an obscure alley, patrolled at what seemed all hours by a pack of vicious dogs equipped with slavering jaws and bloodshot

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<sup>17</sup> Some time later one vanished without trace over the Pacific, thereby hastening the retirement of this particular type of aircraft. The film *The High and the Mighty* (1954), based on the novel by Ernest K. Gann, effectively dramatizes the difficulties of piloting these planes, with their limited fuel capacity and – by contemporary standards – excruciating slowness, over the Pacific.

<sup>18</sup> This is the Maenam Chao Phraya. Bangkok is situated 25 miles upriver from the Gulf of Siam.

<sup>19</sup> According to the *Encyclopedia Britannica* its average temperature is 83.8 degrees (F) during the hot “dry” months of March and April, and 79.3 degrees during the “cool” season from November through February. Its mean relative humidity rarely falls below 60%.

eyes. Reaching the main road on foot thus being tantamount to a suicide mission, I would leap on my bicycle and pedal furiously down the driveway of the house, trying desperately to build up sufficient speed before reaching the alley so as to outstrip these hellhounds, a number of which would be snapping and growling at my rapidly revolving heels before I had travelled fifty yards. Eventually I felt sufficiently practiced at running this gauntlet to take my brother Pete (who must have been about three at the time) out for a spin on the back of my bike. This led to misfortune for the poor fellow – not at the jaws of the hounds, which we successfully eluded – but through dislocating his ankle by accidentally sticking his bare heel into the spokes of the bicycle's rear wheel. This must have been terribly painful, but since there was little external sign of injury, it didn't look serious at first. Later Pete's ankle soon began to swell alarmingly, and my parents had to rush him to hospital where the dislocation was confirmed by X-ray. I was very upset at having been indirectly responsible for Pete's injury. Mercifully, it had no permanent effects.

Now and then I would injure myself. Still vivid in my memory is the occasion when, on a visit to a friend (whom I recall had a pet gibbon – a creature of remarkable agility), I wandered alone into the garden. Seeing a swing there, I proceeded – perhaps in some absurd attempt at imitating the gibbon – to suspend myself upside-down by my knees from the swing's horizontal bar, and began to rock back and forth. Somehow I lost my grip and plummeted head-first onto the grass, a drop of perhaps three feet. I was fortunate to have landed more or less on the top of my head, for I would probably have broken my neck had it been bent. Even so, the wind was totally knocked out of me and my lungs seemed to be paralyzed. I would, I suppose, have cried out for help had I been able to do so, but this was one of the rare occasions when my larynx could not be engaged. So I lay on the grass for several minutes gasping for air like a landed fish, all the while cursing myself for a fool. When at last I was able to take a few shuddering breaths, I got to my feet and slunk back into the house, too ashamed to confide to anybody my ludicrous near-escape from death.

Bangkok nights not being appreciably cooler than Bangkok days, my parents had installed an air conditioner in their bedroom to enable them to sleep in comfort. Fundamentally, I was interested less in the device's intended function than in the multicolored array of buttons with which it was studded. But that function was unquestionably uppermost in our minds when, impatient with the feeble efforts at revolution of the overhead fans in our own rooms, my sister and I crept into our parents' room at night and bedded down on the floor to bask blissfully in the luxurious coolness. Outside this sanctuary one was baked by the heat and plagued by swarms of mosquitoes bent on battenning on one's blood, an activity impeded neither by net nor liberally applied insect repellent. But the evening air also harboured a number of harmless phototropic moths and flying beetles which would cluster in attractive varicoloured clouds around exposed lights. With the fall of night the local crickets initiated a chorus which continued ceaselessly until dawn. This nocturnal racket came to haunt poor Lynette. We had been to see the science fiction

film *Them!*<sup>20</sup>, in which a swarm of atomically mutated giant ants<sup>21</sup> emerge from the Los Angeles sewers and proceed to menace the population. Unfortunately for Lynette, on the film's soundtrack the monster ants made a noise very similar to that of our crickets. Its horrifying associations reduced her to a state of terror<sup>22</sup> each night, providing an additional reason for taking refuge in our parents' bedroom. Despite the best efforts to comfort and reassure her, the trauma did not subside until our return to California.

Ants of normal size also figured in Bangkok life. If, for example, after a meal one failed to polish off every crumb, within seconds several black trails of the creatures would converge on the spot to finish the job. Black ants were harmless, but, as I discovered, such was not the case for their red leafcutter cousins. These fearsome insects inhabited globular nests of their own striking construction in the branches of the trees bordering the driveway of our house. They had black pinpoint eyes and a pair of menacing pincers between which a droplet of formic acid would gather no matter how delicately they were handled. Under normal conditions, like most ants they tended to mind their own business. But I was curious to see how they would respond if disturbed, so one morning I clambered onto the garage roof and shook some of the tree branches from which their nests hung. This failing to have appreciable effect, I redoubled my efforts. At that point the insects, goaded beyond endurance by my crude interventions, erupted wrathfully out of their nests, dropping down onto the garage roof, from which I made a speedy exit, narrowly avoiding becoming an instant victim of my own mischief<sup>23</sup>. The agitation spread rapidly to the remainder of the ant population of the tree I had shaken, and then, to my consternation, to that of nearby trees. Within an hour the driveway was submerged in red ants whipped up into a fury by my foolishness. On his return home that evening my father remarked that this was the sort of "red carpet treatment" that he could have done without. It was not until the next day that the ants' rage subsided and they withdrew to their customary habitat. I vowed (but failed) to give ants' nests a wide berth in future.

Houses in the tropics normally harbour a wide range of creatures in addition to human beings (and ants); in that respect our house was no exception. I recall in particular the small lizards known locally as "chinchoks" which could be seen clinging decorously, if precariously, to the walls and ceilings of every room. Most of the time they would keep perfectly still, infrequently darting off in pursuit of flies or other prey. Every so often one would give up the ghost, causing it to lose its grip and fall: this occurred in ludicrous fashion at dinner one evening when a chinchok suddenly fell from the ceiling and splashed directly into my soup. The harmless presence of these small creatures was accepted as a normal feature of the Thai domestic scene. This was not the case, however, for larger lizards, such as geckoes, which were greatly feared by

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<sup>20</sup> Made in 1954, it starred Edmund Gwenn, James Whitmore and a number of twelve-foot ants. One of the earliest movies of the post-nuclear monster cycle, its director Gordon Douglas made effective use both of the desert and the Los Angeles sewers.

<sup>21</sup> Many years later to be amusingly elided to *gi-ants* by my erstwhile student Adam Rieger.

<sup>22</sup> Lynette's terror must have been compounded by the fact that the film begins with a little girl of about her age wandering around the desert, terrified into speechlessness by an attack on her family by the ants. Her aphasia is broken, interestingly, not by hearing the ants, but by the smell of formic acid, which causes her to cry out "Them! Them!"

<sup>23</sup> It would have served me right if I had: one should not be able to upset the balance of nature with impunity.

the local population: I recall our *amah* frantically driving out with a pole one which had had the temerity to venture into the house, presumably in search of food. While it did look quite ferocious, this may simply have been the result of human provocation.

In addition to an *amah*, or maid, my parents had engaged a Chinese cook who fancied himself an expert on the preparation of the proper “English” breakfast with which he believed the typical Occidental began the day. In his view, bacon only became edible once incinerated, and no egg could be considered properly fried until its yolk had been hardened to the point of vulcanization. Discreet attempts were made to convey to him that we did not actually require a cooked breakfast, but, not wishing to injure his pride, my parents did not press the point. As a result these unappetizing repasts continued to appear in unbroken succession throughout our stay in Bangkok.

While in Thailand my father was employed by USOM, the United States Operations Mission, whose ostensible purpose<sup>24</sup> was to provide aid and “advice” for technical projects such as roadbuilding, sewer construction, etc. As an engineer my father had an inventive streak. For instance, he dealt with the nuisance of having to boil our drinking water by constructing a filter in the form of a metal cylinder packed with porous material which could be attached to the kitchen tap. The sole drawback of this clever device was that water flowed through it so slowly that boiling up a kettle was the quicker option. I also recall my father describing to me his ingenious design for a domestic garbage disposal system. Based on the “House that Jack Built” principle, it involved feeding garbage to beetles which would in turn be consumed by carp, etc. My response to this ecologically sound idea—well ahead of its time—was the facetious suggestion that a goat be added to consume the tin cans: I don’t recall my father finding my puerile attempt at humor particularly amusing.

Although I undoubtedly saw various movies while in Bangkok, the only one I actually remember seeing is the matchless *Them!*. But I can recall a few measures of the Thai national anthem<sup>25</sup>, a pentatonically flavored piece appended to each film performance, accompanied by the projection on the screen of a photograph of the bespectacled young king, Phumiphon Adundet. At the first strains of the anthem the audience had to struggle to its feet and stand resignedly to hear the thing through. As the composition lurched into what seemed to be its final bars, the collective sigh of relief was repeatedly dashed by the sudden little flurry of notes which signalled a maddening return to the beginning. I do not recall how often this was repeated, but we seemed to have to stand interminably before the music finally ground to a halt.

Before coming to Thailand I regarded swimming as at best an irritating way of wasting time, but I soon learned that in the tropics immersion in water is an agreeable way of escaping the

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<sup>24</sup> Behind this was the larger U.S. political strategy of ensuring that Thailand, as a “democratic” state, did not fall into the hands of the communists. Since becoming a constitutional monarchy in 1932, Thailand had suffered a series of civilian and military coups-d’état (as well as Japanese occupation during the Second World War), the latest in 1951 just before the return from Europe of its young king. In this connection it is of interest to note that Thailand is the implied setting of the film *The Ugly American* (1962), in which American foreign policy in South-East Asia is criticized, if in somewhat muted fashion.

<sup>25</sup> I was only to discover many years later, through listening to recordings, the exquisite beauty of Thai classical music.



infernal heat, and so I began to swim naturally. My family often whiled away the afternoon at a British club where one could wallow happily in the swimming pool, emerging at intervals to consume ice creams and cold drinks which had to be purchased with the appropriate number of “chits”.

My mother swam with a breaststroke whose formality struck Lynette and me as somewhat comic: perhaps because her arm motions reminded us of the flap of a seal’s flippers we would irreverently shout “York, York!” as soon as she took to the water. The club’s pool was equipped with a group of diving boards set at increasing altitudes. Having acquired some measure of confidence as a swimmer, I began to enjoy flinging myself off the lowest of these boards, later diving in head-first, and even venturing the occasional roll, although most of my attempts at this led to stinging backflips. Gradually ascending through the series of boards, I acquired sufficient confidence to think nothing of jumping feet-first from the highest of them. But I shrank from the idea of diving *head-first* from a platform sitting thirty to forty feet above the water. I cannot now recall whether I finally succeeded in screwing up sufficient courage actually to have done this, but I’m inclined to doubt it.

On occasion we visited a beach on the Gulf of Siam a few miles south of Bangkok. Immersed in the warm tropical water, rocked by its gentle waves, I was suffused with a wonderful feeling of tranquillity, a sense of returning to the womb. But while at the beach great care had to be taken to avoid being burnt to a crisp by the ferocious sun, as I discovered to my cost. Once I spent the whole afternoon there, having already acquired a mild sunburn during a session at the club the previous day. By nightfall my back was a mass of blisters, including a particularly spectacular specimen reminiscent in shape of an observatory dome. Several weeks passed before the burns healed and I was able to rejoin the corps of mad dogs and Englishmen sizzling in the midday sun.

I have only an indistinct impression of the International Children’s Center, the American school I attended in Bangkok. To avoid the afternoon heat, classes were timed to start early in the morning, and end at mid-day – thus leaving the afternoon conveniently free for wasting time. I had been placed in the seventh grade, in which the agreeable Miss Morley provided instruction in all subjects. One incident in her science class I recall vividly. She had mentioned that the moon always presents the same face to the earth, “and so,” she continued, “the moon does not rotate on its axis.” I realized that this could not be right, and, jumping to my feet, gave way to the urge to show off my insight. With wild gesticulations, I attempted to demonstrate to the whole class that, on the contrary, the apparent nonrotation of the moon as viewed from the earth meant that the moon must rotate on its axis at the same rate as it revolves around the earth. In this way I am afraid I began to acquire the reputation of being a “know-it-all.”

From an early age I had been attracted by the appearance of the symbols and formulas in my father’s engineering handbooks, and I had already begun to show a genuine interest in mathematics. At some point I got hold of an algebra book (possibly one my father had bought to refresh his own knowledge) and started to teach myself the subject after school during the long hot Bangkok afternoons. What, I have come to ask myself, were my motivations? Curiosity?

Overcoming boredom? Impressing my parents? Outshining my contemporaries? Narcissism? All, possibly. In any event self-instruction led to self-definition: I began to regard myself, absurdly perhaps, as a brave autodidact, an independent thinker pushing himself to the limits of his abilities – and beyond<sup>26</sup>. Being knowledgeable beyond my years – and taking refuge in words and symbols – thus became a major constituent of my self-image. Behind all this was, I now realize, the fear of mediocrity – which even then I regarded as an abridgment of my sense of self-worth – accompanied by the desire to protect myself from the feelings of inferiority which in some obscure way I had already anticipated would result from direct competition with my contemporaries, especially in the classroom. But if indeed I took up mathematics as a means of defending my ego it was because I found the subject beautiful – and I still do, even if I no longer practice it.

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<sup>26</sup> Many years later I came across William Faulkner's words, which express the unarticulated ideals of my youth with precision:

*Always dream and shoot higher than you know you can do. Don't bother just to be better than your contemporaries and predecessors. Try to be better than yourself.*

## SAN FRANCISCO, 1956-58

AFTER LESS THAN A YEAR in Thailand my father resigned his position there<sup>27</sup> and so, in the late spring of 1956, we returned to San Francisco. During the two following years, luminous in my recollection, I became very attached to San Francisco, one of the world's most appealing<sup>28</sup> cities. Topographically, the city is remarkable. With a fine disregard for the equipotential, its planners must simply have superposed a Cartesian grid of streets on a map of the cluster of steep hills which was to become its downtown area, with the result that some of its principal thoroughfares, viewed in vertical cross-section, resemble graphs charting stock market volatilities. So the picturesque cable cars which first made their appearance in 1873 before the age of the rubber tire, and which still grind their way anachronistically up and down the city's hills, were introduced by necessity: no other type of vehicle could have made the slightest headway against such gradients. San Francisco is also notable for its weather. Washed by the frigid Humboldt current (which makes ocean swimming in the region a spartan exercise at best), the summer daytime temperature in the city can differ from that of a few miles inland by as much as 20°F. In the early morning the city would often be shrouded in a sea-mist, through which could be heard the lugubrious but oddly comforting croak of the foghorns unflaggingly issuing their maritime warnings. But by midday mist and foghorn would be no more than distant memories in the brilliant sunshine.

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<sup>27</sup> I am uncertain as to the reasons for my father's resignation, but I retain a vague impression that he did not see eye-to-eye with his immediate superior in Bangkok, a certain Dr Zobel.

<sup>28</sup> In 1879, the philosopher Josiah Royce, bewitched by the landscape, described it in the following painterly words, which are worth quoting at length:

*The high dark hills on the western shore of the Bay, the water at their feet, the Golden Gate that breaks through them and opens up to one the view of the sea beyond, the smoke-obscured city at the south of the Gate, and the barren ranges yet farther to the left, these are the permanent background whereon many passing shapes of light and shadow, of cloud and storm, of mist and of sunset glow are projected as I watch all from my station on the hillside. The seasons go by quietly, and without many great changes. The darkest days of what we call winter seem always to leave not wholly without brightness one part of the sky, that just above the Gate. When the rain storms are broken by the breezes from the far-off northern Sierras, one sees the departing clouds gather in threatening masses about the hilltops, while the Bay spreads out at one's feet, calm and restful after its little hour of tempest. When the time of great rains gives place to the showers of early spring one scarcely knows which to delight in the more, whether in the fair green fields, that slope gently down to the water, or in the sky of the west, continually filled with fantastic shapes of light and cloud – nor does even our long dry summer, with its parched meadows and its daily sea winds leave this spot without beauty. The ocean and the Bay are yet there; the high hills behind change not at all for any season; but are ever rugged and cold and stern; and the long lines of fog, borne in through the Gate of through the depressions of the range, stretch out over many miles of country like columns of an invading host, now shining in innocent whiteness as if their mission were but one of love, now becoming dark and dreadful, as when they smother the sun at evening.*

John Steinbeck, in *Travels with Charley*, was moved to write:

*I saw her across the bay, from the great road that bypasses Sausalito and enters the Golden Gate Bridge. The afternoon sun painted her white and gold – rising on her hills like a noble city in a happy dream...this gold-and-white acropolis rising wave on wave against the blue of the Pacific sky was a stunning thing, a painted thing like a picture of a medieval Italian city which can never have existed.*

San Francisco has had a marked appeal to filmmakers. In *San Francisco* (1936), directed by W.S. van Dyke, the 1906 earthquake – which, together with the subsequent fire, levelled most of the city – furnishes the climax. Particularly evocative for me is Hitchcock's dreamlike *Vertigo* (1958), which was shot during the time I lived in San Francisco. The drivers in the superb car chase in Peter Yates' *Bullitt* (1968) take full advantage of the strikingly ramplike nature of San Francisco's streets.

On returning to the United States I was subjected to a battery of IQ and achievement tests to determine where I stood scholastically. My reading and efforts at mathematical self-instruction would seem to have paid off – and I must have shown unusual form on the occasion – because I learned that these tests showed me at 11 to have a reading age of 18 and an IQ of 168. I took my high IQ score with the greatest seriousness, and was crestfallen when subsequent assessments of my IQ proved lower<sup>29</sup>. In any event, my performance led to my being placed in the ninth grade (with tenth grade mathematics) at Drew College Preparatory<sup>30</sup>, a small private high school situated at the intersection of California and Broderick Streets not far from the city center. This school was highly unorthodox in that it catered both for would-be prodigies and high school dropouts in search of scholastic redemption. Their most prominent alumnus in the former category was Fred Safier, a true child prodigy who had, at the tender age of 13, “left [Drew] for Harvard in a blaze of publicity” (his own words)<sup>31</sup> shortly before I arrived. I was greatly impressed by his reputation, and I strove to emulate him as best I could. I spent an enjoyable year at Drew. This was due in no small measure to the kindness and stimulating instruction of Mr. Spiess, my mathematics teacher, and Mr. Smith, my English teacher, both of whom I remember with affection. Mr. Spiess, large, avuncular, and usually attired in a rumpled brown suit, brought to his classes a joviality not usually associated with the imparting of mathematical knowledge. Mr. Smith, nervous and intense, and whose nails, like mine, were chewed to the quick, had a passion for literature with which he inspired his students: I recall that at his suggestion I read Hugo’s *Les Misérables* and Ainsworth’s *Old St. Paul’s*. I was saddened to learn that some years later he committed suicide.

We spent the first year of our return to San Francisco in a house at 266 Denslowe Drive, close to the State College in the south of the city. Across the street lived the Squeri family. The eldest daughter Marcia, intelligent and competitive, must have been irked from the beginning of our acquaintance by the fact that I attended a private<sup>32</sup> school – rather than the local public school, or the Catholic parochial school which I believe she went to. We often played Scrabble, bickering so much that “Squabble” became the name of the game. On one occasion I put down the word *orb*. This word was new to her, and, refusing to be upstaged, she claimed that I had confused it with *alb*, a word new to me, but which her Catholic upbringing had (I later surmised) made familiar to her. She was understandably chagrined when a consultation of the dictionary confirmed the correctness of my word. What an insufferable know-it-all I must have appeared! I was continually ridiculed by Marcia’s younger brother Robert for my stated ambition of becoming a physicist. Finally I could stand no more, and we started to scuffle. As luck would have it, I managed to get a grip on his neck which I thought might induce him to surrender. But instead of saying “uncle” all he produced were some alarming strangulated sounds. I let go at once to find

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<sup>29</sup> Even so, I took consolation from the fact that my Stanford-Binet score never fell below 147.

<sup>30</sup> Coeducational, it was founded by John S. Drew in 1908. Its Internet entry shows that it is still going strong.

<sup>31</sup> From a recent e-mail communication. He tells me that for the past twenty years he has been happily teaching mathematics at the City College of San Francisco.

<sup>32</sup> In my first draft I used the word “special” – but on reflection I realize that was an unconscious euphemism for “private.” Looking back, I was shocked into the awareness that, after the age of 8, I – a convinced socialist and egalitarian – had, characteristically, attended only private schools.

him in the grip of an attack of asthma. After a few minutes he recovered, and I apologized, telling him truthfully that I had had no idea that he was an asthmatic. I cannot now recall whether he accepted my apology, but I have the impression that at least the ridicule ceased.

No contemporary memoir can be considered complete without a description of an encounter with—or at least a sighting of—an unidentified flying object, a UFO, and I am pleased to report that in 19 57 or 58 I witnessed a curious phenomenon of the kind. While standing in the street near our house at sunset I saw a number of bright dots in the sky moving rapidly in what appeared to be impossible trajectories: several of these dots seemed to execute right-angled turns, one even splitting into three. After a few minutes the dots vanished. Was all this mere hallucination? If so, it must have been of the mass variety since a number of other people in the street at the time clearly also witnessed the events. The episode was sufficiently well-founded to be reported in the following day's paper. While I remain skeptical about reports of alien visitors and the like, I must admit that this experience, very much out of the ordinary, still makes me wonder.

An odd event of a wholly terrestrial nature occurred during the afternoon bus ride home from school. Glancing out of the window, I was surprised to see a number of pedestrians on the sidewalk standing stock-still. I could come up with no explanation for this singular incident until I got home to find that one of the many minor earthquakes for which that region of California is noted had apparently taken place while I was on the moving bus. Entirely undetected by the bus's passengers, the tremors had nevertheless been of sufficient intensity not only to cause everybody in the street to freeze in their tracks, but also, as I found on my return home, to crack the arch between our living and dining rooms.

Living in the Bay Area enabled me to get to know my paternal grandfather. He was born Jan Anton Balsaitis near Vilna, the capital of Lithuania, probably in the last decade of the 19<sup>th</sup> century, when the country was under Tsarist rule. It seems that he had fled Lithuania as a teenager to avoid the general conscription of males 17 years and over at the order of Tsarina Alexandra, who favored blond, blue-eyed specimens over six feet in height, a description fitting my grandfather to a T<sup>33</sup>. Family legend always had it that he was admitted into the United States through Ellis Island by an immigration officer uttering the immortal words: "Balsaitis? Sounds like a disease to me, so I'm gonna do you a favor and put you down as 'Bell'." But I later learned that, while he did enter the U.S. through Ellis Island, he had already voluntarily changed his surname in Germany before embarking for the New World. Like many Eastern European immigrants, he made his way to Chicago, but the harshness of the conditions there (graphically described by Upton Sinclair in his novel *The Jungle*, whose protagonist is in fact a Lithuanian immigrant) eventually forced him to journey further westward to California. It was there that he met his future wife, Ethel Summers, my father's mother, who had a son, Alfred (whom I dimly recall meeting some years later) from a previous marriage. They settled in the small town of Hayward

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<sup>33</sup> Thus, when in 1968 I renounced American nationality to avoid the Vietnam war, it seems that I was merely following in my grandfather's footsteps.

not far from San Francisco, where he found employment as a car builder on the Southern Pacific railroad. (During Prohibition, he found a useful additional source of income in the distillation of apricot brandy and its sale to the local police force.) In 1918 my father was born, to be followed two years later by his twin brothers Richard and George. When my father was eight years old his mother died (of a self-induced abortion, it was rumored), leaving him – for his father was never to remarry – with much of the responsibility for raising his younger brothers.

By the time I came to know him my grandfather had retired and was leading a solitary existence in the basement apartment of my uncle George's house in Oakland<sup>34</sup> across the Bay. (For this reason my sister and I called him "Granddad Oakland".) I was fond of the old man, a rough-hewn, unassimilated immigrant with a sentimental streak and a fondness for whiskey. Occasionally he invited me to spend the night at his place, an experience I always enjoyed. The evening usually began with a tasty supper of fried chicken and potatoes cooked in a heavy black iron skillet. Afterwards he would pack his pipe with Prince Albert tobacco from a capacious tin and break out the checkers board, along with a bottle of the aptly named "Old Granddad", from which he poured himself liberal measures as he proceeded to win game after game. "Checkers," he would say to me in his strong Slavic accent, "is an easy game because you only need to think four moves ahead, but chess is hard because it needs eight." I remember his seamed face, with the pronounced epicanthic folds reducing his faded blue eyes to triangular slits behind the wire-rimmed glasses he habitually wore. I was curious to know what Lithuanian, his mother tongue, sounded like but he could only be persuaded to use it after most of the contents of the bottle had been consumed. Under the latter's influence he would begin to sing in his hoarse voice. One of his favorites was *The Big Rock Candy Mountain*,

*where you never wash your socks,  
and the little streams of alcohol come trickling down the rocks,  
where the cops have wooden legs,  
the bulldogs all have rubber teeth  
and the hens lay soft-boiled eggs.*

He would also sing a curious, sad, and moving song, one line of which – *I want to be by myself, where the mountains meet the sky* – I was suddenly to recall years later on reading Han Shan's "Cold Mountain" poems. Granddad's song was the lay of a lonely man who, like most of us, could not (or would not) express his emotions under normal social constraints. After many years in the United States he had lost the ability to read his native language. I recall that he received a letter from one of his sisters who had remained in Lithuania, and from whom he had not heard in decades, the services of a professor from the Department of Slavonic Languages at Berkeley had to be engaged to decipher it.

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<sup>34</sup> Gertrude Stein, who grew up in Oakland, immortalized the place in a backhanded way through her oft-quoted remark that, in travelling to Oakland, "when you get there, there's no 'there' there."

Like the majority of the Lithuanian population, Granddad had been raised a Catholic, but, as sometimes happens, his upbringing had had the opposite effect to that (presumably) intended – it turned him into an atheist. My father inherited his atheism, and often expressed his scorn for religious belief. But they both had the American immigrant's faith in individual progress: Granddad Oakland, a man of high native intelligence but little formal education, saw his sons get university degrees, and I recall being told by my father that "just as he had gone beyond his father, so I would go beyond him." Brave words!

Like my father, my Uncle George had studied engineering at Berkeley and had later spent a considerable time abroad. The two did not seem to get along very well. I later learned that George had resented his older brother since childhood when, following their mother's death, my father had been placed in a position of authority over his younger brothers. This animus was compounded by the fact that my father had been old enough to have completed ROTC training at college, so enabling him to breeze through World War II as a technical officer hardly firing a shot, while the younger George, unceremoniously drafted, had slogged through the war as a regular GI. There seemed to be few occasions when the two brothers wished to see one another, and as a result I never came to know George and his family very well.

With my Uncle Richard ("Dick"), on the other hand, I was later to become firm friends. At 6' 8" – dwarfing my father's noteworthy 6' 4" – he was the tallest man I have ever known personally – too tall, indeed, as he once told me with a certain pride, to be drafted for combat in World War II. For many years he shared an apartment in San Francisco with his friend Eddie Bagdonas (Lynette's godfather) and Eddie's elderly mother, who had emigrated from Lithuania at about the same time as Granddad O. Without actually being told anything explicitly, I got the impression from my parents that Uncle Dick's height was not his only unusual feature. Some years were to pass before I came to realize that both he and Eddie were gay. They kept the fact very private – this was, after all, long before it was legally possible for gays to emerge from the closet. Dick also held a respectable job as an accountant at the Crocker-Anglo Bank that he did not wish to jeopardize. When I enjoyed their hospitality on occasional visits to San Francisco during my Oxford years – later accompanied by my wife Mimi – it was simply taken for granted that we knew, and accepted, their relationship. Tragically, Dick was to die in a traffic accident at the age of 70.

Meanwhile I led a curious double life, that of a more or less normal fun-loving 11- or 12- year old kid on the one hand, and, absurdly, that of an aspiring "physicist" and "intellectual" on the other. The kid was hooked on ice cream, candy, popcorn, automobiles, electric trains, TV programs, stamp collecting, and science fiction movies. The "intellectual" was addicted to science, mathematics, classical music, and science fiction stories. Let me recall a few of these passions.

What American of my generation can fail to recall the line *I scream, you scream, we all scream for ice cream*? We ate it until it flowed from our ears – popsicles, Eskimo pies, ice cream sandwiches, drumsticks, sherbet (always pronounced "sherbert"), triple-decker cones, floats and

sundaes. And the flavors: not just commonplace vanilla, strawberry, and chocolate, but Rocky Road, Marble Fudge, and Butterscotch Crunch! The most delicious ice cream I can recall tasting was to be found at Bott's, an old fashioned ice cream parlor across the Bay in Berkeley. Rivaling ice cream flavors in range were the candy bars on which I continually munched and with which, to my mother's chagrin, I regularly spoiled my appetite for dinner. These rejoiced in such evocative names as Milky Way, Three Musketeers, Snickers, Tootsie Roll, Almond Joy, Hartz Mountain, Crunch, Butterfinger, Baby Ruth. In its quintessential Americanness rivaled only by peanut butter and hamburgers, *popcorn* was an indispensable component of every visit to the movies. It was also, as far as Lynette and I were concerned, an essential accompaniment to the watching of television. We would prepare a large bowl of the stuff—drenched, of course, in melted butter—through which to munch our way during the evening's entertainment. I developed the reprehensible trick of extracting kernels of unusual shapes and presenting them for Lynette's inspection, thereby distracting her attention sufficiently so as to enable me to scoff much of the remaining contents of the bowl.

The period 1955-65 was the Age of Excess of the American car industry. The typical wheeled behemoth then rolling off the production lines had an engine capable of propelling a destroyer, a fuel consumption reckoned in gallons per mile, and a front grille resembling a set of chromium-plated teeth. Studded with lights of every description—quadruple headlights, foglights, movable spotlights, backup lights—these vehicles also boasted power brakes, power steering, power windows, power seats, and, of course, the power ashtrays which, once full, indicated that the time had come for the owner to replace the vehicle with a new model<sup>35</sup>. White sidewall tires, rear wheel covers, and aerodynamic fins were *de rigueur*. Some models were furnished with a pair of large mammaroid rubber-tipped conical bumpers and a klaxon horn capable of belting out "Yankee Doodle Dandy." These glorious contraptions lacked nothing—apart, that is, from seatbelts. My father's car, a 1956 DeSoto, known to the family as "the Pink Monster," being shorter than a city block in length and saddled with a horn of disappointing monotonicity, was less than impressive in my eyes. But by way of compensation the Monster was equipped with pushbutton automatic transmission, in my estimation the pinnacle of ingenuity. Unfortunately, the pleasure of tooling along in a genuine dreamboat was diminished somewhat by my awareness of its almost insatiable thirst for gasoline: I could not suppress a nagging worry that the tank would run dry, stranding us in the middle of nowhere. Every five minutes I would scrutinize the fuel gauge. If it indicated that the tank was less than three-quarters full, I would bombard my father with remarks of the sort "Hey Dad, have we got enough gas?" or, with even less subtlety, "Dad, could you stop at the next gas station, I've got to take a leak. While you're about it, why don't you fill up the tank?" Despite the fact that my father invariably ignored my entreaties, I cannot recall that we ever ran out of fuel.

Electric trains were all the rage at that time, and, although the circumstance is now beyond my recall, I must have possessed a set of American Lionel O-gauge trains before we left for

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<sup>35</sup> This joke occurs in the great 1955 film noir *Kiss Me Deadly*.



Europe. My parents had bought me a Märklin HO-gauge layout in Holland which had probably remained in storage in San Francisco during our time in Bangkok (since I cannot recall its presence there). At any rate, on moving to Denslowe Drive I was able to assemble the whole layout – which now also incorporated some Lionel stock possibly also retrieved from storage – on a plywood table in a small windowed workshop in the back yard of the house. There I would spend many happy hours messing around – rearranging the layout, staging collisions, and, on occasion, rewiring the whole setup. More than once my efforts were rewarded by electric shock, fortunately only of 110 volts, the American standard. Ah, the joys of childhood! Stimulated by the memory of Mijnheer Bastet’s maze of parallels and by my less exact recollection of the intricate switching systems<sup>36</sup> of the marshaling yards traversed on my family’s many European rail trips, I strove to arrange the limited (but by no means negligible) HO resources at my command in as convoluted a manner as possible, concatenating the switches in such a way as to induce a pleasing sinuosity in the motion of long trains passing over them. Setting up the overhead wiring for this network was a delicate matter and tried my patience somewhat, but the results, in my view at least, were well worth the effort. Using three transformers, I was able to run a corresponding number of trains simultaneously and independently – two Märklin by third rail and overhead wire, and one Lionel by third rail. I still recall the thrill I felt at being the master of a small mechanical universe of my own design. Although the delicacy and precision of the Märklin models made the larger Lionel trains appear somewhat clumsy, I never lost my affection for those lumbering giants, particularly the “steam” locomotives, which could be induced to whistle by pulling a handle on the transformer, and into whose smokestacks one could drop specially designed pellets which generated quite realistic puffs of smoke.

In fooling around with electric trains I had learned how to use a soldering iron for simple wiring jobs. This minor accomplishment led to a stinging humiliation. One day my father proposed that we build a radio together. He ordered a kit through the mail, and as soon as it arrived we began its construction, I soldering the connections under his supervision. After a week or so, the job was nearly done. I decided to surprise (and, I hoped, impress) him by finishing it on my own. I got up in the middle of the night and soldered away mightily, following the kit’s instructions, if not religiously, then at as best I could. The next day I presented my father with the finished product. Proudly, I switched it on. It emitted one forlorn squawk and fell forever silent. I can still hear my father exclaiming “son of a *bitch!*” when he opened up the thing to find that my efforts at soldering had fused the interior into a near-solid block of lead!

The phrase “son of a bitch” was one of a number of my father’s expressions that have stuck in my mind. He would often warn Lynette and me that he would “lower the boom” if we did not cease squabbling. Going to bed was “hitting the sack”; when he saw that my room was in a mess he would invariably remark that I was “living like an Okie.” Sultry summer days were “hotter than a pistol”. And when he retired, he said, it would be to a country retreat called “Belly Acres.”

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<sup>36</sup> My fascination with these networks affected even my doodling: I recall covering, in idle moments, sheet after sheet with useless designs for imaginary rail marshaling yards.

In common with most American kids, Lynette and I spent considerable time glued to the “boob tube” or “one-eyed monster.” I recall that our television, a 24 inch black and white model, had been purchased from an appliance store run by a character with the unlikely monicker “Madman Muntz.” I liked crime and police: *M-Squad*, with Lee Marvin; *Crusader*, with Brian Keith; *The Four Just Men*, with Jack Hawkins, Richard Conte, Dan Dailey, and (of all people) Vittorio de Sica; *The Thin Man*, with Peter Lawford and Phyllis Kirk; *The Lineup*, with Warner Anderson and Tom Tully; *Alfred Hitchcock Presents*, with its quirky signature tune and droll introductions by the master himself; and *Dragnet*, whose four-note signature phrase (dum-da-dum-dum)<sup>37</sup> and immortal lines such as “Just the facts, ma’am” – delivered in Jack Webb’s patented deadpan manner – have been endlessly parodied. Also memorable, and the subject of later parody, was *Highway Patrol*, a low-budget but long-running production featuring Broderick Crawford, who would rattle off his dialogue in machine-gun fashion, apparently quite indifferent to what he was he actually saying. Each program ended with a few helpful words of advice to drivers from the granite-faced Mr. Crawford. Like the rest of his lines, these were spat out with such rapidity as to be largely unintelligible, but their general drift was something like this: “Leave your blood at the blood bank, not on the highway” and “After an accident, it doesn’t matter who’s right, only who’s left.”

Then, as now, American television bristled with commercials, whose very inanity caused them to stick in the memory like burrs: *Drive a Chevrolet through the USA*; *You’ll wonder where the yellow*<sup>38</sup> *went/When you brush your teeth with Pepsodent* (wags of the day substituted “your girlfriend” for “the yellow”) ; *For the first time in your life feel really clean – use Zest*; *Pepsi-Cola hits the spot*; *Put a rose in your glass with Italian Swiss Colony wine*; *Johnson and Johnson shampoo means No More Tears*; *Let’s have another cup of coffee, let’s have a cup of Nescafé*; *Maxwell House – good to the last drop*; *Take tea and see!* Cigarette commercials of course abounded: after more than forty years I can still hear *Call for Philip Morris*; *Have a real cigarette, have a Camel*; *Pall Mall famous cigarettes – Outstanding, and they are mild*; *Light up a Lucky – it’s light up time/ For the taste that you like/Light up a Lucky Strike/ It’s light up time*; *You get a lot to like with a Marlboro – filter, flavor, flip-top box*; and of course that red flag to grammarians: *Winston tastes good like a cigarette should*.<sup>39</sup> These commercials (and the above-mentioned programs) were filmed, but one saw the occasional live ad whose proceedings would spin out of control, as if to underscore the essential risibility of the whole commercial enterprise. A particularly hilarious example was enacted one evening on a live program sponsored by Timex watches. To demonstrate the robustness of their product, the advertisers had come up with the bright idea of attaching a watch by its strap to the propeller of an outboard motor. This was then immersed in a tank on the stage and the motor started. After letting it run for a minute or so, it was stopped, and, with a roll of drums, the propeller lifted out of the tank – to reveal that the watch had fallen apart.

<sup>37</sup> Earlier, it appeared as a leitmotif in Miklos Rozsa’s score for Siodmak’s *The Killers* (1946).

<sup>38</sup> Wags of the day substituted “your girlfriend” for “the yellow”.

<sup>39</sup> The title of the recent movie *Honey, I Shrunk the kids* occasioned a similar elevation of grammarians’ eyebrows.

My mother became concerned that Lynette and I might be addling our brains by spending too much time watching TV. While this is moot, there is no question that my habit of nail-chewing (which, regrettably, I have never entirely lost) was considerably aggravated by sitting in front of the tube. Once the TV dinner (a frozen meal on a foil plate to be warmed in the oven) was consumed and the popcorn exhausted, I would gnaw what little remained of my nails until my fingertips were bloody. In an attempt to prevent this my mother bought me a pair of white cloth gloves—naturally coming to be known as my “TV gloves”—which she insisted I wear while watching. I was happy to oblige, but after I had chewed my way through the fingers of several pairs she finally had to admit defeat.

I had a gargantuan stamp album—the “Master Global”—which I never came close to filling. I was also the proud possessor of a copy of the philatelist’s *vade mecum*—the Stanley Gibbons stamp catalogue in which the current values of all the world’s stamps were compiled (and recorded in the quaint British predecimal currency of pounds, shillings and pence). I recall being intrigued by overprinted stamps, for example German stamps of the 1920s whose values had continually to be changed with the rampant inflation of the time (a concept I only came to understand long afterwards): thus a 50 pfennig stamp would be overprinted with an enormous value such as 5000000 marks. Even more remarkable in this respect were Hungarian stamps whose overprinting reflected the astronomical inflation of their unit of currency, the *pengő*. I learned that the dimensions and gaudiness of a country’s stamps were in rough inverse proportion to its national influence: those of Ecuador and Afghanistan, for instance, were large and gaudy, while Britain’s were modest in size and drab to the point of self-effacement<sup>40</sup>. From stamps I also learned of countries such as Tannu Tuva and the South Moluccas of whose existence I would otherwise have had not the slightest inkling (not, I admit, that such knowledge has proved particularly useful). My first encounter with the Greek alphabet (which probably occurred when we were living in Rome) came from attempts to decipher “ΕΛΛΑΣ” on stamps of that country. While British stamps were themselves drab, this was far from the case for their colonial issues, which were often most attractive: the pride and joy of my collection was the complete series of British colonial stamps—from Antigua to Zanzibar—commemorating the 1937 coronation of George VI. I am sorry to say that the whole collection vanished long ago.

In the 1950s San Francisco’s Market Street was crowded with movie theaters whose modest price of admission—a mere four bits—more than compensated for their shabbiness. There one could sit through the films, which ran continuously, for as many times as one had eyes (and lungs) to. Saturday afternoons would usually find me ensconced in one of these establishments crunching popcorn and peering through the cigarette smoke exhaled by my fellow patrons in clouds so thick that the movies could almost be directly projected onto them, thereby rendering the presence of a screen unnecessary. Along with most of my contemporaries, as a kid I must have inhaled enough second-hand smoke to render my lungs insensitive to the later—in my

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<sup>40</sup> To this day only British stamps fail to display their country of issue. This is apparently in recognition of the fact that postage stamps first made their appearance in Britain with Rowland Hill’s introduction of the Penny Post in the 1840s. I recall being told by “Granddad England” that he was related to Rowland Hill, but I cannot recall exactly in what way.

generation almost universal – transition to the real McCoy! It was in those murky caverns that I was first exposed to the science fiction movies whose atmosphere of creepy excitement warped my young mind beyond hope of redemption. Usually screened in double or even triple bills, those I saw during that period included the retrospectively absurd (but how they impressed me at the time!) *It Conquered the World*, *I was a Teenage Werewolf*, *I was a Teenage Frankenstein*, *The Monster that Challenged the World* and *Invaders from Mars*. Of greater substance were *Tarantula*, *The Magnetic Monster*, *Kronos*, *This Island Earth*, *The War of the Worlds*, *The 27<sup>th</sup> Day*, *It Came from Outer Space*, and *The Beast from 20000 Fathoms*. A few were (in my view) masterpieces: *Forbidden Planet*, *The Incredible Shrinking Man*, *The Thing*, *The Day the Earth Stood Still*, and, greatest of all, *Invasion of the Body Snatchers*. I quickly came to recognize the faces of the reliable, if unsung, actors in these mostly monochrome films, but their names only became familiar to me much later: King Donovan, Richard Carlson, Hugh Marlowe, Whit Bissell (star of both “Teenage” movies), Kenneth Tobey, Morris Ankrum, Faith Domergue, Julie Adams, Beverly Garland. Of course, these films had their ludicrous moments: for instance (my favorite example) when, in *The Beast from 20000 Fathoms*, King Donovan<sup>41</sup>, playing a psychiatrist, starts to pontificate about the “Loch Lomond monster.” But they often contained interesting (and occasionally frightening) touches, such as the one – in *Invaders from Mars* – in which formerly trustworthy adults are sucked into the sand dunes and re-emerge as affectless but sinister zombies with scars on the backs of their necks. When Peter Riswold and I went to see this film (probably in 1957), I recall that the neck of the first person we came across after leaving the theater bore a similar scar – a chilling instance of life imitating film. *Forbidden Planet*<sup>42</sup>, filmed in glorious Eastmancolor, was particularly rich in images and ideas. Indelibly imprinted in my memory – and doubtless in that of every fan of SF movies – are the marvelous machines (including Robby the robot)<sup>43</sup> of the vanished Krel, the attack on the spaceship by the invisible monster from Morbius’s id, the climactic scene in which the monster attempts to burn its way through a door fashioned of solid Krel metal, and, to cap it all, an electronic soundtrack<sup>44</sup>, full of weird plops, whoops, and shrieks. *Invasion of the Body Snatchers*<sup>45</sup>, its absurd title notwithstanding, remains one of the most disturbing movies ever made. From Kevin McCarthy’s initial flashback line “For me, it began last Thursday,” one is gripped right to the final scene in which – all the principal characters, apart from McCarthy himself, having been “taken over” by alien pods – he attempts desperately to flag down cars on the highway, hysterically yelling “You’re next! You’re next!”

Science fiction films of the day usually included as a stock character a tame “scientist” whose office would typically contain a blackboard covered with mathematical symbols, or with

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<sup>41</sup> He was later to redeem himself by an excellent performance in the brilliant *Invasion of the Body Snatchers*. This, incidentally, was one of the select handful of films to be remade with real success (in the 1970s).

<sup>42</sup> Made in 1956, directed by Fred M. Wilcox and starring Walter Pidgeon, Leslie Nielsen, and Anne Francis, its plot was supposedly derived from Shakespeare’s *The Tempest*.

<sup>43</sup> Introduced by Walter Pidgeon with the deathless line “Prepare yourselves, gentlemen, for a new scale of physical scientific values.”

<sup>44</sup> This soundtrack, “Electronic Tonalities” by Louis and Bebe Barron was the first of its kind. The composers had apparently been erstwhile collaborators of John Cage.

<sup>45</sup> Directed by Don Siegel, it was released in 1956 and starred Kevin McCarthy, Dana Wynter and King Donovan (the indispensable Whit Bissell also appears in a minor role). Siegel himself has been quoted as saying that he regards it as his best film.

inscriptions posing as such. In *The Day the Earth Stood Still*<sup>46</sup>, for instance, Professor Sam Jaffe (memorable as the High Lama in *Lost Horizon*) returns to his study to find that the alien Klaatu (imperturbably played by Michael Rennie) has “corrected” some of the equations with which the blackboard is inscribed. Klaatu places check marks next to the signs *O!*, *O!!*, *O!!!!*, which must surely have been a sly joke on someone’s part, since the factorial sign “!” would naturally be read by the nonmathematical viewer as an ordinary exclamation mark. (Another possibility would have been for Klaatu, shaking his head sadly at the ignorance of earthlings, to change the exponent in the chalked equation  $E = mc^2$  from “2” to “3”.) I wonder still who actually furnished the mathematical symbols in SF movies. Whoever these unsung inscribers were, they must have had at least a nodding acquaintance with mathematical symbolism, since their equations often made some kind of sense. Did Hollywood studios employ consultant mathematicians to chalk their blackboards?

I first saw *The War of the Worlds*<sup>47</sup>, based roughly on H.G. Wells’s novel, with Peter Sherwood, a classmate at Lick-Wilmerding, the high school I attended the following year (see below). The striking special effects in this movie—among which the manta-ray-like Martian war machines stand out—so impressed us that we resolved to mount a presentation of our own. In the SF section of the S.F. public library I had come across the script of Orson Welles’s (“Orson Buggy”, as my father punningly called him) notorious adaptation of Wells’ novel which, in a 1938 radio broadcast, had caused widespread panic among the American listening public—ideal material, I thought, for taped dramatization on my parents’ recently acquired reel-to-reel recording machine. So one afternoon the two of us got down to business and taped the whole script, trying our best, by distributing the voices between us, to create the atmosphere of a radio broadcast. For sound effects we employed a number of devices such as crumpling paper and kicking over piles of tin cans—and one device in particular that was to get me into hot water with my parents. I had what seemed at the time the bright idea of holding down the pickup of my parents’ record player (a Columbia 360 portable) on the fibrous surface of its turntable as it revolved, so producing a hollow scraping sound which I fancied would evoke the impression of a Martian dragging itself along the ground. When I later played the tape to my parents it was a veritable triumph—until they heard that sound, whose source, to my dismay, they identified instantly. I had no choice but to admit to abusing the family record player and as a result I found myself banished to the doghouse for the rest of the week.

I saw the (first) movie version of *1984*<sup>48</sup>, in all its unrelieved monochrome grittiness, at a theater in the Sunset district of the city. I recall that, while one side of the theater’s marquee displayed the correct title, the other bore the number “1983.” When I saw the film again a few years later at school in England I was nagged by the feeling that the version I had seen in San Francisco had ended differently—while the English version had finished up, as in Orwell’s novel,

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<sup>46</sup> Directed by Robert Wise and released in 1951, it starred Michael Rennie and Patricia Neal, who will be remembered by every SF fan for delivering the immortal command *Klaatu barada nikto* to the robot Gort in the final reel. Interestingly, in the original short story *Farewell to the Master* by Harry Bates it is the robot, not Klaatu, who is the master.

<sup>47</sup> Released in 1953 and directed by Byron Haskin.

<sup>48</sup> Released in 1955, directed by Michael Anderson, with Michael Redgrave, Edmond O’Brien, and Jan Sterling.

with Winston Smith capitulating to the Party, in the final scene of the American version (as I remembered it) Smith rebels and is shot down with his lover Julia. I was convinced that my memory was playing tricks on me until many years later when a consultation of a book on SF film confirmed that *1984* had indeed been released initially with alternative endings. The film's distributors had apparently taken Orwell's original conclusion as representing the ultimate triumph of the Red Menace, which—in addition to its ideological unacceptability—would have meant box-office death on the American circuit.

In 1957 my parents decided to try to get me admitted to Lick-Wilmerding, one of San Francisco's most prestigious private high schools. The school had been the result of an amalgamation, in 1900, of the California School of Mechanical Arts with the Wilmerding School of Industrial Arts and, unlike Drew, was tuition-free, being funded by endowment—an excellent reason in itself to seek admission there. Somehow I scrambled through their entrance examinations—the Stanford Achievement Tests—and in September of that year I entered as a sophomore (10<sup>th</sup> grade), with junior (11<sup>th</sup> grade) placement in mathematics. As the youngest, and very likely the smallest student in the place I was subjected to a certain amount of ribbing by my fellows, but, by and large, the year I spent at “Lick” was a happy one, during the course of which I made a number of friends. Art Tollefson, a large (in my eyes) and affable (in everybody's) fourteen- or fifteen- year-old junior, was already an accomplished pianist<sup>49</sup> and also the best all-round scholar in the school, consistently at the top of the Honor Roll. Attending the same algebra class with him led to friendly rivalry for the highest mark: I recall one occasion when, having obtained a 98 in a test, I was chagrined to learn that Art had scored a 99! Another musical friend was Joel Zimmerman (also a junior) whose elder brother Mark I had known at Drew. Both played the violin, Mark I believe later taking it up professionally. Unconsciously juxtaposing their initials, Joel, Art and Mark would sometimes “jam” together: I cherish the memory of the three giving a joyous rendition of Bach's D minor double concerto in the Zimmerman's apartment. Joel often wore a pair of white gloves since his hands were afflicted with psoriasis—a rather more serious reason for wearing them than I had. Had it not been for this affliction I believe he would have been inclined to pursue the career of violinist—his professed intention was to study naval architecture at MIT. I also remember my fellow-sophomores Keith Clemens and Fred Cahn for their sharp intelligence. Fred had a pungently irreverent attitude to authority which he would continually ventilate through remarks of the kind “J. Edgar [Hoover] is watching *you*.” During one of our mathematical discussions (probably sparked by a reading of George Gamow's *One Two Three...Infinity* – see below) I recall being tremendously impressed by Fred's observation that since any three coplanar but noncollinear points determine a unique circle, and there are precisely as many triples of points in the plane as there are points, there must be, correspondingly, just as many circles in the plane as there are points. I do not know what Fred did in later life, but he was a born mathematician. I recall Mark Hein, very bright and quick, only a few months older than me, and Bruce Jordan, who had perfected the technique of mirror-writing and would customarily

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<sup>49</sup> Now Dean of the Faculty of Music at the University of North Carolina. Many years later I was to come across his splendid recording of Virgil Thomson's piano music in the music library at the University of Western Ontario.

employ that conceit in signing his name. Also Bob Young, a big friendly football-playing junior, who, in return for a little help with his algebra homework acted as my protector against school bullies—thereby, as I was later to joke, liberating me from the briefcase behind which I had formerly cowered. I recall that on his photograph in my copy of the school year-book (which has, alas, vanished into oblivion along with my stamp album) he inscribed the “proportion” *Bell/Young = Brains/Brawn*.

Of all the instructors at Lick the one who stands out in my recollection—and doubtless in that of most of my contemporaries—was Tony Ochoa, who brought to the teaching of Latin a flamboyance and sense of fun which made learning the subject a delight. Usually attired in sharp blue suit, crisp white shirt and gaudy tie, in appearance he was a *bon vivant*, the very opposite of the conventional high school Latin instructor. He would continually wisecrack with his students. On one occasion, I remember him calling on one of us to produce an oral translation of some English sentence into Latin with the remark “Now that you are beyond the *O filii mi boni belli* stage you should have no trouble.” But he was also an excellent scholar and under his tutelage I developed a real enthusiasm for Latin. He encouraged me to read Latin texts outside the official curriculum: of these all I can recall are a few lines of Cicero’s Catilinian orations: *Quousque tandem abutere, Catilina, patientia nostra?* and of course *O tempora, O mores!* Towards the end of my year at the school he presented me with a copy of Bennett’s *New Latin Grammar*, which I still treasure for its inscription, quickly penned before my eyes in his florid handwriting:

*Joanni Tintinnabulo, alumno erudito et amico carissimo. “Intende, prospere, procede et regna!”  
Antonius G. Ochoa. Die IV<sup>o</sup> ante Nonas Martias anno salutis MCMLVIII.*

Wherever you may be, *Antonius, te saluto!*

Another instructor I recall with affection was Joe Perse, who taught General Science. Unlike Tony Ochoa, who was always several steps ahead of his class, Joe invariably gave the impression of being an equal number of steps behind. It was his habit to give us oral quizzes in which we were asked to supply the correct word in statements of the sort “Jupiter is the \_\_\_\_th planet from the sun”, “Light travels at \_\_\_\_ miles per second”, and the like. I recall some joker playing to the gallery on one such occasion by identifying water as the “international” (rather than the “universal”) solvent. But Joe’s good nature proved impervious to such facetiousness, and he remained popular with everybody. On his photograph in my lost year-book he inscribed the phrase: “When you can sum all the numbers from one to infinity, you can take over my class” (or something similar). I then quickly wrote “ $= \infty$ ”, but I didn’t show him what I had written for fear of being regarded as a “wise guy.”

My other instructors included Mrs. Ungaretti (known as “Dot, a contraction of her first name “Dorothy”) for English), Mr. Berlin for Algebra, Mr. Harris for Electric Shop, and Mr. Sleeper for Mechanical Drawing. I recall the latter particularly because, despite bending every effort to explode views and trace cross-sections, I never managed better than a “B” in his course (and was occasionally awarded no more than a humiliating “C”), marring the unbroken series of “A”s that,

as a born “swot” (to borrow a British term that I was later to learn) I managed in my other courses. And on reflection even that “B” was almost certainly the result of indulgence on Mr. Sleeper’s part rather than achievement on mine: unlike my father, I lack developed visual intuition in three dimensions, that necessary prerequisite for success as architect, draftsman, or topologist. I could never, for example, visualize the appearance of a physical object after it has undergone two successive rotations. This shortcoming may be related to my unfortunate tendency, the result, perhaps, of latent left-handedness, to assign the terms “right” and “left” incorrectly, typically when giving directions. Whenever I furnish a passerby with instructions charitably intended to lead him safely to his destination, the glow of pleasure at having been of assistance is quickly extinguished by the apprehension that I might unwittingly have misguided him, and so, fearing to meet his accusing eye, I march off briskly in the opposite direction.

What really appealed to me in Mechanical Drawing was the use of precise handwritten lettering. I had long preferred the appearance of certain printed letters to their cursive versions as taught in school—from the start I disliked the loopiness of the small “f”, and was irritated also by the cursive capital “I” and “G”, both of which looked to me like badly sketched sailboats. My exposure to mechanical drawing stimulated me to convert my own handwriting into a form of printing. I wrote in this style until I became dissatisfied with it as lacking the individual touch, so that my handwriting underwent a further, and final, metamorphosis into an amalgam of cursive and “printing” styles.

I recall a few members of the administrative staff at Lick: Edwin Rich, the school’s principal, a dapper man with crew-cut and bow tie; Joseph A. Pivernetz, the Vice-Principal, whose remark “We don’t want anybody like *that* at Lick,” accompanied by an emphatic horizontal wave of his hand, has lodged in my mind (who he meant I do not recall); and Miss Scott, his secretary, who took a shine to me, saying that I possessed “humility”—a compliment (so I took it) which, while undeserved, I treasure. The “humility” she fancied she saw may perhaps have been connected in some way with what I called my “principle of universality”, a notion I conceived around that time to the effect (as I would now put it) that in my essential being I am no different from anybody else. It only dawned on me long afterwards that the very possibility of being able to hold such a view with sincerity—which I do still—depends on the conditions of one’s upbringing. Perhaps it is atypical to regard oneself as typical.

While it is doubtful that I ever possessed true humility, I was to meet humiliation through my lacklustre performance in the National Merit Award tests. These had been devised by the U.S. educational authorities to identify scientific and mathematical talent, the fostering of which had come to be viewed as a matter of urgency following the sharpened competition with the Soviet Union provoked by the successful launch of Sputnik I in 1957. Each test took the form of a long series of multiple-choice mathematical questions, ranging from elementary to quite advanced, with wrong answers penalized by negative marks. When the results were announced, I felt quite aggrieved at learning that not only had I failed to shine in an absolute sense, but also that I had



been outdone by one of my classmates who claimed, irritatingly, to have waltzed through the exam ticking answers at random!

An equally humiliating incident occurred one evening at dinner when an engineer friend of my father's—having apparently been informed of my mathematical "attainments"—decided to put this to the test by asking me the value of  $0^0$ . Now I knew that any nonzero number raised to the zeroth power is 1, but for some reason I thought that this was not the case for zero itself. So I blurted out the wrong answer "zero" (the correct answer being indeed 1), and observed with chagrin the speedy collapse of my reputation as a "math whiz".

It was established policy at Lick to encourage students to develop extracurricular interests and engage in practical activity. In this spirit Mr. Pivernetz, learning that I had been assisting some of my classmates in algebra, suggested that I do some private tutoring in mathematics, charging so much per hour. Gripped by the idea that my intellectual exhibitionism might lead to gainful employment, I agreed with alacrity. I can recall only one pupil engaging my services; nevertheless I developed a taste for performance which, despite its blunting through more than fifty years of university teaching, has still not been completely extinguished. On a more mundane level I manned the cash register in the school cafeteria at lunchtime and was further entrusted to convey the proceeds in a brown paper bag to the local branch of the Bank of America. At the register I tried to remain calm when offered a fifty-dollar bill in payment for a two-bit packet of peanuts, or when presented with a mass of pennies in payment for a three-course lunch. I took my position as cashier so seriously that at one point I refused to accept a two-dollar bill—I had never come across this denomination before and thought it might be counterfeit. I was not reassured when the guy opened his wallet and pulled out a wad of bills of the same denomination—who knew, maybe the ink hadn't had time to dry on any of them! But it turned out that they were indeed legal tender and the guy had actually gone to the bank and changed a fifty-dollar bill into the rarely issued twos. If I had been familiar with the phrase "as phony as a *three-dollar bill*," the hassle could have been avoided.

At Lick I also played basketball, but, while reasonably nimble around the court, my shortness of stature at that age prevented me from rising above the lowly "C" squad. Basketball could be quite a dangerous sport: I recall that on one occasion, during a scuffle for possession of the ball, a teammate collided with an opponent and had his front teeth pushed right through his lower lip, blood spurting everywhere. A few years later in England I was to suffer a broken nose in a similar incident on the court.

Sometime in 1957 we moved across the Golden Gate to Mill Valley<sup>50</sup>, a small town under the shadow of Mt. Tamalpais in Marin County some twenty miles from San Francisco. Our family house at 307 Tennessee Avenue was a rambling woodframe affair next to a creek, set in a quarter-acre or so of rolling grassland. When my parents bought the place it was in a somewhat poor state of repair, and its foundations required considerable shoring up to correct distinct lists here and

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<sup>50</sup> Interestingly, Mill Valley provided the setting for the novel (by Jack Finney) on which *The Invasion of the Body Snatchers* is based.

there. But its bucolic charm was undeniable. My mother was particularly taken with the poplar trees which ringed the property. These lent the whole an air of seclusion, blocking the sun so as to reduce the house's interior to a mass of shadows. Of the house's rooms particularly striking was my mother's dressing-room whose walls were lined from floor to ceiling with mirrors which opened to reveal a series of deep closets.

The house's garden provided a pleasant setting for the meals which on sunny days we would eat alfresco on a picnic table set up under the trees. I recall with pleasure the afternoon on which we sat around this table with my Drew School teachers Messrs. Spiess and Smith, who had been invited to lunch—an invitation they had been gracious enough to accept despite being warned that I would be doing the cooking. On this occasion the *pièce de résistance*, if such it can be termed, was my favorite, fried chicken, or “chicken in the rough” as it was then known. Bursting with pride in having learned how to prepare the dish, I made like an adolescent Colonel Sanders, enthusiastically coating the pieces of chicken in seasoned flour, deep frying and then baking them in the proper sequence. The sole drawback was that my efforts left the kitchen looking as if it had been visited by a tornado. And I must admit that I cannot recall actually cleaning up the mess.

My mother was very fond of cats (as were we all) and the house on Tennessee Avenue, with its spacious grounds and remoteness from traffic, was the ideal site to raise them. Our female tabby, “Mother Cat,” had several kittens, of which “Whitenose” and “Ginger” are the only ones I can remember. Some of my happiest memories are of the “cat races” that Lynette and I would stage, in which one of us would restrain the kittens and the other, some distance away, would dangle or roll an object such as a ball of wool; on being released the kittens would rush forward helter-skelter, eager to sink their claws into something so attractive. But I also recall with a pain that has scarcely diminished these many years that terrible day in 1958 when Mother Cat was taken away. My father had been offered a job in Tripoli, Libya, which meant that once again we were to pack our bags and move on. What to do with our beloved cats? We could not take them with us. Suitable homes had been found for the kittens but not for the older cat, and so my mother had to face the painful decision of whether to leave her to roam wild, or to send her to the pound where, rather than being put down, there was at least a small chance of adoption by some kind soul. After much agonizing my mother decided that the latter alternative was the lesser of the two evils, since domestic cats are ill-equipped to live in the wild and in any case the idea of simply abandoning an animal for which we felt such affection must have seemed both callous and irresponsible. The decision having been made, we awaited with dread the day that the men from the pound would arrive to take Mother Cat away. And when that awful day dawned, we broke down and wept as the poor creature ran back and forth, with piteous cries and accusing eyes, in a vain attempt to escape her captors. But what else could my mother have done?

Our move to Marin County meant that I was faced with a twenty mile journey to school each weekday. Occasionally my mother would make a morning trip into S.F. and give me a ride in her white Chevvy, which she usually drove with some abandon. For me the high spot of these rides was barreling over the Golden Gate Bridge at a fast clip, the bridge's vertical pairs of suspending

cables flicking by like the strings of a vast harp. Normally, though, I would take the Greyhound bus to the S.F. downtown depot on 7<sup>th</sup> Street, and then a “Muni” bus from there to Lick. It was on one of these latter trips that I became involved in a series of curious incidents. One morning the bus was boarded by a pair of tough-looking Mexican-American “pachuco” types, each wearing a greasy cap. Timidly clutching my briefcase in the back seat, I presented an easy target, and the two young heavies zeroed in for the kill. Depositing themselves on either side of me, the duo’s apparent leader removed his cap, thrust it in my face, and ordered me to hold it for him. Lacking the courage to refuse, I meekly did as I was told and held the thing with trembling fingers until being ordered to return it when the two got off. I had thankfully dismissed the incident from my mind until the following day when, to my dismay, the pair again boarded the bus and I was subjected to a routine similar to that of the previous morning. Obviously this was also their route to school so that I could expect humiliation on a daily basis. But after a few more of these incidents, like Popeye I had taken all I could stand, and on being handed the cap I threw it down, telling its owner to hold it himself. He was so startled at this – as was I at my own temerity – that, instead of punching me in the nose as I fully expected, he merely picked up his cap, stuck it back on his head with a scowl, and, without molesting me further, sat stolidly alongside his companion until they alighted at their regular stop. Not surprisingly, my new-found fortitude did not extend to facing the revenge that my rebellion would almost certainly have provoked on future trips, and to avoid further encounters with the pair I changed my bus route, even though this involved a considerable lengthening of my daily journey. I am glad to say that I never set eyes on these characters again.

At some point my mother suggested that I join the local Cub Scout troop. With this organization my association was to be very brief. For at my very first meeting, on being asked what should be done to staunch a bleeding wound, I made the facetious suggestion that a massive dose of vitamin K be administered. It being obvious that I did not take the proceedings very seriously, I was not encouraged to attend any further meetings.

In leafing through my father’s engineering manuals, whose compactness and flexible covers appealed to me, I puzzled over the curious notations “ $dy/dx$ ” and “ $\int f(x)dx$ ”, and wondered in particular what prevents one from simply canceling the “d”s in the former. On asking him what these signs meant, I received the reply that they were symbols from an advanced mathematical discipline called the “calculus.” Seized with the urge to penetrate its mysteries, I got hold of a calculus textbook – it was, as I recall, G. B. Thomas’ red-bound *Calculus and Analytic Geometry* – and began to work my way through it. My enthusiasm for the subject grew so quickly that I felt I had to share it with some of my fellow-students at Lick and to this end I launched a “Calculus Club” whose membership came to include Art Tollefson and Fred Cahn. We would meet each week to discuss the problems in Thomas’ book, dishing out  $\Delta x$ ’s and  $\Delta y$ ’s,  $\Sigma$ ’s and  $\int$ ’s with gusto, if (in my case, at least) with less than perfect understanding.

In addition to some of my father’s books, I had also come to covet the slide rule – the engineer’s “slipstick” – which he had kept since his student days. Clad in ivory, this elegant

device was equipped with a leather case which could be attached to a belt. Given the number of Westerns I had seen, I found it impossible to avoid thinking of the case as a holster and the slipstick itself as a kind of calculating pistol, from which cube roots, rather than bullets, would issue. Like all budding scientists of the time, I had learned the use of the slide rule and had acquired one of my own, but in my eyes no contemporary plastic slide rule could match the ivory refinement of my father's. This object had an unfortunate history. He lent it to me when I left for school in England, and several years after that I returned it to him. Three decades later he offered it to me on a permanent basis, but by this time he could no longer recall its whereabouts. Sadly, it was never to be found.

My father had it in mind for me to attend Stanford after graduating from high school and arranged for me to visit to the Physics Department there. I recall being shown around the nuclear physics installation by a friendly member of the faculty. I also recall hearing the mathematical term "matrix" for the first time and—my ignorance of the word causing me to feel instantly inadequate—thirsting to know its meaning. As a future mathematician I was later to learn what it meant, but by the time I did its actual meaning seemed prosaic, a signified disappointing in comparison with its signifier. On leaving the laboratory I was given a splendid chart of the nuclides on which was displayed all the isotopes of the elements with their decay patterns. This I proudly mounted on my bedroom wall.

On my twelfth birthday my father gave me the four-volume set (happily still occupying a place on my shelves) *The World of Mathematics*, edited by James R. Newman. The many hours I spent engrossed in this wide-ranging compilation of mathematical lore must surely have had a significant effect in turning me into the eclectic I was to become. It was from its pages that I first learned how Archimedes estimated the number of grains of sand needed to fill the visible universe; that Ramanujan had instantly identified 1729 as the first number expressible as the sum of two cubes in two different ways; that Gauss, at 10, had summed at sight the series of numbers from 1 to 99, writing down a single figure on his slate. There I learned of googols and googolplexes, of space-filling curves and continuity, of the paradoxes of Zeno and Russell. It was within its covers that I first encountered the writings of Aldous Huxley (who was quickly to become one of my favorite writers) in the form of his early short story *Young Archimedes*, concerning the short tragic life of an Italian mathematical prodigy. Also to be found was Russell Maloney's *Inflexible Logic* in which a number of chimpanzees defy the laws of probability and produce works of literature by random pounding on typewriters.

A scientific writer whose works I came greatly to enjoy at that time was the physicist George Gamow. I found all his popular books—*The Birth and Death of the Sun*, *Biography of the Earth*, *The Creation of the Universe*—entertaining and informative. His *One, Two, Three, ... Infinity* enthralled me. In this, his most delightful and stimulating work, adorned with his own whimsical illustrations, he speculates on everything from the infinitesimal to the infinite. Rereading this amazing book, I am still astonished by the amount of exotic information Gamow conveyed with such verve: nobody but he had the *chutzpah* to pack descriptions of Möbius strips and topology,

Hilbert's hotel and Cantor's alephs into a paperback book of lay science. I lapped these up. I was also intrigued by the idea—which I must have first come across in Gamow's book—that the universe could be finite, unbounded, and yet at the same time “expanding.” My father, who read the book at about the same time I did, was, as a practical engineer, rather less impressed than I with some of its author's speculations: I distinctly recall him writing “Tripe!” in the margin next to Gamow's remark that “it isn't at all impossible that astronomical space is closed on itself and in addition twisted in the Möbius way.”<sup>51</sup>

Like many aspiring intellectuals I had fallen under the spell of Einstein, to whose theories I had also been introduced in *One, Two, Three,...Infinity*. Einstein's combination of genius and unorthodoxy I found irresistible, and I resolved to penetrate the mysteries of his greatest creation, the theory of relativity. To this end my father bought me two Dover paperbacks, Max Born's *The Restless Universe* and Ernst Cassirer's *Substance and Function and Einstein's Theory of Relativity*. I was captivated by Born's book with its kinetographic illustrations which could be animated by riffling the pages; Cassirer's, a dense philosophical work, I was unable to understand at that age. It was from Einstein's own “popular” book *Relativity: The Special and General Theory*, first published in the 1920s, that I gained the first glimmerings of a technical understanding of the subject. This wonderful work is a model of clarity and at the same time stimulated one to learn more. Attracted as always by arcane symbols and terms I was intrigued by “tensors” and inscrutable mathematical expressions such as  $ds^2 = g_{\mu\nu}dx_\mu dx_\nu$ . (More Greek letters!) What meaning lay behind these exquisite formulas? It was to be some time before I found out.

My interest in physics was also stimulated by seeing the series of lectures by Edward Teller—the “father of the H-bomb”—on KQED, the Bay Area public television channel. Delivered by the beetle-browed Teller in forceful style, the lectures provided an initiation into the subtleties of modern physics. I recall being very enthusiastic about Teller's presentations. But I came later to be repelled by Teller's strident defense of nuclear weapons.

I was fascinated by tables and lists of facts and had assembled a small library of relevant volumes. These included several numbers of the *Information Please!* almanac and the *Handbook of Chemistry and Physics*, a 1500 page india-paper tome crammed with every conceivable chemical or physical fact known to man. It was from this latter that I learned the names of all the chemical elements and the values of the mathematical constants—to this day I have retained the useless accomplishment of being able to rattle off the value of  $e$  to twenty decimal places (2.71828 18284 59045 23536), and I still occasionally check my memory for signs of decay (or impending “Belzheimer's”) by attempting to write down all 92 elements (not, of course, in order of atomic

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<sup>51</sup> It isn't impossible, just somewhat unlikely. Actually, as I was later to note, Gamow only overstates his case when he claims in his section on “Big Numbers” that the number of points on a line is  $\aleph_1$ , since this depends on the continuum hypothesis, which is independent of the fundamental principles on which set theory is built; and when he claims that the number of possible curves in a plane is larger than the number of points, since if by “curve” he means *continuous* curve the number is the same,  $2^{\aleph_0}$  in both cases. But his beautiful handwritten alephs more than redeem these tiny lapses.

number—that feat was always beyond me). The last time I tried this, after several hours I had recalled all but one—no, not praseodymium or thulium, lanthanum or thallium, but lowly tin!

It was at this time that I first began to read science fiction, much of which I borrowed from the main branch of the San Francisco public library. I consumed anthology after anthology of SF stories. The themes of these stories—time travel, the far future, parallel worlds, thinking machines, ESP—wondrous ideas all, I found irresistible, and addiction to the genre inevitably followed. Tales I read at that time and which still echo in my memory include Alfred Bester’s *Disappearing Act* and *Star Light, Star Bright*, A.J. Deutsch’s *A Subway Named Möbius*, Philip Latham’s *The Xi Effect*, Theodore Sturgeon’s *The Golden Egg*, A.E. van Vogt’s *Fulfillment*, Ray Bradbury’s collection *The Illustrated Man*, Philip K. Dick’s collection *The Variable Man*, and the stories of H.G. Wells. From there I went on to read SF novels: Olaf Stapledon’s *Last and First Men*, Arthur C. Clarke’s *Childhood’s End* and *The City and the Stars*, Bester’s *The Demolished Man* and *The Stars My Destination*, van Vogt’s *The World of Null-A* are some of the titles I recall. I read George Orwell’s *1984* with fascination and horror, Winston Smith’s final capitulation to Big Brother evoking in me the feeling that there is no escape. The startling conceits (“I’m so glad I’m a beta,” etc.) of Aldous Huxley’s *Brave New World* so impressed that I resolved to read all its author’s writings (an ambition I have not quite fulfilled). I distinctly recall my well-thumbed American paperback edition of the novel with its misleading—but characteristically SF—cover showing a man (the “Savage”, presumably) leading a scantily-clad woman to freedom through a breach in the wall surrounding a futuristic city.

I was also captivated by my mother’s collection of record albums, repeated listenings to which formed my musical taste at that age. Over and over again I would play Stravinsky’s *Petrushka* (in the Ansermet version) and *Rite of Spring*, Borodin’s *Second Symphony* and *Polovtsian Dances*, Rimsky-Korsakov’s *Scheherazade* and *Coq d’Or*, Shostakovitch’s *Piano Quintet*, Prokofiev’s “Classical” *Symphony*, Falla’s *El Amor Brujo*, Chabrier’s *España* and *Marche Joyeuse*, Turina’s *La Procesion del Rocio*, Tchaikovsky’s *Aurora’s Wedding*, Rossini-Respighi’s *La Boutique Fantasque*, Glière’s *Red Poppy Suite*, Bruch’s *Scottish Fantasy* with the immortal Jascha Heifetz, Bach’s *Fifth Brandenburg Concerto* in the Fritz Reiner version, Villa-Lobos’ *Prole do Bebe* in the version by José Echaniz (linked in my mind to this day with *Brave New World* which I was reading at the time), excerpts from *Cirandas* in the version by Ellen Ballon, Albéniz’s *Iberia* and *Cantos de España* (also in the Echaniz version), Ravel’s *Sonatine* and *Tombeau de Couperin* (in the version by Kathleen Long), *Rapsodie Espagnole* and *Pavane pour une infante défunte*, Latin-American guitar music played by Laurindo Almeida. It will be seen from this list that my mother’s taste in recorded music, like her preferences at the keyboard, tended to the exotic. So as a child I heard virtually no Mozart or Beethoven (the latter being the sole composer for whose music I recall my mother expressing an active dislike), and a mere handful of compositions of Bach. It was to be a few years before the glorious music of the central European classical tradition made a real impact on me.

## MILLFIELD, 1958-61

IN THE SUMMER OF 1958 the family pulled up stakes once more, this time as a result of my father's new offer of employment in Tripoli, Libya, with the engineering firm H. T. Smith International. As a hydraulic engineer a fluid of some sort invariably figured in my father's work—only now it was to be plain water, a liquid considerably humbler than the glamorous oil which had served to lubricate the earlier stages of his career.

In proposing to decamp yet again my parents had to face the usual array of problems, in particular, the question of how their offspring were to continue to receive a decent education. In my case the issue was especially pressing, since I was about to enter the eleventh grade, and so just a couple of years remained before I would be ready for college. I could not continue my attendance at Lick without somewhere to live and, at such a tender age, someone to look after me. At this point the notion of packing me off to a suitably chosen English boarding school presented itself. My mother must have had mixed feelings about this. For while she had good reason to welcome the idea of exposing a raw American youth to the civilizing influence of the British society in which she had grown up, she knew how keenly we would miss each other once parted. Besides, her own experience at boarding school in the 1930s had been less than captivating. I have never forgotten the shudder with which she recalled the culinary horrors she and her fellow unfortunates had been expected to consume at Westonbirt (I think the name was), the Gloucestershire school for cultivated young ladies to which she had been sent by *her* parents. These concoctions bore such curious names—suggestive of the dissecting bench rather than the dinner table—as “frogspawn” and “spotted dick”. I consider it my good fortune never to have been confronted with either.

Repressing her gustatory doubts, my mother accordingly got in touch with Gabbitas-Thring, a London scholastic agency of sterling reputation. (The quintessential English dottiness of the name “Gabbitas-Thring” seems in some curious way to inspire the same absolute confidence as does the simple directness of Oscar Wilde's “Ernest”.) My mother presented Messrs. Gabbitas and Thring<sup>52</sup> with the knotty problem of identifying an English boarding school with a good academic reputation into which an overindulged American child (according to the British, all American children are overindulged) could be inserted with minimal trauma. They came up with two suggestions: Winchester, and Millfield, a coeducational progressive school in Somerset. The former was, and is, one of the most prestigious British public schools, with a formidable intellectual reputation. But my parents may have felt that its traditional character would prove

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<sup>52</sup> At the time I took it that “Gabbitas” and “Thring” named distinct individuals, but, given the British fondness for surnominal juxtaposition, which is fully capable of producing double-barrelled names of such surpassing absurdity as “Hore-Belisha”, “Ormsby-Gore”, and (one speculates) “Stuff-Nonsense”, it later seemed perfectly possible that “Gabbitas-Thring” was a single surname. However, an Internet search revealed that the firm now carries the humdrum appellation “Gabbitas Educational Consultants”. This would seem to indicate that Mr. Thring was a separate personage whose name was finally jettisoned.

too oppressive for the likes of me. In any case, the Winchester authorities would almost certainly have insisted that I take a fearsome examination in pursuit of securing an entrance scholarship which would provide a very necessary reduction of fees. By contrast, Millfield's unorthodox headmaster R.J.O. "Jack" Meyer was willing to offer me a scholarship virtually on the spot, simply on the basis of my U.S. high school record and putative prodigism. An offer of such impulsive generosity—characteristic of the man, as I was later to find—could hardly be refused. His willingness to take risks was to change my life.

Meyer, known to his pupils and associates as "The Boss", was an amazing character, a Diaghilev, a P. T. Barnum, and a Thomas Arnold all rolled into one. His controversial, but remarkable pedagogical career had begun in 1935 with the tutoring of a clutch of Indian princes whom he had brought to Mill Field, a Victorian house set in extensive grounds on the edge of Street, a small town in central Somerset. Under his vigorous direction this enterprise had gradually expanded, first into a school for individual tuition, and then into a fully-fledged public school. Meyer had been an outstanding sportsman in his youth and his school reflected the fact: the place teemed with aspiring tennis-players and swimmers, golfers and athletes, some of whom, for example Mary Bignal and David Hemery, went on to win Olympic gold medals. Meyer's pedagogical philosophy was a curious blend of the progressive and the conservative. He opened his doors to dyslexics and other public school rejects and yet at the same time stoutly defended the use of the cane. Like a latter-day Robin Hood, he would demand outrageous fees from rich parents (which gained for Millfield the reputation of being the "most expensive school in Britain") so as to enable him to give full scholarships to talented children from poor families. (He was once quoted as saying that "I don't mind taking money off the rich. If I didn't have it they'd only spend it on drink or motor-cars or something.") These wealthy parents included a number of celebrities, for example Elizabeth Taylor, who sent her sons there (this was after my time)<sup>53</sup>. Sadly, Meyer's audacity was eventually to prove his undoing. He had always been attracted to the gaming tables, and in 1970 it came to the attention of the school's governors, to whom he had himself entrusted the administration of his school, that he had been playing the casinos with parents' fees. Upon being asked by them as to whether this rumour had any substance, Meyer is reputed to have replied simply "Of course." But despite the fact that his flutters had paid off handsomely, thereby generating additional revenue for the school, the governors did not find this acceptable, and replaced him, thus bringing his long tenure at Millfield to an abrupt and somewhat ignominious end<sup>54</sup>.

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<sup>53</sup> But I was to have my own brush with celebrity while at Millfield. While walking in the school grounds one afternoon, I saw the Boss sitting on a garden bench next to a swarthy man sporting a white suit and dark glasses. Boss beckoned me over to meet his companion. This turned out to be Aristotle Onassis, who I later learned was considering whether to send his son to the school. In the end it seems he decided against it, however.

<sup>54</sup> In a letter written to me in 1991 Joyce Linfoot had the following to say concerning the affair:

*As for [Meyer's] gambling, I am forced to believe that too, and having been a college bursar for twelve years, I must support the official view that to gamble with other people's money is a crime. I will only say that I can understand it, and in mitigation, I am sure that he was confident that if he did lose, he would ultimately be able to repay. He had always been able to get people to give him money when it was really needed. But it looks as though he didn't completely realize what he had done by turning the school into a Trust. The place was so much his own creation that it would have been hard to avoid the feeling that "L'école, c'est moi."*



But I was to learn of all this much later. Meanwhile I was poised to undergo the metamorphosis into proper English public schoolboy. I cannot recall exactly how I felt about this at the time. It seems likely that my indwelling fear of separation from my parents was outweighed by the promise of new experience. I certainly did not anticipate the intensity of the homesickness that was to colour my first year at Millfield. Nor did I foresee my later sense of having lost irretrievably the freedom I had possessed, but failed to notice, when living with my family – a sense of loss that I came to learn is the usual result of passage to army, prison, or boarding school. But my failure to envisage all this was almost certainly a blessing. For had I envisaged it, I would likely have made enough of a fuss to cause my parents to think twice about the idea of sending me to Millfield, and in that case God only knows what would have become of me! In fact I missed home so much to begin with that on returning for my first school vacation I actually succeeded in persuading my parents not to send me back. But I soon came to accept that, as far as my schooling was concerned, returning to Millfield was the only sensible option, and so back I went.

I can recall only vaguely the period between our departure from the United States in the summer of 1958 and my arrival at Millfield the following September. Yet it must have been crowded with incident, for during those few months we travelled first from San Francisco to Tripoli via London, and later my mother and I returned to England to install me in school. Our itinerary can be retraced by means of the numerous visas and official stamps decorating the pages of my cancelled American passport of that time. This passport, issued on June 17, 1958, and bearing the crabbed signature of John Foster Dulles<sup>55</sup>, the then American Secretary of State, is a representative official U.S. document of the day. On p. 5, for example, one is sternly reminded that

*This passport is not valid for travel to the following areas under control of authorities with which the United States does not have diplomatic relations: Albania, ~~Bulgaria~~, and those portions of China, Korea and Viet-Nam under Communist control.*

The implied identification of the People's Republic of China as a mere "portion" of China is an unmatched piece of diplomatic effrontery.

From what I take to be an admission stamp on p. 7 of the passport, we arrived at Southampton on the 15<sup>th</sup> of July. It would seem to follow that we crossed the Atlantic by boat, a voyage I have almost entirely forgotten. Thinking back, the ship's name, *Liberté*, occurs to me, but nothing more: this is unfortunate because it was to be the last of my family's sea voyages. On the same page of the passport is to be found a stamp of embarkation, marked "London Airport, 28 July 1958". Accordingly we must have spent the intervening couple of weeks in England. I remember my mother taking me to Barker's of Kensington, a "departmental" store (in the British terminology of the day), to be fitted out with the various items of clothing and "kit" specified by the school authorities. These included a "stout" pair of black boots or shoes, a pair of plimsolls – tennis shoes in the U.S – six grey shirts, several pairs of grey flannel trousers, a couple of tweed

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<sup>55</sup> Whose place in history is undoubtedly ensured as having been the target of the quip "Dull, Duller, Dulles".

sports jackets, a navy blue blazer, a dozen pairs of grey wool socks; sheets, pillowcases, and towels; something called a spongebag which proved to contain, not a sponge, but a toothbrush and a face-flannel; a sewing-kit (known as a “housewife” and pronounced “hussif”), a shoe-cleaning kit; a woollen dressing-gown and a woollen blanket called a “rug” (both provided in necessary defense against the arctic conditions prevailing in British school dormitories, and, as I was later to learn, in British bedrooms generally), a lockable wooden “tuck-box” in which to store “tuck”, and as a finishing touch, the Book of Common Prayer. My mother also bought a capacious trunk in which to pack everything, apart, of course, from the tuck-box. As far as the contents of the latter was concerned, the reading of numerous Billy Bunter stories as a child had familiarized me with the fact that English public schoolboys were continually “tucking in”, and that the term “tuck” was intended to signify something edible. But for all I knew “tuck” might turn out to include the dreaded frogspawn and spotted dick—so-called edibles stretching the category of the edible beyond recognition—that had plagued my mother’s schooldays. I was greatly relieved to find that my own tuck-box came to be packed with nothing more noxious than Fry’s and Cadbury’s chocolate, and Callard and Bowser’s toffee.

The school insisted, not unreasonably, that a nametag be attached to each item of clothing—sewn rather than ironed, it went without saying. The traditional name-tapes (surely familiar to my mother) were, I recall, “Cash’s Woven Names”. I can envisage the frosty response of the sales-clerk at Barker’s—impersonated, perhaps, by Cecil Parker or Dennis Price—to the idea of requiring speedy delivery of an article whose very wovenness necessitated that it be ordered long in advance: “No, madam, *quite* impossible before next Michaelmas. Perhaps a bottle of indelible ink ...?” And so it was that my dear mother was reduced first to the absurd labour of inscribing “John L. Bell” over and over—with old-fashioned penholder and nib—on a seemingly endless roll of cotton tape, and then to the even more tedious business of stitching the resulting home-made nametags onto the various articles of clothing which were to accompany her first-born on his journey into the unknown. The handwriting on these nametags was to be a moving reminder of my mother while she was still alive and yet when I, parted from her at school, could scarcely contain my tears. Decades later, after her death, I am still moved to see my name inscribed in her hand on the nametag attached to the woollen rug, one of the few articles that remains from that period of my life.

As I have said, my passport attests that we left London, bound presumably for Tripoli, on 28 July. Judging from the numerous Libyan visas, official stamps, and random inscriptions in Arabic which adorn its pages, passage through the eye of the proverbial needle would seem to have offered less of a challenge than admission to (and, apparently, departure from) the United Kingdom of Libya, as it was known in those pre-Ghaddafi days. While my family remained in Libya for the best part of a year, I spent just two school vacations there, a total of only about three months. But certain impressions and incidents have stayed with me. I recall, for instance, the Mediterranean climate with its dry hot sunny days and cool starry nights—so much more pleasant than the taxing equatorial conditions of Thailand! I also recall family trips to the ancient Roman cities of Sabratha and Leptis Magna, which had been recently excavated. The latter, large enough to lose one’s way in, was particularly impressive. Even more impressive was the locust

swarm of Biblical dimensions which, darkening the sky, descended on us as we drove away from the place. The density of the swarm was sufficient to clog the car's windshield wipers and cause my father (no doubt muttering "son of a *bitch!*") to stop the car and sit the visitation out.

My father's employers H.T. Smith International had, so I understood, been engaged to develop Libya's water resources, a task which, considering that the country is 90% desert, would tax the capacities of a Poseidon, let alone those of an H. T. Smith. I recall my father telling me that he had engaged the services of a local dowser, and that the man had actually located a natural spring in the middle of the desert. Unfortunately, the spring proved to be a mere trickle, hardly the torrent whose production had presumably been H. T. Smith International's original commission. My father also pointed out to me how the chieftain of some village we had come across on one of our desert trips had exercised his feudal right by walling off the local well, obliging the villagers to pay a fee for the privilege of quenching their thirst. That was, as I later realized, privatization with a vengeance!

Libya had been an Italian colony in the 1930s, coming under British military administration after the defeat of Italy during World War II. In 1951 it became an independent nation with a monarch, King Idris I (later to be overthrown by Colonel Ghaddafi). In the 1950s the Libyan people understandably harboured a certain resentment against Europeans – and by association, Americans. I only learned of this resentment when my father told us that someone (a Libyan, presumably) had lit a fire under the gasoline tank of one of H.T.'s trucks and blown it skyhigh. I found this quite disturbing because all the Libyans I had met had impressed me as friendly and open. (In particular my family had become very fond of Mohammed Zarti, our charming and gentle resident houseboy.) But this knowledge induced caution, as the following episode shows. One evening I was sitting next to my father at a cinema in Tripoli, waiting for the film to start. As the lights dimmed, a man sat down next to me on the other side. A few minutes later I was startled by an unpleasant tickling sensation on my upper leg – like most boys of my age, I was wearing shorts. I suddenly realized, at first with surprise, then with repugnance, that the man was furtively stroking my leg. Naturally my first impulse was to tell him to cut it out. But then the thought flashed through my mind that my father would become involved, perhaps getting into a fight with the man, who, as a Libyan, would certainly have the support of most of the audience. So, with uncharacteristic diplomacy, I turned to my father and quietly suggested that we move elsewhere, giving the plausible reason that the person immediately in front was blocking my view. Grumbling, my father agreed, and as a result we were spared (so I believed) the nasty imbroglio conjured up in my imagination.

On a frivolous note, I associate our sojourn in Libya with a number of absurd "routines" which, forty years on, it still amuses me to trot out. For instance: "Tripoli, Libya" became the tongue-tripping "Triplilibli". And astonishment rapidly gave way to hysteria on seeing an ad containing the immortal words:

My mother's life also had its amusing side, amusing, at any rate, to Lynette and me. As an attractive woman my mother had (I later realized) turned a few heads locally. One especially persistent fellow – who came to be known to us as her “suitor” – entertained the curious notion that the proffering of eggs and flowers would suffice to sweep her off her feet – and thence, presumably, into his arms. Lynette and I summed up this character's disappointment at the failure of these blandishments to achieve their object in the line: “I bring you eggies and flaass, and you turn me down.”

One of my parents' friends I recall from that time is Len Dawson, a rugged, engaging Englishman who had been a commando during World War II. I listened, spellbound, to his account of how, in a Japanese prison-camp, his interrogators, in an effort to induce him to talk, pumped water into his stomach and applied their boots thereupon. I was impressed with his nonchalance in dismissing the ordeal with the airy remark that it had merely ruined his digestion. He and my mother seemed very affectionate, leading me to suspect that they might be lovers, a term familiar to me from the movies but of whose true meaning I had only the haziest notion. It came as something of a shock one night to have my suspicions confirmed. Len was staying with us for a few days and had been sleeping in the spare bedroom on the ground floor of our house. My father was away, likely in search of elusive desert springs. Late one night I stole downstairs, quietly let myself out through the front door and crept up to the open window of the spare room. Peering cautiously within, I could just discern Len and my mother lying on the bed smoking and talking in low voices, the scene inside illuminated intermittently by the intensified glow of a cigarette-end. Ashamed of having spied on them (a feeling of guilt whose traces are still present as I write), I slunk back to bed, vowing to keep my mother's liaison to myself. I believe that she later began to suspect that I knew of her relationship with Len, and to fear that in an unguarded moment I might reveal her secret to my father. But this did not happen – nor will my father ever read the present lines!<sup>57</sup>

In September my mother and I returned to Britain to get me installed at Millfield. The school was situated a hundred miles or so west of London in what I later learned to refer to as deepest Somerset, so a “school train” had been laid on to convey the returning pupils, as well as “new bugs” like myself, to the institution *en masse*. We duly presented ourselves at Paddington Station, the London terminus of what had once been the Great Western Railway, but which had metamorphosed under nationalization into British Railways (Western Region)<sup>58</sup>. Here we found a congregation of boys, Millfielders all, it seemed, shouting farewells to their parents as they jostled their way onto the train. I cannot now recall the actual moment of departure, but as the

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<sup>56</sup> Lynette swears that the ad also includes a reference to “glass pants”, but, while this is perfectly possible, I cannot recall it. Many years later I mentioned this ad to a friend, who almost topped it with an ad for a hotel he had seen in a Greek newspaper, which boasted “comfortable beds, and blameless cleanliness.”

<sup>57</sup> This was written before my father's death in 2003.

<sup>58</sup> After the recent bleak years of wholesale privatization in Britain the railway is now called “Virgin Trains”, or something equally fatuous.

train pulled out of the station, I fancy that, like the protagonist of some unwritten *Bildungsroman*, I was waving frantically at my mother, my emotions divided between excitement at the prospect of transition to a new stage of development and anxiety at severing the umbilical cord. Initially, at least, my anxieties must have been outweighed by the sheer *novelty* of the strange milieu in which I found myself. Although I had been born in Britain and so was a British subject in the legal sense, I had spent hardly any time in the country and what little knowledge I had of it derived almost entirely from reading. So I was struck by what seemed to my American eye the curiously old-fashioned details of British life, in particular those offered by the railway. I was surprised to find that many British railway carriages of the day lacked corridors, so that compartments, each equipped with individual doors, could only be changed by actually *leaving* the train. It followed that the choice of compartment had to be made with especial discrimination, since, once the train was in motion, that choice, and, *a fortiori*, the disposition of travel companions, was immutable. No wonder the circumspect Englishman—as I was later to learn—prepared for an impending railway journey by arming himself with a copy of the *Times* behind which to retreat in case of miscalculation<sup>59</sup>! Another very British fixture—quaint but oddly practical—was the perforated leather strap attached to the compartment door whose function it was to hold up the window. A further oddity was the communication cord, which bore the ominous sign *Penalty for Improper Use* £5. Yanking the thing, it seemed, would signal to the engine driver to bring the train to a rapid halt. Why anyone should wish to do this escaped me at the time. It was only upon reading Jack Meyer's obituary some years later that I learned the true function of the communication cord. According to the published account, Meyer was travelling by train one night with the members of his cricket team, none of whom had eaten since breakfast. With characteristic impulsiveness, he pulled the cord to get the train to stop at the next station where food might be obtained!

Once the train got into motion, it chugged its way westward, its engine belching smoke and cinders. After a few hours it drew into Castle Cary, the main line station closest to the school, where I and my fellow schoolboys were decanted into the fleet of coaches conveying us to the various houses in which we were to live. I had been billeted, along with five other boys, at "Hill Home", the family residence of R. G. Dickens, a teacher of French at the school. I spent my first year *in statu pupillari* at Hill Home, a microcosm through which, by a kind of refraction, I first became acquainted with the larger English society that was to be my world for the next three decades.

Hill Home was situated on the outskirts of Glastonbury, a small pleasant Somerset town which had originally been a Roman settlement; indeed the house itself sat on a narrow street called "The Roman Way." Further along this street was to be found the famous Glastonbury Tor, a conical hill surmounted by a fourteenth century church tower. Glastonbury is reputed to have been the ancient Isle of Avalon—the Island of the Blest of Celtic legend to which King Arthur is believed to have withdrawn after his last battle. Glastonbury is also associated with St. Joseph of

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<sup>59</sup> *The Times's* recent (2005) shrinkage into tabloid form has now rendered it wholly inadequate for this purpose.

Arimathea, who is supposed to have brought the Holy Grail there in New Testament times; legend has it that the Glastonbury thorn, which flowers at Christmas, sprang from his staff.

On arriving at Hill Home, whose weathered gate amusingly bore the corroded letters HILL HOME, I found that I was to share a small dormitory with three boys, the remaining two occupying a tiny spare room across the landing. Mr. and Mrs. Dickens had a couple of kids of their own, so it was to be a tight squeeze! Accustomed as I had been to having a bedroom of my own, I was disturbed at first by the loss of privacy resulting from being obliged to share one. But I soon got used to that, as well as to the regimented way in which life at a boarding school is organized, however progressive it may purport to be. In any case, these abridgments of freedom paled into insignificance alongside the homesickness—now so remote!—that dogged me throughout my first year at Millfield. Beneath my every waking hour ran an undercurrent of melancholy which would sometimes erupt in a flood of tears. Astonishing as it now seems to me, this could occur at the drop of a hat. I recall, for instance, suddenly starting to blubber inconsolably in the middle of a mathematics class. It was indicative of the essential benignity of the regime at the school that the master—in this case the estimable Captain Clarkson (R.N. *ret.*)—interrupted his instruction, took me outside, gave me a few words of comfort in his bluff way, and advised me to take the rest of the day off. I was a literal “wet” during my lachrymal first term at Millfield, but, with one exception to be described presently, I do not recall that my emotional sufferings were compounded by oppression of the sort often associated with traditional public schools.

Despite my homesickness, I quickly adapted to the routine at “Hili Homf” (as it soon came to be known). The day began at 7.30 with a bang on the dormitory door by Mr. Dickens (who for some reason I cannot recall we had come to call “Plunk”), rousing us from our slumbers. We then had 20 minutes in which to perform our ablutions in sequence in the house’s single bathroom, and to struggle, shivering in the cold of the unheated dormitory, into our clothes, finally presenting ourselves in the small common room to listen respectfully to the 10 minute BBC radio programme “Lift Up Your Hearts” which served in lieu of morning prayers. As the pips heralding the 8 o’clock news sounded, we trooped downstairs to consume the substantial breakfast which Mrs. Dickens—known to us all as “Madge”—laboured to serve up each morning. While my exposure to British children’s literature had acquainted me with the term “porridge”, it had failed to provide sufficient preparation for the large plateful of glutinous grey substance with which we were actually confronted each day. Nevertheless, mixed with milk and numerous spoonfuls of sugar, and quickly consumed before it solidified on the plate, the concoction proved its worth on frosty mornings. A fact of which I had been forewarned was the British taste for thick slices of cold toast, assembled in racks (“toast coolers”, was, I recall, my father’s derisorily exact term for them) whose form seemed indeed devised to cool each slice as rapidly as possible by exposing its surface to the chilly draft—euphemistically termed “fresh air”—coursing through the room. Madge would occasionally use toast to provide underpinning—not for the scrambled eggs or melted cheese with which I was familiar—but, of all things, baked beans—and at supper, in a combination still more bizarre, canned spaghetti. Who would have imagined that the “on toast” motif could be carried to such extremes? Still, the bread from which the toast was made was far

superior to the typical American variety. Madge would cut a pile of thick slabs, known as doorstops, from the loaf. These were of such solidity that, after a hungry bite, one's teeth could be extricated only with difficulty. (By contrast, the near-vacuum density of the average American sliced loaf of the period rendered the whole thing compressible into the space occupied by a single English doorstep.) New to me also were the rashers of unsmoked yet tasty bacon, "back" or "streaky", which accompanied the runny fried eggs Madge would sometimes dish up. Everything was washed down with numerous cups of hot sweet tea, "strong enough," as the expression went, "to stand a spoon up in."

Breakfast over, we would cycle the few miles into school. Perched on the overlarge "New Hudson" bicycle my mother had bought for me, I presented a diminutive and somewhat pathetic figure, a fact which the other boys were quick to point out, with remarks such as "Johnny's bike's bigger than he is!", and the like. This annoyed me, but at 5' 2" I had no choice but to admit to myself the essential accuracy of their taunts.

The first view of the school grounds was dominated by the conglomeration, reminiscent of a camp for prisoners-of-war, of Nissen huts and long wooden shacks (known as chicken runs) that served as classrooms in those days. I recall the prefects' shouts of "Run! Run!" to prod junior pupils like myself into getting to class punctually. I found this display of authority particularly irritating since, while we underlings were required to run to our classes, the prefects, like a party of Parisian *flâneurs* out for a stroll, merely ambled to theirs. At 11 o'clock the traditional "break" took place. Not being required to run during this period, we would make our way at our own pace to Millfield House, the rambling Victorian mansion which served both as headmaster's residence and centre of school operations. There we lined up in the house's forecourt to receive our "elevenses", which consisted of a half-pint bottle of red-top milk (the least creamy) and a currant bun. These were dispensed from an open window by the school matron, the sharp-eyed Miss Warner, or one of her deputies. Aspiring *Oliver Twists* reaching overhastily through the window for a second bun were firmly deterred by a brisk rap on the knuckles with a wooden spoon. During the remainder of break I would make my way to the common room of Millfield House, where a lively game of table tennis was usually in progress. I had played the game at home, and considered myself not wholly unskilled, but, inevitably, I found myself quite outclassed by the Millfield players. Of those I knew the best was a day-boy at the school on one of Boss's cricket scholarships. He would overwhelm his opponents with a dazzling array of backhand flicks, topspin forehands, and cunning chops, all delivered with impressive aplomb. In the sporting ambience of the place, my game could hardly have failed to improve, but it never rose to anything near the standard of the better table-tennis players there.

At 12.30 morning classes ended and we cycled back to Hill Home for "dinner", i.e., lunch. As the most substantial meal of the day, Madge (how overworked she must have been, poor woman!) laboured mightily to satisfy the appetites of six growing boys. This was achieved largely through the provision of vast mounds of boiled, or, occasionally, baked potatoes. One strange concoction that she dished up, toad-in-the-hole—uncomfortably close, nominally at least, to spotted dick and frogspawn—consisted of a number of sausages embedded in a mass of undercooked Yorkshire pudding. Then there were the curious brown cubes of baked mincemeat

and offal known as “faggots”. These, although shorter than the pieces of kindling used for lighting fires, were not appreciably more edible. Finally came dessert, or “afters”. I came to dread this stage of the proceedings especially, for I found it embarrassing to refuse something that the others obviously enjoyed, with the implied slur on their taste. But the various warm milk puddings of rice (and even more bizarrely, macaroni), topped with nutmeg, regarded as delicacies by the rest of the company, I found repellent. And even the steamed “puds”, while perhaps palatable in themselves, were rendered completely inedible by submersion in a noxious yellow fluid, “Bird’s Creamy Custard” which, instead of “bringing out the flavour” – as its advertisements proclaimed – had in my estimation precisely the opposite effect.

My deviant way of handling the cutlery at table caused me to become the unwelcome object of attention. As an American I had learned to cut with the right hand and then transfer the fork to the same hand. Not unnaturally this laborious operation attracted the derision of the other boys, who as Brits had been schooled always to keep the fork in the left hand, knife in the right. To avoid ridicule I adopted the latent left-hander’s expedient of retaining the fork in my right hand, and the knife in my left. It has remained my method of wielding knife and fork to this day.

After lunch we made our way back to Millfield for the afternoon session. On our return to Hili Homf in the evening we would gather for a light supper, which normally took the form of a salad and hard-boiled eggs, accompanied by the customary heap of doorstops. It was there that I first encountered salad cream, a kind of ersatz mayonnaise. I was nonplussed to see everybody proceed not only to pour lashings of this viscous fluid over their eggs and salad, but even to spread their doorstops with it. To such lunacy I resolved never to succumb. Packets of Smith’s so-called Crisps – limp greenish discs of spud masquerading as potato chips – would occasionally make their appearance. These were to be salted using the contents of a twist of blue paper thoughtfully provided by the manufacturers. On untwisting the paper it was invariably found that the salt had coagulated into a number of lumps, rendering it totally useless for its intended purpose.

Supper finished, we had an hour or so to ourselves before sitting down at the cramped common-room table to do our “prep”, the work we were required to prepare for class the following day. We would scribble away in silence, our elbows in occasional collision, under the bleak and inadequate illumination provided by the single naked light bulb suspended over the table. It now seems to me little short of miraculous that anything got done under such conditions.

Like most British houses of the time, Hili Homf possessed no form of central heating. The common room was furnished with a paraffin heater, which achieved its effect through the emission of a warm soporific fug. Every five minutes or so this contraption emitted a soft gurgling sound, providing a delicate accompaniment to the scratching of our pens. At the conclusion of prep Plunk conducted evening prayers. Heads bowed, we stood while he intoned from the Book of Common Prayer. My slender hold on religious belief had already begun to loosen before my arrival at Millfield and exposure to Anglican ritual if anything hastened the process. But St. Ignatius of Loyola’s prayer still echoes in my memory after all these years:



*Teach us, good Lord, to serve thee as thou deservest;  
to give and not to count the cost;  
to fight and not to heed the wounds;  
to toil, and not to seek for rest;  
to labour, and to ask for no reward,  
save that of knowing that we do thy will;  
through Jesus Christ our Lord.*

After prayers we made ready for bed, with “lights out” at 10.

In the common room there was a small bookcase containing a number of paperbacks. One day I happened to pull out the Penguin edition of the *Collected Short Stories of E. M. Forster*, a writer with whom I was not then familiar. Idly leafing through the book, I was intrigued to discover a story with the title *The Machine Stops*. This looked like it might be science fiction, and sure enough it was. Gripped from the first page, I read it at a sitting. Forster’s dystopian story, written in 1909 and his one venture into SF is a powerful depiction of the tragic consequences of becoming overdependent on the machine. It had a great impact on me.

I struck up friendships with three of my fellow inmates at Hili Homf: D. J. Partridge, F. G. F. Howard and R. N. Lawrence. David Partridge, slightly younger than me, was very clever, and full of fun. Although the red-haired Nigel Lawrence was not much bigger than I was, he was senior to the rest of us and so had been placed in charge. He took his position of authority with an unabashed seriousness that struck the rest of us as ludicrous, leading to taunts of “Nigel’s niggled,” and the like. He had a small notebook in which he recorded our transgressions: these included such serious misdeeds as “deliberate cheek” (talking back) and failure to clean the bathtub after use. Once a miscreant had acquired sufficiently many black marks he would be obliged to do additional household chores such as washing up (dishwashing) and peeling potatoes. Geoff Howard and I found that we shared a taste for classical music, and quickly became mates. Geoff had a ready wit and a way with words, a talent which would occasionally backfire on him. I recall, for instance, that he had taken to teasing one of my dorm members, Chadwick (known, inevitably, as “Chadders”), a strapping young fellow whose parents ran a dairy farm in Cheshire. Chadwick occasionally received a Cheshire cheese in the post, which he would generously share with the entire household. Geoff found the alliteration of the name “Chadwick” with “Cheshire” and “cheese” downright irresistible. One day he came up with a wicked parody of the popular song “Smoke Gets in Your Eyes”, which began:

*They asked me how I knew  
Chadders’ cheese was blue.  
I of course replied:  
That it’s gone bad inside  
Cannot be denied.*

This was the last straw for young Chadwick. He jumped on Geoff and gave him a good thrashing. This counted as a transgression and was duly entered in Lawrence's notebook. Geoff would also keep us in stitches by mimicking Madge's Irish accent, producing ridiculous lines such as "Would youse be afther passin' along the spuds," and the like. I feel certain that Madge must have overheard him, because they never seemed to get along very well.

Actually I felt a certain sympathy with Madge on the matter of accent, since my American pronunciation made me the subject of a good deal of ribbing by the other boys. I learned at first hand the truth of Bernard Shaw's remark that Britain and America are two countries separated by a common language. It was inevitable that I would be mocked for using a long *a* where a Britisher (from the South at least) would normally employ a short one: as in *can't*, *dance*, *glance*, *advance*, etc. And also for using a short *e* where British usage prescribes a long one: as in *economics*, *predecessor*, and the like. Subtler, however, were the differences in syllabic stress. For example, in a disyllabic phrase such as "ice cream", as an American I naturally placed the stress on the first syllable. But I learned that in British English the stress was normally placed on the second syllable. In vain I pointed out that this displacement of accent would reduce the old American ice-cream line to gibberish—can you imagine chanting I *scream*, you *scream*, we all *scream* for ice *cream*?

My pronunciation of such words as *aris'tocrat*, *evident'ly*, *cor'ollary*, *ad'dress* also seemed to strike the other boys as amusing. It was not long before I, too, was saying a *'ristocrat*, *e'vidently*, *corol'lary*, *address'*, which is the way I still pronounce these words today. I made a virtue of necessity by actually coming to prefer pronunciations such as these. On the other hand I found myself resisting the pressure to become completely Anglicized, feeling in some unarticulated way that to remain a "foreigner" would help me retain my own identity, and serve to confirm, to myself at least, my independence of character. (So, for example, I continued to pronounce the word "schedule" as "skedule" in the American manner, rather than succumbing to the British "shehdule".) While I could hardly claim to be standing at an angle to the universe as a whole, at least I could congratulate myself on my resistance to local parallelism! And in any case, even if I had wished to, I could never have passed as an Englishman born and bred, since the sound of the short English *a* never came naturally to me. But, as I was to learn, this didn't matter because, according to Daniel Defoe,

*A true-born Englishman's a contradiction!  
In speech an irony! in fact, a fiction!*

As a true-born Englishman himself, Defoe should know!

The telling differences between British and American terminology also played a role in my English education. I learned, for instance, that normal English usage prescribed *pavement* for the U.S. *sidewalk*; *post* for *mail*; *chemist's* for *drugstore*; *mackintosh* for *raincoat*; *trousers* for *pants*; *pants* for *underpants*; *wireless* for *radio*; *chap* or *bloke* for *guy*; *lorry* for *truck*; *boot* for *trunk*; *windscreen* for *windshield*; *windcheater* for *windbreaker* (but *cheat* for *cheater*); *aluminium* for *aluminum*; *gramophone* for *phonograph*; *dinner jacket* for *tuxedo*; *maths* for *math*; *break* for *recess*; *railway* for *railroad*; *goods*

*wag(g)on for boxcar; tap for faucet; halt for stop; coach for bus; flex for cord; in just a tick for momentarily; momentarily for for just an instant; traffic light for traffic signal; underground for subway; aeroplane for airplane (etc.); lift for elevator; jumper for sweater; marquee for large tent; Hoover for vacuum cleaner; the bog for the john; bum or arse for ass; fag for cigarette; sweet for candy or dessert; dinner for lunch; supper for dinner; clot for idiot; jolly good for great; gateau for layer cake; advert for ad; solicitor for lawyer; biscuit for cookie; packet for pack; settee for sofa; drawing room for living room; W.C. for toilet; ill for sick; sick for throwing up; specs for glasses; ice for ice cream; sweets for candy; the cinema or the flicks for the movies; joint for roast; the idiot box for the boob tube; form for bench; rubber for eraser; drawing pin for thumbtack; washing up for doing the dishes; knockup for warmup; sport for sports; draughts for checkers; nought for zero; zed for zee; noughts and crosses for tic-tac-toe; to pressurize for to pressure; different to for different for half an hour for a half-hour; fortnight for two weeks; wimpy for hamburger; chip for french fry; potato crisp for potato chip; and finally, the terminology of the telephone: telephone kiosk for phone booth; trunks for long distance, engaged for busy, and, particularly tickling to an American ear, “are you there?” for “hello”.*

Thinking back, the term “telephone kiosk” evokes the image of a sturdy red booth with a solid door opened only with difficulty. On entering you could smell the distinct odour of urine associated with the common use of these structures as *pissoirs*. Inside was a bulky black box topped with a bakelite telephone receiver, equipped with two chromium-plated protuberances identified as buttons *A* and *B*, together with a slot into which four of the massive copper pennies of the day were to be inserted. As each coin was rammed in you heard it drop with a metallic clunk into the guts of the mechanism, there to await, after dialling the call, either its engorgement on pushing button *A* – if you were lucky enough to effect a connection – or, in the opposite event, its return on pushing button *B*. In the former case, one usually heard through the telephone receiver, not the customary “Hello”, but, after the ritual “Are you there?”, the frantically repeated injunction “Push button *A*! Push button *A*!” As often as not this would have the effect of causing you, through a kind of reflex action, to press button *B*, thereby returning the coins and leading to a reiteration of the whole absurd procedure. I still recall this ritual, along with the primitive technology that supported it, with affection.

Then there was the colourful terminology for the coinage: *farthing* (“fourthing”, i.e. quarter penny) *ha’penny*, *threppenny* or *thrupenny bit*, *tanner* (sixpence), *bob* (shilling, or one-twentieth of a pound), *florin* (two shillings) *half-crown* (two shillings and sixpence). Two pennies were *tuppence*, and so, by analogy, I figured that no pennies should be *nuppence*, as in “no pounds no shillings and nuppence”. Like everybody else, I learned how to calculate with the antique, but remarkably flexible ventigesimal-duodecimal system still in place at the time, and which was only to be swept into oblivion by the decimalization of British currency in the late sixties. Thus, for example, I quickly came to recognize that a third of a pound was six shillings and eightpence (*six and eight*, denoted 6/8). And that 1/9 was one-twelfth of a *guinea* or “snob’s pound”, worth 21 shillings. This knowledge is now about as useful as the ability to calculate with doubloons, but there is no denying its value as a currency of nostalgia.

When I had begun to grasp the differences between American and British usage I saw that I was in the fortunate position of being able, on occasion, to tailor my choice of terms to fit the

immediate situation. Thus if a mild parody at attempting to fit in seemed called for, I could say, for example, "Be a good chap and bung over that packet of crisps, won't you?", or "The flicks? Jolly good idea!". Eventually my speech settled into the mid-Atlantic form in which it has remained to this day. As a result, I have become used to being taken for a Brit or a Canadian in the United States; in Britain, for an American or a Canadian; now finally in Canada, for an Americanized Brit.

Certain other details of life at Hili Homf stand out in my recollection. Table polishing, for instance. In this bizarre ritual one of the boys was grabbed by the others and stretched out on the common-room table. His hands and feet firmly held, he would then be swung violently back and forth across the table until he begged for mercy. It seems surprising in retrospect that none of the victims sustained serious injury. Another prank was the making of so-called apple-pie beds. Here the bed of one of the boys would, without his knowing it, be remade during the day with the top sheet folded over. On leaping into his bed that night, the unwary victim's feet would rip through the folded sheet, to the great amusement of the wheeze's perpetrators.

Mr. Dickens occasionally gave some of us a lift to school in his Morris Minor. He took great pride in this vehicle, describing it with proprietary satisfaction as "the ideal family car in many ways." This struck us boys as risible and so we naturally began to use the phrase, in one form or another, whenever possible. Thus the Dickens's television set became "the ideal family television in many ways," their cat "the ideal family cat in many ways," and, inevitably, the Dickens household itself "the ideal family family in many ways."

Memorable also was the farcical incident involving the younger of the two Dickens children, Colin, that took place on a Sunday afternoon. One of us (I forget who) had decided to touch up his bicycle with a dab of black paint, and had carelessly left the open can on a ledge near the bicycle shed. Wandering about unattended in the garden, the hapless Colin came across the can and proceeded to deposit its contents all over himself. When his mother found the unfortunate lad covered with paint, she emitted a howl of rage and shouted for her husband, who thereupon stormed up the stairs and burst furiously into the common room where a number of us were idling away the afternoon. The long curved scar on Mr. Dickens's forehead (a war wound, I believe) had gone alarmingly crimson, and he appeared close to apoplexy. But he calmed down sufficiently to subject us to an orderly interrogation, inducing the culprit (whoever it was) to own up and submit to condign punishment.

On weekends we were permitted access to the Dickens' ideal family television. I was enthralled by *Quatermass and the Pit*, Nigel Kneale's terrifying TV serial (later made into a creditable movie). I also recall watching my first Wimbledon final, the one in which Neal Fraser defeated Rod Laver. No weekend was complete without its complement of card games such as whist and "chase the lady". Weekends also meant long bicycle rides in the pleasant countryside around Glastonbury, which was peppered with hamlets bearing such curious names as Rurtle, Hornblotton Green and Mudgley.

On Sunday we were all required to attend chapel at the local Anglican church. Geoff Howard and I had cultivated a somewhat irreverent attitude to organized religion. We were amused by the explanatory leaflet distributed before the start of the service, especially by the defining of

“Amen” as “That’s just what I wanted to say.” We decided to use that phrase whenever the congregation was called upon to utter “Amen”. We kept up this jest throughout an entire service, receiving a number of odd looks from the vicar.

Nevertheless, I enjoyed singing in the church choir as a soprano. I particularly remember the wonderful old Christmas carol *Past Three O’clock*:

*past three o'clock,  
on a cold frosty morning,  
past three o'clock,  
good morrow masters all.*

*born is a baby  
gentle as may be,  
son of the Eternal  
Father supernal.*

*seraph choir singeth,  
angel bell ringeth,  
hark how they rhyme it,  
time it and chime it!*

*mid earth rejoices  
hearing such voices.  
ne'ertofores so well  
carolling nowell!*

*hinds o'er the pearly  
dewy lawn early  
seek the high stranger  
laid in the manger.*

*cheese from the dairy  
bring they for Mary,  
and, not for money,  
butter and honey.*

*light out of star-land  
leadeth from far land  
princes, to meet him,  
worship and greet him.*

*myrrh from full coffer,*

*incense they offer;  
nor is the golden  
nugget withholden.*

*thus they: i pray you,  
up sirs, nor stay you  
till ye confess him  
likewise and bless him.*

I continued to sing until my voice broke in my second year at Millfield.

On alternate weekends the strange ritual known as “Corps” took place, in which the boys of the whole school would don military uniform and earnestly march about in a kind of caricature of regular army maneuvers. When I first arrived at Millfield I feared that I, too, might have to engage in this nonsense, but fortunately I noticed the clause in my passport asserting that “it is not valid for travel to or in any foreign state for the purpose of entering or serving in the armed forces of such a state.” I reasoned that if the school governors really took their cadet force (or farce) seriously, they would regard it as being genuinely part of the British armed forces, in which case they would acknowledge the fact that, if I were to join it, I would be violating the conditions laid down by the American consular authorities. This line of reasoning must have been substantially correct, because I was spared all “squarebashing” at Millfield.

Living across the street from Hili Homf was a pleasant middle-aged lady with whom I struck up a friendship. Her house was called “The Galileian”, which from my reading of Einstein I took to mean an inertial coordinate system. I could not fathom why a house should be named after a coordinate system, inertial or otherwise, and so one day I asked the lady for an explanation. She responded that she knew nothing about coordinate systems, but that “The Galileian” was another name for Jesus Christ. A distinguished coordinate system indeed! She was a devotee of Yoga and had a considerable number of books on the subject, two of which, entitled “Jnana Yoga” and “Hatha Yoga” she pressed on me, insisting that I read them. I did my best, but at the time I could not comprehend the wisdom they contained. (I was to become enlightened many years later.)

In my second or third term at Hili Homf I finally acquired my own record player, a diminutive Philips portable—so small, in fact, that an LP record placed on its turntable would protrude several inches over the edges of the cabinet. Despite its minuteness, I was delighted with it. I quickly became very fond of the Stuttgart Chamber Orchestra recordings of Bach’s *Brandenburg Concertos*, and Stravinsky’s *Petrushka* and *The Firebird* in the Pierre Monteux recording. I played these over and over again in dormitory and common room, irritating the other boys, who, apart from Geoff Howard, were not taken with classical music. These compositions are all seamlessly linked with those days in my mind. But it was the sheer excitement and swirling colours of *Petrushka*—an intensely visual piece of music—that truly sent me into ecstasies. A

number of years were to pass before I saw the actual ballet. Even though I am generally unmoved by ballet, the experience was overwhelming.

My place at Millfield having been obtained on the basis of supposed intellectual precocity, it was only natural that the Boss would want to determine whether his gamble in backing me would pay off. So not long after my arrival at Millfield I once again found myself the subject of psychological testing, this time at the hands of one F. S. Livie-Noble, the consulting psychologist engaged by the school to administer IQ tests to the pupils. A short, bald, bespectacled, somewhat fussy man, in appearance a near-caricature of a psychologist, Mr. Livie-Noble held court in a small pink hut in the school grounds specially reserved for him. I endured many sessions with him during my first term at Millfield. Under his watchful eye I ploughed through every conceivable sort of psychological test: IQ, academic attainment, Rorschach, you name it. I began to feel that the whole future course of my life depended somehow on this man's judgment of my abilities. On one occasion he dropped his formal manner and asked me in an amicable way what I was currently reading. "Some books by Einstein and Freud," I replied. On hearing this last name he stiffened. "Which book by Freud?" he asked. "*The Psychopathology of Everyday Life*," I returned. (I had recently acquired a paperback copy of the book and found it engrossing.) "Throw it away," he commanded, "you're too young to understand it." So apparently I was old enough for Einstein but too young for Freud! On another occasion, after I had just completed a Rorschach test, he got up and went outside briefly, leaving his notes open on the table. Consumed with curiosity, I got hold of these and rapidly scanned them. His handwriting being crabbed to the point of indecipherability, all I managed to glean from this document was his finding "distinctly odd" my associating devil's horns with some inkblot pattern. When the inquisition finally drew to a close, he shook me by the hand and told me that I would be "near the top" of any profession I chose to take up. While this was reasonably flattering, I still wondered what he *really* meant by the remark. Sometime later I learned that he had sent a report to my parents in which he stated that, in his opinion, I was "working beyond my ability", a phrase which came to haunt me.

Nevertheless, the outcome was my being placed in the school's top stream. The system of streaming pupils in place at Millfield in those days was of a Byzantine complexity. There were four basic streams: A, B, C and P. (The P here stood for "practical", but it was a school joke that it should be changed to T for "thick". I recall my father's amusement at the very notion of a P stream.) Within these main groupings were further gradations corresponding to the pupil's form level and area of specialization. Thus, for example, I was assigned to class 4A Arts for my arts subjects, and 2S for science subjects. (For some reason "2" was used to designate the sixth, or top form.) Classes were small, never exceeding six or eight in number; in my final year at Millfield most of my classes consisted of myself and one other boy, P. D. Norton, of whom more presently. The standard of instruction was very high, and the teachers themselves—those who taught me, at any rate—almost all patient and supportive. I recall with gratitude their kindness and tolerance during that first difficult year.

But the classification of the pupils at Millfield in terms of innate ability—very much a reflection of British educational policy of the day—came to remind me uncomfortably of the society depicted in *Brave New World*, with its rigid linear ordering of alphas, betas and gammas.

It is one thing to enjoy Huxley's novel, quite another to be a member of a society resembling, however faintly, the one he delineates with such brilliance. I had been lucky enough to make the alpha class in my own society (or so I believed) and I would have been stung with humiliation had it been otherwise. This of course contradicted my inward feeling that in essence I was the same as everybody else, and also provoked the troubling thought that those who had been assigned to the inferior classes must be suffering from the very feelings of humiliation I had, so far, been spared. (And in any case I was not wholly spared such feelings since I suspected that Livie-Noble had assessed me as an alpha-minus!) While I recognized that people differed in native ability, at the same time I was repelled by the idea of imposing an inescapably linear scale of inherent superiority and inferiority.

But my egalitarian notions, such as they were, remained to be articulated. In the meantime I immersed myself in my studies. Virtually on arrival at the school I had been entered for the O-level mathematics exam, which I sat in December 1958, just before flying off to rejoin my family in Tripoli for the winter vacation. I was relieved to learn on my return in January that I had passed. In July 1959 I took my first A-level (in Pure and Applied Mathematics) and O-levels in Latin, English, History, Physics and Chemistry. I managed to pass all these as well, but I barely scraped through the History paper. While I had enjoyed Roman history as a child, nineteenth century British history, with its dreary succession of corn laws and taxation bills, I found unbearably boring. To this day the idea of the nineteenth century evokes in me not the heroic romanticism of its early decades, but the sterile respectabilities of the Victorian era. But in fact my history teacher, Miss Emma Maud Sawtell, had a cultivated mind and was a considerable scholar in her own right, as I learned when I took a course in general civilization with her in my last term at Millfield. I shall always remain grateful to her for introducing me to Tolstoy's *War and Peace*, which I read in the Penguin translation by Rosemary Edmonds, and which instilled in me a lifelong fascination with Russian literature. Although I cannot recall any of Miss Sawtell's actual utterances, in my mind's eye I can still see her striding stiffly into class, her face reddened by the cold of a winter morning. Dressed in an enveloping skirt of dense brown wool, grey jumper and sensible shoes, she appears every inch the archetypal English schoolmistress. Sitting down at her desk, she summons the class to attention with an awkward gesture. She essays a witticism, correctly anticipating the class's lack of response by appending a chortle of her own... .

In my first year at Millfield I was taught English by Mr. John, an ebullient Welshman of unbounded pedagogic enthusiasm. He took the class through Shakespeare's *Henry V*, vigorously declaiming the lines – especially, of course, Harry's rousing appeal to his troops:

*Once more unto the breach, dear friends, once more;  
Or close the wall up with our English dead!  
In peace there's nothing more becomes a man  
As modest stillness and humility:  
But when the blast of war blows in our ears,  
Then imitate the action of the tiger;  
Stiffen the sinews, summon up the blood,*



*Disguise fair nature with hard-favour'd rage...*  
*.....The game's afoot:*  
*Follow your spirit: and upon this charge*  
*Cry – God for Harry! England! And Saint George!*

And he conveyed genuine emotion in reading the report of Falstaff's last hours:

*...for after I saw him fumble with the sheets, and play with flowers, and smile upon his fingers' ends,*  
*I knew there was but one way; for his nose was as sharp as a pen, and a' babbled of green fields.*

As a Welshman Mr. John naturally rejoiced in rendering in his native accent the part of Fluellen, with its *look you's*, and other "Welshisms". I can recall both the accent and the indignation he brought to Fluellen's line:

*Kill the poys and the luggage! 'tis expressly against the law of arms: 'tis as arrant a piece of knavery,*  
*mark you now, as can be offered; in your conscience now, is it not?*

Mr. John also introduced the class to the poetry of Coleridge, which led me to an abiding interest in the man and his works. I recall the rhythm of Mr. John's reading of *Kublai Khan*:

*In Xanadu did Kublai Khan*  
*A stately pleasure dome decree*  
*Where Alph, the sacred river, ran*  
*Through caverns measureless to man*  
*Down to a sunless sea.*  
*So twice five miles of fertile ground*  
*With walls and towers were girdled round.*  
*And there were gardens bright with sinuous rills*  
*Where blossomed many an incense-bearing tree.*  
*And here were forests ancient as the hills*  
*Enfolding sunny spots of greenery. ...*  
*Five miles meandering with a mazy motion*  
*Through wood and dale the sacred river ran,*  
*Then reached the caverns measureless to man,*  
*And sank in tumult to a lifeless ocean*

I found this altogether irresistible. I was also to be affected deeply by Coleridge's *Frost at Midnight*, which concludes with these lines of surpassing beauty:

*Therefore all seasons shall be sweet to thee,*  
*Whether the summer clothe the general earth*

*With greenness, or the redbreast sit and sing  
Betwixt the tufts of snow on the bare branch  
Of mossy apple-tree, while the night thatch  
Smokes in the sun-thaw; whether the eve-drops fall  
Heard only in the trances of the blast,  
Or if the secret ministry of frost  
Shall hang them up in silent icicles  
Quietly shining to the quiet moon.*

Truly sublime. A decade or so later when I lived in London near Highgate, where Coleridge spent the last years of his life, I would make the occasional pilgrimage to the church (St. Michael's) in whose grounds Coleridge is interred. On a stone mounted in the church's floor is inscribed Coleridge's moving epitaph, with its oblique reference to his opium addiction:

*Stop, Christian Passer-by! Stop, Child of God!  
And read with a gentle heart. Beneath this sod  
There lies a Poet: or what once was He,  
O lift thy soul in prayer for S.T.C.  
That He who many a year with toil of breath  
Found death in life, may here find life in death.  
Mercy for praise, to be forgiven for fame  
He ask'd, and hoped thro' Christ. Do thou the same.*

I won a prize in Mr. John's class for a short story in which I described a trip to the moon from the point of view of the spacecraft. At the time I wrote it, astronomers thought it likely that the moon's surface was covered by a deep layer of fine dust produced by the impact of meteorites over billions of years (of course we now know this to be false). So I ended the story tragically with the spaceship and its crew engulfed by the dust.

It was in Mr. John's class that the differences between British and American *spelling* first began to impinge on me, since at first my compositions would be returned with a clutch of red marks indicating numerous misspellings, of which I had rarely before been guilty. For example, while I was aware that the British insist on inserting a *u* in the words *color*, *rigor*, etc., I came to learn that the British also spell the American *traveler* as *traveller* (and, strangely, the American

*skillful* as *skilful* and *enroll* as *enrol*<sup>60</sup>); *check* as *cheque*; *plow* as *plough*; *gray* as *grey*; *mustache* as *moustache* (and, moreover, pronounce it “mustosh”); *judgment* as *judgement*; *program* as *programme*; *skeptical* as *sceptical*; *tire* as *tyre*; *center* as *centre* (etc.); *whiskey* as *whisky*; *analyze* as *analyse* (etc.); *encyclopedia* as *encyclopaedia* (etc.); *maneuver* as *manoeuvre*, *curb* as *kerb*. I also learned the (to me) novel British substitution of the word *should* for *would* as in *I should have thought...*, or the epistolary *I should be grateful if you would be so kind as to...*, in which an obligation to be grateful is not implied.

I remember with affection Mr. Slayton, my first-year physics teacher, a sandy-haired man with a moustache masking a harelip that caused him to speak with a lisp. This impediment, together with a certain awkwardness of manner made him a figure of fun in the eyes of some of his pupils, a fact of which he was fully aware. But he took a shine to me when I told him of my attempts to read Einstein’s *Relativity*. (This gained me the reputation of a teacher’s pet, leading to the taunt “Johnny’s learning unclear (nuclear) physics.”) After class one day he told me that he had been a student of the physicist E. A. Milne at Oxford. I had never heard of Milne (and had then only the haziest notion of Oxford) but Mr. Slayton explained to me that Milne had developed a theory called kinematical relativity which was an alternative to Einstein’s general relativity. This intrigued me, because while I felt that I had some grasp of special relativity, the general theory remained tantalizingly beyond my intellectual grasp at that time. (Mr. Slayton actually lent me some books by Milne, but I cannot now recall what, if anything, I made of them.) I had the impression that Mr. Slayton found the teaching of elementary physics frustrating, and the nostalgic eagerness with which he recalled his Oxford days seemed to confirm this.

In my latter years at Millfield I was taught physics by Mr. Slow, the senior science teacher. He was a large, kindly man, with a deliberateness of manner that irresistibly attracted his pupils’ catchphrase (which he had doubtless anticipated) “Slow by name, slow by nature”. Under his benign tutelage I worked my way through the school physics textbooks of the day – Nelkon’s *Heat*, Ditchburn’s *Light*, Quadling and Ramsey’s *Mechanics*, etc.

Instruction in chemistry was dispensed by Mr. Bromfield. Known to all as “Brom”, he was a flamboyant red-haired man sporting an RAF-issue handlebar moustache. He brought to his teaching a panache which made classes with him great fun. His chemical demonstrations were accompanied by a gaudy patter which ran something like this: “First one triturates the jolly old crystals in ye olde mortar and pestle, then one bungs them into yon beaker, adds a spot – a *soupçon*, as the dear old French would say – of this liquid of roseate hue, stirs gently, stands back, and awaits developments.” What appeal chemistry had for me lay in these developments, which, under optimum conditions, took the form of arresting bangs and stinks. O-level chemistry practicals were far more interesting than their counterparts in physics, which consisted chiefly of pedestrian experiments involving antique Wheatstone bridges and rudimentary thermal expansion devices. But in respect of theory I saw the relationship as the exact reverse: physics was theoretically deep, while as far as I could see chemistry had no theory to speak of. Still, I enjoyed firing test tubes to near incandescence over Bunsen burners, plunging lit spills into

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<sup>60</sup> Many years later I came to regard this spelling as fortunate since the American spelling would block the palindrome *Lorne and Edna enrol*.

merrily bubbling flasks, and watching strips of litmus paper change colour as they were removed, dripping, from nameless fluids, which could then be induced, by suitable stimulation, to deposit flocculent precipitates. The acme of my experience as a juvenile chemist was attained when one afternoon I and my fellow delinquents dumped a number of large copper penny coins into beakers of nitric acid, causing the emission of clouds of brown nitric oxide of such density as to necessitate the evacuation of the entire lab. When I went on to the more advanced organic chemistry with Mr. Taylor, the highly competent, but comparatively staid, senior chemistry master, the fun faded out of the subject for me. Organic chemistry had little of the entertainment value of its more robust inorganic cousin. Organic compounds all seemed to take the form of identical colourless liquids with jawbreaking names like monothioethylene glycol or methylcyclohexylcarbinol. The whole business seemed to me largely a mnemonic exercise. Still, I stayed with the subject to "S-" (scholarship) level (to my surprise obtaining a distinction in the examination, better than I achieved in my "official" subjects of mathematics and physics) and so would have been qualified to study chemistry at university if I had so wished (but perish the thought!).

Latin was taught by Mr. Edghill, an affable old gent with a curiously strangulated way of speaking. He called my classmate Nigel Lawrence "Lawgh-runce", sounding as if he was clearing his throat. Under his instruction we droned our way through Caesar's *Gallic Wars* and the first book of the *Aeneid*, neither of which I found particularly stimulating as literature. As a result my earlier enthusiasm for Latin waned, and I was happy to be relieved of further formal study of the subject after I passed the 'O'-level exam at the end of my first year.

I had three instructors in mathematics at Millfield in successive years: Captain Clarkson, Mr. Nest, and Mr. Kerry. I have already mentioned Captain Clarkson. Mr. Nest, known to all as "Hector", was a competent but irascible man, whose normal mode of chastising pupils for classroom transgressions was the (even then) old-fashioned setting of "lines". On one occasion Nigel Lawrence neglected to bring his textbook to class, in Hector's eyes an unpardonable omission which he took as a personal affront. He worked himself up into a terrible lather, fulminating on about responsibility and respect for one's elders. Finally he calmed down sufficiently to assign the unfortunate Nigel the tedious task of writing out 100 times the sentence *I must never forget to bring my books with me to my tutor's room*. Hector taught projective geometry, a branch of mathematics I came to dislike. This may have been in part because I associated the subject with the unpleasant atmosphere in Hector's classroom, but there were surely intrinsic reasons as well. While I had always enjoyed Euclidean geometry, with its rigorous demonstrations, I lacked the visual imagination required for the appreciation of the subtler beauties of projective geometry. Also I had become so attached to the formal manipulations of algebra and the calculus that I was put off by what I saw as the qualitative form of argument in projective geometry. For what it is worth, I am by nature an algebraist rather than a geometer.

Mr. Kerry was another affable old gent who had read mathematics at Oxford in his youth. When pointing out a mistake in a pupil's work, he would never miss an opportunity to employ his favourite phrase: "You've fudged it!". This inevitably led to his being nicknamed "Fudge".

Old Fudge taught algebra and the calculus from old-fashioned textbooks such as Dakin and Porter's *Further Elementary Analysis* and Durrell's *Algebra*. But I enjoyed working my way through the problems in these books, and Fudge applauded my efforts. I'm gratified to recall that in one of his reports Fudge wrote of me: "he has the makings of a genuine mathematician".

In my last year (1961) at Millfield I took up the study of Russian with Mr. Sergeant, a remarkable linguist—it was rumoured that he had mastered more than 30 languages. The rapid development of science in the Soviet Union since the end of World War II had convinced Western observers that the Russian language was likely to become as important a medium of scientific communication as German had been previously, and so potential scientists were encouraged to develop a familiarity with technical Russian. Scholar that he was, Mr. Sergeant chose to use for the purposes of instruction not an up-to-date manual of technoRussian, but instead Anna H. Semeonova's old-fashioned text, which, with its many pre-revolutionary references, was aimed chiefly at aspiring students of Russian literature. In Semeonova one never came across the word *tovarich*—let alone *sputnik*: instead, one could not avoid bumping into *gospoda*—gentlemen—alighting from *ekipazhi*—carriages. (Semeonova's book is long gone, but I still cherish the elegant little pair of Russian-English dictionaries bought for 25/- at the school book-room.) Although I, a poor linguist, never became proficient in Russian, I came to admire the language greatly, both for its intrinsic beauty, and for the richness of its literature (I hardly ever used it for technical purposes.) Strangely, although I developed a rudimentary reading knowledge of Russian, I never learned the Cyrillic alphabet in sequence—unlike Greek, a language I had never studied, but the letters of whose alphabet, used as mathematical symbols, I had learned to recite in correct order. I was fascinated by Russian proverbs such as *svolkami zhits, pa-volchi vuitch* ("If you live with wolves, you must howl like one")—a typically hard-boiled Russian version of "When in Rome, do as the Romans do." Later it amused me to invent what I called "Russoid" proverbs such as "Only a fool would plant potatoes on the right bank of the Volga and expect them to sprout on the left" and—as a surrogate for "All roads lead to Rome"—"All roads lead to salt mine." Many words in Russian are highly polysyllabic. I was surprised to learn that the original Russian word for the imperative "stop!" is the monstrous *ostanavlivayatyess*. I also learned that the Russians had sensibly absorbed the word "stop" into their vocabulary, but only, as I was later to joke, after Stalin, catching his foot in the door of his official car, was dragged along for a block before he could shout *ostanavlivayatyess*! I recall that I read in class an abridged and grossly oversimplified version of Lermontov's *Geroi Nashevo Vremenyi*—A Hero of Our Time. It was only much later when I read a full translation of this work that I came to appreciate its subtle ironies. In the diluted version I read at school, which was commensurate with my limited knowledge of Russian, these ironies were entirely missing. The hero Pechorin was reduced from a dashing Byronic figure to a cardboard dummy mechanically repeating the phrase *Ya ofitser* ("I am an officer"). Still, better a simplified version of a classic in the original language, I suppose, than none at all.

The music teacher at Millfield in my day was the jovial "Freddie" Fox, who led the school choir, in which I sang as a treble until my voice broke to tenor. When I told him of my abortive efforts at learning to play the violin, he urged that I take it up again, lending me a serviceable

fiddle on which to get started. I scraped sporadically on this instrument throughout my time at Millfield, but, much as I loved the violin and its music, the fact that I had no gift for playing it remained inescapable. With typical generosity Freddie let me keep the violin he had lent me. Some years later, when I had finally abandoned my struggles with the instrument, I gave it to Michèle Aquarone's younger sister, Marie-Christine, who had it reconditioned and found it to be of respectable nineteenth-century French provenance.

With his firm belief in the principle of *mens sana in corpore sano*, the Boss attached great importance to sporting activities. All boys were required to engage in school games—rugby or “rugger” in the autumn term, (field) hockey in the winter, and cricket in the summer. Having played basketball in American high school, I was permitted to substitute this for cricket, a dispensation for which I had good reason to be grateful, since cricket seemed to me the silliest game ever devised. Fool I may have been, but I simply could not see myself as a flanneled fool at the wicket. Nevertheless, despite its longueurs, cricket had a certain visual appeal, like watching paint dry. This could not be said for rugger or hockey, activities in which I could discern no redeeming features whatsoever, but into which I could not avoid being dragooned. Rugger was a matter of sliding about in a sea of mud in pursuit of a slippery leather spheroid, sensible players (if any) trying to avoid being brought down not merely by members of the opposing team, but also, through inadvertent collision, by those of their own. Fortunately I was too slight to be impressed into the unspeakable scrum in which the bulkier members of each team, sweatily gripping one another's shoulders, would collectively wrestle, grunting and groaning, for possession of the ball. On the occasions—mercifully few—the infernal thing came my way, my first impulse was to get rid of it as quickly as possible before attracting unwelcome attention. Hockey was, if anything, worse, since the ordeal was conducted in the depths of winter when one's whole body was numbed by the cold. In addition, players of this ridiculous “sport” ran the risk of having an eye poked out by one of the curious curved sticks with which the ball was whacked around the field. This latter object, hard as rock, was a hazard in itself, since it could be, and often was, aimed at a fellow-player with the sole intention of conking him. I can recall being on the receiving end of such malice, with painful results.

Basketball, on the other hand, I enjoyed. At that time the school lacked an indoor gymnasium, so games were played outside on a converted tennis court, but only during the pleasant months of late spring and summer. As I grew in stature<sup>61</sup> I became a more effective player, until finally I found myself—to my surprise—on the school team, whose members were, like me, mainly expatriates—Americans, Iranians, Egyptians, Trinidadians. Basketball was not played with any degree of seriousness in Britain at that time, so inclusion in the school team was hardly a great accomplishment. Nevertheless I took considerable pride in this scintilla of sporting achievement. We competed with the teams of the few other schools which had organized basketball tournaments. For away matches we piled into a hired coach and took off for the day, relieving

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<sup>61</sup> My passports attest that when I arrived at Millfield in 1958 I was a minute 5' 2", and that when I left at the end of 1961 I had grown to a respectable 6' 0".

the monotony of the journey by singing songs such as *When the Saints Come Marching In* and *You Can't Go to Heaven*, in which each of us supplied a line, for example:

*You can't go to heaven in a Ford coupé  
'cos the Lord's got shares in Chevrolet!*

My one moment of glory on the basketball court occurred during a home match and was the result, in truth, of frustration. Prevented by members of the opposing team from getting closer than ten yards or so to their basket, in desperation I flung the ball in its general direction. Having not the slightest expectation of the shot's being successful, I immediately turned away without following the ball's trajectory. A few seconds later I was surprised to hear the spectators clapping and cheering, for the ball had, as if guided by an unseen hand, passed straight into the basket. I fancy that the feat must have seemed doubly impressive because of my apparent nonchalance in turning away, as if a successful outcome was a *fait accompli*. This marvellous fluke was, however, offset by a painful incident in a later match. During a struggle under the basket, I turned around suddenly, bringing my nose into violent collision with the elbow of one of the members of the opposing team. My recently acquired glasses were split in two, and blood spurted everywhere. I was helped to the school infirmary, where Miss Warner cleaned me up and left me to rest. The balloon-like proportions my nose had assumed made her suspect that it had been broken, and this turned out to be the case. I carry a bump on the bridge of my nose to this day.

I come now to the circumstances which led to my sole caning while at Millfield, an experience without which no public school education is complete, and which I feel affixes the stamp of authenticity on my narrative. One afternoon an announcement was made that a number of overhead pipes in the changing-rooms had been damaged, presumably by some idiot swinging on them. It was further announced that if the culprit or culprits failed to come forward, the whole school would be sent on a punishment run. (This tactic, designed to put pressure on the guilty parties, was also employed in prisoner-of-war camps, which public schools in many respects resembled. It has often been remarked that the rigours of a British public school education provide ideal training for future POWs.) Needless to say, the ploy failed to work and so the following day I found myself on the cross-country course plodding, along with my fellow-unfortunates, through the drizzle. I dragged my way through boggy fields and scrambled over fences for what seemed hours, until finally emerging, weary and mud-bespattered, on the road leading back to the school and, so I hoped, to the end of the absurd ordeal. But to my dismay I encountered a number of prefects on bicycles patrolling the road, bellowing "run!" as usual. I was singled out for special treatment by one of these fledgling fascists, who yelled at me to "get the lead out of my feet," or words to that effect. Goaded beyond endurance, doubly emboldened by the fact that my tormentor appeared no less weedy than myself, I shouted back at him to piss off. He did not reply, and I put the incident out of my mind. The next morning I received an ominous summons to present myself that afternoon at the prefects' common room in Millfield House. Clearly this could mean just one thing—a disciplinary caning for my act of insubordination the previous day. Having no choice in the matter, I showed up at the specified time and joined the

disconsolate group of fellow-transgressors gathered in the corridor awaiting punishment. After a while I was admitted to the inner sanctum, to find a kangaroo court of senior prefects—including the weedy fellow I had offended—all puffing away at their pipes. The “chief prosecutor”, a prefect with the same surname as mine, read the charges, namely, that on the previous day’s run I had made an offensive remark to a prefect. Did the accused have anything to say before sentence was passed? The situation deserved nothing less than an impassioned speech condemning the gross injustice of us juniors being forced to run while the prefects toiled around on bicycles, but this must surely have been beyond my eloquence. At any rate, whatever my words, they fell on deaf ears, because I was sentenced to four of the best, which were administered then and there. Having to bend over and allow a cane to be applied to my posterior I recall as a humiliating, but not especially painful experience.

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In the early summer of 1959 my father’s job with H.T. Smith took him and the family to Quito, Ecuador. After sitting my exams at the end of the summer term I flew out to join them. I made an overnight stop in New York where I met Ed and Elinor Bohle, a warm, cultivated couple whom my parents had got to know during their New York days. Elinor designed fashion shoes, while Ed, an industrial chemist by occupation, used his spare time to write detective novels, some of which had been published under a pseudonym. The sole further memory of my visit to New York is of turning on the TV set in my hotel bedroom to see on the news that Fidel Castro had just arrived in New York to begin his first, and, as it turned out, last, U.S. tour.

The flight to Quito from New York by Panagra Airlines seemed interminable, due in large part to the fact that the plane touched down at every intervening airport equipped with a serviceable runway. After landing in Miami, we made stops in Caracas, Bogota and Cali, and probably other places I cannot now recall, before arriving at our final destination.

Quito, the Ecuadorian capital, is tucked away in a narrow Andean valley on the slope of an extinct volcano a few miles south of the equator. The famous Andean peaks of Chimborazo and Cotopaxi lie less than 100 miles south of Quito. When one has seen them one can well understand Walter Turner’s feelings when he wrote the lines

*Chimborazo, Cotopaxi / They had stolen my soul away!*

At an elevation of 9300 feet, Quito’s atmosphere is rather thin, but this is more than compensated for by the mildness of its climate, the mean temperature at noon being just 70°. The impression I retain of Quito is of an isolated, tranquil city of great charm, and I regret not having had the opportunity to return there.

Once again, my father had come in pursuit of water, whose scarcity in the Libyan desert must have caused him great frustration. But surely, I can imagine him thinking, the high mountains surrounding Quito, with their snow-capped peaks and hidden valleys, would present a different proposition altogether. To furnish Quito—whose population at that time cannot have exceeded



300,000 – with a reliably adequate water supply it would only be necessary to locate a valley with sufficient run-off from the surrounding mountains to form a natural reservoir, then pipe the water down to the capital, and Bob’s your uncle! While this was a most elegant solution in principle, its realization proved, yet again, to be maddeningly elusive. On one occasion I accompanied my father and a couple of his colleagues on a trip by Land-Rover into the mountains to check out a promising report of a pretty mountain valley, which according to reports was “filled with sparkling water”. After driving for several hours along mountain tracks, ascending several thousand feet through scenery of compelling beauty, we finally arrived in the promised valley. It was as pretty as promised, and indeed filled with water that coruscated as far as the eye could see. But on wading into it my father and his colleagues found that its depth did not exceed a few feet, making it a serious contender for inclusion in the Guinness Book of Records as the world’s largest puddle. I never learned whether my father found his “celestial reservoir”, but I would like to think that, in the end, he did.

Part of my summer in Quito was spent roaming around and making mild mischief with a recently befriended American kid of my age, John Ehrenhardt. One afternoon we came across a construction site on the side of a hill where a number of large cylindrical concrete pipes had been piled awaiting installation in a trench which had been dug below. Seized with the idea of launching a few of these pipes into the trench where they would burst like bombs, we returned after the workers had downed tools for the day and did just that, to our immense satisfaction. It is fortunate that nobody caught us in this youthful act of vandalism, for we would probably have landed in jail or found ourselves on the next plane out of the country.

Other memories of Quito include eating delicious barbecued chicken at a picnic ground harbouring a flock of grazing llamas, and an ice cream parlour whose paper napkins were printed with a map of Ecuador on which the disputed eastern border with Peru was indicated by a number of soldiers firing at one another. This conflict, it seemed, had been waged fitfully since the 1940s when Peru had gobbled up a large portion of Ecuador. The contested border passed through dense rainforest in which tribes of headhunters roamed (also shown on the map) and so had remained unsurveyed: a soldier sent into this region was, apparently, as likely to wind up with a shrunk head as to fall to an enemy bullet. I also recall seeing one day a band of soldiers herding a number of men at gunpoint through the streets of Quito – I learned that in Ecuador voting for one of the political parties (“blanco” or “colorado”) was compulsory, and that these men were reluctant voters being marched to the polling station.

The population of Ecuador is chiefly Amerindian, short, sturdy, dark-featured people with jet black eyes and straight black hair. I was struck by the amazing chest expansion – the result, I surmised, of growing up in a rarefied atmosphere – of the people I saw in the streets of Quito. At 6’ 4” my father towered over most Ecuadorians, and children in particular regarded him as some kind of Goliath. I recall on one occasion walking with my father down the street and encountering a group of small children playing a game on the sidewalk. They took one look at him, and ran off in all directions, screaming *Gigante, gigante!*

In those days three grades of bus plied Quito’s streets. For the modest price of one *sucre* you could step aboard a diminutive, but comfortable buslet allowing no standing passengers, and

which would carry you to your destination in comparative style. These conveyances were used chiefly by the better-off. For a more modest fare you could ride on a regular bus, with regular seats, but with standing passengers admitted. If you were really hard-up you could risk boarding one of the seatless, ramshackle vehicles which, packed like sardine cans, careered through the streets at breakneck speed, belching clouds of acrid black smoke. Known locally as “flea-buses”, each was just a flimsy metal shell with a number of glassless holes punched in it to let in the light, the whole bolted to an American truck chassis. Considering the extreme inertial forces to which these contraptions were subjected by their demented drivers, it seems little short of remarkable that they didn’t simply fall apart.

My most vivid memory of our sojourn in Ecuador is of the ill-fated trip we made to Guayaquil on the country’s Pacific coast. My parents had originally hoped to get to the Galapagos Islands—famed for giant turtles and other exotic fauna—situated in the Pacific several hundred miles west. But for some reason this idea was abandoned and the decision taken to drive the couple of hundred miles to Guayaquil and spend a few days’ vacation there. To this end my father got us a booking at a Guayaquil hotel, the *Flamingo*. Early one morning we piled into the company car, a black Oldsmobile, and took off, our spirits high. The road to the coast wound its way in its long descent past spectacular gorges and along the edges of precipices carved out from the sheer rock face. We had the hair-raising experience of following one of the buses whose route took it along this road. Bulging with passengers, the rickety vehicle tore along at lunatic speed, as if out of a cartoon, miraculously avoiding a collision with oncoming traffic each time it swerved, seemingly out of control, around one of the road’s almost unbroken succession of hairpin bends. Typically, I began to worry whether the brakes on the heavy Olds would hold up—on this occasion the rest of the family shared my anxieties. So it was with a feeling of relief that we finally reached the lowlands. The road, now reduced to little more than a mud track, meandered through the steamy rainforest, from which could be heard the cries of birds and other animals harder to identify. We passed through the occasional torpid village, its inhabitants staring at us with curiosity as we drove slowly along, careful to avoid flattening any of the numerous chickens strutting around or the bored dogs spreadeagled in the road. One of these hamlets differed from the rest in appearing to be a hive of activity populated entirely by Chinese—certainly all the signs we could see were written in that language. It is still a matter of wonderment to me that a Chinese settlement could spring up in the depths of the Ecuadorian jungle.

We reached Guayaquil late that afternoon, and proceeded to search for our promised hotel, the Flamingo. We had envisaged this establishment as an elegant resort equipped with a swimming pool, air conditioning, and all the amenities of civilized living. As we drove through the town centre, we came across a number of hotels fitting our imagined description, but none of them, to our disappointment, bore the name “Flamingo”. My father stopped the car and asked a passer-by where the Flamingo might be. Learning that it was on the other side of town, we headed in that direction. Our apprehension grew as we passed in the gathering darkness through neighbourhoods of increasing squalour. Eventually we spotted a fitfully flashing neon sign, with several of its letters missing, from which we could just spell out the name “Hotel Flamingo”. On

finally pulling up to the place, we were dismayed to find that it resembled in no respect the pleasure dome we had fondly imagined on our departure. It was, in fact, an eyesore so dilapidated as to appear to risk collapse under the pressure of a light breeze. Inside, illumination was provided by the occasional naked light bulb dangling from a cord frayed to the point of short-circuitry. As air conditioning the establishment boasted a number of rickety ceiling fans whose rate of rotation likely had to be kept sufficiently low to prevent them crashing to the floor in flames. And as for the swimming pool, there wasn't any. It being too late to seek alternative accommodation, we bowed with reluctance to our fate. What with the mosquitoes, the tropical heat, and the sounds of drunken revelry funnelling through the unshuttable transoms over the doors of the rooms, none of us was likely to forget the night we spent at the glamorous Hotel Flamingo. To this day the word "Flamingo" evokes in my mind, not an elegant pink bird, but a sleepless night in a sleazy hotel.

We set out again early the following morning, eager to distance ourselves from the Hotel Flamingo as quickly as possible. We drove northwards up the coast hoping to find somewhere acceptable to lodge. After a while we came upon a spanking new establishment perched right on the ocean's edge. Delighted with our discovery, we checked in and found the place comfortable and well-equipped, in every respect the opposite of the Flamingo. The sole oddity was the fact that its management, and, so far as we could tell, its residents (apart from ourselves) consisted exclusively of Germans. My mother soon became convinced that we had fetched up in a nest of Nazis, and insisted on our leaving immediately. I cannot recall why she came to believe this – perhaps she had spotted a platoon of guests goosestepping along the corridors at night – but we got out of there in a hurry. And even then our tribulations were not over. On the drive back to Quito we pulled in at a greasy spoon where we ate a couple of hamburgers. A few hours later Lynette and I were taken violently ill with food poisoning, so that my father had to stop the car and allow us to regurgitate the remains of these "ptomaineburgers", as they came to be known. Fortunately we soon recovered.

My family spent nearly a year in Ecuador, returning to California in the spring of 1960. I spent less than two months there, but the experience lives on as a colourful and exotic memory.

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I returned to Millfield in September 1959 to find that I had been transferred to the oddly named Joan's Kitchen, a House in Street run by Sid Hill, a teacher of biology at the school, and his wife Yolande. Joan's Kitchen was a far cry from Hili Homf, since it housed more than twenty "boys", several of whom were actually young men of seventeen or eighteen in their final year at the school. Sid and Yolande were both easy-going and uninclined to run a tight ship, so the atmosphere in the place was relaxed and informal. A good deal of badinage took place between the attractive Yolande and some of the older boys, but Sid didn't seem to mind.

I was assigned to a barracks-like dormitory which housed ten or so boys. The dorm prefect, Roger Myddelton, was somewhat older than the rest of us and left the school at the end of the year to read medicine at Cambridge, where I later got to know him better. The other members of the dorm included the tennis-players Peter Breed and Bob Manser, the lofty Mike Steele – whose

nickname, “Sixes” derived from the fact that he appeared already to have attained the height of 6’ 6” –and Chris Yates, a golf specialist. Roger Myddelton—to whom his fellow-inmates had inevitably assigned the nickname “Twiddleton”—found keeping order in the dormitory a trying experience. After lights out, to his suggestion “Let’s get some sleep,” some bright spark invariably rejoined “Where from?” and the chattering would continue undiminished. Other denizens of Joan’s Kitchen included Winfield Scott, from Trinidad, the Head of House, and Johnny Bassili, an amiable Egyptian with whom I struck up a friendship. On his departure from the school at the end of the year, he bequeathed me his reading lamp, which remained with me for a number of years. Each time I switched it on I was reminded of his generosity.

I rubbed along reasonably well with these fellows, apart from Chris Yates, who made it his duty right from our first meeting to give me as hard a time as possible. On a sealed door next to my bed I had mounted a shelf on which I had installed my precious record player. I had to be careful not to use it when Chris Yates was within earshot because as soon as he heard the strains of what he called “that classical rubbish” he would sneak behind the door and give it a hard knock, dislodging the player’s pickup and causing it to slide right across the record. I solved this problem by having the record player fitted out with an earphone, so enabling me to listen to my beloved music mostly undisturbed.

Mike Steele, with whom I became firm friends, was fond of film music, and played his records of movie scores such as *The Big Country* and *Oklahoma!* incessantly. Being less than captivated by this sort of music, its constant repetition led me to suggest to Mike that he invest in the recently released recording of *The Angry Silence*<sup>62</sup>.

Adjoining Joan’s Kitchen was an open courtyard containing a number of garages. One of these had been converted into a bicycle shop, which was run by an amiable fellow called Arthur. Arthur was fixated on bicycles, and talked of nothing else. This was a source of amusement to the wags at Joan’s Kitchen, who would imitate Arthur’s strong Somerset accent along lines something like this: “Arr, there be two types of Sturmey-Archers<sup>63</sup>, young gentleman, one has yer rocker pawls<sup>64</sup>, and the other has yer spring pawls. It wouldn’t do to be mixin’ up your pawls now, would it? Down ’ere in Zummerzet we know our pawls. Arr.” Everyone liked Arthur, and he kept our bicycles in tip-top condition.

I had two special friends, Khosrog Kaivani and “P. D.” Norton. Khosrog, an Iranian, whom I got to know through basketball practice, was my elder by a couple of years. He had a real enthusiasm for philosophy and would continually talk in his curious drawl of his heroes Frege, Wittgenstein, and Carnap, names I first heard from him. We also had long and heated discussions

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<sup>62</sup> Many years later Mike Steele reminded me of this episode, pointing out that *The Angry Silence* does actually have a score, written by no less a figure than Malcolm Arnold, to whose English and Scottish Dances I had introduced Mike while at school (a fact I had forgotten). This jogged my memory further: I now recall that Malcolm Arnold and my mother had been fellow-students at the Royal College of Music, and had at one time apparently been engaged to be married.

<sup>63</sup> Sturmey-Archer was the firm making the then popular “three-speed” hub gearshifts for British bicycles. These were largely displaced in the 1960s by the French *derailleur* system.

<sup>64</sup> The dictionary definition of *pawl* is “a pivoted tongue or sliding bolt on one part of a machine that is adapted to fall into notches or interdental spaces on another part so as to permit motion in only one direction.”

about Einstein and whether space could have more than three dimensions. I regret that I lost touch with him after he left the school.

My closest friend at Millfield was P. D. Norton. As budding physicists of nearly the same age, we shared most of our classes and did much of our classwork together. P. D., who disliked his given names Patrick Damian and insisted on being known by his initials, was the son of a worker at Clark's shoe factory in Street and attended the school as a day-boy. His intellectual precocity had attracted the Boss's attention and, like me, he had been offered a full scholarship. Unlike me, however, he was also a good sportsman and wound up on the first teams of several sports. When we first met he was several inches taller than I: it was a source of considerable satisfaction to me that I came to catch him up and eventually surpass him in height. In appearance we were a study in contrasts, I sandy-haired, light-skinned and blue-eyed; he black-haired and dark-complexioned, his eyes a shade of grey that I associate with intelligence to this day. Our backgrounds, too, were strikingly different, and my American manner occasionally rubbed him the wrong way. But our shared enthusiasm for science and friendly rivalry in the classroom bonded us together. In applied mathematics we raced to be first to solve the numerous problems, typically involving spheres rolling down perfectly rough inclined planes and projectiles struggling thorough resisting media under the influence of gravity. It became our custom to spur each other on by calling out "tick, next one!" whenever an exercise was completed.

One matter, however, on which we did not see eye-to-eye was the subject of religion. P.D. had been brought up a strict Roman Catholic and took great exception to my budding agnosticism. P.D. held it to be part of God's essence that His existence is necessarily revealed to human beings, and so, since (according to P.D.) God does in fact exist, it is impossible *not* to believe in him. Thus in asserting that I was an agnostic I was mistaken, not only as to the facts, but also as to my own beliefs. This assault on my subjectivity took my breath away, and at first I thought he must be joking. But I soon became convinced of his sincerity, and grasped that in his way he was trying to help me. As P.D. saw it, in clinging to my delusions as to my own mental state concerning the existence of the Deity, I was not merely being perverse, but risked arousing His ire, a dread circumstance which he, P.D., wished to spare me. While I was touched by P.D's concern for my spiritual welfare, on religious questions we remained separated by an unbridgeable gulf. Happily our friendship survived these differences.

I had begun to notice that Millfield was a coeducational establishment, even if, as was later the case at Oxford, the boys outnumbered the girls ten to one. I never got to know any of the girls at the school well, but their names—Anna Duckett, Rosemary Reeve, Frances MacLennan, Heather Knapman, Petronella Clark—still evoke in my mind's eye the splashes of colour they brought to the monochrome of the school's almost all-male society.

Since my parents lived so far away from England, it was not feasible for me to return home every vacation, and so I often had to rely on the hospitality of relatives and friends (with whom on occasion I lodged as a paying guest). Initially I stayed with a cousin of my mother's, Yvonne Moffat, and her husband John. They lived in a small house in Woodford Green, a quiet suburb in the north-east of London, which had for many years been represented in Parliament by Winston

Churchill (a mammoth bronze statue of whom stands on the Green). Yvonne showed me much kindness and I became very fond of her. A slim, elegant, fine-featured woman with silvered hair, she was an odd mixture of the modern and the traditional. She had been a police driver during the war and still enjoyed tooling around in her sporty red MG convertible. Yet she was also a great believer in the proprieties. When we went out, she insisted that I take her arm and walk on the side of the pavement nearest the curb, "because," as she often asserted, "that's what a gentleman would do." She abhorred what she called "scruffiness", and accordingly took pains to ensure that my hair was properly combed, my tie appropriately knotted, and my shoes brushed to a respectably modest shine. She also attempted, without success, to effect an improvement in my table manners, something which my mother had also tried in vain to achieve. For Yvonne – who had the misfortune to be born without a sense of smell – what one ate was less important than the manner in which it was eaten.

Yvonne's husband, John Moffat, was employed at Moreland's, the match manufacturers. I had the impression almost from the beginning that I irritated him in some way. Some years later Yvonne confirmed that he disliked me, and was the result of "jealousy" on his part. According to her, John felt that I had been given unfair advantages that he had missed in his own youth – his father had been unable to afford to send him to university, let alone an expensive private school like Millfield – and this annoyed him. (He must surely have known that I was there on scholarship, but perhaps this fact compounded his irritation.) My loquacity also, not surprisingly, got on his nerves. To this very moment I recall his pique when I unthinkingly broke the two-minute radio silence on Remembrance Day. And he was understandably furious when, in stashing my suitcase in the MG, I succeeded in smashing its speedometer beyond hope of repair. Finally, the fact that he and his wife had no children of their own (it seems, sadly, that they could not) must have compounded his resentment, for he surely did not see in me the son he might have had.

I spent one pleasant Christmas with David Partridge's family in Reading. Mr. Partridge, an officer in the RAF, was, like his son, witty and highly intelligent. I recall that he had inscribed his Christmas present to David – a collection of Sherlock Holmes short stories – with the phrase *Eleemosynary, my dear David*. Neither of us having the foggiest idea of what "eleemosynary" might mean, or even how to pronounce the word, we asked David's father. I have never forgotten his reply: "'Charitable', my boy, 'charitable'."

I spent parts of vacations with Geoff Howard's family, lodging at the school in Hampshire originally set up by Geoff's grandmother, and of which Geoff himself eventually became Headmaster. I recall the German master at the school playing a record of the Bruch G minor violin concerto to us, enthusing all the while. Mike Steele's parents, who lived in a pretty cottage near Stratford-upon-Avon, were also kind enough to put me up for part of the holidays. Mike's mother, a grave, gentle woman with long black hair, had studied mathematics at Oxford. It was in Stratford that I bought Roman Totenberg's recording of Bach's violin concertos, an early purchase I came to play incessantly. The quizzical expression on Bach's face in the drawing on the sleeve of this record afforded Mike no end of mirth.

I come now to the most painful episode of my life—the tragic death of my mother in June 1960. One afternoon I was summoned by the Boss to his study, where he informed me that he had just received some bad news—my mother had been involved in a “serious accident”. Hearing this was like being dealt a physical blow: I felt as if my whole world was collapsing around me. For I had instantly assumed the worst—that my dear mother was already dead and that the Boss was trying to soften the blow. I spent the next few hours in a daze. At some point the fact of her death was confirmed to me, but I cannot remember when or how. The following day I was horrified to find that the tragedy had been reported in the British newspapers. I could not grasp at first why this should be. But on forcing myself to read the reports light dawned, for not only were the circumstances of her death sufficiently odd to be newsworthy in themselves, but she had also been identified as being tenuously related—through one of her cousins—to the British aristocracy, always a source of fascination for the press. According to the reports—as best as I can recall, and only with a stab of pain—early in the morning of the previous day a man reported to the police that he had found a woman’s body by the side of the road not far from the turnoff to our family house in Mill Valley. The woman was my poor mother; she had died sometime the night before, her back broken from what proved to be a fall from a moving vehicle. Under questioning the man admitted that she had in fact been a passenger in his car. He had met her, he said, in a local bar the night before—my father confirmed that she had gone out by herself, probably to that very bar. When the bar closed the man offered her a lift home, which she accepted. According to him, she was “pretty drunk.” On the drive back, he missed the turnoff to our street at which point, he claimed, she opened the door of the car and threatened to jump out. Before he could stop the car she had fallen out, whether accidentally or voluntarily, he could not be certain. Not knowing what to do, the man said that he had “wandered around for a while” before finally making up his mind to go to the police. But by that time my mother had died. Later the man was tried and spent a year in jail for manslaughter.

Despite the horror of the circumstances, the man’s story was plausible. My mother was unhappy, a heavy drinker, and given to dramatic gestures. One such—I recall vividly—occurred when my mother, Lynette, Pete and I were travelling by train to visit Granddad England in Gloucestershire. Lynette and I had been squabbling ceaselessly. Finally my mother, her patience at an end, got up, opened the compartment door, and, turning to the two of us, said that, if we did not start behaving ourselves, she would throw herself off the train. This brought us to our senses, but by that time the other passengers had become sufficiently alarmed to intervene. To my mother’s mortification, this resulted in our being accompanied for the remainder of our journey by a stern and disapproving matron from the Women’s Voluntary Service. Fortunately, a later change of trains enabled us to give her the slip.

My mother was only 39 when she died: her prophecy that she would not attain the age of 40 had been tragically fulfilled. I am now considerably older than she was when her life was cut off, but I find it odd to compare my sixty-year-old self with hers—almost as strange as actually to travel into the past by time machine and to meet her as the older man I have become. In that part

of my memory devoted to my mother the two of us remain frozen precisely at our ages at the time of her death. The time machine of memory seems to obey a kind of reality principle: in using it to travel into one's past one necessarily becomes younger oneself. It is striking that dreams are not subject to this constraint: I have occasionally dreamt of meeting my mother after having myself achieved adulthood. But dreams can never compensate, in my mind, for the early loss of my mother, nor in particular for the cruelly abrupt termination of a relationship between mother and son which had scarcely begun to unfold.

The few weeks following my mother's death are blurred in my mind. I had a number of 'A'-level exams to sit and it was decided that, if I was up to it, I should stay on to take them rather than fly immediately back to California. Somehow I must have managed to pull myself together and struggle through. As a result I did not return to California until after my mother's funeral had taken place. I believe she was cremated and her ashes scattered, as she had requested, in the Dell at her father's estate at Northmoor.

I returned to the family home in Mill Valley to find all plunged in gloom. While Mum's death had been a devastating blow to all of us, it was, surely, especially shattering for my father, since he must have felt that he might have done more to prevent the tragedy. To some extent Pete, being only six, was shielded by his youth. But Lynette, at twelve, must have taken the blow very hard. I realized how fortunate I was in not being present at the time the tragedy actually took place. And I grasped, however obscurely, that, with Mum's passing, I had to lead an independent life.

That last summer at 307 Tennessee Avenue was filled with sadness, and I recall little of it. Granddad O. had moved in to assist my father, but he found the atmosphere depressing as well, and rarely left his room. For me one bright note was the discovery of the Bay Area radio stations KDFC and KPFA, which provided musical escape. It was on one of these stations that I first heard the Bach D minor keyboard concerto, which impressed me so much that I rushed out to buy the record at the aptly named "Sea of Records" in San Francisco. (There are two records of these concertos, played by Paul Badura-Skoda and Joerg Demus, which are still in my possession. It was from these that I first experienced the glories of the C major double concerto, which became one of my firm favourites.) But standing out still brighter in that sad summer was my discovery of Jascha Heifetz's overwhelming performances of the Bach solo violin sonatas and partitas. I had heard Heifetz playing Bruch's "Scottish Fantasy" on one of my mother's records, and knew that he was a formidable violinist. So when I came across his recording of the Bach A minor sonata and E major partita for solo violin in a record store in San Francisco, out of curiosity I bought it. Playing it at home, I was transfixed, hooked right from the sonata's dramatic opening chord. This was music-making of a transcendent order: supreme virtuosity in the service of works of ultimate artistry. The performance I first heard on that record, with Heifetz's subtle portamenti, astonishingly exact double and triple-stopping, flexible, almost jazzy rhythms and sheer propulsiveness, marked the beginning of a lifelong addiction to his playing. Heifetz's mastery of the violin remains for me at the summit of human achievement.

The following September I flew back to England, spending a few days with the Moffats before returning to Millfield. This was a most difficult time: my mother's death still haunted me;



I could not sleep, and I suffered from palpitations of the heart. One night, after tossing and turning for hours, in desperation I woke Yvonne and appealed to her for help. She calmed me down as best she could.

I returned to Millfield to find that I had been moved from Joan's Kitchen to Etonhurst, a large house just acquired by the school near the village of Ashcott some 10 miles from Street. Mr. and Mrs. Dickens had been appointed to preside over this establishment of 50 or so boys. On arriving there I found to my surprise that I had been appointed a house prefect, an office which, among other things, gave me the freedom to read as late as I had a mind to, something for which I had good reason to be grateful. (Of negligible significance was the distinction of having my name typed in capital letters on school lists.) I shared an annexe outside the main building with several other boys. These included Mike Steele, who had moved with me from Joan's Kitchen, and an amiable Bruneian boy with the astonishing name Awangku Ismail bin Pengiran Mahmoud, who spent much of his time combing his dark, well-oiled and luxuriant hair. I struck up a friendship with a new arrival at the school, François Lalive, an amusing Franco-Swiss boy of about my age, who, I was delighted to learn, knew the Aquarones, my old pals from The Hague. He showed little respect for the prefects, and underwent frequent canings, which only served to stiffen his resistance to a regime that he regarded as a joke. I admired his boldness. (Some years later I was reminded of him by the character played by Malcolm McDowell in Lindsay Anderson's anti-public-school film *If*.) Our shared love of music also provided a bond between us. François played the flute well, and he also had an intriguing collection of classical records which had been passed on to him by his parents. He gave me free access to this collection, two records in which I came to cherish: Elisabeth Schwarzkopf's virtuosic rendering of Bach's Cantata No. 51, *Lauchzet Gott in Allen Landen*, and Mozart's exquisite String Trio in E flat, K. 563, in the recording by the Bel Arte Trio. This latter was the source of my lifelong devotion to chamber music and to the music of Mozart. When François left Millfield after just one year (I was to leave myself a term later) he was kind enough to bequeath me these records, which are still in my possession<sup>65</sup>.

Geoff Howard had also moved to Etonhurst, which gave us an opportunity to renew our friendship and musical interests. He had acquired a recording (on 78s) of Beethoven's C Major Triple Concerto, op. 56, which we would play over and over again. Exposure to this work, of which I became very fond, finally dispelled the prejudice against Beethoven's music I had inherited from my mother. Geoff and I also became very enthusiastic about Khatchaturian's (somewhat corny, I now think) piano concerto, which Geoff, characteristically, called "Khatchy".

A major disadvantage of the move to Etonhurst was the marked deterioration in the quality of the food. At Joan's Kitchen Yolande had seen to it that we were served decent grub, particularly in the evenings, but the fare at Etonhurst was execrable. I came to dread especially the liver stew which appeared at lunchtime with dispiriting frequency. This noxious concoction, served in rectangular aluminum pans, consisted of a number of turdlike lumps immersed in a glutinous dark brown sauce, the whole resembling the contents of a cesspit. As if this were not punishment enough for one's existence, to follow were vast inedible plains of rice pudding, or, even worse,

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<sup>65</sup> François later emigrated to the United States and now builds houses in Steamboat Springs, Colorado.

its macaroni equivalent. We all grumbled about the poor quality of the food, but I cannot recall that it improved while I was an inmate.

In early 1961 schoolboys throughout Britain awaited with impatience the impending publication, by Penguin Books, of the unexpurgated version of D. H. Lawrence's *Lady Chatterley's Lover*. On the day of publication several of my mates rushed out to buy a copy of what had come universally to be known as "Lady C". But the notorious book turned out to be less titillating than expected, a letdown in fact, and everybody came to wonder what all the fuss had been about.

Meanwhile I continued my violin lessons, now with Mr. H. O. Dean, the school violin teacher. He was a pleasant, garrulous man with a bald pate he attempted to hide with a thin swatch of hair rivalling the length of his bow. Absurdly, this would come adrift and wave about as he played. No matter how atrocious my scraping, he invariably awarded me a B, *pour encourager*. He enjoyed talking about the violin and violinists. While naturally he revered my idol Jascha Heifetz, I recall that his own favourite was a violinist he called "Renato Rissi" —it was only later that I realized that he meant the American virtuoso Ruggiero Ricci, whose playing I, too, came greatly to admire.

At Etonhurst I acquired a battery-operated radio which enabled me to listen to the music programs on the BBC. One I recall particularly was "Music at Night", which came on at 11.5 p.m. just after the news summary. This was devoted to half an hour's chamber music. Listening to Haydn quartets while snuggled up in bed induced a delicious feeling of intimacy, an escape from worldly cares, which I have never forgotten.

Despite the excellent teaching at Millfield I had not abandoned my efforts at self-instruction. At Joan's Kitchen I worked my way through the last two volumes of E. A. Maxwell's *An Analytical Calculus*. I was fascinated with the contents of the blue-covered volume on partial differentiation. I had been attracted by the appearance of Jacobi's symbol " $\partial$ " since seeing it in one of my father's engineering manuals, and I had a delightful sense of fulfillment when I began to understand what it actually *signified*. At Etonhurst I read Hardy's *Pure Mathematics* and, at the suggestion of E. H. Linfoot (of whom more below), made my first steps in complex analysis through Knopp's *Elements of the Theory of Functions*. Nor had the theory of relativity lost its appeal for me. I dived headfirst into Hermann Weyl's *Space-Time-Matter*, a work I understood only dimly, but which instilled in me a lifelong interest in Weyl. What working knowledge I had of general relativity I gained from Eddington's *Mathematical Theory of Relativity*, from which I learned how to manipulate those intriguing entities known as tensors. But despite the fact that by the time I left Millfield I yielded to no one in my facility at raising, lowering — to say nothing of expunging — a tensor index, I had only the haziest notion of what a tensor actually *was*. The uneasy feeling that in physics I had divined the form but missed the substance was soon to push me away from physics and into the abstract mathematics of the 20<sup>th</sup> century, where form and substance are one and the same.

Devoting as I did most of my spare time to technical study meant that I did not do a great deal of more general reading during my Millfield years. Among the books I can remember reading are *War and Peace*; Aldous Huxley's *Brave New World Revisited*; Brian W. Aldiss's melancholically memorable SF story collection *Space, Time and Nathaniel* (which I read in Tripoli);

Arthur C. Clarke's *The City and the Stars* (an SF *Bildungsroman* and one of my favourites at the time) and Frank M. Robinson's *The Power*. Especially memorable were H. G. Wells's *Collected Short Stories*, which I gobbled up while at Joan's Kitchen, one in particular, *The Man who Could Work Miracles*, leaving an indelible impression.

Now and then the Boss would summon me to Millfield House for an audience. I would wait until the ingenious set of miniature traffic lights mounted alongside the baize-covered door of his study changed to green, indicating that it was permissible to enter the inner sanctum. There Boss could usually be seen sitting in his shabby old armchair, a telephone in his lap, surrounded by teetering piles of books and papers. On one such occasion I recall him saying to me "I'm taking a few chaps up to Cambridge (or Oxford) next week to meet some people, and I want you to join us," or words to that effect. Then he got up – very tall and thin, it was as if he unfolded himself from his chair – went over to one of the piles, extracted a book from it, and handed it to me. "I think you'll find this interesting." (The book was, I recall, O. R. Frisch's *Handbook of Nuclear Physics*.) Indicating that the interview was at an end – he was a very busy man – he said he hoped that on the Cambridge (or Oxford) trip "I would be on my best behaviour."

These excursions to Oxford or Cambridge had been organized by the Boss in the first instance to provide an opportunity to show off his sporting stars. One of these was Mark Cox, the tennis player, who later did in fact go to Cambridge. I had been invited to join the Boss's travelling circus in virtue of my putative intellectual precocity, with which the Boss hoped, presumably, to impress the dons. I recall going twice to Cambridge and once to Oxford. In Oxford we lodged at the Randolph Hotel, in Cambridge at the Red Lion (now long gone), an ancient establishment on Petty Cury whose lobby was actually a glassed-over lane running between Petty Cury and a parallel neighbouring street. On one of these visits to Cambridge I recall engaging in an earnest discussion with an Indian physicist; it's probably just as well that I cannot remember what I actually said. It was also in Cambridge that I was introduced to the Linfoots (of whom more below), who were to play such an important role in my life.

The Boss encouraged my teenage "prodigism" in other ways as well, for example, by entering me for 'O'-levels at 13 and 'A'-levels at 14. He even suggested that I give lectures to some of the other boys on my interests in physics and mathematics. So on Saturday afternoons I found myself in front of a blackboard in one of the makeshift classrooms (known as "chicken runs") expatiating on the expanding universe to a tiny captive audience of my contemporaries – capital preparation for my future career as a dispenser of soporifics to bored students in the lecture theatre! My reading of Fred Hoyle's popular works on astronomy had acquainted me with the steady-state theory of the universe and this had led to the brainstorm – which I also recall presenting in the form of an article in the school magazine – that the edge of our expanding universe at which objects are receding at near-luminal velocity actually marks the boundary of another expanding universe whose corresponding edge marks the boundary of yet another expanding universe, and so on *ad infinitum*.

By far the most significant piece of promotion the Boss did in my behalf – one for which I have good reason to be particularly grateful – was in sending me, along with P. D. Norton, up to Oxford early in 1961 to sit the physics scholarship examinations. As we were no more than 15

years old at the time the Boss cannot have expected success from either of us. Indeed just before we left, he told us (using one of the racing metaphors to which he was partial) that we should regard our efforts there as a mere “preliminary canter”. I was entered at Exeter College, where, being Gloucestershire-born, I was eligible for one of the Stapeldon scholarships for those born in the west of England. So P.D. and I, abrim with excitement, took the train up to Oxford. On arrival we found that we had been billeted in Keble College. I cannot now recall where we actually sat the examinations, but over the next few days we scribbled away for all we were worth. I still associate the Oxford scholarship examinations with Beethoven’s Triple Concerto, to which I had been listening just before my departure for Oxford and which was still running through my mind. At the conclusion of the written examinations we trooped down the High to Magdalen College where lists of those summoned for interview had been posted. Along with my fellow-candidates, I anxiously scanned the blackboards set up in the cloisters of Magdalen’s Great Quad to see whether I had been numbered among the successful. I was thrilled to find my name listed there. I have only the haziest recollection of my interview at Exeter College the following day, but it must have gone well, for following my return to Millfield a letter arrived from the Exeter College authorities informing me of the award of an Open Scholarship in Physics. The fact that I was 15 years old at the time of the award<sup>66</sup> resulted in a blaze of publicity, with newspaper reports and interviews, which the Boss must surely have felt could do the school’s reputation no harm. But even this, unquestionably my finest hour, was tinged with sadness, for I could not help thinking how proud my mother would have been of me had she been alive.

These newspaper reports now evoke mixed feelings of pride and embarrassment. In one of these the Boss cleverly blends caution and exaggeration by describing me as *potentially one step below Einstein* – I seem to recall that one paper actually went so far as to reproduce a photograph of the young Einstein alongside my grubby snapshot! As for the Daily Express interview, I now cringe at my reported remarks such as *when other boys go to the cinema, I’d rather work on a mathematical problem or read a book on physics*.

While the Boss was reported as saying that I was not “socially or emotionally mature enough” to go up to Oxford at that time, Exeter College was perfectly willing to admit me, at age 16 the following October. But the Boss had it in mind from the start for me to win a scholarship at King’s College, Cambridge, which he considered *la crème de la crème*. (Despite my being quoted in a newspaper interview as saying that *I have always wanted to go to Cambridge, and decided that long before I sat the Oxford scholarship*, this was really the Boss’s idea.) So he persuaded me to stay on at Millfield in order to prepare for the mathematics scholarship exams at Cambridge the following December. That summer I took, and passed, 4 ‘S’-levels, in pure and applied mathematics, physics, and chemistry, entitling me to a State Scholarship, which, in addition to the college scholarship, supported me during my undergraduate years.

An unexpected piece of good fortune stemming from all this publicity was the renewal of communication with Michèle Aquarone and her family, with whom I had lost touch in the

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<sup>66</sup> Actually, at 15 I was already superannuated by the standards of today’s prodigies. In the 1980s, Ruth Lawrence, for example, received her Oxford scholarship at the tender age of 10!

intervening years. Michèle, who was at this time attending a convent school in Paris, chanced to hear a radio report of my Oxford “triumph”. Learning from it that I was at Millfield, she wrote to me there; we later arranged to meet and have since remained the staunchest of friends.

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In the summer of 1961 I returned to California. My father had meanwhile remarried and I met to my father’s new wife, Margery, for the first time. She may have been as apprehensive as I at the prospect of our first meeting, but I felt we hit it off right away, with no stepmother-stepson friction whatsoever. An attractive, sophisticated woman some years older than my father, she had been married for many years to a San Francisco doctor until his recent death. They had a handsome country house in a fashionable neighbourhood of Santa Cruz, a small town some eighty miles south of San Francisco. After Margery’s marriage to my father, it was decided to use this house, rather than our house in Mill Valley, as the family residence. So my father sold the Mill Valley house and the whole family moved to Santa Cruz – Margery’s house, of insufficient size to accommodate all of us, being enlarged with an annexe. I spent several pleasant summers in this house, which had been furnished by Margery in exquisite taste, with elegant Chinese screens and lamps and occasional tables, pleasingly balanced by the greens and browns of exotic plants and bonsai trees. But I felt a stab of pain when I first saw Margery’s white baby grand piano in place of my mother’s beloved Blüthner, which my father had sold.

Margery and my father had found happiness together, and I was glad that, thanks to her, our shattered family life had been so quickly restored. Taking on a family like ours must have been a daunting task, but Margery’s grace was equal to every obstacle.

Later that summer the editor of the local newspaper learned of my Oxford escapade and I was invited to his office for an interview. Insisting that I look presentable for the occasion, Margery drove me into town for a long overdue haircut. In an effort to impress the photographer (and those few readers of the *Santa Cruz Sentinel* unwise enough to stray into its back pages) I can be seen to have chalked on the blackboard a heterogeneous mixture of integral calculations and standard metric tensor formulas. The report of the interview itself is less cringeworthy than the one in the *Daily Express*, with the exception of the priceless *Asked if he was rated as a genius, John answered “I honestly don’t know.”* Modesty of this order takes the breath away.

In September I returned for what turned out to be my final term at Millfield to prepare for the mathematics scholarship examinations at King’s College, Cambridge. I sat these in December, but fared less well than I had at Oxford. Perhaps this was because, unlike the Oxford examination, the Cambridge papers contained a non-negligible amount of projective geometry which, as I had said in the Santa Cruz interview, “got on my nerves”; perhaps also because by that time I had had my fill of exams. A more convincing, if less palatable explanation is that I failed to measure up against stiffer competition, King’s being, after all, *la crème de la crème*. In any case I was told by the authorities at King’s that, while they were perfectly willing to offer me a place at the college,

I would be well advised to take up my Oxford scholarship<sup>67</sup>. Resolved to act on this advice, I left Millfield at the end of 1961, against the Boss's wishes, since he wanted me to try the Cambridge exams again. I think the Boss may have been hurt by my precipitate decision to leave Millfield, and, if so, I am truly sorry, because I have nothing but gratitude for all he did for me. I have always known how much I owe him, and Millfield.

Many years later I learned from Dermot Roaf, the Exeter College mathematics tutor, that my failure to secure a scholarship at King's may not, after all, have been wholly due to a less than stellar examination performance on my part. It seems that when the Exeter authorities read in the press that I was not going to accept the scholarship they had offered me, the Rector of the college, Kenneth Wheare, wrote to the Boss asking what was going on, pointing out that I had signed an entry form which committed me to coming to Exeter (a fact of which I was either unaware or have forgotten). Characteristically, the Boss replied that he "did not care." Exeter also informed King's of the situation, and the authorities there replied that they agreed that I was committed to Exeter. So it came as no surprise to them that I was awarded just a place, rather than a scholarship, at King's<sup>68</sup>.

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<sup>67</sup> I had already been encouraged to do this by John Dunn, one of the school's most brilliant pupils, a few years older than I, whom I got to know in my second year. He got a history scholarship to King's and remained there, becoming Cambridge's first Professor of Political Theory.

<sup>68</sup> Chapter 26 of Barry Hobson's *History of Millfield 1935-1970*  
<https://resources.finalsite.net/images/v1600168102/millfieldschoolcom/mozmfsrmqczlpi9o4rnh/BarryHobsonAHistoryofMillfield.pdf> provides a detailed account of the "John Bell saga"

## CAMBRIDGE, 1962.

WHILE IN CAMBRIDGE sitting the scholarship examinations I was the house guest, as I had been on several previous occasions, of Hubert and Joyce Linfoot. I had first been introduced to them by the Boss in 1959 or 1960 at one of his Cambridge affairs – at that time their son Sebastian attended Edgarley Hall, the Millfield junior school in Glastonbury. In bringing us together the Boss must have reckoned, with his usual sagacity, that the Linfoots, both mathematicians, and I, an aspiring one, would hit it off. He was right. Hubert and Joyce became my mentors – surrogate parents even. They first invited me to stay with them during a school vacation in 1960; subsequently I was to be a regular recipient of their hospitality and guidance.

I had in the meantime resolved not to return to Millfield but to take up my Oxford scholarship the following October. I had also decided to study mathematics rather than physics, so I wrote to the authorities at Exeter College accordingly, receiving a favourable reply. Thus the question arose as to how I should fill the time – the best part of a year – before going up to Oxford. The Linfoots suggested that I spend the winter and spring with them in Cambridge, and attend some lectures at the university. The Boss would fix me up with a summer job which would carry me through until the following September. I was happy to accept these generous offers.

The Linfoots, together with their two children, Margaret, about my age, and Sebastian, a couple of years younger, lived in West House, one of two large residences in the Cambridge Observatories furnished by the university for the use of the John Couch Adams Astronomer and the Professor of Astrophysics. (How handsomely the university then provided for its dons!) There the Linfoots led a cloistered life within a comfortable hermetic universe of the intellect, emblematic of a bygone and more refined age. The Observatory buildings, of Georgian foundation, are set in splendid grounds off the Madingley Road in the outskirts of Cambridge, next to what is now Churchill College (which was being built at the time I stayed with the Linfoots). West House had its own vegetable gardens and a spacious lawn which in the summer made an excellent badminton court. (Now, alas, all this has been dug up and covered with flimsy buildings, and the two residences converted into offices.) The ground floor of the house contained a generously proportioned drawing room, a separate dining room, and a large kitchen. In the drawing room were a number of bookcases housing a part of the Linfoots' extensive library. The books had been assembled on the shelves with the taller ones on the outside, so that the tops of their spines formed a concavity, pleasing to the eye and at the same time minimizing the amount of sag in each shelf. Joyce and Hubert's library reflected the catholicity of their tastes in literature: on their shelves one found everything from Lady Murasaki to Dashiell Hammett. After Hubert's death in 1982 Joyce allowed me to select a few of these books: in addition to Hammett's *The Maltese Falcon* and *The Glass Key* (in first editions) I chose Eddington's *Mathematical Theory of Relativity* (the very copy I had first used) and *Fundamental Theory*, Hardy and Wright's *The Theory of Numbers*, Hardy's two works on Ramanujan, and the first edition of Dirac's *Quantum Mechanics*.

Hubert's position as John Couch Adams Astronomer did not require him to teach, and so he rarely ventured beyond the Observatory precincts. His infrequent trips into Cambridge were usually made with the purpose of replenishing his supply of cigars, one of which he would light up and puff with enjoyment after each lunch and dinner. Originally from Sheffield, Hubert was a short, bearded, brown-eyed, broad-browed man, some 55 years old when we first met. He had been an undergraduate at Balliol College, Oxford, where Henry Whitehead, the outstanding topologist, was an exact contemporary. A few years later the two competed for the single Mathematics Fellowship at Balliol, Whitehead emerging as the successful candidate. This had clearly been a great disappointment for Hubert, but he had at least the consolation being runner-up to a mathematician whose originality and achievements he acknowledged. He completed his doctorate in mathematics at Oxford under the supervision of the famous English mathematician G. H. Hardy<sup>69</sup>.

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<sup>69</sup> Since Hubert was my mentor, and he had been a doctoral student of Hardy, it later pleased me to claim, tongue in cheek, that I was an "honorary grandstudent" of Hardy's. Much to my surprise, my little fanfaronade was eventually substantiated. In the 1990s the Mathematics Genealogy Project went online, and out of curiosity I entered my name, to see if my own genealogy had been traced. I had expected that my doctoral supervisor at Oxford, John Crossley, who had an Oxford doctorate himself, would be listed, and this proved to be correct. But at the same time I thought that Crossley's supervisor, an Oxford mathematician presumably, might be typical of previous generations of Oxford dons in not possessing, or indeed desiring to possess a doctorate. In which case my mathematical genealogy would be extremely short, a linear graph of length 3.

But upon opening up my entry on the Mathematics Genealogy Project, I was surprised to find that tracing it back generated, not a mere truncated line, but a ramified display. The track into the past began with me and passed through John Crossley, his Oxford supervisor Kenneth Gravett, and thence to the Hungarian mathematician Richard Rado. At this point the track split into two branches, on long, the other very short, no more than a twig, in fact. The long branch, which stretched back to the mid- 17th century, The first, and longer of these, led to Germany, passing through Issai Schur, Frobenius, Weierstrass, Gudermann, and, remarkably, the great Gauss himself. An honorable lineage, I felt.

What the twig revealed was still more surprising. John Crossley's supervisor Gravett, although employed at Oxford, not only had himself been awarded a doctorate, but had obtained it at the University of London. And his supervisor there, Richard Rado, had not earned just one, but *two* doctorates, one obtained in Berlin in 1933, leading to the long German branch; the other in Cambridge in 1935 after he had left Germany for Britain on Hitler's coming to power. The resulting "English twig" showed, to my astonishment and delight, that Rado's Cambridge supervisor had been none other than G. H. Hardy himself. Hardy himself had never obtained a Ph.D., so this "English" branch was indeed no more than a twig.

Thus I learned that I was, after all, a bona fide academic descendent of Hardy's. I was reminded of the analogous situation in Oscar Wilde's play *The Importance of Being Earnest* in which the principal character Jack Worthing assumes the name of Ernest for involved reasons only to find at the play's conclusion that this was in fact the name with which he had originally been christened. It was a thrill to feel that my life had, even if in a small way, imitated art.

Two footnotes to this footnote. First, it is hardly remarkable for a mathematician's academic pedigree to be traceable to famous German predecessors. The Ph. D. degree originated in Germany in the 17<sup>th</sup> century, was introduced in the United States in the 19<sup>th</sup> century but only entered British universities in the 1920s. Thus Gauss, for example, has upwards of 30000 "official" descendants, i.e. descendants receiving genuine Ph. D.s ' On the other hand if you consult the Mathematical Genealogy Project's entry for Newton you'll find the claim he has 21000 "descendants", but only a few hundred of these actually received genuine Ph.Ds, and these were awarded in the 20<sup>th</sup> century. Hardy himself had no Ph.D. degree.

Second, I have mentioned that Richard Rado, on Hitler's coming to power in 1933, left Germany for Britain, where he obtained his Ph.D. at Cambridge under Hardy. Thus I owe Hitler my own academic descent from Hardy, since had Hitler not come to power, it's extremely unlikely that Rado would have been impelled to leave Germany for Britain, and seek a second doctorate with Hardy. In fact I have long acknowledged that I owe, not merely my academic descent, but my very existence to Hitler. For had he not initiated the Second World War, leading to the involvement of the United States, my father would almost certainly not have been sent by the U.S. military authorities from his native California to Britain where he met and married my mother. (It still amuses me to joke that, for this reason, I could claim to be a "Hitler Youth", only not, thankfully, in the actual historical sense.) It's curious to have to acknowledge one's double existential dependence on a historical monster.



Hubert was a polymath, capable of discoursing with depth and fluency on virtually any cultural topic. His life had been devoted to scientific work, to begin with in pure mathematics and later in mathematical optics and the design of astronomical telescopes. A true intellectual, he was a man for whom the life of the mind came as naturally as breathing.

He was musical and enjoyed playing the baby grand piano which occupied pride of place in the drawing room at West House. He also had a collection of records and pocket scores from which he would follow the music as it played on the gramophone. He had a great liking for the Beethoven quartets, to which he introduced me, his favourites being the F major, Op. 59, no. 1 (the first of the "Razumovskys") and the A minor Op. 132, to which we would listen together in the recordings by the Griller Quartet. I recall his enthusiasm for the recently released recordings by Kogan, Barshai and Rostropovich of Beethoven's String Trios Op. 9 in nos. 1 and 3. (I, too, was captivated by these performances, which were only to be surpassed, in my estimation, by those of Heifetz, Primrose, and Piatigorsky.) He was fond of Brahms's chamber music, which, through him, I came to love also. But of all composers Bach ranked highest in his estimation. He had actually taught himself to play the preludes from the *Well-Tempered Clavier* on the piano. He also had a tape of Rosalyn Tureck playing Bach's *Goldberg Variations* which came as a revelation to me when I first heard it. His musical tastes were conservative and did not extend to most 20<sup>th</sup> century music. When I tried to impress him with *Petrushka* he responded by jokingly quoting the lines *The man who wrote the Rite of Spring / If I am right, by right should swing*. I was puzzled by the fact that, while his collection of pocket scores contained a number of volumes of Mozart chamber music (works which I had not yet heard), he had no Mozart recordings, nor did he express any particular interest in Mozart's music. When I asked him about this, he told me that in his youth he had been fond of Mozart, but as he grew older he came to find that Mozart's music "lacked substance" by comparison with Bach, Beethoven and Brahms. In his musical tastes he was very much an adherent of the "three B's."

As an aficionado of literature, he esteemed above all Tolstoy's *Anna Karenina* and Aldous Huxley's *Point Counter Point*, passages from both of which Joyce would read aloud in her pleasing voice. Despite his atheistic convictions, he was delighted by C. S. Lewis's *The Screwtape Letters*, which he thought one of the most brilliant books written by a religious believer. He also had a liking for Dashiell Hammett, particularly *The Maltese Falcon*, in which the "Flitcraft episode" had captured his fancy. In contrast with his indifference to modern music, he had an interest in 20<sup>th</sup> century painters such as Picasso, Ernst and Dali: the latter's *The Burning Giraffe* was one of his favourite paintings.

Hubert had a mordant wit. I remember him leafing through a catalogue of mathematics books and coming across the title "Calculus Refresher for Technical Men". He chuckled and said "Well, technically they may be men, but they can't do calculus!" And while Hubert was pleased when Joyce resumed her career of training teachers, at the same time he could not resist quipping: "Those who can, do. Those who can't, teach. And those who can't teach, teach teachers to teach."

Most memorable was Hubert's pungent comment on the recent elevation of a contemporary of his to a professorship of mathematics: "In this country, once a mathematician becomes a professor, he has as much time for research as a bishop has for prayer."

A very neat, precise man, Hubert had a delicacy of touch enabling him to do his writing at a card table. He was an excellent chess player and had once been a member of the Oxford county team. He also enjoyed playing the Oriental game of Go, which he had learned from one of his graduate students, a Japanese by the name of Yabushita, who had presented him with a handsome Go board as a parting gift. Hubert taught me to play this subtle game but always remained the superior player: despite a handicap of 5 stones I continued to lose to him.

Joyce, also originally from the Midlands, had been a wrangler (i.e., received first-class honours in mathematics) at Cambridge but, as with most women of her generation, had shelved her career to raise a family. Both she and Hubert were excellent linguists, she speaking fluent French, Hubert fluent German. As a Cambridge undergraduate in the 1930s she had won a university prize for reading aloud, a fact which would surprise no one hearing her beautiful diction. Her acute intelligence was balanced by a deep kindliness, her natural gravity lightened by a sense of fun. With her boundless energy, she took pleasure in cycling, playing badminton on the spacious lawn in the Observatory grounds, and engaging in mock "table tennis" on the dining room table. She greatly enjoyed Contract Bridge, tolerating my ineffective partnership in the many games we played after dinner against Hubert and Margaret. Joyce was an excellent cook, each day preparing, to Hubert's exacting standards, the meals to which she would summon us by the beating of a large gong in the front corridor. After her children had grown up, she resumed her career, becoming in 1962 a Lecturer in Education in Cambridge University, and in 1965 a Founding Fellow of Lucy Cavendish College, serving for some years as its Bursar.

The months I spent in Cambridge during the first half of 1962 were among the most stimulating intellectually of my life. Hubert had arranged for me to attend lecture courses in the university. Of these the most memorable was Fred Hoyle's graduate cosmology course. Hoyle was both a major physicist and a colourful character, well known for his science fiction writings. Once I saw him roaring up the long drive to the Observatories in his sports car, skidding to a halt, jumping out, and rushing inside the building on some urgent mission. I was thrilled to be present at Hoyle's lectures, since I had read several of his popular books on astronomy and, as one of the devisers of the steady-state theory<sup>70</sup>, he was something of a hero to me. In his lectures, which were veritable *tours de force*, he described most of the cosmological models known at the time, including that of Kurt Gödel. It is curious that I, who was later to become a logician, should first hear of Gödel, the greatest of all logicians, in a cosmology course. Hoyle had mentioned that Gödel's universe contained closed time-like lines, which meant that travel into the past was, in principle, possible. I was sufficiently intrigued by this idea to look up Gödel's original paper in the *Reviews of Modern Physics*, but I couldn't follow the argument. I took copious notes on Hoyle's lectures which on my daily return to West House I would write up in fair copy and submit to

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<sup>70</sup> Many cosmologists were "steady-statesmen" up to 1965 when the rival "big-bang" theory was startlingly confirmed by the discovery of the 3°K. background radiation.

Hubert to go over. I modelled these notes on the contents of the impressive series of notebooks Hubert had compiled over the years. These beautifully written notebooks were models of clarity, in my eyes providing a standard to which I strove in to live up to<sup>71</sup>. Looking back over my own notes on Hoyle's lectures, I am still surprised by the apparent facility displayed by my 16-year-old self, but it seems doubtful whether I *truly* understood the intricacies of the mathematics I was inscribing.

I also studied, with Hubert's guidance, Whittaker and Watson's *Modern Analysis*, Titchmarsh's *Theory of Functions* and Knopp's *Function Theory*. I strove to master contour integration, analytic continuation, and inversion of power series, but I never came close to equalling Hubert's command of these techniques. The greatest influence on my mathematical development was Kelley's *General Topology*. Hubert had bought this book for the purpose of updating, through self-instruction, his own mathematical knowledge, which he realized had fallen behind since leaving pure mathematics for optics—I recall him remarking that he had always been an autodidact, a term I first learned from him. I borrowed Hubert's copy of Kelley's book and took to it immediately, the scales falling from my eyes as I began to see what it really meant to do mathematics from first principles. I acquired a copy of my own and started to work my way through the problems in this book, writing up some of my solutions and presenting them to Hubert. Kelley's book became my Bible, as it did for many other budding mathematicians of the time. It was my introduction not only to general topology but also to set theory, lattices, Boolean algebras, topological groups, normed spaces—in fact to virtually every area of modern mathematics apart from logic.

Meanwhile a snag had arisen in my future entry to Oxford in that I lacked a foreign language 'O'-level (Latin, while essential for admission to Oxford at that time, apparently, didn't count). I therefore resolved to work my Russian up to standard and take the examination in the summer. I signed up for the Russian course at the local technical college. Coincidentally, Joyce and Hubert were then both following the Russian course on BBC radio. At mealtimes we often attempted to converse in our rudimentary Russian. When I finally came to sit the examination (briefly returning to Millfield for that purpose)—which I passed with the respectable, but hardly brilliant, score of 60—I made a fool of myself during the oral. Pointing at the window, through which the Glastonbury Tor was clearly visible, the examiner asked me *Shto na kholmnye?* ("What's on top of the hill?"). I didn't know that *kholm* meant "hill", and I failed to infer its meaning from the examiner's gesturing. I was reduced to repeating *Ya nye panemaiu* ("I don't understand"). In any case I didn't know the Russian word for "tower" either!

The Linfoots had a car, an antique black Daimler known as "James". Its comfortable leather-covered seats were so soft and yielding that the driver could peer through its narrow windshield only by sitting bolt upright. Now and then I accompanied Joyce on her weekly Cambridge shopping trip in James. On one such trip, we were driving along the Madingley Road when the car suddenly lurched and ground crazily to a halt. To our astonishment we saw one of the tyres

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<sup>71</sup> I made my first attempt at learning quantum theory by reading Hubert's notes on von Neumann's lectures on the subject at Princeton in 1929.

spinning off on its own trajectory into a neighbouring field, narrowly missing several startled pedestrians. The car's tyres had recently been changed at a local garage, and clearly the wheelbolts had not been tightened up properly. For this negligence Joyce merely delivered a typically mild British reproof to the garage manager, in sharp contrast with what would have happened in the United States, where the firm would probably have been sued out of business.

Then there was the unique occasion on which Hubert was persuaded to go to the movies. We all piled into James and drove to the Arts Cinema in Cambridge to see David Lean's 1945 film *Brief Encounter*. For Hubert and Joyce this quintessentially English film must have revived memories; for my part, I am afraid that I found it intolerably mawkish.

I shall never forget the following tiny but significant episode, which somehow typifies the ambience at West House. One evening before dinner I was sitting in the drawing room listening to a radio performance of the first of Beethoven's "Razumovsky" quartets. About halfway through the quartet's sublime third movement Joyce struck the gong for dinner, but I was determined to hear the rest of the movement through. The fourth and final movement of this quartet is based on one of the Russian themes which Count Razumovsky had enjoined Beethoven to incorporate into each of the three quartets he had commissioned. Hubert had remarked to me that Beethoven evidently did not take this aspect of his commission very seriously, since the (two) movements of the quartets containing Razumovsky's themes are the weakest (and indeed in the third quartet of the group Beethoven dispenses with Russian themes altogether). Knowing that Hubert knew that I knew this, I sensed that he would expect me not to prolong my lateness beyond the bounds of courtesy by staying to listen to the quartet's anticlimactic last movement, but instead to join the company at table immediately after the third movement had ended. And that is what I did. As I sat down at the dinner table, apologizing for being late, Hubert remarked that he was counting on me to show up at precisely that moment. I was glad not to have disappointed him.

Reflecting on the time I spent with Hubert and Joyce, I am struck not only by their kindness and hospitality, their treating me as they would one of their own, but also by the fact that, despite our differences in temperament and outlook, they acted as if I was their intellectual equal. (This was also the way they treated their own children.) I was never talked down to, nor were their evident intellectual attainments ever used to impress their authority. From the beginning I revered Hubert and Joyce; I came to feel great affection for them, and I had the feeling that, filtered through their English reserve, my affection was reciprocated.

After Hubert's death in 1982 I was asked by Joyce to write Hubert's obituary for the London Mathematical Society. The purely biographical part of this is reproduced in the Appendix.

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In his pursuit of advantages for the pupils at his school, the Boss had arranged for several Millfield boys, including myself and P. D. Norton, to participate in a "training" exercise with an industrial firm, in this case an outfit called Tube Investments, Ltd. In the spring of 1962, with

some reluctance I left Cambridge for Birmingham where the affair was to take place. The core of the proceedings was a series of ineffably boring lectures on the subject of extruded steel tubes which neither P.D. nor I took very seriously. At the end of one lecture some bright spark got up and asked “Just exactly what is an extruded steel tube?”, a question whose witlessness can hardly have impressed the captains of industry who had organized the meeting. But I managed to surpass this idiocy. To give us some idea of how extruded steel tubes were actually manufactured, on the last day we were paraded to a steel factory where each of us was assigned to a shop floor worker. This was the only time I have ever been inside a heavy industrial installation and I still recall the “booming, buzzing confusion” inside the place, with long steel cylinders being forced, clattering and groaning, through enormous whirring machines. An absurd figure in the baggy overalls with which I had been issued, I stood next to one of these machines watching the luckless fellow charged with my supervision press an oily rag onto one of the rapidly spinning steel cylinders as it passed through the machine. Attempting to show some enthusiasm, I grabbed an oily rag of my own and followed suit. Losing hold of it almost instantly, I watched with dismay as, adhering to the cylinder’s surface, it spun its way crazily to the maw of the machine. Fortunately, my quick-witted supervisor caught it in time. Giving me a well-deserved look of disgust, he pushed a red button, causing bells to clang and the machine to grind to a halt. Thus ended my brief and inglorious career as a factory trainee.

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The Boss had arranged a summer job for me at the Shell Research Centre which I took up in June 1962. This establishment was located in one of Shell’s plants at Ellesmere Port, on the coast not far from Liverpool. My task was to provide a statistical analysis of the “knock” patterns produced by exploding petrol in the cylinders of internal combustion engines. This was not a research topic I had a burning desire to pursue, but I was grateful for the £8 per week the job paid – hardly a princely sum, but nevertheless my first gainful employment. I had to bone up on statistics – again, not a subject that appealed to me particularly – very quickly. Brian Toft and “Aromatic” Arrow, my colleagues in the lab – seasoned veterans all – treated me with amused tolerance. One thing I particularly recall from my time there was the use of epoxy resin – the British trade name of which is “Araldite” – mixed with metal shavings to modify the internal geometry of the cylinders. For some reason this impressed me greatly, and epoxy resin has continued to loom large in my life to this day.

During my Shell employment I lodged at the YMCA – the “Old Palace” – in Chester, a pleasant old Roman town (the name deriving from Latin *castra*, camp) on whose fortifications you could still walk. The Old Palace was a rambling building divided up into scores of poky rooms. It had originally housed the local Bishop, and had seen better days. I made a number of friends during my stay there. One was Robert Padgett, who, like me, was about to take up a mathematics scholarship at Oxford and whom I was to get to know better there. Another was Sid Houghton, a short, round-headed, beaky-nosed fellow employed as a chemist at Shell. He had a quirky sense of humour which appealed to me. He seemed to be impressed with the fact that I

was about to go up to Oxford as a mathematics scholar; I recall writing down a proof of the Cauchy integral theorem at his request. One Saturday night he invited me to a party in nearby Liverpool, at which I got thoroughly drunk for the first time in my life. During the course of the night's revelries I vomited all over the premises and got into a drunken brawl with Sid. I even found myself at some point in bed with the "bird" Sid had brought along for the evening, but I was too inexperienced in sexual matters – and too drunk – to exploit the situation. The following day the party's host shamed me into cleaning up the mess I had made. I made a royal fool of myself on that occasion. Despite all this, Sid and I remained friends. He must have been a very tolerant fellow.

I went on a weekend hike in the nearby Welsh mountains with two Welsh fellow-inmates at the Old Palace, Owen and Dai. Owen was tall and taciturn, Dai, short and loquacious. The three of us scrambled along scree-covered slopes in pouring rain. Finally, parched and famished, we fetched up in a pub in some remote Welsh village with a jawbreaking name like Pontyllanffridgogogoch, where we consumed quantities of cider and ate the most delicious sausages we had ever tasted.

Also in residence at the Old Palace was an Irish fellow who was reputed to have overcome the monastic YMCA regulations governing admission to the premises of members of the opposite sex through the ingenious expedient of raising and lowering his girlfriend by rope through the window of his room.

I had left my precious record player and collection of records in Cambridge, and it was not long before I began to find the lack of music intolerable. In desperation, I took the train back to Cambridge to retrieve records and player, vowing that we would never again be parted.

Sometime that summer I spent a few days in London with another cousin of my mother's, Jane Hyde-Thomson, whose father, Sir Dudley Colles, Extra Equerry to the Queen, was the "aristocratic connection" whose discovery by the British press had led to the unfortunate newspaper reports of my mother's death. I recall being taken by my mother to tea with Sir Dudley at his apartment in Kensington Palace. His daughter Jane lived alone – her husband having died some years before – in a large flat in a block of apartments behind Barker's, the store at which my mother had purchased my school equipment. I admired Jane for her cool intelligence; I sensed an affinity with her, feeling in some unarticulated way that our views of the world were fundamentally similar.

In London I had come across the Gramophone Exchange, a record store on Wardour Street with a huge and varied stock. Individual kiosks had been provided in which the discs could be sampled to the heart's content. I spent hours holed up in one of these listening with fascination to Pablo Casals' definitive 1936 recordings of Bach's cello suites. I returned a number of times to play these records on the premises until finally coming up with the money – I can't recall how – to purchase them.

I have one last memory of my stay in Chester that is worth recording. One evening at supper in the Old Palace I sat next to a fellow who had just arrived. I learned that his name was John Pryce, that he was on a walking tour, that he was spending just one night here, and that he was a mathematician in his second year at Cambridge. I was thrilled when he told me that he was the

grandson of Max Born, a name I revered, and that in his knapsack he carried the manuscript of his grandfather's book on relativity, which he was revising for its second edition. After a while our conversation turned to general topology, which I was still attempting to learn from Kelley's book. Then he asked me where I was studying. I didn't have the nerve to tell him that I wasn't yet officially at university, fearing that, were I to come clean on this score, I would appear ridiculous in his eyes. So I dissimulated, attempting to give the impression that I was already in my first year at Oxford. Many years later we were to meet again; when I mentioned our previous encounter in Chester, he said that he could not recall it. The episode looms large only in my mind.

At the end of my sojourn in Chester I was poised to assume a new position in British society. But this time I had no apprehensions whatsoever. For I was about to become an Oxford scholar.

### **EXETER COLLEGE, OXFORD, 1962-65.**

IN OCTOBER 1962 I took up the scholarship, now converted from physics to mathematics, which Exeter College had offered me the previous year. After my sojourn in Cambridge, I felt fully prepared for Oxford; indeed I viewed my scholarship there (worth £100, which, together with the £350 state scholarship that automatically accompanied it was no mean sum in those days) as the next best thing to a private income, a passport to a promised land where, I hoped, I would be free to pursue my own interests, freed of the burden of studying for examinations. The patrician atmosphere at Oxford was entirely compatible with this desire. Only on rare occasions would the College authorities issue the tactful reminder to undergraduates that there were examinations to be sat and, presumably, passed. But I chose to ignore even these discreet suggestions, having come to regard examination study as a tedious chore to be avoided at all costs. In any case, I had got hold of copies of past Oxford examination papers and convinced myself, rightly or wrongly, that I had already covered the material in them that I found of interest.

On first arriving at Exeter College, I squeezed through the narrow door in the Turl Street gate and presented myself at the Lodge, where I was informed by the porter on duty that I had been assigned rooms on "Staircase 2, Front Quad". This seemed promising, since I recalled having liked the look of the Front Quad on my one previous visit to the place. Nor was I disappointed as I emerged from the shadows of the lodge into the light of the quad: straight ahead could be seen, beyond the well-tended central lawn, the façade of Peryam's Building (as I later learned it was called), and to the right the attractive Jacobean hall. The unpretentious clock-face above the Hall entrance brought an appealing touch of homeliness to the scene. But the pleasant impression of intimacy created by these well-proportioned buildings was disrupted by the presence of the massive Gothic Revival chapel which, looming incongruously along the whole of the quad's left

side, gave the impression of having been forcibly inserted there by some giant hand. I was to learn that in the 19<sup>th</sup> century the College authorities had decided that the original chapel was too small for the needs of compulsory attendance by the undergraduates, and had accordingly replaced it with the present gargantuan edifice.

Staircase 2, close by the Lodge, was quickly located. At its entrance a board was mounted upon which the names of its intended occupants had been carefully lettered in white paint. The pleasure of seeing my own name there inscribed was dampened somewhat by the fact that it was coupled with another name, indicating that my quarters were to be shared. As I climbed the stairs to the first floor rooms I had been assigned I wondered what sort of fellow my room-mate would turn out to be, and whether we would hit it off. To my dismay he proved to be an affected public school type and from the very first we disagreed on virtually everything, right down to matters as trifling as pronunciation. For example, initially I was no more than mildly irritated by his habit of stressing the first syllable of the word “piano”, but constant repetition finally goaded me into pointing out that my mother, a professionally trained *English* pianist, would never have dreamt of pronouncing the word in such a pretentious way<sup>72</sup>, an observation which merely caused the stubborn fellow to accentuate the syllable even more strongly. After a few weeks of reciprocal subjection to such pedantries it became plain that one of us would have to go, before our hostility assumed even less decorous forms. Accordingly I asked for, and was granted, an audience with the College’s Rector, K. C. Wheare, to whom I presented my request to be allowed to move to a single set of rooms. With rectorial gravitas, he informed me that since, as far as he knew, no clause in the College statutes prohibited the exchange of rooms by undergraduates, I was free to persuade one of my fellows so to do with me. The question was: who?

At this point a piece of luck came my way in the person of a first-year historian happy to move to the Front Quad from the rooms he had been assigned in the less attractive Back Quad. (But he did not remain happy for long, later being observed brandishing a sword while chasing my former roommate around the Front Quad.) And so it was that, halfway through the Michaelmas term, I migrated to the top of Staircase 10 in the College’s drab Victorian buildings fronting Broad Street. Although the “new” rooms I had chosen to occupy were cold, damp, and lacked running water<sup>73</sup>—excepting the occasional trickle down the walls in wet weather—it was bliss, initially at least, to have a place all to myself.

But my pleasure at the prospect of solitude shrank somewhat when I assessed the conditions under which it would be passed. My domain, such as it was, consisted of a sitting-room and a bedroom. In the former a token concession to the occupant’s comfort had been made by the installation of a gas fire, which, once lit, would sputter away pathetically, making little impression

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<sup>72</sup> I was surprised to find that, according to the OED, in the British pronunciation of the adjective “piano” the stress falls on the first syllable. But still, my room-mate’s adamance notwithstanding, this is *not* the case with the noun.

<sup>73</sup> Lord Birkenhead’s caustic observations (from *The Prof in Two Worlds*) are à propos here:

*Oxford has always regarded with watchful mistrust any private attempts to introduce bathrooms and other forms of essential modern sanitation, approaching the subject with some of the abhorrence of the medieval Church for the licentious baths of declining Rome. Indeed it is said that when a progressively-minded don asked permission to install a bath in his rooms an older colleague observed: “I can’t think what all the fuss is about. After all, the term only lasts eight weeks.”*



on the cold. Since the contraption irradiated, albeit feebly, just that part of the body presented to it, leaving the rest quite unaffected, warmth could only be obtained through constant gyration, like a piece of meat slowly roasting on a spit. But even the primitive amenity of a gas fire was lacking in the bedroom, a spartan chamber containing just a bed, a chair, and a battered chest of drawers supporting an antique ewer and basin in which, presumably, numberless former inmates had performed their morning ablutions. I cannot resist quoting here Vladimir Nabokov's amusing description (in *Speak, Memory*) of his experience with Cambridge (the "Other Place" to Oxonians) college bedrooms in the early 1920s:

*I suffered a good deal from the cold, but it is quite untrue, as some have it, that the polar temperature in Cambridge bedrooms caused the water to freeze solid in one's washstand jug. As a matter of fact, there would be hardly more than a thin layer of ice on the surface, and this was easily broken by means of one's toothbrush into tinkling bits, a sound which, in retrospect, has even a certain festive appeal to my Americanized ear.*

Nabokov must have been made of sterner stuff than I, for in the winter of 1963, I finally threw in the (frozen) sponge and, leaving ewer and basin to their respective fates, dragged my bed from the deep freeze of the bedroom into the somewhat less polar conditions of the sitting room. My departure had been hastened by the appearance on the bedroom walls of a number of alarming fungal growths, the result of dampness caused by leakage from corroded roof gutters which, I learned, the college at that time could not afford to have repaired. Although not actually phosphorescent, these patches might still have excited the interest of a mycologist, but, not being acquainted with any, I never put this conjecture to the test.

The winter of 1963 was exceptionally cold by British standards, and, with the exception of a few stoical types, everybody complained about the inadequate heating. Roger Kuin<sup>74</sup>, a flute-playing undergraduate from Holland reading English, who occupied rooms at the bottom of my staircase, actually went so far as to pay out of his own pocket for a cable to be run into his sitting room so as to enable a decent electric radiator to be installed. As word of this miracle percolated through the college, Roger's rooms were soon transformed into a second Junior Common Room, attracting a steady influx of thermotropic "social callers", including me.

I found to my dismay that the College statutes required each Scholar to take his turn at reading the Lesson in chapel. This duty appealed to me in no greater degree than had the prospect of having to join the "Corps" at Millfield. Unfortunately, I was not now in a position to present the weighty claim that to accede to this would mean contravening official regulation. All I had to offer was the conscientious objector's line that it ran against my now atheistic convictions.

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<sup>74</sup> I recently learned that for many years he has been Professor of English at York University in Toronto.

Nevertheless, I took this flimsy excuse to Rector Wheare, who, doubtless having heard it before, tolerantly granted my request to be let off.

One evening in my first week at Exeter I struck up a conversation at dinner in Hall with the fellow sitting next to me, a second-year physicist. Learning that I was American, he remarked that he had been awarded his scholarship at the same time as “some crazy American kid” whose questionable exploits had made the newspapers, but who had subsequently vanished without trace. How surprised he was when I stuck out my hand and said, “Well, the kid’s back.” (or words to that effect). Thus began my friendship with Neil Gammage, which I am glad to say has lasted to the present day. I spent many hours in Neil’s rooms at the top of one of the staircases in the Front Quad, listening to music and downing endless cups of instant coffee (Nescafé Blend 37 was the “in” substance at that time). Neil was an aficionado of 20<sup>th</sup> century music, and it was through him that I first got to know the Bartok string quartets and later Stravinsky works such as the Violin Concerto and the Symphony in Three Movements. Neil also introduced me to the Oxford University Record Library. Situated on St. Giles opposite St. John’s College, this paradise of vinyl was packed with thousands upon thousands of LP records all of which, for a modest membership fee, were available for borrowing. It seemed incongruous, but somehow very English, that the establishment should be run, not by certified melomaniacs, but by a late middle-aged couple whose bearing and accent reminded one of a retired Anglo-Indian colonel and his memsahib (which, for all I know, they may actually have been). They had a small terrier much of whose life was spent languishing in a basket behind the counter. The couple’s lives, rather touchingly, revolved around this animal, whose merest whimper caused them to drop instantly whatever they were doing and minister to its needs. Neil and I were so struck by this that we nicknamed the place “The Dog.”

Occupying college rooms of a comparable dampness immediately opposite mine was a first-year historian, Mike Gray. From our first meeting, I felt that each of us had struck a chord in the other, an affinity sparking one of those spontaneous, and yet enduring relationships forgeable only in youth. Mike was the closest friend I made as an undergraduate. If I were to attempt to portray him in words, I would draw attention to his kindness, his reserve, his depth of character. Our cultural interests diverged quite considerably. I strove to align him with my own tropisms, raving on about the latest novel or piece of music that had caught my fancy. Mike’s consuming passion, to my amazement, was the study of airline routes, and his pride and joy the extensive collection of airline timetables he had painstakingly built up. He did not really expect interest in such an esoteric pursuit to extend beyond the circle of a few fellow aerophiles, and clearly I was not one of these, having cynically gone so far as to attribute his obsession with the subject to the admitted fact that he had never actually flown. But his enthusiasm for history and architecture did rub off on me. When I asked him to recommend a book on British history he thought I might like, he came up with A. S. Turberville’s *English Men and Manners in the Eighteenth Century*, which I bought and thoroughly enjoyed. I was very taken by Mike’s handwriting, whose boldness and fluidity, pushed to the point of occasional illegibility, seemed to me greatly preferable to what I saw as the lack of definition of my own handwriting at the time (and which as a result underwent

a change). It was from Mike that I learned to abrade the nib of an “Osmiroid” or a “Platignum” – fountain pens whose cheapness belied the costliness of the metals suggested by their names – so as to achieve a thick, bold graphic line.

Mike had grown up in Birmingham, a city to which he was still passionately attached. He made it his business to correct my abysmal ignorance of the place, rhapsodizing about its history and finally taking me on a personally conducted tour. Mike had Irish connections, and in the early summer of 1963 we flew to Dublin by Aer Lingus, or “Air Fungus” as it was popularly known, to stay with Mike’s cousin Frank Shine and his wife. I had just read – or attempted to read – *Ulysses*, and I insisted that we go to see the Martello tower on Dublin Bay where Joyce had briefly lived, and which served as the model for the shared residence of “Stately, plump Buck Mulligan” and Stephen Dedalus in the book. We also went to Trinity College Library to see the *Book of Kells*, a superb illuminated manuscript of the ninth century: I still have the booklet of reproductions of some of its pages I bought at the time.

Two tiny incidents that occurred during our visit to Dublin stand out in my mind. Frank took us to see a movie, a “three-handkerchief weepie” on a religious theme. When one of the sappy characters died onscreen, several members of the audience began to sob. Mike and I had considerable difficulty in containing our mirth at what struck us as the sheer silliness of this. Of course we didn’t want to offend Frank, who seemed to take the film very seriously. Frank also had a passion for brass bands – a form of music for which neither Mike nor I could muster much enthusiasm – and he cajoled us into accompanying him to a performance. We arrived to find that the proceedings had already begun, and that the remaining unoccupied seats could only be reached by passing between the audience and the bandstand. So as not to obstruct the audience’s view of what Frank seemed to regard as a sacred rite, he insisted that we scuttle to our seats bent double. Mike and I found this absurd.

After a week or so in Dublin we traveled to Athlone, where we had been invited to stay with another one of Mike’s relatives. A curious thing happened on the train journey there. The man sitting opposite us in our compartment pulled out a gargantuan pipe and proceeded to pack its capacious bowl with a black, evil-looking substance, which he ignited by means of a kitchen match struck on the sole of his boot. He then commenced to puff away until his plug of shag had attained near-incandescence. At this point he took a deep breath, drawing in the smoke. Mike and I waited with mounting astonishment for the inhalation to reemerge. When no sign of the smoke was forthcoming, we could only assume that it had wound up lining the man’s lungs.

Mike’s Athlone relative, Derry, made us welcome aboard the barge, moored on the banks of the Shannon, in which he lived. Here I recall another small incident. One afternoon Mike and I took a walk along the riverbank, pausing occasionally to pick up a flat stone and attempt to skip it along the water’s surface. Our conversation turned to Oxford examinations, and, in particular, to Mathematical Moderations, the examination I had taken at the end of the summer term, just before our departure for Ireland. Unlike the preliminary examination in history that Mike had sat which issued in a simple pass or fail, Mods was classed, and I awaited the outcome with a certain

anxiety. Mike proposed to employ my next throw of a stone as an augury: if it skipped, I would get a First; if it sank, I would not. I threw the stone, it sank, and I was soon to learn that I had obtained a Second.

We returned to England to stay with Mike's family in Poole, on the south coast. While we were there no end of mirth was caused by the arrival of a postcard from Mike's younger sister's new American pen pal addressed to "Miss Brenda Gray, 94 Ringwood Road, Poole, Dorset, *Paris, France*." Her correspondent went on to say that he'd "had a lot of pen pals, but this was the first one from Paris, France," an assertion whose second phrase Mike and I both felt rendered the first highly questionable.

Mike hated to give offence, which on occasion could have amusing consequences. At that time few, if any, Oxford colleges had the facilities to house all their undergraduates during their three years of residence, and so in our second year Mike and I underwent the customary exodus from the college into lodgings, or "digs", as they were known. Such usually consisted of a room, or rooms, let by a landlady in her own house. (I came to refer to landladies as "resident trolls" because of their habit—like the "troll under the bridge" in the fairy tale—of lurking below stairs ready to pounce on unwary lodgers attempting to enter the premises after hours.) While Mike found his own landlady congenial, he did not care for the greasy fried egg it was her habit to dish up for his breakfast each morning. But his sensibilities would never allow him to wound her feelings by refusing the thing outright, nor by leaving it on the plate, nor even by disposing of it in some place around the house where she might come across it. So he would regularly resort to wrapping up the offending object in his handkerchief and sticking it in his jacket pocket where it would sometimes remain, forgotten, for a day or two. On one occasion, he extracted his handkerchief and, to my astonishment, a rubbery fried egg fell out. I suggested to him that he get the side pocket of his jacket lined with washable plastic so as to facilitate the removal of his landlady's unwanted offerings, perhaps even enlarging the pocket so that whole meals could be removed without detection, but my advice went unheeded.

Another friend I made as an undergraduate was the Frenchman Yves Carlet, who had come to Oxford on a graduate scholarship. He had passed the *Agrégation* in English at the *École Normale Supérieure* in Paris and was completing a dissertation on Arthur Koestler, a writer who was new to me. Yves' wit and sophistication impressed me from the first, and I think that for his part he was amused by the gushing enthusiasms of a seventeen-year-old. My obsession with music led him to describe me as a "melomaniac". He could scarcely believe his ears when I told him that, but for the interference of an American immigration official, my surname would be "Balsitas". Hearing this as "Bell-stylus", he laughed out loud at the sheer absurdity of it. Initially Yves tolerated Oxford's quaintnesses with an amused Gallic skepticism—I well recall his mirth at the anglicization of his name to "Carlett" over the door of his college rooms—but he soon wearied of the petty restrictions of life in college. While the English undergraduates, most of whom—including myself—were, in John Betjeman's words, enjoying

*Privacy after years of public school / Dignity after years of none at all,*

and so found life in Oxford, by comparison, refreshingly unconfining, for Yves, older and unsubjected to the rigours of a British education, the atmosphere of the place must have seemed just the opposite. In any event Yves returned to Paris after just one year, to my regret. Thirty years later he became Professor of American Literature at Montpellier University.

It was with Peter Marks, a mathematician in his second year when we first met, that I had most in common musically. Peter loved chamber music and we would debate at length the comparative merits of Jascha Heifetz's and Nathan Milstein's recordings of the Bach solo sonatas. In 1963 we went to hear Milstein play some of these in Oxford Town Hall. The performance converted Peter totally to Milstein, but, brilliant as it was, failed to wean me away from Heifetz.

Peter had a number of mannerisms which rather fascinated me. For instance, when thinking out loud he would suddenly pause, throw his head right back and stare briefly at the ceiling before communicating his next thought. He also had the habit of never grasping a cup by its handle, but would instead hold it, handle outwards, by the tips of his long delicate fingers. This subtle defiance of convention impressed me and I quickly adopted the procedure myself. Peter had a sharp wit. It was from him that I first learned the invaluable concept of "Waldorf economy", through which one saves money by doing nothing, especially by not staying at an expensive hotel like the Waldorf.

Peter was of Eastern European Jewish origin, his family name having originally been Markevitch. Although not religiously observant himself, his knowledge of Judaism was extensive. I learned from him the surprising fact—surprising to me, at least—that there is no provision for an afterlife in Old Testament Judaism. He told me about the tetragrammaton YHWH, the ineffable symbol of the name of God. And it was from him that I first heard Rabbi Hillel's searching questions, which have always remained with me:

*If I am not for myself, then who will be for me? And if I am only for myself, then what am I? And if not now, when?*

Concerned at the poor quality of the college food, Peter's mother would occasionally send through the mail parcels of delicious boiled kosher chicken which Peter shared with me. Later I was invited by Peter's parents, who proved warm and hospitable, to spend the weekend at their house in Hove. Peter showed me the considerable collection of tape recordings he had made from BBC Third Programme broadcasts: I recall hearing on these for the first time both Haydn's quartet Op.76 no. 6 and Hindemith's solo cello sonata Op. 25 no. 1, works which both were to become etched in my memory.

Peter was an active supporter of the Labour Party, and it was from him that I received my first political instruction. I recall making the facetious suggestion that the campaign slogan "Let's Go with Labour" was too tame and that an American version such as "Go! Go!! Go!!! with Labour" might prove more effective. But despite the weakness of their slogan the Labour party managed a comfortable victory in the 1964 General Election.

Peter Lee, a fellow mathematics scholar, also became a close friend. He and a roommate occupied rooms on Staircase 2 immediately above my old quarters. On entering Peter's rooms the eye was caught by the handsome array of chessmen set up on the board on the table near the window. Next to the board sat a curious double-faced clock, apparently a move-timer, indicating that one of the room's occupants was a serious chess player. This was Peter, who, more than being just a keen player, was nothing less than a chess wizard, having been, I learned, British under-18 champion while still at school. He excelled at every kind of chess: I recall him once simultaneously taking on myself and another fellow at blindfold chess (that is, we saw the boards while he didn't) and effortlessly beating both of us. I was therefore not surprised by his hoot of laughter on reading the inscription in the copy of Reuben Fine's book *Chess the Easy Way* I had been given as a child. Peter, tall and strikingly dolichocephalic, was a walking chess encyclopedia, who seemed to know the history of the game down to the obscurest detail. His talk was continually of chess players, past and present, most of whom bore exotic names like Bogoljubow, Znosko-Borovsky, Nimzowitsch. Once I asked him what he felt his own ultimate ranking as a chess player would be. His reply was, "In descending order of ability, there are four categories of chess-player: Russian Jews, Russian non-Jews, non-Russian Jews, and non-Russian non-Jews. As a member of the last category, I don't rate my chances very highly." Nevertheless, Peter's ability sufficed to enable him to win the British chess championships at Hastings in 1965, just after we both took our final examinations.

Peter also excelled at card games, and in his third year was at the centre of a peripatetic poker school which migrated from college to college. Now and then I would run into him on his return from an all-night poker session, his evident satisfaction at having, as usual, emerged £5 or £10 ahead belying the exhaustion proclaimed by the bags under his eyes. My taking Peter on at any sort of board or card game would, under normal conditions, have been utterly pointless, since I was hopelessly outclassed. The sole exception to this arose after someone introduced us to the ancient English game of nine mens' morris, a more elaborate version of tic-tac-toe in which a player tries to prevent his opponent arranging three pieces in a line. Although I had never played this game before, neither had Peter, and this emboldened me to accept his challenge to a game. How surprised both of us were when, no doubt by sheer chance, I managed to win. I turned down Peter's request for a rematch, ungenerously deciding to cling to my unbeaten record of a single game.

I also became friendly with Peter's roommate Brent Longborough, a chemistry scholar from Devon. Brent had a deliberateness of manner reminding me somewhat of my father, an impression reinforced by a top pocket bulging with pens in the manner of an engineer. I recall

that in his first year Brent developed an interest in classical music, coming in particular to place a high value on his growing collection of Archive Records, the series of historically authentic recordings, chiefly of pre-eighteenth century music, which Deutsche Grammophon had begun to issue in quantity. It was somehow typical of Brent that he should go so far as to install in his gramophone pickup a diamond stylus reserved exclusively for the playing of Archive records, the other stylus in the pickup being, in his view, adequate only for playing what he dismissed scornfully as “ordinary” records.

Clinton Nelson Howard was an undergraduate in my year, a fellow-American sent to Oxford to follow in the footsteps of his father, a professor of history at a U.S. university, who had been an undergraduate at Exeter a few decades past. “Clint”, as he was known, was an American of a kind I had not previously encountered, a quasi-Ivy League type affecting a pipe, which, having taken one up myself, failed to impress me, along with a number of curiously old-fashioned expressions, which did impress me. In demonstrating the size of an object, for instance, he would stretch his hands apart and say that it was “yea” long and “yea” wide; he would never say “You see that tree over there”, but “You see that tree yonder”. While I liked Clint, he was not popular with Mike Gray, who (correctly, as I later came to see) regarded him as an American chauvinist, since he was continually defending the “right” of the United States to meddle in the affairs of Vietnam and sundry other parts of the world. Being politically quite unconscious at that age, such issues failed to disturb my relationship with Clint. (To provide some idea of my lack of political awareness at that time, I am astonished now to reflect that in October 1962, when I first went up to Oxford, I was only dimly aware that the Cuba crisis was reaching its climax, and that the world was facing the possibility of nuclear annihilation.). On one memorable occasion Clint, one of the few undergraduates of my acquaintance to possess motorized transport, generously took me on the back of his Vespa to visit my relatives near Cirencester – a round trip of some eighty miles. I recall pattering through the countryside, perched precariously on the passenger seat of Clint’s minuscule vehicle, its balance continually put at risk by the explosive laughter which escaped the two of us each time we spotted a priceless placename such as Kingston Bagpuize or Broughton Poggs.

Gary Cathcart was an American of a different stripe – a sharp-witted, sharp-featured Rhodes scholar from Wyoming whom I came to admire particularly for the fact that, unlike some of his compatriots at Oxford, he remained resolutely “Yank”, making no attempt whatsoever to “fit in” by aping the Oxford manner. (I came to joke that the typical American Rhodes scholar at Oxford could be readily identified by the mannerism of screwing an imaginary monocle into his eye.) Gary was pursuing postgraduate studies in mathematical logic with John Crossley, who was later to become my own research supervisor. I recall Gary attempting to explain the concept of recursive function to me sometime in my first year, but I did not find the concept especially appealing, so failing to provide the spur that was to take me into mathematical logic. Gary returned to the United States after a couple of years without taking a degree; I later learned that, sadly, he died in the 1980s.

Another American Rhodes scholar I recall was Fred Morrison from Kansas, who was reading not Law, but, as he never failed to point out, "Jurisprudence". Among his friends he had inevitably become the subject of a suitably modified version of A.A. Milne's well-known lines:

*Fred Fred Morrison Morrison Weatherby George Dupree*

*Took great care of his mother though he was only three...*

Equally inevitable was Fred's later rise to eminence in the legal profession in the United States.

I had known Johnny Sergeant, the son of my Russian instructor at Millfield, only slightly while at school, and it was not until his arrival at Magdalen College to read P.P.E. at the beginning of my second year that our friendship truly blossomed. A born raconteur and wit, Johnny never permitted a dull moment to pass in his company. I recall in particular his scathing, side-splitting impressions of Alec Douglas-Home, the much-derided British Prime Minister of the day, who quietly faded away after the 1964 Labour victory. Also memorable were Johnny's imitations of "Fast Eddie" and the other pool-playing characters in *The Hustler*, which had been recently released in Britain.

I got to know Johnny's family well. His mother, Olive, a vivacious and delightful lady of Russian origin, had parted from her first husband and married "Tom" Stevens, the Magdalen classics don, a brilliant Oxford eccentric<sup>75</sup>. The manner in which I first met Tom is worth relating. Tom had invited Johnny and me to dine with him at Magdalen; immediately upon entering the lodge we were greeted with the words "you'll take a glass of sherry, of course," by a bright-eyed, tousle-haired character, bearing a salver with a bottle and three glasses on it. Dressed too scruffily to be a college servant, he had to be a don. This was Tom, who, after Johnny had introduced us, initiated a flow of captivating talk, part learned disquisition, part anecdote, which he maintained right through lunch.

Johnny's family was most hospitable, and I was a frequent guest at their house in Headington, a village east of Oxford. There I quickly became identified as "John L.", both to distinguish me from Johnny and in recognition of my American origin. I recall being present at a number of uproarious family dinners during which Tom and Johnny would try to top each other's anecdotes. But a note of discord was introduced by the occasional appearance of Tom's own son, who was up at Cambridge. In contrast with his father, with whom he was obviously at odds, he was a somewhat humourless fellow, and as a result was often the butt of Johnny's jokes. Burdened at birth with the absurd name "Cosmo", he had had it changed by deed poll to "Richard P. Stevens", showing a gleam of humour in insisting that the "P" was just a letter, standing for

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<sup>75</sup> Years later I learned that it was Tom who, during the war, brought to the attention of the BBC the fact that the Morse code of the letter V ("Victory") corresponds to the rhythm of the opening bar of Beethoven's Fifth Symphony, which led to the use of that famous musical phrase throughout the war to announce British radio broadcasts.



nothing. Understandably, however, humour gave way to irritation on his part when I ventured the suggestion that the “P” could have stood for “Psilent.” I don’t know what became of Richard. After leaving Oxford Johnny went on to a distinguished career in broadcasting, becoming the chief political correspondent of both the BBC and ITV<sup>76</sup>. He is now a familiar face on a number of British television programs, where his droll wit is on full display.

Johnny’s rooms at Magdalen were not, unfortunately, located in the college proper – surely the most fetching college in Oxford – but in the functional, architecturally unprepossessing new building just across Magdalen Bridge. The ground floor of this structure was at that time occupied by the bookshop set up by Robert Maxwell, whose turbulent career was to end in spectacular ignominy some thirty years later. But his bookshop was outstanding: in addition to stocking as many books as Blackwell’s, Maxwell had introduced several innovations, for example the sale of gramophone records, and – anticipating by several decades a development which did not generally catch on until the nineties – the installation of a coffee bar where one could sit, sip, and read. Thus there was double reason for Magdalen New Building to become known locally as “Maxwell House”.

Another close friend was Ashley Thom, whom I got to know in my third undergraduate year, after he had taken History Schools. He was in the process of being “Dip-Edded”, that is, hanging around Oxford for a fourth year ostensibly studying for the Diploma in Education, but in truth for the purpose of putting off as long as possible the evil day on which a living would have to be earned. Originally from Liverpool, Ashley had studied at the Liverpool Institute where he had been a contemporary of future Beatles George Harrison and Paul McCartney. When we first met, Ashley had already been married for a year, his marriage ceremony with his wife Jill having been conducted in the College chapel. Ashley’s longish hair and gaudy waistcoats gave him an appealingly raffish appearance, of a piece with his intelligence and anarchic wit. We spent much time in each other’s company, playing darts and “shuvvers” (shove-ha’penny) in the JCR, bowls on the college lawn, going to the movies together – I recall seeing Cocteau’s mesmerizing *Orphée* and Carné’s entrancing *Les Enfants du Paradis* with him at the Scala, the arts fleapit on Walton Street – talking in my college room into the small hours endlessly puffing away on cigarettes (as a heavy smoker, Ashley’s nickname “Ash” was quite appropriate.) Ashley seemed the least likely person to become a schoolmaster, but that was the occupation he took up after leaving Oxford, as did so many of my contemporaries. When I last saw him, he was teaching, with evident frustration, in a preparatory school in Hampshire. Unhappily (for me, at least), I lost touch with him after a few years, but I like to think that he abandoned pedagogy for a billet on that tramp steamer he often said was waiting for him somewhere.

Along with a majority of undergraduates living in college, I normally took my meals in Hall. There an antique form of segregation lived on in the form of a Scholar’s Table at which only those holding college Scholarships were entitled to sit. This was itself a diminished version of the High Table around which the Fellows of the college formally presided each evening. At that time the

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<sup>76</sup> He recently published a sparkling memoir, “Give Me Ten Seconds”, which became a best-seller in Britain.

wearing of gowns for hall dinners was compulsory. The Scholars' gown, initially billowing, soon became stiff with dried soup and other detritus inadvertently scooped up from the table by its capacious sleeves. But at least it had something like the weight and dimensions of a genuine academic gown, which could not be said for the exiguous article—known derisively as a bumfreezer—nonscholars were required to wear.

Exeter College hall provided formal, but agreeable surroundings in which to dine. Unfortunately, however, apart from breakfast, which proved surprisingly edible on the few occasions on which I managed to surface in time to consume it, the actual meals proved hardly more palatable than those I had been faced with at school, the same meat and two dispirited veg reappearing with dismal monotony each evening. But I shall never forget the occasion on which the monotony was broken. Extracting my fork from the usual sodden mass—barely identifiable as cauliflower—sitting on my plate, I was astounded to find that I had succeeded in impaling a wriggling object, evidently a caterpillar. As I held the hapless insect aloft for all to see, it was inevitable that my triumphant announcement “At last, gentlemen, something edible!”, would meet with the response “Pipe down, or everybody will want one!”. Given the more than six centuries of experience on the part of the Exeter College kitchen staff of boiling vegetables to the point of formlessness, it seems to me little short of a miracle that this lowly creature survived the process, however briefly.

While *coups de théâtre* of this sort were infrequent occurrences during hall dinners, there was a minor form of dramatic intervention which took place virtually every evening—the so-called “sconcing”. According to the *OED* a *sconce* is

*A fine of a tankard of ale or the like imposed by undergraduates on one of their number for some breach of etiquette or customary rule when dining in hall.*

At Exeter such breaches of etiquette included the mentioning of a woman's name, as well as “talking shop”—the discussion of one's own particular area of study. As with so much at Oxford, in the sconcing ritual there was a hint of the patrician, or, at any rate, of the ancestral, for, in accordance with unwritten law, only the sconced could sconce, that is, just those who had had the penalty imposed on them were permitted to challenge another. (Which raises the question: in duelling societies at traditional German universities were only those already bearing facial scars permitted to issue challenges?) At Exeter the corps of college hearties and “hooray Henries” strove to maintain the rite by enlarging the category of talking shop to embrace any topic having the faintest whiff of intellectual content, and then sconcing one other in hall each evening for all they were worth, even challenging the occasional outsider so as, presumably, to prevent the dwindling and final disappearance of the tradition through ingrowth, as was rumored to have occurred at certain other colleges. Since I had little contact with the hearties, who normally occupied a different table, I learned of all this only at second hand. But anybody dining in hall

could hear the shout of “Sconce!” and witness the dispatch of one of the college servants in attendance at table to deliver a capacious silver tankard, brimming with ale, to the man singled out for sconcing, who was required to stand and drain the vessel without allowing it to part contact with his lips. I do not know whether this antique ritual continues to be practiced in Oxford colleges, but it seems unlikely to have survived the radicalization of the later 1960s. While my recollection of sconcing lends a spot of colour to my efforts as a would-be memoirist, I had no wish to undergo the rite myself.

“Collections” was another Oxford ritual, but one of an official character. In the last few days of term the Rector and Fellows of the College would assemble in Hall to hear each undergraduate’s account of his academic progress, if any, during the preceding eight weeks. It was understood that jacket, tie, and gown constituted suitable attire for the occasion. By the early 60s undergraduates had already begun to challenge the dress code at Oxford in a number of small but significant ways, for example by daring to show up at Hall dinner or tutorials minus a tie, or a jacket, but retaining the gown. While this practice was undoubtedly frowned upon by the more senior dons, it did not seem to have met with active objection. Thus a general belief had begun to crystallize among the undergraduates that for most official university functions one could get away with the mere throwing on of a gown over one’s ordinary clothes. I resolved to put this to the test by showing up to collections minus a tie. But when I carried through my resolve, I found to my dismay that I had overstepped the sartorial mark, for the normally avuncular Rector Wheare fixed me with a minatory eye and proceeded to administer a thorough dressing down for my act of omission. I believe that he was genuinely offended by what he saw as my lack of manners. Nevertheless, I intended no offence. My tiny defiance of convention was only intended as the mildest possible probing of my own courage.

The lodge porters at Exeter in my day were by and large a tolerant and amiable bunch. Among their duties was the closing of the lodge door at midnight, after which time it became necessary for junior inmates to scale the college’s back wall in order to effect an entrance. On one occasion I returned to the college just as the college clock had begun to chime midnight. After I had scrambled through the lodge door, the porter on duty slammed it shut and, as the clock continued to chime, turned to me with a twinkle in his eye and quoted Donne:

*Never send to know for whom the Bell tolls; it tolls for thee.*

Of course, after that he invariably greeted me with this line whether the clock was chiming or not.

In the second year Exeter undergraduates were normally required to move out of college into digs. Through the university lodgings office I found rooms with a Mr. and Mrs. Clark on the inappropriately named Divinity Road, an unremarkable street in East Oxford lined with terraced

houses stretching as far as the eye could see. The sole varying feature in the otherwise identical facades of these dwellings was the colour of their drainpipes: the Clarks had painted theirs in what I was pleased to describe as “cerulean blue.” Like all the houses on the street, the Clarks’ dwelling was quite small and in renting out both a bedroom and a downstairs study to lodgers much of the available space in their house had had to be sacrificed. I found that, in any case, it was the Clarks’ habit to spend the greater part of their time in the warm back parlour adjoining the kitchen, and to use their chilly front parlour hardly at all. Given the fact that, like most British habitations of the time, the house lacked central heating, this seemed a sensible policy. My relations with the Clarks were, initially at least, harmonious. Mr. Clark, a ruddy-faced, rather stiff man, pedalled off each weekday morning to his work at the Morris factory in Cowley, and as a result I saw little of him. His wife, a tiny, kind-hearted woman, was afflicted with arthritis and moved about the house, which she rarely left, only with difficulty. At first I made an effort to rise early so as not to miss the substantial—and surprisingly edible—cooked breakfast she prepared specially for me each morning and which I would consume alone at my study table. (The Clarks would never have dreamt of sharing a meal with any of the “young gentlemen” who lodged with them.) But after a while my increasingly nocturnal habits made getting up in time for breakfast such a struggle that I was finally forced to summon up my slender diplomatic resources and suggest to Mrs. Clark that she need not put herself out to cook anything for me in the morning. She was taken aback at this, as the very suggestion of my not appearing for breakfast must have fed the growing suspicion in her mind that I was something other than the young gentleman she had seen in all her previous lodgers. Mrs. Clark never tired of lauding my immediate predecessor, a landlady’s dream who, if her account of the man’s habits was to be believed, had risen each day at the crack of dawn and presented himself, hair brushed and tie knotted, to consume his breakfast religiously, leaving his plate so spotless that it could be instantly returned to the cupboard. By comparison with this paragon—and indeed in an absolute sense—I must have seemed a complete decadent in Mrs. Clark’s eyes.

All this came to a head in the summer term. I had arranged with the Clarks to put up Michèle Aquarone, who was passing through Oxford, in my study overnight. There she and I sat and talked—quite innocently—into the small hours until Mr. Clark, evidently piqued, dispersed us with a sharp rap on the door. The following morning he summoned me into the kitchen, where he sternly informed me that in “having a woman in my room after hours” I had committed an offence which he believed should be brought to the attention of my college authorities. He then went on to enumerate, for good measure, what he saw as my shortcomings as a lodger, and, by implication, as a human being: it “wasn’t normal” to lie in bed all day; I had “no consideration” for his wife, etc. I was troubled less by the (genuine) wound to my self-esteem caused by his low estimate of my character than by the possibility of having the affair brought to official attention, for I was uncomfortably aware that undergraduates had been sent down<sup>77</sup> for lesser infractions

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<sup>77</sup> That is, expulsion from the University. This was the most extreme of a range of punishments which could be inflicted by the university authorities on its junior members. According to the University regulations, the others, in increasing order of severity were: pecuniary fines; “gating”, i.e., confinement within the walls of the offender’s college, hall, or society; and “rustication”, i.e., banishment from the University for a definite period.

of the rules. It seemed absurd, but disquietingly possible, that my “career” at Oxford might be brought to an abrupt and ignominious end, not as the result of academic failure, but merely through breaching the proprieties of a narrow-minded landlord. So I had no choice but to implore the man not to carry out his threat, assuring him, with perfect candour, that nothing untoward had taken place in my study. Swallowing what little remained of my pride, I went on to apologize for my deficiencies as lodger and human being. It is unlikely that my words alone would have sufficed to overcome Mr. Clark’s rigidity, but they proved sufficiently persuasive for his soft-hearted wife to convince him to reverse his decision. Fortunately just a few weeks remained of the summer term, at the end of which I left the Clarks, who were, I am sure, happy to see the back of me.

As a welcome alternative to College dinners, I frequented the few Chinese and Indian restaurants to be found in Oxford at the time. While the fare at these establishments provided, as I came later to realize, only the crudest of approximations to those two great cuisines, it had at least the merit, unlike the College food, of stimulating the palate. They also stayed open long after the pubs had shut their doors. There were two Chinese restaurants—the Golden City and the Golden Palace—inevitably known to undergraduates as the “Golden Shitty” and the “Golden Phallus”, respectively. The most popular items on their identical menus were sweet and sour pork and the inauthentic but palatable curry consisting of cubical pieces of chicken (one hoped – it was hard to tell) immersed in a greenish-yellow suspension of curry powder. These became undergraduates’ standard fare after a number of pints had been imbibed in the pub. The Indian restaurants ranged from the sedate *Taj Mahal* on Turl Street just opposite Exeter, to the dubious *Cobra*, which had the reputation among the undergraduates of serving curried cat. The *Cobra*, probably no more than one jump ahead of the health inspectors, continually closed down in one location and reopened in another. Between these two extremes lay the *Moti Mahal* on High Street. No matter what one selected from the menu there, the dark brown sauce in which one’s choice was immersed always looked the same, and, apart from minor fluctuations in the density of chili powder, tasted the same as well. The *Moti Mahal* provided the backdrop for a couple of amusing episodes. Over dinner at the place with a friend—I cannot now recall who—I mentioned my curious notion that the number 37 appears with greater frequency, in films and novels especially, than might be expected on purely statistical grounds. My friend’s scepticism yielded only when the waiter presented the bill, which bore on its top right-hand corner the number 037. Of greater significance was the occasion at the *Moti Mahal* when I inserted a spoon into my *Bhuna Gosht* and extracted, to my amazement, a small nail, probably a carpet tack. Thus I came to refer to Indian restaurants as “nails joints”, to Indian food as “nails”, and would routinely place an order for “Tack Bhuna”.

Very popular at Exeter was Nina, the bubbly Portuguese lady who worked in the College kitchens and who also served afternoon tea in the Buttery, a subterranean chamber just below the Hall. Nina had been widowed some years before and lived alone in a small East Oxford house in which she would occasionally offer accommodation to undergraduates marooned in Oxford during University vacations. One Christmas vacation I found myself in this position. Nina was

kind enough to take me in and we got along famously. But even Nina's warmheartedness could not overcome the frigid conditions which prevailed in her house's spare bedroom that winter. In an attempt to insulate myself from the cold, I heaped on my bed, as Pelion upon Ossa, blanket upon blanket, eiderdown upon eiderdown, producing an immense pile, under which I inserted my shivering body with difficulty. But this failed to work: my tossing and turning throughout the night inevitably caused the mass to slither off the bed, leaving me with audibly chattering teeth. What to do? With the ingenuity of the desperate, the solution came to me: use the floor carpet to compress the heap of bedclothes into stability. I laboriously reassembled the blankets and eiderdowns, dragged the heavy carpet off the floor and spread it on top of the pile, causing the whole to settle in a promising manner. I shoehorned myself underneath but at first I feared that I might not be able to tolerate the leaden weight of the massive construction. However, I soon adapted to that and enjoyed a sound night's sleep, comfortably insulated from the cold. In fact the whole arrangement proved so effective that I slept through well beyond my usual afternoon hour of rising. By 3 p.m. Nina, concerned at my failure to appear, came to look in on me. While a resident troll would have been outraged at seeing her carpet on the bed instead of occupying its customary place on the floor, Nina, with her customary good humour, found the sight so outlandish that she broke out laughing. As far as she was concerned, the episode merely confirmed my reputation as a young eccentric.

On 22 November 1963, as everyone knows, President Kennedy was assassinated. And, yes, I can remember where I was when I heard the news, and how I received it. I had just entered Exeter College lodge when Jim White, one of Mike Gray's fellow historians, came up to me and exclaimed "Have you heard the news? Your President's been shot!" My immediate reaction was to think I was being put on, but when it became clear that Kennedy had indeed been shot, I felt sure that the assassination presaged a coup-d'état by the U.S. military. (Although, mercifully, this turned out not to be the case, I am still inclined to the belief that a deep conspiracy was involved.) Kennedy's biography, naturally, took up the lion's share of the obituary page in next day's *Times*, eclipsing that of my hero Aldous Huxley, who, I was saddened to see, had died that very same day.

Exeter College had embarked on the construction of a new residential building in the back quad, which was scheduled for completion by the beginning of my third year. Learning that this building was to be centrally heated, a number of us due to return to College that year resolved to secure accommodation therein. It was common knowledge that Nina aspired to become a "scout", the Oxford term for a member of the College staff responsible for looking after a whole staircase. So when we applied to the college authorities for rooms on a staircase in the new building, we appended an appeal that Nina be assigned as scout. Happily, both requests were granted, and so I and the rest of our little band were warm and well looked after in our final year at Exeter. As Roger Kuin had already discovered, the improved living conditions stimulated a sudden increase in one's popularity. I came to expect, at any hour of the day or night, a knock on my door heralding the arrival of some unknown, who, muttering the words "social call," would breeze in and make a beeline for the bubbling Russell-Hobbs coffee percolator that Donald Brown

(an undergraduate reading English and another resident of the staircase) and I, desperate for decent coffee, had jointly purchased. Of course, the knock could also signal the appearance of a valued friend, such as Ashley Thom or Mike Gray, with whom the night could be talked away in clouds of cigarette smoke.

It was in my third year at Oxford that I had my sole experience (so far) of total anesthesia. I woke up one morning in terrible pain, my lower jaw swollen up like a balloon. Having no regular dentist I staggered off to the dental clinic at the nearby Radcliffe hospital, where, after a session of X-rays, I was informed by the doctor on duty that my lower wisdom teeth were severely impacted and would have to be extracted right away. This would require total anesthesia and a couple of nights in hospital. The doctor also pointed out that, inevitably, my upper wisdom teeth would also become impacted, and so would eventually have to be pulled out. Not unreasonably he suggested that I have the whole job done on the spot, but perversely I decided to hang on to my upper teeth (This turned out to be a mistake, because, sure enough, less than a decade later my upper wisdom teeth became impacted in their turn and I had to undergo the business a second time, although avoiding total anesthesia.) The operation was quickly arranged for the following morning, and I entered the hospital that evening. I spent a largely sleepless night in the ward anxiously awaiting the ordeal I would have to face. At the crack of dawn next day I was wheeled into the glare of the pre-op room to receive the anesthetic, which, to my dismay, was to be administered by injection not, as I had assumed, into my upper arm, but instead into a vein of my hand. In making her first stab at this the nurse missed the vein entirely, causing me to squirm about like a hooked fish. But her second attempt was successful, and I went out like a light. I came to groggily a few hours later to find myself back in the ward with an aching jaw and a painful lump in my throat. After a while a doctor appeared and gave me another injection, telling me it should relieve the pain. Within minutes the pain subsided: more precisely, I felt that my consciousness had simply distanced itself from the pain. For the next few hours I lay in a kind of trance, thoughts whirling along in a continuous stream, each impression before my mind's eye flowing quickly and seamlessly into the next<sup>78</sup>. As the mesmerizing effect faded and the pain, although still appreciably diminished, began to return, I wondered what drug had been responsible for my deliverance. I crawled out of bed to peer at the clipboard attached to its end. The last entry read "Morphine sulphate intrav." Aha! I thought, now I know how Sherlock Holmes must have felt after one of his self-administered "discreet injections". The following morning I was discharged from the hospital, wisdom teeth replaced by the ineradicable memory of my sole morphine trip.

In May 1964 Lynette passed through Britain on her way to study art in Italy. At 17 already a colourful and uninhibited personality, she descended on Oxford like a latter-day Zuleika Dobson, leaving a number of bedazzled undergraduates in her wake. My father had arranged to have some funds for her transferred to my bank in Oxford (the Midland, on Cornmarket). Each

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<sup>78</sup> Never was I more aware of the truth of Coleridge's observation:

*A single thought is that which it is from other thoughts, as a wave of the sea takes its form and shape from the waves which precede and follow it.*

morning Lynette stormed into this sedate establishment to demand her money, only to be told by a quaking teller that it was “subject to delay”. She would then insist on interrogating the manager, who could only, with regret, confirm the fact. However, after a few days of Lynette’s onslaughts, the manager finally threw in the towel and gave her the money even before my father’s draft had arrived. I recall that Mike Gray was smitten with Lynette, spending quite much time in her company while she was in Oxford, and visiting her in Italy that summer. He later reported an amusing episode that had occurred during her visit. One afternoon he and his tutor, Greig Barr, were walking along the quad when they caught sight of Lynette and me outside the hall. Barr turned to Mike and remarked: “I take it that lady is Bell’s sister. She’s older, of course. He’s only about 14, isn’t he?”

Thinking of Greig Barr reminds me of some of the other Fellows of the college. The most colourful of these was J.P.V.D. (“Dacre”) Balsdon, the Roman historian. I never got to know him personally, but years later, when I was sufficiently distanced from Oxford, I read a number of his entertaining books on college life. He could often be spotted circumambulating the front quad, a disciple or two in tow, dilating on some matter or other in his characteristic Oxford drawl. “Joe” Hatton, the physics tutor from whom I would have received instruction had I not opted to study mathematics, was another college character held in high esteem by his pupils – so I learned from Neil Gammage – both for his competence as a physicist and his dry wit. The philosopher Christopher Kirwan, my moral tutor, I recall meeting just once, at a little sherry party he held in his rooms a few weeks into my first Michaelmas term. Dermot Roaf, the young, recently appointed mathematics tutor at Exeter, was an applied mathematician, and so usually made arrangements – as in my case – for undergraduates at the college to be “farmed out” to other colleges for tuition in pure mathematics. I received some tuition from Dermot in applied mathematics with the aim of improving my examination performance. I was impressed with his facility at solving mechanics problems. Dermot was (and is) an amiable, considerate, and patient man, but my unwillingness to work for examinations tried even his patience. He once said to me in exasperation, “You’re not the only one of your kind in this university, you know!”, which I took to mean that these other “prodigies” would, unlike me, apply themselves and get Firsts. But Dermot allowed me to follow my own academic path.

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In 1963 Michèle Aquarone invited me and an American friend of hers, Pat Hinkley, to spend part of the Easter vacation in her family’s Paris apartment, a cozy little eyrie on the top floor of a venerable building on the Île St. Louis. Having spent little time in Paris, I felt lucky to be introduced to the City of Light through its very centre. Like most visitors to Paris, I was attracted by its cosmopolitan elegance, which contrasted strongly with stuffy old Britain, and even with Oxford, which, while architecturally undeniably attractive, seemed quite archaic by comparison. I began to understand Yves Carlet’s boredom with Oxford. French culture had, in any case,



already begun to impress me through the reading of French mathematics books (easily done in French) and French novels (in English translations).

Those few weeks Miche and I spent in Paris were rich in farcical situations whose retelling quickly metamorphosed into routines which helped to cement my relationship with the Aquarone family. For instance, Pat Hinkley, irritated by my lack of finesse at table, was finally led to observe, in a remark destined for endless repetition, "John, you know what your biggest problem is? Your table manners!" Then there was the deathless *beurre fermier* episode. In an effort to save us all money Miche had suggested that we prepare our meals in the apartment's tiny kitchen. My culinary skills at that time being commensurate with my table manners, i.e., nil, I was delegated to do the shopping. Miche scribbled out a list, saying as she handing it to me, "Just tell the shopkeeper that you want *beurre fermier*, 'farmer's butter'. She'll know what to give you." So, clutching my list, I trundled down the apartment building's steep staircase and issued, full of confidence, into the Rue Budé. Spotting the *épicerie* where Miche had suggested I make my purchases, I strode in and, uttering what I hoped was a cordial *Bonjour Madame* to the proprietress, began to reel off the items with whose purchase I had been charged. Despite my execrable accent, everything went well until I came to *beurre fermier*. In a sense Miche's prediction had been correct, for, on hearing those fatal words, the proprietress *did* know what to give me, namely a pair of raised eyebrows and a mystified "*Quoi?*" *Eh bien*, I said to myself with a shrug, I'll find the stuff somewhere else. I trudged from one end of the Île St-Louis to another, leaving no *laiterie* unexplored, in quest of the elusive *beurre fermier*. Drawing the line at raking the whole of Paris for something I suspected had long become part of history, I finally threw in the churn and settled for a pat of *beurre ordinaire*. This I shamefacedly presented, along with the rest of my purchases, to Miche on my return to the apartment. "What, no *beurre fermier*?" she exclaimed incredulously. I had to confess that, despite scouring the whole island, I could not find a single shopkeeper who would admit even to recognizing the phrase. "With your command of French, it's no wonder," she pointedly observed. I tried to convince her that the true explanation for my failure to obtain the elusive foodstuff lay elsewhere, but to no avail. The *beurre fermier* issue remains unresolved to this day.

Before leaving St. Andrews for the Easter vacation Miche had, with carefree generosity, issued a general invitation to her contemporaries to visit her in Paris. As a result, a number of characters, some of whom she had scarcely set eyes on before, turned up on the doorstep. One of these was John McGregor, an egregious bore who seemed never to tire of drawing attention to his social and family connections, his acquaintance with Sir This and Lord That. When "McTavish", as Miche and I dubbed him, first showed up with his friend Gordon Spencer (in truth a comparatively inoffensive fellow) in tow, Miche hospitably suggested that the two stay for lunch, an offer which, she was dismayed to find, they took as a standing invitation to roll up each day to be fed. Naturally Miche soon became irritated at this, and to convey to them that they were *de trop*, she began to prepare meals of a steadily decreasing palatability, in the end unceremoniously dumping a platter of plain noodles on the table. But the pair proved quite impervious even to hints of this degree of directness, and continued to chew their way

imperturbably through whatever was placed in front of them. McTavish was still very much in evidence when Miche's parents, Stan and Mado, arrived to spend a couple of days in the apartment. McTavish turned up on the second evening of their stay obviously determined to impress them—it was then, I recall, that he produced his priceless remark "Daddy's on the Senate [of the University of St. Andrews], you know." Not surprisingly, his efforts failed to have the intended effect. This all came to a head when, Mado having left the room, McTavish, with great ceremony, produced a small box and presented it to Michele's father with the words, "A small token of my esteem for your wife." Stan opened the box and extracted from it a gaudy piece of jewellery. After eyeing this for a moment Stan returned it to the box and handed the whole back to McTavish with the words: "Very pretty, but I'm afraid it's far too good for *my* wife." This startling piece of irony, characteristic of Stan, quite took the wind out of McTavish's sails, and little more was heard from him during the remainder of the evening.

At the end of our sojourn in Paris Miche was to return to the Hague and invited me to join her. We decided to try to hitchhike there. Our hitchhiking strategy pivoted on the idea, gleaned from the movies, of having Miche thumb down the vehicles while I skulked in the bushes by the side of the road, popping up only when a (male) driver had been hooked. This procedure worked remarkably well until we found ourselves becalmed in St. Quentin, a bleak town in northern France. Thumbs drooping with fatigue, we admitted defeat and resorted to the train.

My first stay in 1963 with the Aquarones in their house on Benoordenhoutseweg—the same house my own family had occupied a decade before—was a deeply affecting experience, marking a second beginning to an enduring relationship. Treated from the outset as an "honorary Aquarone", I felt included within a magic circle of warmth and intimacy which still glows undimmed in my memory.

With Miche's father Stanislas ("Stan") in particular I established a bond of friendship and respect which was to be one of the formative influences in my life. Stan had had a peripatetic upbringing. His father, of Italian origin, travelled the world as a sea-going chef; Stan was born in Sydney while his father's ship was docked there. Thus Stan was an Australian national, but, strangely, his later travels, which were extensive, never returned him to the country of his birth. Stan's talent for languages revealed itself at an early age and he was brought up bilingually by his French mother in French and English. Later his parents moved to Canada (a country for which he always retained great affection) where he attended the University of Toronto, later moving on to Columbia University in New York where he obtained his Ph.D. in French literature. While he was a junior lecturer at Columbia, he met Madeleine Flum, then a student at Hunter College in New York. They were married soon afterwards. During the war he was employed in some kind of secret work whose exact nature he never revealed. At war's end he returned to university teaching, at Hamilton College in Clinton, New York, but the meagre salaries paid young academics at that time made supporting his growing family difficult, and he decided to use his linguistic skills (which now included Spanish) in the better paying position of United Nations

interpreter. This soon led to his employment at the International Court of Justice in The Hague, of which institution he eventually became Registrar.

Stan had many engaging qualities, all of which were somehow fused in his character to make him the remarkable man he was: sparkling intelligence, articulateness, humour, optimism, probity and—for me his most endearing trait—a delight in nonsense. Although he was some thirty years my senior, and I naturally looked up to him as to a father, in his company the difference in our ages seemed magically bridged by his enthusiasm and sense of fun. A keen walker, he and I often hiked along the beach at Scheveningen, discussing, as we walked, everything under the sun (which, it must be observed, in the Netherlands is usually obscured by clouds). My earnest efforts at explaining mathematics, which he called the “numbers racket”, he found quite amusing. When I told him that I was studying topology, his amusement redoubled at the idea of anyone being identifiable as a “budding topologist.” Stan’s use of words had colour, precision, and rapidity. He would speak, for example, of the “systole and diastole” of inquiry, of the “weft and warp” of reality, of a topic being “exoteric”. He had a habit, which I found infectious, of peppering his talk with terms and phrases from his North American student years. Thus, at the end of the day, he would signal his intention of going to bed by heartily announcing (as my own father might have done) “Well, old folks, old soaks, I’m for hitting the sack.” And old soaks, like true Notre Damers, “never staggered, never fell, and sobered up on wood alcohol.” He rarely expressed vexation by a phrase less decorous than an exasperated “Good Night!” Objects of his admiration were “fierce”. Americans were “born with steering wheels in their mouths” (and analogously, Dutch with bicycle spokes, etc.). To be energetic was “to come on like Gangbusters.” A rattling train was likened to the “Toonerville Trolley”. The Dutch language (which did not appeal to him) he called “Katzenjammer English”. Stan adored the Marx Brothers, Danny Kaye (*The Five Pennies* was one of his favourite movies) and the doggerel of the Canadian versifier Robert W. Service, creator of the immortal “Ballad of Dan McGrew”, and “The Cremation of Sam McGee”. This last sparked a long-running routine between us—undoubtedly a source of tedium to the rest of the Aquarones, but Stan and I never tired of it—in which he was “Sam”, I was “Josh”, and we kept our “sleds” in constant readiness for “hitting the trail”. Above all he loved S. J. Perelman’s inimitable humorous prose, to which I became addicted in my turn.

It seemed to me that Stan’s delight in such tomfoolery provided a necessary balance to his position of high responsibility at the International Court of Justice, whose role as a legal authority in the world he took very seriously. Behind Stan’s charm and polish lay a strong sense of values, an old-fashioned moral uprightness. But I believe that at the same time he found it difficult to accept the existence of evil in the world, his fundamental optimism leading him, with few exceptions, to see the best in people. If there was a vein of cynicism in him, he kept it well concealed.

Miche’s mother Madeleine (“Mado”) was of Franco-Swiss origin, but her family had moved to the United States some time before the second world war. Cultured and highly intelligent, Mado also had a down-to-earth quality, an appealing directness and strength of character. Her

energy and competence in practical matters (I recall that it was she who dealt with the coal-burning stove and pounded in any loose nails around the house) enabled her to run the Aquarone household with seemingly effortless efficiency. Still echoing in my memory is her call of “*À table!*” to summon the family to the appetizing meal she prepared each midday, for which Stan would return from his work at the Court. Disliking waste, she gauged to a nicety the exact amount of food required to satisfy the company at table, providing a little bit over which, on the occasions on which I had the good fortune to be present, she would encourage me, as a “growing boy”, to polish off. Like Stan, she was remarkably quick-witted, as the following episode, one of my favourite Aquarone stories, shows. Mado had put Rémy, Miche’s younger brother, at the time a toddler of two or so, into the family car. Shutting the door, Mado was horrified to find that the boy had contrived to get the fingers of one hand trapped, and that the top of his pinkie had been lopped off. Displaying great presence of mind, Mado retrieved the severed piece of finger, which had fallen in the snow, popped it into her mouth, and rushed the child off to the local hospital. On arrival there, she produced the fingertip, still warm, from her mouth and presented it to the astounded doctor on duty with the suggestion that no time be lost in reattaching it to the boy’s finger. This was done, the graft took, and Rémy’s finger grew back almost as good as new.

On a subsequent visit I struck up a curious friendship with Stan’s aging and delightfully eccentric mother, known to the family as “Nana”, whom he had brought to The Hague after his father’s death. I recall that when Stan first introduced us, he jokingly described me a *génie* (“genius”), which Nana apparently misheard as *genou* (“knee”). Thenceforth that was how she referred to me, apparently in the belief that “the Knee” was some kind of nickname I had picked up. When she asked me what I was doing, I told her that I was a student at Oxford, to which she responded that she was sorry to hear it, because of “all those terrible riots there”. This remark was highly perplexing, until it dawned on us that she thought I had meant not Oxford, England, but Oxford, Mississippi, which she associated with the racial disturbances, prominently reported in the newspapers, which had recently taken place there. In Nana’s eyes, I was always to remain not “the Yank at Oxford” but “the Knee at Oxford, Mississippi.”

Impressions of certain members of the Aquarones’ extensive network of friends and acquaintances remain with me. Stan’s colleague Billy Tait and his wife Lou showed me much kindness: Billy had studied at Oxford in the 1930s and through his recollections of the place I learned that little had changed since then. I recall Georges Droz, who, when off on a trip by car, stowed his luggage not in the boot, but in what he was pleased to call “the shoe”. Also Denise Berne, a jovial lady whose partiality to “Craven A” cigarettes led to her being nicknamed “Madame Craven A” – the “A”, naturally, pronounced “Ah!” I had a number of stimulating philosophical conversations with Turan Gökoltay, a Turkish friend of the Aquarones whose intellectual acuity made a great impression on me. I also got to know Mrs. Holz, a late middle-aged woman of powerful intelligence and personality who occasionally came to look after the younger Aquarone children in their parents’ absence. Of Jewish origin, she had been a professional chemist in Germany before Hitler’s decrees deprived her of her livelihood. Fleeing to the Netherlands, she managed to survive the war there. Unable to return to her former

occupation after the war, she was reduced to making her living as an part-time domestic with well-off families. I learned that she had once been a championship bridge player. On one occasion I partnered her in an informal game organized by Miche: my slender abilities as a bridge player were hardly up to her standards. Mrs. Holz was a person of strong opinions, opinions she voiced fearlessly in her pronounced German accent. Forever associated with her in my mind is that hard “g” in the last word of her withering estimate of someone: “You know, he’s not very intelligent.”

Finally I recall the Siegel sisters, Dora and Erna, the two eccentric spinsters who had taught Lynette a decade before. By that time retired, they lived not far from the Aquarones in an apartment which, while in fact quite large, seemed cramped through the extraordinary profusion of objects crammed into it. These ranged from random bric-a-brac to valuable paintings of the Dutch school, including a Rembrandt or two inherited from the good ladies’ father, who had made his fortune as a merchant in the Dutch East Indies. The Siegel sisters’ true attachment, however, was not to their material possessions, but to their numerous cats. I recall the afternoon Miche and I were invited to their apartment for tea. After we had settled down to our tea and cakes, the two ladies proceeded to enumerate the idiosyncracies of each of the apartment’s feline occupants. Every so often one would sidle up to be fed a treat fished out by one of the sisters from an elegant silver box any dealer in antiques would have died for. The sisters’ pride and joy was a cat they claimed to have trained to *lick stamps*. When Miche and I diplomatically expressed surprise at this unusual accomplishment, the singular animal was forthwith produced and a demonstration of its remarkable ability effected. We were deeply impressed by this “stamp-licking cat”, as it came to be known; many years later Miche was to achieve a nice symmetry by her discovery of “cat-licking stamps”, a series of stamps bearing images of cats.

Reminiscing on my first stay with the Aquarones evokes a number of musical impressions. In the dining room of their house was a massive sideboard whose top drawer was crammed with records of classical music. One of these was Mozart’s last string quartet, the one in F, K. 590, whose splendid opening—a majestically rising sequence of three chords followed by a descending flurry of notes—is seamlessly fused in my mind with that enchanted time. In this treasure trove I also found Rudolf Serkin’s recording of Beethoven’s “Diabelli” Variations, the first of Beethoven’s solo piano compositions to have a real impact on me. Also memorable was an old 78 rpm recording of the great violist William Primrose playing a sonata attributed to W. F. Bach.

Miche’s birthday and mine fall on the same day and we have held a number of joint celebrations over the years. I cannot now recall whether the first of these celebrations, in 1963, took place in Paris or The Hague, but I do remember being presented by Miche with a pipe and a pouch of Dutch Amphora tobacco. Thus was I introduced to the pleasures of smoking. An absurd sight I must have presented puffing away in a desperate, and mostly unsuccessful,

attempt to keep the thing alight. It soon became clear that I was not cut out to be a “pipe-man”, and so I followed the herd and took up cigarettes.<sup>79</sup>

In the late summer of 1963 Miche and I attended the Edinburgh Festival, where we heard Beethoven trios with the Stern-Rose-Istomin Trio, Bartok quartets with the Tatrai Quartet, and the Bartok Solo Violin Sonata with Yehudi Menuhin (who on this occasion played magnificently). The only other thing I can recall about the episode is that we stayed in a curious Edinburgh boarding house with separate dormitories for men and women.

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In the summer of 1964 I returned to California. The airfare from Europe to the U.S. west coast at that time was far beyond my means, so I arranged to take a relatively cheap charter flight to New York and travel thence to San Francisco overland by Greyhound Bus. Ed and Elinor Bohle were, once again, my hosts in New York. On a visit with Elinor to the Museum of Modern Art. I was overwhelmed by the paintings I saw there, Miros, Ernsts, Mondrians, Tanguys, Magrittes, Kandinskys burning their images onto my visual memory. It was a formative experience.

After a couple of exciting days in New York the time came to board the Greyhound bus for the West Coast. I was aware that the trip would take upwards of 72 hours, with only occasional rest stops, but I figured that I could sleep most of the way. This was completely wrong, for the experience turned out to be a purgatory on wheels, from which I learned at first hand what it meant to be “Hounded across America”. After bidding my farewells to Elinor, who had come to see me off, I boarded the bus and settled myself into a window seat. Naturally, I had hoped that the seat next to mine might remain unoccupied, but a man soon sat down next to me, and when the bus pulled out of the station it was packed. After a while I struck up a conversation with my immediate neighbour, whom I shall call Mario, an affable middle-aged gentleman of Italian origin on his way to visit his married daughter in Chicago. I learned that he was a watchmaker employed in the New York office of the prestigious Omega watch company. As the bus laboured its way westward, to pass the time Mario told me an amusing story. In those days each Omega watch came with a unconditional guarantee that, if found to be defective for any reason whatsoever, it would be repaired or replaced free of charge. Mario had the responsibility of determining, whenever a watch was returned, whether it was reparable or should simply be replaced; in the former case it was his further job to repair it. While most of the watches he had dealt with over the years were perfectly bona-fide returns, he had had a few “rogues”, watches which had been deliberately tampered with by their purchasers so as to force the company to replace them. A certain joker had played a cat-and-mouse game with the company, returning one “defective” watch after another – including a specimen crushed to wafer thinness so rendering it

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<sup>79</sup> I recall some of the cigarette brands of the day: *Players*, *Senior Service*, *Embassy*, *Gold Flake*, *Woodbines* (the original “coffin nails”), *Players “Weights”*, *Churchmans No. 1*, *Craven “A”*, *Benson and Hedges*, *Rothmans*, *Capstan Full Strength* (the “Lungbusters”), *Silk Cut*, *Peter Stuyvesant*. This last was advertised as “The International Passport to Smoking Pleasure”, for the last word of which I happily substituted “chagrin”. And although I rarely smoked a pipe, I still recall the vast range of pipe tobaccos then available – and the designs on the tins in which they were packed – *Three Nuns*, *Players Navy Cut Deluxe*, *Erinmore Flake*, *St. Bruno’s*, *Barney’s Punchbowl*, *Balkan Sobranie*, *Gold Block*, *Escudo*, *Players Whiskey*, *Clan*, *Condor*...

the size of a saucer — and receiving a replacement each time. Finally the joker sent along a watch whose works had been partly eaten away by acid. Mario and his boss decided to put a stop to this, so instead of supplying a new replacement, Mario repaired the old watch as best he could and returned it with a note to the effect that this was positively the last free watch the Omega company would provide. The joker was never heard from again. In response I told Mario my old Timex story, on hearing which he laughed and said that he wasn't surprised — for his part, he wouldn't be seen dead with a Timex, it fell apart almost before you strapped it on. According to him the only shoddier brand on the market was Ingersoll. I was happy that my own wristwatch, whose make I cannot recall, although certainly not an Omega, was of neither of those worthless brands.

Thus we agreeably whiled away the fifteen hours to Chicago, where I was to change buses. After bidding farewell to Mario, I scoffed down a burger in the station and boarded my next bus, a direct to San Francisco. Soon after I had taken my seat a man came around dispensing pillows which at first I thought would be provided for free. But no, it was a case of "\$1 please" — apart from the seats and the wheels, everything on the Hound was an "extra". I coughed up the money and, accepting a minuscule pillow in exchange, tried to make myself comfortable. As the bus pulled out of the station, I felt suddenly depressed by the thought that I faced another sixty hours or so of sitting nearly bolt upright. I dozed fitfully in my seat that first night, continually aware of the rumble of the bus's engine punctuated by a baby's cry and the occasional groan. The following morning I opened my eyes, which were smarting with fatigue, to find that the bus had arrived in the outskirts of a city I managed blearily to identify as Omaha, Nebraska. By this time I was ravenous and desperate for a decent breakfast. As the bus threaded its way through the city it passed a number of inviting eateries, but the driver showed no sign of slowing down. Eventually he pulled up at the Greyhound station, situated in a desolate no-man's-land on the far side of town. The nearest decent restaurant being miles away, there was no choice but to choke down the lousy, and by no means cheap food on offer at the station café. (This pattern was to be repeated throughout the journey.) On reboarding the bus I found to my chagrin that my pillow, along with everybody else's, had been removed, and that I would have to shell out yet again for another one. I did so, but only because I wanted to see whether I could beat the system by hiding the pillow somewhere. (Needless to say I failed.) We pulled out of Omaha and droned our way through the endless Nebraska plain. The new driver drew our attention to the few places of interest along the way. Occasionally he attempted to liven things up by attempting a witticism, for instance, describing a auto junkyard we happened to pass as a "women's parking lot." Arriving some hours later at Cheyenne, Wyoming, I, along with my fellow passengers, dropping with exhaustion, staggered off into what seemed an inferno — the temperature there hovered in the nineties. After a further dose of greasy Hound fare, we reboarded the bus and ground our way through another grueling night and most of the following day, passing through Salt Lake City, Winnemucca, Reno and Sacramento before pulling in at long last to the familiar 7<sup>th</sup> St. bus station in San Francisco. I had removed my shoes for the final segment of the journey but when I attempted to put them back on again, found that my feet had swollen up like a pair of balloons.

Cramming them into my shoes somehow, I stumbled out to await my last change of bus, to Santa Cruz, and deliverance. When I finally took my leave of the wheeled purgatory at Santa Cruz I felt, and no doubt also looked, like something the cat had dragged in. The Greyhound's slogan at that time was "Leave the driving to us", but what they failed to mention is that the suffering is left to the passengers<sup>80</sup>.

I arrived at 24 Pasatiempo Drive to find that my father had gone into the construction business, having bought out the owners of Clark and Clark Inc., a local construction company. Unfortunately, right from the start the newly purchased firm had cash flow problems which were shortly to force it into liquidation. This led to the total loss of my father's investment, which had, I learned, been put up by Margery. The "Clark and Clark" issue was a real thorn in their relationship.

I spent much of my waking hours that summer reading, sprawled in a deck chair on the patio. I got through a number of philosophical works, Wittgenstein's *Tractatus*, mysterious and fascinating, William James's "Essays on Pragmatism", G. E. Moore's philosophical essays. I ploughed through Hegel's *Philosophy of History*, a copy of which I found in my father's collection of Great Books. In mathematics, I studied Gödel's monograph, *The Consistency of the Axiom of Choice and the Generalized Continuum Hypothesis*. The first two-thirds of this mathematical tour-de-force, in which Gödel presents his axiom system for set theory and develops its essential properties, seemed reasonably clear. But, despite my best efforts, I was unable to fathom the final part of the work, its grand finale, so to speak, in which, accompanied by an inaudible clash of cymbals, the consistency of the GCH is established. A good few years were to pass before I felt I truly understood what was going on.

I shared the annexe to the house on Pasatiempo Drive with my younger brother Pete, who was then 12 or so. Because he had been no more than five or six years old when I had left home, we scarcely knew each other. But, remembering him as a toddler, I was not surprised to find that he had developed into a likeable boy. We enjoyed rambling around the neighbourhood together, and climbing in the nearby hills. On one of these rambles I happened to brush with my bare arm a clump of bushes bearing oak-shaped leaves of an attractive crimson hue. This turned out to be

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<sup>80</sup> In his 1953 novel *Whom Gods Destroy* the crime and western writer Clifton Adams provided a vivid description of a similar bus trip:

*Maybe you never rode a cross-country bus halfway across the United States, and if you haven't this is what it's like. The first couple of hours aren't so bad. If a baby starts crying, you shrug it off and look at the scenery. You get off at the rest stops and have a Coke and a sandwich and you feel pretty good. Then night comes and you rent a pillow. You doze for two or three hours and then you wake up with a baby yelling in your ear, and you've got a crick in your back. Then you begin to notice that you feel dirty. You rub your fingers together and there's grit. You touch your face and it's the same thing. Your beard starts coming out and scratching your neck, and you see that you've got cigarette ashes all over you. Finally the sun comes up, and by this time you've taken off your coat and loosened your tie and you don't care how you look. Your eyes begin to burn from the beat of the desert sun, and a feeling of hopelessness gets hold of you as you watch the wasteland crawl by treadmill-like under the wheels of the bus. Bleak Arizona, standing raw and red; earth-torn New Mexico; the seemingly endless wastes of west Texas. The miles drag out, and out, and now no way you can sit will be comfortable. Your back starts hurting at the shoulders and the ache starts crawling down your spine until it gets to the end, and there it builds a little fire, and the fire gets hotter and hotter. Then some farmer going ten miles up the road sits down beside you, and you swear that, by God, you'll tear his throat open if he as much as asks for a match. About that time you had better be getting close to your destination.*



a dreadful mistake, since the plant in question was poison oak, the bane of the California countryside, to which I turned out to be spectacularly allergic. My arm started to itch fiercely and, without thinking, I began to scratch, spreading the allergy to other parts of my body. By the following morning my eyelids and lips were grotesquely puffy, and by the end of the day much of the remainder of my body surface had followed suit. The itching was indescribable. My face swelled to acromegalic proportions. Most embarrassing of all, the pox began to spread to my crotch. Of course in this leprous state I was confined to my room, except for a visit to a doctor who, clucking at my foolishness at having got within ten feet of a patch of poison oak, prescribed a dose of cortisone tablets. When these failed to alleviate the condition, I began to worry that the oedema might invade my lungs, with potentially fatal results, cases of such extreme reactions to poison oak being on record. So again I was trundled off to the doctor and this time given a massive injection of ACTH (adrenocorticotrophic hormone). I had the impression that, if this didn't work, it was goodbye Charlie. But, mercifully, it did the trick, and both swelling and itching soon began to subside, and after a day or two I was in a more or less presentable state. As for poison oak, I felt that if I never set eyes on the wretched plant again it would be too soon.

That wasn't the only misfortune to befall me that summer. A comical, but nevertheless painful episode occurred in the living room one evening where Margery, my father and I were having drinks before dinner. I had recently bought a Zippo lighter: in those days no authentic smoker was to be seen without one, and I was proud to be included among their number. Attempting to light a cigarette, my Zippo ran out of fuel. I got up in search of a can of lighter fluid. I found one in the kitchen, and squirted liberal amounts of fluid into the lighter. I then returned to the company, put a cigarette between my lips, flipped my Zippo at it, and, with a sudden whoosh, the whole lighter, along with my hand, burst into flame. Frantically I attempted to extinguish the fire with the other hand, succeeding only in setting that hand alight as well. Finally I managed to quell the flames by sitting on both hands, but by this time they had sustained quite serious burns, and had begun to sting mercilessly. Margery applied ointment to my hands and wrapped them in bandages. She suggested cognac as an anodyne, and as a result I was drunk by the time I finally got to bed, but, as they say, felt no pain. When my father looked in the following morning to see how the "human torch" (as he quickly dubbed me) was faring, I was able to report that it looked as if I would pull through, and in fact the burns healed up after a few days. My near self-immolation taught me to be a lot less cavalier with lighter fluid.

Later that summer the Aquarones passed through Santa Cruz in the final stages of the camping trip around the U.S. that Stan had long yearned to make. It was, as always, a delight to see them again. Stan had come up with a whole new set of routines: I recall his "McQueen for a Day" and his delight with Smokey the Bear's admonition that "Only *you* can prevent forest fires." I hit the trail with the Aquarones, driving north through San Francisco across the Golden Gate into Marin County in search of Samuel P. Taylor State Park, where they had planned to camp for the night. Failing to locate this elusive watering-hole, we stopped to ask a passer-by if he could inform us of its whereabouts. Our would-be informant proved to be a Japanese, evidently a tourist himself, who waved his arms about excitedly and produced a torrent of speech from which

we were able to make out something like “State Park? No State Park here, no State Park there, no State Park anywhere!”, a line which was quickly absorbed into our repertoire of routines. I cannot now recall whether we actually found the place, but we did pitch our tents somewhere. After my recent brush with poison oak, I insisted that our campsite be free of the slightest trace of the dreaded plant. The next day we drove back to San Francisco to put Miche on a plane for Scotland, to which she had to return to resit an examination. I returned to Britain soon afterwards.

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The summer 1964 trip was the only one I made to the US as an undergraduate. With that one exception, my vacations were spent in College, lodgings, or, if I was lucky, with the families of friends who had offered me hospitality. These included Robert Padgett, whom I had met at Shell and who had gone up to Wadham College to read Mathematics; David Rowe; Donald Brown; and John Armstrong, a contemporary of mine at Exeter reading English.

I spent the Christmas vacation of 1964 in Cambridge with Donald Brown and his family. Donald introduced me to Christine Smith, a tall, attractive, dark-haired girl of striking intelligence and force of personality, who was, I learned to my surprise, only 17 years old and still at school. Christine and I hit it off from the start, and we quickly became fast friends. I also got to know Christine’s mother, a strong-minded and highly capable woman of French origin. Widowed soon after the war, she had brought up Christine and her older brother Ian by herself. She had nurtured and encouraged the development of her children’s manifest abilities. Both had been brought up bilingually in French and English, and both were musical, Ian playing the piano and Christine the violin. I recall first hearing Beethoven’s “Spring” sonata in a performance by Christine and Ian at the Smith family house in the Huntingdon Road. My friendship with Christine was sustained when, two years later, she went up to Oxford to read Modern Languages while I was still a graduate student there.

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Dermot Roaf had arranged for David Edwards, a functional analyst at Lincoln College, to act as my tutor for my first couple of terms. A shy, prematurely balding man in his early thirties, Edwards was the first mathematician I had met (apart from my fleeting encounter with John Pryce) who actually *practiced* the kind of mathematics I had picked up from Kelley’s book, and which so fascinated me. Tutorials were held in his office in the old Mathematical Institute on Parks Road. At our first meeting I told him that I had tried my hand at the problem sets in Kelley, and that I had become particularly interested in the theory of Boolean algebras. This was a topic with which Edwards was familiar. He recommended that I get hold of Philip Dwingier’s recently published book on the subject. Much of my first term with Edwards was devoted to working through this excellent little book. (Its dark green cover I can still see in my mind’s eye.) Edwards also stimulated my interest in functional analysis, and in my second term, under his guidance, I started to work my way through Mahlon M. Day’s highly compressed monograph on normed linear spaces. I felt very fortunate to receive instruction and guidance from Edwards, a first-class

mathematician. Later I was gratified to learn from Dermot that in his report to Exeter College on my progress Edwards had said that my work with him “would have done credit to a graduate student.” Such rare observations do wonders for the self-esteem.

In my second year I was “farmed out” to Brian Steer, a young algebraic topologist at Hertford College. My relations with him were less harmonious than those I had enjoyed with David Edwards. At our first meeting Steer demanded to know why I had only obtained a Second in my Mods examination the previous summer. I told him straight out that I wasn’t interested in studying for exams, and that being the case, a Second was likely the best I could have achieved. It was evident from the expression on his face that he was less than happy with this explanation. I went on to say that I had become interested in Gillman and Jerison’s *Rings of Continuous Functions*. I recall the delicious sense of inclusion – call it elitist if you like – I had felt on reading the book’s very first sentence: *This book is addressed to those who know the meaning of each word in the title; none is defined in the text*. I suggested to Steer that I might work my way through the book under his guidance. He didn’t seem very taken with this suggestion. But he nodded approvingly when I mentioned that I had been studying Bourbaki’s *Topologie Générale* and *Algèbre*. He asked me if I knew anything about Lie algebras, to which I replied in the negative. “In that case,” he said, “I’ll make a bargain with you. Get hold of the first chapter of Bourbaki’s *Groupes et Algèbres de Lie* and work your way through it this term. Write out solutions to the exercises and bring them to me each week. If you agree to do this, next term we’ll go through Gillman and Jerison’s book. What do you say?” I was happy to fall in with this proposal, and so that term I ploughed my way through the exercises in Bourbaki’s work. Bourbaki’s characteristically elegant presentation of the theory is – equally characteristically – quite devoid of motivation, so that I was left completely in the dark as to what the deeper mathematical significance of Lie algebras might be. (It was to be some time before I learned that Lie algebras arise as algebras of infinitesimal transformations on analytic manifolds or Lie groups.) I don’t recall Brian Steer ever pointing this fact out to me. And Bourbaki doesn’t introduce the concept of Lie group until a later chapter of his opus, which at that time had not even been written. Nevertheless, I came to enjoy grappling with the intricacies of Lie algebras. Each week I presented Steer with my efforts at solving the (often very difficult) Bourbaki exercises. On the rare occasions one of my solutions met with his approval, he would say to me, in his prim way, “I’m *pleased* with you.” Praise indeed! In accordance with our agreement, the following term I started on Gillman and Jerison’s book, each week bringing Steer solutions to exercises therefrom. The study of rings of continuous functions on a topological space combined algebra and topology in a fashion which was very much to my taste, but not, as soon became evident, to Brian Steer’s. I recall in particular his expressing outright disbelief at the claim made in one exercise in Gillman and Jerison’s book that a certain condition on a topological space was necessary and sufficient for the space to be determined up to homeomorphism. He took some convincing to accept the correctness of the claim. We had a number of disputes of this sort, but in the end, I think, we parted on something like good terms.

My study of Boolean algebras and set theory had made me curious about logic, and so I was delighted to learn at the beginning of my third year that my tutor was to be John Crossley, a

young Fellow of St. Catherine's College, who was at the time the sole mathematical logician on the Oxford faculty. John and I hit it off instantly. Warm, informal, encouraging, he bubbled with enthusiasm for logic. Despite the fact that I was still an undergraduate, and had yet to undergo the ordeal of Schools, John graciously treated me as if I were already his graduate student. He suggested that I read through Hartley Rogers' notes on recursion theory (the well-known book having not yet been published). Later John asked me to present at his seminar an exposition of Myhill and Shepherdson's 1955 paper *Effective operations on partial recursive functions*. It still surprises me to reflect that this, my first official lecture, had as its topic recursion theory, a subject for which I have never been able to develop much of a taste.

By a happy coincidence, John had arranged to teach a graduate course on model theory that year, devoting the first part of his exposition to a proof of the completeness theorem using Boolean algebraic methods. With my enthusiasm for Boolean algebras, I was agog at this prospect. Alan Slomson, a very bright first-year graduate student of John's, and I were delegated to take notes on the lectures. Alan and I proved ideal collaborators, developing such an enthusiasm for model theory that John suggested that *we* give the course the following year. Using as a basis the notes we had taken on John's course, we wrote up our own, which we gave in Oxford in 1965-6. Later John encouraged us to polish up our course notes into publishable form, and smoothed the way for the resulting book to be published by North-Holland. Thus was *Bell and Slomson: Models and Ultraproducts*, the first textbook on model theory, born. Alan and I both recognized how important a part John Crossley's generosity and encouragement had played in its birth. We owe him much.

One day John proposed that we drive to Bristol to hear a lecture by the logician Georg Kreisel in the mathematics department at the university there, which was then the centre of British activity in mathematical logic. So Peter Aczel (a second year student of John's, later to become a major figure in mathematical logic), Alan and I all piled into John's car and roared up to Bristol. Immediately before departure, John insisted that we all "belt up" – an amusing *double entendre* instructing his passengers to button their lips and, at the same time, and more to the point, to fasten the seat belts with which his vehicle was equipped – long before the device became mandatory. We had good reason to be grateful for the presence of these belts, since John drove like a maniac. As for Kreisel, all I then knew about the man was that his name is an anagram of "Keisler", a logician whose papers I had begun to study (and whom I was first to meet some 10 years later), so I had no idea what to expect. I cannot now recall the topic of Kreisel's lecture, but his supercilious manner, as if casting pearls among swine, left an unpleasant impression. The man's ego filled the lecture hall. Especially repellent was what I saw as his condescension to John Shepherdson, the Head of the Bristol mathematics department, a deferential man, yet an equally eminent logician, whom I also met for the first time on that occasion. The contrast between Kreisel's arrogance and Shepherdson's gentility could not have been more striking. In order to determine whether anything aside from dominance of personality should cause anybody to defer to *Herr* Kreisel, I later looked up some of his papers. I confess that at the time I could find no such cause. The convoluted, pretentious style of his writing repelled me in the same way the man had.

In the end I did manage to gain an inkling of what Kreisel was getting at in his work, and even to appreciate its significance, but I could never overcome my dislike of its manner of presentation. Oddly enough, a couple of years later Kreisel was to act, very briefly, as my research advisor. That story (for what it is worth) will be told in its proper place.

John Crossley was generous to all his students, and to me in particular. On a number of occasions I enjoyed his and his wife Stella's hospitality at dinner in their house in Kidlington north of Oxford. One evening John invited me to dine at St. Catherine's High Table. I felt somewhat nervous when I was directed to take one of the College's characteristically modernistic high-backed seats next to the Master of the College. This was Alan Bullock, the eminent historian, author of *Hitler: A Study in Tyranny*. Bullock, affable and down-to-earth, made me feel very much at my ease. After dinner the company withdrew into the Senior Common Room where the port bottle was passed round. I fancied that I was holding up my end conversationally until a sharp young Fellow in Linguistics (I think) threw in a word I had not heard—*elision*. Instead of temporizing, perhaps even attempting to change the subject altogether—what I would do today in a similar situation—I meekly asked my interlocutor the meaning of the word: perhaps, after all, I was less self-conscious then<sup>81</sup>. In any case, he defined the word for me without a trace of condescension. Some years later I confided this tiny contretemps to my student and close friend Mike Hallett, who responded with the following limerick:

*Your ignorance of the word "elision"*  
*Once led to a certain derision.*  
*But your progress since*  
*Quite makes me wince –*  
*I submit to the master of erudition.*

Undergraduates at Oxford were not normally required to attend lectures, and accordingly I followed just a select handful of courses. In my first term I heard Ioan James lecture on topological groups, a subject to which I had yet again been introduced through exercises in Kelley's book (and which I had studied further in Pontryagin's classic *Topological Groups*). On one occasion James, a quiet-spoken, elfin man, lost his way in the middle of a proof at the blackboard. At that point an American voice in the audience piped up: "Professor, could I be permitted to interpolate

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<sup>81</sup> So let the self-consciousness I've acquired through growing older be overcome through an observation decently confined to a footnote, as age decrees. The verb "elide", as I learned through my humbling introduction to its associated substantive, means "to omit a vowel or syllable in pronunciation". I've noticed that writers who should know better are now using the word in the sense of "to identify" or "to conflate". *Vive la pédanterie!*

a remark at this juncture?”, a request to which James, perhaps as startled as I by the intervention, acceded. At that point a truly mountainous figure of a man laboured to his feet in the back row of the lecture theatre. He proceeded to outline, with magisterial authority, how the proof should go. This was the first, but by no means the last, of the interventions of Alan Tritter, a graduate student in mathematics with whom I struck up a friendship. In his late twenties at the time we first met, Alan had been a child prodigy, graduating in mathematics from the University of Chicago at the age of 17. Soon after this, his weight had begun to undergo a sudden alarming increase. He consulted a number of doctors, but they all attributed the phenomenon to hormonal imbalance, or even, humiliatingly, to overeating. Alan was put on diets, and various drug regimens, but to no avail: his weight continued to mount inexorably, eventually exceeding 400 pounds. Eventually a physician of superior sagacity came up with a bizarre, but as it turned out, correct diagnosis. Alan’s excess body tissue was in fact a colossal lipoma, a benign tumour, whose symmetric growth had misled the experts into attributing the swelling to metabolic disorder or overindulgence. If this diagnosis had been made early on, the tumour could have been removed without serious ado. But, as Alan explained to me, it had been allowed to grow for so long that it now weighed by itself in excess of 100 pounds, which meant that its removal would involve major, and very risky, surgery. As he observed with his usual grandiloquence, “after excision of the tumour, wrapping up my carcass in my epidermis would present the surgeons with a nontrivial problem in geometric topology.” I don’t know whether Alan ever underwent that operation, but it seems unlikely. Alan gave some lecture course while at Oxford, including one with the clever title “Applied Metamathematics”. I learned that later he returned to the United States and joined the research group at the IBM labs in New York<sup>82</sup>.

In my second term I attended the lecture course on module theory by A. L. S. Corner of Worcester College. Corner’s presentation of the subject was masterly, and I took detailed notes, rewriting them in fair copy in a notebook, just as I had with Hoyle’s lectures. After the course ended I wrote to Corner asking if he would be willing to look over some “research” of mine – at least, so I was pleased to call it. (All I can remember is that it concerned modules over Boolean rings.) He kindly consented, and invited me to his rooms one afternoon to discuss my work. Over tea, he asked me if I liked music, and I naturally responded enthusiastically. We spent the rest of a memorable afternoon listening to select items from his record collection: I recall in particular hearing for the first time the Cortot-Thibaud-Casals performance of the Schubert B flat piano trio, Op. 99.

Corner suggested that I write to M. H. Stone, the creator of the theory of Boolean rings, and one of the grand old men of American mathematics. I did so, outlining the results I had obtained. I received a gracious reply from Stone which I have unfortunately lost.

Throughout my undergraduate years I strove to educate myself, in mathematics as in all else. My efforts were aided considerably by the presence of Blackwell’s bookshop on the Broad just across from Exeter College. Like many Oxford undergraduates, I had taken out an account at this

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<sup>82</sup> It seems that, with heavy irony, he took to calling himself “the biggest man in computer science”. He died in 1988 aged 53.

venerable Oxford institution. The account was supposed to be paid off at the end of each term, but inevitably mine ran into arrears, in response to which I soon received a politely worded reminder from Blackwell's headed by a quotation from one of Plato's dialogues. It amused me to parody this along the lines of "How, Socrates, can one be accounted an honest man if one fails to pay one's Blackwell's bill?" When I still failed to pay off my debt—like most undergraduates, I was chronically hard up—Blackwell's dispatched a somewhat less politely worded note, shorn of quotations and subtly threatening. This failing to have the intended effect, Blackwell's finally issued a blunt communication informing me that, unless I settled my account forthwith, the firm would have no choice but to refer the matter to their solicitors. At this point I gave in and paid up.

Scientific books then were very much cheaper than they are today and booksellers, Blackwell's in particular, were able to maintain bulging stocks of those currently in print. Fascinated by Blackwell's lavish display of mathematics books, I hung around the place in preference to any of the (admittedly excellent) Oxford libraries. My browsing eye was soon attracted by a series of brown and grey French paperbacks entitled *Éléments de Mathématique*, the work, so the title page of each volume modestly noted, of one N. Bourbaki. I was excited to find that this work was intended to be a complete, systematic account of abstract mathematics, precisely the kind of mathematics to which I had already been converted by Kelley's *General Topology*. I soon learned that the name "Nicolas Bourbaki" had been playfully adopted by a group of prominent French mathematicians as a collective pseudonym under which to publish their joint pedagogical effort. (The original Bourbaki was a Greek general in Napoleon's armies.) The *oeuvre Bourbachique* included not only *Topologie Générale*, but *Algèbre*, *Théorie des Ensembles*, *Espaces Vectoriels Topologiques*, *Algèbre Commutatif*, magical titles to me. I bought as many volumes as I could afford, often in obsolete—and so cheaper—editions (the whole enterprise seemed to be undergoing constant revision), and attempted to provide solutions to some of the challenging exercises nestling seductively in the work. To the solutions I had already written up to Kelley's problems on Boolean rings I attached a series of solutions to exercises on topological rings in the *Topologie Générale*. I augmented my notes on Corner's lectures with solutions to exercises on modules over principal ideal domains from the *Algèbre*, befittingly inscribed, I felt, in one of the two solid blue-bound notebooks I had bought from the *Papeterie Joseph Gibert* in Paris. The second of these notebooks I devoted to solutions to the exercises on ordered sets in Chapter 3 of the *Théorie des Ensembles*. It was from these that I first learned about ordinals, which Bourbaki presents in the original Cantorian manner as order types of well-ordered sets.

Kelley and Bourbaki were major early influences on my early mathematical development. This influence was exerted not through sequential reading—I have never been able to read a mathematics book as one reads a novel, passively as it were, that is, unattended by the feeling that one should be attempting to write a book of one's own—but actively through the systematic presentation of solutions to the exercises included in the texts. Writing these up gave me a sense of achievement, a glow of self-worth, however ephemeral, at having produced a work, however

derivative, of my own. These fledgling expository efforts furnished the basis for all my subsequent mathematical writings.

There being at that time no proper textbook on model theory, in my third year I studied the subject mainly from original papers. I was particularly taken with the ultraproduct construction, about which I learned from Kochen's *Ultraproducts and the Theory of Models*, Frayne, Morel and Scott's *Reduced Direct Products*, and Keisler's *Ultraproducts and Elementary Classes*. Basic model theory I gleaned from Tarski and Vaught's *Arithmetical Extensions of Relational Systems*. In one of Keisler's papers I came across the assertion, stated without proof, that elementarily equivalent saturated structures of the same cardinality are isomorphic. I figured out a proof of this (essentially by adapting the "back-and-forth" argument which establishes the corresponding result for ordered sets) which I thought might be worth attempting to publish. I typed up the proof and submitted it to the *Bulletin of the American Mathematical Society*. This was my first attempt at publishing a mathematical paper. After a few months a letter arrived informing me of the paper's rejection on the not unreasonable grounds that my proof was already known; while unpublished, it was the standard proof given in graduate courses in model theory at Berkeley. This provided some consolation for the paper's rejection.

Blackwell's served as the main source of supply for the many novels and other works of literature I devoured as an undergraduate, and which still crowd my shelves. I read a great number of translations in Penguin Classics, the uniform appearance of whose colour coded bindings—green for French, red for Russian, brown for Greek, purple for Latin, blue for Italian, yellow for Oriental—appealed to me much as series of stamps had once done. (I didn't much care for the glossy new bindings which Penguin introduced at the time.) I developed a particular passion for French novels—Stendhal, Balzac, Flaubert, Zola, Huysmans, Gide, Sartre, Camus, Celine, ... Huysmans's extraordinary decadent novels *Against Nature* and *Down There* gripped me. I was also much taken by Camus's *Outsider*, Sartre's *Nausea*, Celine's *Journey to the End of the Night*. The great 19<sup>th</sup> century Russians—Gogol, Goncharov, Dostoevsky, Tolstoy, Turgenev, Chekhov—greatly appealed to me: I loved Goncharov's *Oblomov*, Gogol's *Dead Souls*, Dostoevsky's *The Double*, *Notes from Underground*, *The House of the Dead* and *The Idiot*, Tolstoy's *Anna Karenina*, *War and Peace*, and *23 Tales*, Turgenev's *Fathers and Sons*. Of Chekhov's stories I recall being particularly struck by the bleak *Ward 6*, reputed to be Lenin's favourite, in which the director of a mental asylum winds up, ironically, as one of its inmates. I also conceived a liking for modern Russian literature: Zoshchenko's humorous feuilletons, Ilf and Petrov's *The Twelve Chairs* and *The Golden Calf*, Isaac Babel's *Red Cavalry* and *Odessa Stories*, Ilya Ehrenburg's *Julio Jurenito*, Sologub's *Little Demon*. I read American novels: J. D. Salinger's immensely popular *The Catcher in the Rye*, Heller's even bigger success *Catch-22*, Richard Wright's *Native Son*, Ralph Ellison's *Invisible Man*, John Updike's *Rabbit, Run*, Dos Passos's *USA* and *Manhattan Transfer*, Steinbeck's *Of Mice and Men* and *The Grapes of Wrath*, Saroyan's *The Human Comedy*, Herlihy's *The Sleep of Baby Filbertson* and *All Fall Down*, Faulkner's *The Sound and the Fury* and *The Wild Palms*, Scott Fitzgerald's *Tender is the Night* and *The Great Gatsby*. I thought Carson McCullers's writing exquisite: *The Ballad of the Sad Café*, *Reflections in a Golden Eye*, *The Member of the Wedding*, *The Heart*



is a *Lonely Hunter*, *Clock without Hands*. Other novels that made a big impression on me as an undergraduate included Elias Canetti's *Auto-da-Fé*, Robert Musil's *Young Törless*, A. E. Ellis's *The Rack*, Italo Svevo's *Confessions of Zeno*, Hašek's *The Good Soldier Schweik*, Čapek's *War with the Newts* (to which I had been introduced by Stan Aquarone), Stefan Zweig's *Kaleidoscope* and *Beware of Pity*, Joyce's *Dubliners*, *A Portrait of the Artist as a Young Man*, and the monumental *Ulysses*.

I was about 13 when I first came across a copy of *Ulysses* on the shelves of the Riswold's house in Berkeley. Attracted by what I took to be a book on Greek mythology, I recall my surprise at opening it to see the arresting first page, with its enormous "S". But that first encounter with Joyce's masterpiece did not immediately lead me to attempt to read it. It was not until my first year at Oxford that I bought the Modern Library edition (which is prefaced by Judge Woolsey's landmark 1933 decision lifting the U.S. ban on the book) and dived in. While of course it was tough going, and I certainly did not read every line, I was mesmerized by the book, and certain portions of it have always remained with me: the beginning in the martello tower, the journalistic episode, the catechetical account of Bloom's return home, Molly Bloom's final interior monologue. In *Ulysses* Joyce provides a virtually complete education in the English language. I was (and am still) amazed by Joyce's erudition and the sheer range of his vocabulary, which continually transcends the bounds of the best dictionaries. It was in the pages of *Ulysses* that I first encountered the words *omphalos*, *matutinal*, *hegemony*, *falciform*, *ebullition*, *humected*, *oleaginous*, *supererogatory*, *symposiarchal*, *jocoserious*, *epistolary*, *metempsychosis*, *postexilic*, *glyphic*, *epenthetic*, *hagiographical*, *homilectic*, *toponomastic*, *mnemotechnic*, *periphrastic*, *sesquipedalian*, *leucodermic*, *imprevidibility*, *lattiginous*, *crepuscular*, *irruent*, *homothetic*, *rutilance*, *prurition*, *ormolu*, *dado*, *lagan*, *eructation*, *septentrional*, *epicene*, *velation*. (If Joyce had chosen to use the word *elision*, I would have looked it up and so would have been spared the later humiliation I have already recorded.) It was there that I came across the phrase, quickly engraved in my memory, *the ineluctable modality of the visible*. I was struck too by *As for living, our servants can do that for us*, a line of Villiers de l'Isle Adam's quoted by one of Joyce's characters. *Ulysses'* vastness of scope and ingenuity of construction make it the last word in literature.

I read a number of older classics in the Penguin imprint: Homer, the ancient Greek dramatists, those of Plato's dialogues centring round the death of Socrates, Apuleius's *The Golden Ass*, Lucian's delicious *Satirical Sketches*, Apollonius of Rhodes's *The Voyage of Argo*, Chaucer's *Canterbury Tales*, Dante's *Divine Comedy*, Rabelais's *Gargantua and Pantagruel*, Cervantes's *Don Quixote*, the plays of Molière and Ibsen, the *Confessions* of Augustine and Rousseau, and Voltaire's *Candide*. I read Goethe's *Faust* in the translation by Louis MacNeice and E.M. Stahl. A favourite of mine was Arthur Waley's translation of *Monkey*, the Chinese classic. This was my introduction to Chinese culture: through it I was led to discover the beauties of Chinese poetry and painting.

I made a stab at philosophy, reading Descartes' *Discourse on Method*, Spinoza's *Ethics* (the statements of the theorems at least, since I found the "proofs" unenlightening), Leibniz's *Monadology* (intriguingly delphic), Locke, Berkeley and Hume, Schopenhauer's *Essays in Pessimism*, William James's *Essays on Pragmatism*. And of course Bertrand Russell's breezy,

brilliant *History of Western Philosophy*. My attempts to penetrate the profundities of Kant's *Critique of Pure Reason*, were frustrated by the work's indigestibility. (Many years were to pass before I came to appreciate its depth and philosophical importance.) I greatly enjoyed Hans Reichenbach's *Philosophy of Space and Time*.

On Blackwell's shelves I came across Norman Malcolm's *Wittgenstein: A Memoir*, whose frontispiece, a photograph of Wittgenstein taken in the 1930s, bore, to my eyes, a more than passing resemblance to my friend Neil Gammage. I was moved by Malcolm's portrayal of Wittgenstein, in which he emerges as an intellectual ascetic of compelling moral grandeur. Wittgenstein's tiniest defiances of convention, for example, his refusal to wear a tie at dinner in Trinity College, I found admirable. I was particularly struck by Wittgenstein's singular taste in literature, as reported by Malcolm: Tolstoy's *23 Tales* (which soon became one of my favourite works of literature as well), and pulp magazine stories published by Street and Smith. Malcolm also mentions three of his contemporaries, all students of Wittgenstein – Elizabeth Anscombe, Georg Kreisel, and W. A. Hijab – the latter two of whom I was later to meet. Reading Malcolm's memoir stimulated me to attempt to read Wittgenstein's philosophical works. I was intrigued by the *Tractatus Logico-Philosophicus*, a masterpiece of sybilline refinement and compression in which Wittgenstein embarks on the heroic effort of reducing philosophy to the expressible, but in the end washes up on the shores of the ineffable. The conventionalism of later Wittgenstein's *Philosophical Investigations* I found less appealing.

I developed a taste for painting. Of the classical artists, Leonardo and Dürer became my heroes. But it was modern art that really captured my fancy. The walls of my various rooms came to be festooned with increasingly tattered prints of 20<sup>th</sup> century paintings, including Picasso's *The Three Musicians*, Modigliani's *Reclining Nude*, Chagall's *The Green Violinist*, Klee's *Senescio*, *Sinbad the Sailor*, and *Rich Harbour*, Miro's *Harlequinade*. Magritte, Ernst, Kandinsky, Mondrian, Arp and Tanguy became favourites of mine<sup>83</sup>. I also liked Oriental painting. On a visit to San Francisco in 1964 I found, in a junk shop, three attractive Japanese prints which, at 50 cents each, seemed to me an amazing bargain, and which I instantly snapped up. These turned out to be by the 18<sup>th</sup> century Japanese painter Suzuki Harunobu. Framed at last, two of them (the third having unaccountably vanished) decorate the walls of my living room today. I got to know something of Chinese painting by leafing through the lavishly illustrated book on the subject published by Skira in the 1960s, and which was stocked by the ever-reliable Blackwell's. I yearned to acquire it, but it was far too expensive. Some years later I had the good fortune to come across a remaindered copy at half-price in Dillon's bookshop in London.

My enthusiasm for literature and art was exceeded only by my passion for music, – audible mathematics inducing objectless emotion, as I have come to call it – which I considered the ultimate escape from *tedium vitae*. Listening to music opened in my mind a world of infinite

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<sup>83</sup> Many years later I expressed my feelings for modern art in the tiny verse  
*Miro, Kandinsky, Arp and Klee*  
*Illuminate my every day.*

possibilities unmatched by any of my other enthusiasms, including mathematics. I had acquired a decent record player—a Bush portable—which was to serve me well for many years. I was determined to get hold of the two remaining Heifetz recordings of the Bach solo sonatas and partitas (B minor and D minor partitas, G major and C major sonatas) which were at that time not issued in Britain. With some effort I managed to obtain these in French and German pressings. Finally hearing them was for me, as always with Heifetz performances, an experience of almost religious intensity. I was transfixed in particular by Heifetz's rendition of the colossal fugue—one of Bach's longest—in the C major sonata. The unflagging power of the playing seemed to me superhuman. Heifetz performs the last stretto section of this fugue with an attack and precision whose mere recollection still sends shivers down my spine. I would sometimes play this and other portions of the solo sonatas at 16 r.p.m. (a speed with which my record player was fortunately equipped) in order to unravel the mysteries of Heifetz's technique. It was a revelation to hear Heifetz playing at half speed, in slow motion, as it were. Here, one experiences with overwhelming immediacy the precision of Heifetz's fingering, the subtle variability of his vibrato, the sinuous articulation—amounting virtually to an intrinsic geometry—of his line. I later learned from my jazz musician friends that they applied the same trick to records of their jazz heroes (who were to become mine also) such as Charlie Parker and Bud Powell.

I developed a passion for Beethoven's music, in particular, the string quartets. In the early sixties the Budapest Quartet<sup>84</sup> made their last series of recordings of these, performances which quickly supplanted those I already had on disc. I was gripped by the precision of their ensemble playing and entranced by the explosive sweetness of their sound. Particularly striking was their performance of the A minor quartet, op. 132 (my personal favourite—described in Aldous Huxley's *Point Counter Point*). It took some years to obtain a complete set of these recordings. I also came across—at Maxwell's bookshop—a German pressing of Heifetz, Primrose and Piatigorsky recording of Beethoven's string trios Op. 9, nos. 1 and 3. These, too, proved to be revelatory performances.

It was at Maxwell's that I bought my first recording of Mozart string quartets: the Juilliard performances of the "Haydn" quartets in G, K. 387, and the famous "Dissonance", in C, K. 465. I quickly came to adore the uniquely subtle homogeneity of this music, and determined to obtain the rest of the Juilliard's recordings of these quartets. Fortunately they were issued in Britain not long afterwards. These pressings remain my favourite to this day (although rivalled by the Guarneri Quartet's later recordings). In San Francisco in 1964 I bought a record of Mozart's duos for violin and viola K. 423 and 424, performed by Joseph and Lillian Fuchs, which simply bowled me over. My introduction to Mozart's piano music came through a recording by Wilhelm Backhaus, which included a performance of the exquisite A minor rondo, K. 511. Later I heard Artur Schnabel's performance of what was to become my favourite Mozart piano sonata, the one

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<sup>84</sup> Known as the "Four Russians", none of the members of the Quartet was in fact of Hungarian origin. Attributed to Jascha Heifetz is the memorable characterization of a Russian: *One Russian – an anarchist, two Russians – a chess game, three Russians – a revolution, four Russians – the Budapest String Quartet.*

in F, K. 533. I also got to know some of the Haydn quartets in performances by the Budapest (Op. 76, nos. 1 and 2) and Schneider Quartets (Op. 50; Op. 76, 3-6).

I had first conceived a liking for the music of Brahms through listening to records of the Fourth Symphony at school. While staying with the Linfoots I got to know the violin sonatas, which led me to the string quartets, op. 51 nos. 1 and 2, first heard in splendid performances by the Amadeus Quartet (only later to be supplanted in my estimation by the Budapest recordings), and the cello sonatas opp. 38 and 99. My first recording of these by Pierre Fournier and Wilhelm Backhaus, but this was soon to be superseded by the muscular performance of Janos Starker and Abba Bogin. Janos Starker had taken the musical world by storm with his staggering recording of the Kodaly solo cello sonata, to which I listened in fascination over and over again. His recordings of the Bach cello suites were also outstanding.

The Oxford University record library had an extensive collection of records of twentieth century music, through which I got to know the music of Bloch, Hindemith and Schoenberg. The first of Bloch's works to capture my attention were the propulsive *Concerto Grosso no. 1* and the entrancing violin sonata no. 2, *Poème Mystique*, in the Heifetz recording. Soon afterwards I was enthralled by the Griller String Quartet's unmatched performances of the Bloch string quartets in the original Decca recordings. Lusting to obtain copies of my own, I was disappointed to find that they were no longer in print. I wrote to the Decca record company, enquiring whether they still had copies available. I was delighted receive a letter in return saying that not only did they have copies of the first two quartets, which I had heard, but also a recording by the Grillers of quartets 3 and 4, which were new to me. I instantly dispatched a cheque for the three records. When they arrived in the post a few days later my heart leapt, and I could scarcely contain my excitement at the prospect of hearing the "new" quartets. Nor was I disappointed, for Bloch's 3<sup>rd</sup> string quartet, written when the composer was more than 70 years old, turned out to be one of his finest works, a miracle of compressed energy which simply overwhelms the listener with its power.

The energetic and contrapuntally intricate music of Hindemith had an especial appeal for me. I particularly liked the Kammermusik no.4 for violin, the brilliant performances by Ruggiero Ricci of the solo violin sonatas op. 31 nos. 1 and 2; the sonata for solo viola op. 25 no. 1; Janos Starker's stirring performance of the cello and piano sonata op.11 no. 3; Ivry Gitlis' energetic rendition of the 1939 violin concerto; Fournier, Riddle and Pini's driving performances of the two String Trios; the Fine Arts Quartet playing the string quartet no. 3; and the sinuosities of the Clarinet Concerto as performed by Louis Cahuzac.

The first work of Schoenberg I can remember hearing was the Violin Concerto of 1936 in the recording by the little-known violinist Wolfgang Marschner. I was struck by the work's sheer *oddness*— highly dissonant, and yet romantic at the same time. This was modernism with a vengeance! I couldn't get the sound of it out of my head. (Later I was amused to learn that Heifetz

had originally commissioned the work, but then refused to play it!<sup>85</sup>) The only other Schoenberg work I got to know at the time was his *Second String Quartet*, with its curiously atmospheric vocal line. Some years were to pass before I became acquainted with further compositions of Schoenberg's. But eventually my ears were truly opened to a composer of blazing originality.

The music of Bela Bartok was enjoying something of a revival in the early 1960s, and many recordings were released. I was greatly impressed by the Fine Arts Quartet recordings of the string quartets, as well as by Isaac Stern's recording of the *Rhapsodies* and Yehudi Menuhin's performance of the solo violin sonata. Menuhin's recording, on Mercury records, of Bartok's violin concerto was also a favourite of mine. Mercury records were known for their high technical standards, of which they made something of a fetish. This is illustrated by the following portion of the record's sleevenote:

### HI-FI FACTS

*The present recording was made on the morning of February 18, 1957, between the hours of midnight and five o'clock, after a short break following the all-Bartok concert referred to above. The scene of the recording was Carnegie Hall. The exceptionally large orchestra called for in the Violin Concerto included piccolo, 2 flutes, 2 oboes, English horn, 2 clarinets, bass clarinet, 2 bassoons, double bassoon, 4 horns, 2 trumpets, 2 trombones, bass trombone, timpani, snare drums, bass drum, cymbals, tam tam, celesta, harp and strings. The orchestral forces were deployed across the stage in normal concert fashion. A single microphone was suspended approximately 18 feet above the podium. The soloist stood slightly to the left of the conductor. Painstaking efforts were made during a test period to achieve perfect balance between solo and tutti, and also to locate the precise aural focal point of the hall. Once these two objectives were achieved, a level check was made. From that point on, the conductor was in complete control of balance and dynamics. Fairchild tape machines, in conjunction with McIntosh amplifiers, recorded the master tapes. The edited tapes were transferred to disc by means of a 200-watt McIntosh recording amplifier and a Fairchild tape machine, driving a specially designed Miller cutting head operating on a Scully automatic variable pitch recording lathe. Wilma Cozart was the recording director for the session; Harold Lawrence the musical supervisor. C.R. Fine was the engineer and technical supervisor; and tape to disc transfer was made by George Piros.*

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<sup>85</sup> A footnote to the parenthesis. In rejecting Schoenberg's violin concerto, Heifetz created an unfortunate precedent, since to date (2003) no "name" violinist has ventured to perform the work, let alone record it. We are lucky that the superb violinist Pierre Amoyal, ironically a Heifetz pupil – but still no "name" – has recently cut a marvelous version of Schoenberg's concerto, the greatest (along with his student Berg's) of the 20<sup>th</sup> century. Further note added in 2008: the great contemporary violinist Hilary Hahn has recently made a splendid recording of the Schoenberg concerto.

As an example of informational overkill, this deserves the cigar! Still, Mercury records *were* technically outstanding.

Stravinsky was also being celebrated through the issue, by Columbia records, of his complete works, many conducted by the composer himself. This series, with its colourful sleeves, provided my introduction to Stravinsky's *Symphony in Three Movements*, *Violin Concerto* (with Isaac Stern), *Le Rossignol*, *Symphonies of Wind Instruments*, *Symphony in C*, *Octet*, *Soldier's Tale*, *Concerto for Two Solo Pianos*, *Two-Piano Sonata*, *Movements for Piano and Orchestra*. I also got to know the *Duo Concertante*.

Other works I came to cherish at were Kodaly's Quartet no.2 and Villa-Lobos's Quartet no. 6 in the bubbly performance by the Hungarian Quartet, Prokofiev's Concerto no. 2 in the electrifying Heifetz recording of the 1950s, and the elegiac Berg violin concerto in the performance by Isaac Stern.

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In my third year John Crossley encouraged me to apply for Senior Scholarships at Merton College and Christ Church. I was familiar with Merton, but I hadn't had any contact with Christ Church. Like everybody else at Oxford, I was familiar with the fact that it was known as "The House" (from its official name *Aedes Christi*) and that is the grandest – and by reputation the snobbiest – college in Oxford. I didn't think I had much of a chance of being awarded a scholarship at Christ Church, but, figuring I had nothing to lose, and knowing also that I had Crossley's backing, I submitted an application there. The Christ Church scholarship also had the advantage over Merton's of being awarded before the sitting of final examinations, and so was not tied to the class one obtained in the Schools, which in my case would, I suspected, be less than outstanding. A few weeks later, I was, to my surprise, summoned to Christ Church for an interview. This turn of events quite excited me, yet at the same time I felt little anxiety, since as far as I was concerned, the whole affair was, to use a term I was later to learn from S. J. Perelman's writings, pure *lagniappe*. On the day of the interview I presented myself, suitably attired in jacket, tie and gown – no mere Collection this! – at Christ Church lodge. The bowler-hatted porter on duty – a figure far more imposing in appearance, it seemed to me, than any of his Exeter counterparts – directed me to the room in Tom Quad – the largest in Oxford – in which the interview was to take place. At the prescribed time I knocked on the door and was admitted to a spacious and elegantly decorated chamber, in whose centre stood a large table, along three sides of which sat the Christ Church dons in solemn assembly. There is something fundamentally intimidating about the traditional British interview, in which the candidate cannot help but see himself as the luckless captive of a band of clever inquisitors out to trip him up. This dispiriting thought may have been running through my mind as I took my seat opposite the company, but, if so, it was soon dispelled by the interrogation itself, which turned out to be less of an ordeal than I had expected. I was asked to explain the sort of research I intended to undertake as a graduate student, and giving in

response a lengthy account of the work I had already begun in logic. Then, in what must have been an attempt to probe my potential as a pedagogue, one of the dons asked me pointedly how I would explain the concept of a matrix to an undergraduate. Attempting to rise to the occasion, I glibly replied: “a matrix over a field is a map into the field from a Cartesian product of two sets.” Judging from his stony expression my questioner was less than impressed by my response, and as the interview drew to a close I felt sure I had blown the whole thing. A few days later, I was surprised and delighted to receive a letter from Christ Church announcing that I had been awarded what was grandly described as “a Senior Scholarship at the House of £500 per annum, tenable for 4 years, including free rooms and meals and the right to dine at the High Table twice a week.” As far as I could see, the condition for initial tenure of the scholarship was the mere possession of a first degree: the apparent indifference of the Christ Church authorities to the class of the degree, underscored by the awarding of the scholarship before the sitting of final examinations, reinforced my impression of the place as a bastion of aristocratic privilege. I confess that it all seemed very glamorous to me, as it did to Ashley Thom when I excitedly showed him the letter. Giving a low whistle, he remarked that, as an official communication from “the House”, (which he jokingly pronounced “Hice” in the received upper-class manner) the missive had presumably been delivered by footman driving a coach and four.

In June 1965 I sat Schools, the Oxford final examinations, so named because they are held in the Examination Schools buildings on the High Street. Being in the happy position of having already obtained a postgraduate scholarship, I did not feel especially concerned about the outcome. This was just as well, because, having signally failed to develop exam craft, I could hardly have expected to shine in the examinations. For university examinations it was necessary for candidates not merely to show up in cap and gown but also to garb themselves in what at Oxford was known as “subfusc” clothing (apparently from the Latin *fuscus*, “brown”), consisting, as prescribed by the University regulations, of “a dark suit, a white bow-tie, white collar, and white shirt, black shoes or boots, and black socks.” In my case this meant, in particular, getting hold of a suit from somewhere. I had borrowed one for the Mods exams, but I decided that this time the occasion warranted investing in threads of my own. I tried on a number of off-the-shelf suits, but finding none to fit my gangling frame, there was nothing for it but to have one tailor-made. For this purpose I went to the cheapest tailor I could find, John Collier, where I had a suit run up from a startling electric blue cloth which had taken my fancy. The result was a veritable zoot suit hardly meeting the sober requirements laid down by the university authorities.

I was uncomfortably aware of the gaudiness of my attire when I presented myself at the Examination Schools on the prescribed morning in June to face the first of eight three-hour mathematics papers. As I made my way along the rows of tables set up in the imposing examination hall, my sartorial apprehensions melted away. But as I sat down at my assigned table and opened the examination paper, I was suddenly gripped by fear of the seemingly bottomless pit of examinations yawning before me. I experienced an almost overmastering impulse to get up and leave without inscribing a single symbol. Fortunately, my sense of self-preservation prevailed. What, I wondered, would become of me if I failed the examination? And

in any case, I consoled myself, it would almost certainly be the last written examination I would ever have to face (as indeed it was). So, lacking the courage to do otherwise, I bowed to convention and began to scribble. I have often reflected on the significance (or lack thereof) of that moment for the course of my world-line. The fact that I stayed to write the examination seems the result of my own choice, that I was truly free to do the opposite. In that case the decision would stand out as a singular free action in what I have come to see as an essentially predetermined existence. But I now hold even this freedom to have been an illusion: I think I knew, subliminally, that I would never get up and throw the whole thing over<sup>86</sup>.

As an ironic touch, I found myself sitting not far away from Brian Davies, an undergraduate reputed to be the most brilliant mathematician of our year. I could see him scribbling away, piling up sheet after sheet of solutions. He deservedly got the top First of the year, and went on to an outstanding mathematical career. I was left to content myself with a pedestrian (even if, as I was later consolingly informed by my tutor, “good”) Second.

As organizer-in-chief of the 1965 Summer School in Mathematical Logic, John Crossley arranged for all his students, including myself, to attend. Held over a three week period during August and September in a hall of residence of Leicester University at Oadby, a village just outside Leicester, this conference, my first, was a seminal experience. Not only did I have the opportunity to meet—and learn from—some of the world’s most distinguished logicians, but during the course of the conference, which proved very enjoyable, I made a number of enduring friendships. The summer school featured lecture courses designed as introductions to advanced topics in mathematical logic. I attended C. C. Chang’s *Ultraproducts and Other Methods of Constructing Models* and Dana Scott’s *Measurable Cardinals*. These were superb expositions, from which I learned much. Chang and Scott, both outstanding logicians, were quite approachable, and during the conference I became in particular quite friendly with Chang, or “C.C.” as he was generally known. C.C.’s Chinese urbanity and dry wit appealed to me, and I was well aware that, as one of the world’s best logicians, he could teach me a great deal. Learning that he would be taking sabbatical leave from UCLA in 1966-7, I urged him to spend it in Oxford, so that I might study with him that year. (Jumping forward in time, this did come about, but, coincident with my becoming his official pupil, his attitude towards me suddenly underwent a startling, and unpleasant transformation, his cordiality replaced by an authoritarian brusqueness of manner which I found quite hurtful. I am sorry to say that this led to a rift between us that was never really healed, at least in my mind. But more of this later.)

I had first seen Moshé Machover lecture at Crossley’s seminar in the old Mathematical Institute the previous year. I recall that on the blackboard announcing his talk his name had been

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<sup>86</sup> Some years after the event I came across the following passage in Schopenhauer’s writings, which is strikingly apropos:  
*...everyone considers himself to be a priori quite free, even in his individual actions, and imagines he can at any moment enter upon a different way of life, which is equivalent to saying that he can become a different person. But a posteriori through experience, he finds to his astonishment that he is not free, but liable to necessity: that notwithstanding all his resolutions and reflections he does not change his conduct, and that from the beginning to the end of his life he must bear the same character that he himself condemns, and, as it were, must play to the end the part he has taken upon himself.*



chalked up as “Dr. M. MacOver”. I was surprised when, instead of the dour Scot I had expected, an intense, strong-featured young man, evidently of Middle Eastern origin, marched into the lecture room. I do not recall whether Moshé and I were introduced after that lecture, but I do know that we quickly hit it off at the Leicester conference. Right from the start I felt an affinity, a comradeship with him. While I admired the acuity of his intellect, I was even more strongly drawn by the strength of his personality and by his whimsical sense of humour. We were to become close friends and colleagues.

I met Bill Lawvere for the first time at the summer school. Amiable yet intensely serious, he had a burning ambition: to establish category theory as the *organon* of mathematics. I recall him showing me a paper he was then in the process of writing in his large, sprawling hand. It was entitled *The Category of Categories as a Foundation for Mathematics*. Knowing next to nothing of category theory beyond the basic definitions, I could not then grasp the import of what he was trying to achieve. Years were to pass before the course of my own work led me to a partial understanding of the thinking of this visionary mathematician, but when that understanding finally came, it was a revelation.

The philosopher of science Imre Lakatos (whose colleague at the London School of Economics I was later to become) also attended the summer school. He was usually to be seen at the centre of an entourage of disciples, all engaged in earnest discussion. Another attendee was the outstanding mathematical logician Haim Gaifman, brilliant, intense and combative. It was from him that I first heard of the problem of “the truth-teller, the liar, and the randomizer.” Here one is presented with three people identical save for the fact that the first always tells the truth, the second always lies, and the third answers *at random*: the problem is to determine with certainty, in no more than three questions, which is which. My immediate response was that the presence of the randomizer made the problem insoluble, but Haim showed me that I was mistaken<sup>87</sup>.

While at the summer school I struck up a friendship with Wasfi Hijab, an amiable professor of applied mathematics at the American University of Beirut who had once studied with Wittgenstein<sup>88</sup>. Wasfi told me that while at Cambridge under Wittgenstein’s spell he had considered taking up philosophy as a career, but that Wittgenstein had persuaded him to continue with mathematics. He had retained his interest in Wittgenstein’s philosophy, which explained his presence at the conference. Wasfi had known Kreisel, at Cambridge in the 1940s, referring to him as a “pleasant young man”, a delineation I found most surprising.

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<sup>87</sup> I cannot now recall the details of Haim’s solution to the problem, but here is one. Let us say that the liar is *less truthful* than the randomizer, who is in turn *less truthful* than the truth teller. Labelling the three *A*, *B*, *C*, address to *A* the question: *which of B and C is the less truthful?* The answer (*B* or *C*) will invariably be either the truth teller or the liar. By asking *B* or *C*, as the case may be, a question to which the answer is known, e.g. “Is  $2 + 2 = 4$ ?”, one determines his identity as truth-teller or liar; by asking him whether *A* is the randomizer the identity of the latter is determined, and that of the third person then follows by elimination. The essential point is that the procedure initiated by the answer to the first question works whoever *A* may be, even if he happens to be the randomizer.

<sup>88</sup> I was delighted to find a reference to Wasfi in Malcolm’s memoir of Wittgenstein, the book that had made such an impression on me as an undergraduate.

The meeting had its share of comic relief. On the first morning the mail pigeonholes were found to be stuffed with grey-covered mimeographed booklets, the professed work of one Luciano Büchler of Trieste, who identified himself as a “Prof. h.c. Epistemologist.” Evidently the lucubrations of a crank, the booklets bore such preposterous titles as *The Theory of the Impossibles* and *The Logic of the Unitarian Ethical Relativity*. Most of the conference participants sensibly consigned their copies of these curious productions directly to the wastebasket, but Alan Slomson and I, along with a few others, found their contents, on further examination, so absurd as to be irresistible. Even now I find it difficult to repress a chuckle when I recall the “fundamental equation  $\alpha = \omega\omega^2$ ” of the boldly named “Unitarian Ethical Relativity”. And I still laugh out loud when I open one of the few of these booklets still in my possession to see, above a florid signature, the warning *Copies without autographical sign of the author will be considered as counterfeit*. Inserted into each booklet is to be found the moving appeal:

*The series of pamphlets is written extemporally on the stencil, in five languages, as possible, by the author himself, of Italian expression, without having any time and practical conditions to rework them better. For this reason, we ask very kindly, to all critics, which are not concerning with the subject, to be indulgent and comprehensive.*

*Thanks.*

In *The Theory of the Impossibles* one finds the following matchless passages:

*Physical Example. Let us have two mobils, A and B, parallel travelling one in front of the other in the direction A to B. They are travelling in the absolute vacuum, on a same spatial axe...they believe themselves to be in the rest. ... And when A and B will shock between, each one will discuss to sustain that it was the other to arrive it on, being that both are travelling at the speed of 40. Both will have the same figure of that drunk people, who had hurt himself in falling down against the footpath, and who was explaining to the policeman that it had been the footpath to come and to hurt him.*

*We have heard also in some international conferences, that in his cosmical flies, the man will lengthen his life proportionally to his speed. What a disastrous incomprehension of Einstein's Theory!*

And *The Logic of the Unitarian Ethical Relativity* contains these gems:

*How could we see clearly through some not polished glasses? We may have many colors and types of mud, but there is only one type of clearness.*

*There is only one truth-value: the Truth. All the rest is non-sense, incompleteness, chaos.*

Alan Slomson and I were so impressed with this last observation that we used it as an epigraph for our book *Models and Ultraproducts*.

Identifying the author of these amazing screeds – presumably a participant at the meeting – became a burning issue. No obvious candidates presented themselves. After a few days, however, it emerged that the person in question was a certain late middle-aged gentleman of dignified appearance, sporting a goatee and a cravat, seen at mealtimes deep in conversation with an invariably puzzled-looking interlocutor. The man certainly did not *look* like my idea of a crank; rather, he fitted my image of a nineteenth century Italian aristocrat, stepping straight from the pages of Henry James. But those of us who had read his “works” knew that behind that facade of respectability lurked a crank of the first order. I would have liked to have talked to him, out of sheer curiosity, but, fearing that I would not be able to keep a straight face, and not wishing to give offence, I refrained. He badgered John Crossley into allowing him to give some lectures during the conference, and John finally gave in. As it happened, B  chler’s final lecture (no one of which I attended, knowing that I would not have been able to prevent myself from laughing out loud) took place on the very evening that the participants in the formal Colloquium began to arrive. What they made of the *Theory of the Impossibles* remains unrecorded.

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Since going down from Oxford the previous year Neil Gammage had been employed at Elliott Computers, a firm in Borehamwood, north of London. When he learned that I needed to find some way of supporting myself during the summer, he suggested that he might be able to persuade his superiors at Elliott’s to offer me a job. Thanks to Neil’s influence, I received a letter from Ian Barron, Neil’s boss, offering me three months’ employment at Elliott’s as a “Research Associate”. As for my duties, Barron suggested that I undertake an investigation of recent work of Chomsky on phrase-structure grammars, submitting a written report at the end of my tenure. The pay wasn’t princely, but it was enough to live on, and the job provided me with a welcome opportunity to get to know London. So I jumped at it. I found a room in North Finchley near the flat on Regent’s Park Road that Neil shared with three other employees of the firm. My landlord, a Mr. Rosenthal, was Hungarian. When he agreed to take me on as a lodger he requested that I pay a week’s rent in advance, and that I make out my cheque to “T. Rosenthal”. On impulse I said: “I bet the ‘T’ stands for ‘Tibor’.” “How did you know that?” he asked in surprise. I replied: “I didn’t. It’s just one of the few Hungarian names I know.” I had the impression that this little exchange put our relationship on a good footing right from the start: at least, I cannot recall feeling as if I was on the verge of expulsion from Tibor’s domain while I was there.

I usually ate breakfast and dinner with Neil and his mates at their flat. These — John Brooks, John Covington, both engineers, and Alan Woodcock, a physicist — were a convivial bunch, and we all got along swimmingly. To distinguish the three “Johns”, I proposed that, through the natural elision we designate ourselves as “J’bell”, “J’brooks” and “J’covington”. The inanity of this suggestion naturally led to its being adopted straightaway. Each weekday morning we would shoehorn ourselves into Neil’s Mini for the trip to Elliott’s, a distance of some ten miles, made short work of by Neil’s penchant for fast driving, better described as dicing with death. But since we usually started out for work late even Neil’s attempts at breaking the sound barrier failed to get us to work on time. This made little difference in the case of the others, who were salaried employees of the firm, but as an hourly-paid worker I was obliged to punch a clock. At precisely 9 a.m. the colour of the numbers printed on the time cards would change from black to red to indicate late arrival. Throughout that summer my cards showed a unbroken succession of red numbers — on the isolated occasion I actually arrived on time, I found to my consternation that the colour pattern had been inexplicably reversed.

As a temporary member of the Research Section I had little direct contact with actual computers, which in those days were massive, clumsy, and slow. When I visited Elliott’s Airborne Computing Laboratory and saw the congeries of wires, vacuum tubes and whatnot proposed for installation in an aircraft, it seemed to me that it would be miraculous if the whole mess managed to get off the ground. Who could foresee (certainly I didn’t) that these dinosaurs would, within a few short years, evolve into the compact devices which now dominate our lives?

Elliott’s was also in the business of designing robot devices and it amused us to append the suffix “bot” to any word connected with the place. Thus our two immediate superiors were dubbed “Barronbot” and “Monkbot”, and Elliott itself naturally became known as “Ellibot”. By extension launderettes became known as “washbots”, and milk dispensing machines — formerly “mechanical cows” — as “milkbots”. In the final report on my research I even managed to introduce the mathematical concept of a “G-bot”, where *G* is a group. What Barronbot and Monkbot made of this I never found out.

One isolated incident of that summer stands out in my mind. Returning from central London to North Finchley on the tube one afternoon I fell into conversation with the passenger sitting alongside me, an elderly, scholarly-looking man who spoke with an appealing central European accent. It emerged that he was the secretary of a society dedicated to disseminating the thought of one Martin Buber. When I failed to recognize the name, he explained who Martin Buber was, and impressed upon me the importance of Buber’s philosophy. He recommended that I read Buber’s *I and Thou*. Struck by the man’s evident sincerity, after we parted I bought a copy of the book he had recommended, and was deeply moved by my reading of it. I regret that I cannot recall the name of the man who introduced me to this revelatory work.

## CHRIST CHURCH, OXFORD, 1965-68

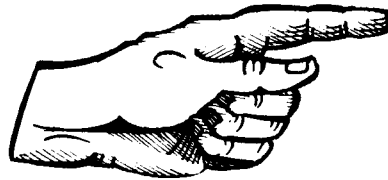
I WAS IN BUOYANT MOOD when I turned up at Christ Church in September 1965. As a Senior Scholar at one of Oxford's most prestigious colleges, already engaged to give a course of advanced lectures, I had every reason to be. To hell with the Second!

Christ Church, constructed on a grand scale, is the most opulent of Oxford colleges, a monument from the past casting a long shadow on the present. In a flight of fancy, I had entertained the thought that I might be assigned rooms in Tom Quad, the college's vast and magnificent front quadrangle, or in Peckwater, its elegant second quad. But on presenting myself at the Lodge under Tom Tower I was directed by the bowler-hatted porter on duty to a place bearing the odd name "Killcanon Ten", whose echoes of "Full Fathom Five" filled me with foreboding. Shrugging this off, I left the lodge and, following the porter's instructions, cut across Tom Quad, passing under Dean Fell's<sup>89</sup> tower in its northeast corner. A little further on to the left,

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<sup>89</sup> This was John Fell (Dean 1660-86), the strictness of whose disciplinary measures at the college provoked one of the undergraduates of the day to compose (after Martial) the well-known epigram

adjoining Peckwater quad, Killcanon proved to be a disappointingly nondescript edifice. On passing through its entrance I came to a staircase with an ascending curve terminating in a closed door over which, in white hand-painted lettering, the words “Sir Roy Harrod” were inscribed. It was not immediately clear where I was to go, but I looked around and spied, on the wall, the antique sign:



TO THE ROOMS

This pointed to another staircase, plunging downwards into the gloom. I began to fear that I had been consigned to the dungeon. Descending the steps, I came to a dank subterranean passage – seemingly straight out of the writings of Edgar Allan Poe – containing a number of locked doors<sup>90</sup>, none of which, I was relieved to see, bore my name, or indeed anybody else’s. At the end of the passage a further set of stairs led providentially upwards. I climbed these, my apprehensions that my sojourn at Christ Church might be spent as a troglodyte ebbing with each step. I regained the ground floor to find yet another staircase, again mercifully ascending, at whose foot was a board listing the names of its occupants, among which I was pleased to see my own – and just my own – next to the number 10. I trudged up this staircase to its top landing, from which a narrow final flight of stairs led to set 10. Opening the door revealed an eyrie tucked under the rafters, lit with an odd obliqueness by a number of small dormer windows set almost flush with the ceiling. I was pleased, initially at least, to find that I was thus to be an eavesdweller. But as I entered the bedroom leading off the study, I spotted what appeared to be a noose dangling from a metal cylinder attached to the wall just beneath the window. Had the Christ Church authorities in their wisdom, I wondered, provided a handy means for a desperate inmate to end it all? A closer inspection of the cylinder revealed that inscribed on it were the words “Patent Fire Escape”. It seemed that the purpose of the device was to enable the fire-menaced occupant to avoid incineration by slinging his shoulders (as opposed to his neck) in the noose, then clambering out

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*I do not like thee, Dr Fell.  
The reason why I cannot tell.  
But this I know, and know full well –  
I do not like thee, Dr Fell.*

Through a mere change of letter there of course stand I...

<sup>90</sup> I later learned from Roy Harrod that behind one of these doors was a chamber which Professor Lindemann, the physicist, had used to store radioactive material during the second world war. This information, adding a touch of van Vogt to Poe, caused my steps to quicken on what were to be daily trips through the passage. Since my day the interior of the building has been redesigned so as to render Killcanon’s “Rooms” accessible without a descent into the radioactive depths.

the window, and finally lowering himself decorously to the ground by means of the rope—a determined tug at which had showed it to be cunningly wound in the cylinder on a friction brake. A nice scenario in theory, I thought, but it seemed clear that an inmate would have to be desperate—confronted with nothing less, in fact, than the fires of hell—to entrust his fate to the vagaries of such a contraption. I christened it the “DIY Hanging Equipment” and came to regard myself as fortunate that I never had to put the thing to the test.

As a Senior Scholar my accommodation in the College came rent-free, and I had been issued with a key to one of its outer doors enabling me to come and go as I liked, a welcome improvement on the nightly incarceration I had suffered as an undergraduate. I was also entitled to dine in Hall at the High Table twice a week, a privilege of which I naturally took advantage, at least to begin with. Christ Church Hall is one of the glories of Oxford. Completed in 1529, it is, I learned, the largest ancient college hall in either Oxford or Cambridge, and seems almost to revel in its ostentation. Approached by a grand staircase passing under delicate fan-vaulting, on entering the Hall the eye is drawn immediately upwards to the extraordinary dark-beamed ceiling, whose potential oppressiveness is offset by the multitude of coloured devices with which it is tricked out. The Hall’s wood-panelled lower walls are crowded, overcrowded perhaps, with portraits of various luminaries associated with the college, including John Locke, W. H. Auden, Lewis Carroll, and Gladstone, one of numerous British Prime Ministers (to give them their due, with Capital Letters) educated there. The High Table sits on a dais at the end of the Hall under an imposing portrait of Henry VIII. I could not help wondering what the Hell *I* (an anomalous capital letter) was doing in the midst of such Magnificence!

On two evenings each week in term I bedecked myself in my recently acquired B.A. gown and joined the congregation of Students (for that, curiously, is what the Fellows of Christ Church are called) gathered in the Senior Common Room before dining. At the appropriate moment the company ascended to the Hall by a narrow staircase, issuing through a door at one end of the High Table. Each of us having located his place, indicated by a name card, we would stand while Grace (a lengthy affair in comparison with Exeter’s terse *Benedictus Benedicat*) was read. A dinner of unvarying excellence would follow, its several courses accompanied by choice wines from the college cellars, which had the reputation of being the best-stocked in Oxford. Afterwards a number of us would repair to the Senior Common Room for the traditional indulgence in port, cigars, and conversation. It was at one of these gatherings that I met J. I. M. Stewart, then Tutor in English at the college, more widely known as the detective novelist Michael Innes, who proved to be an engaging raconteur. I also met the historian Hugh Trevor-Roper, who had formerly been at the place, as well as G. J. Whitrow, the physicist and philosopher of science, with whom I had a long discussion on relativity<sup>91</sup>. My neighbour at dinner one evening was the physicist Maurice Pirenne. It emerged that his uncle had been an eminent historian—the Belgian medieval historian Henri Pirenne. When I confessed my lack of familiarity with the name, he suggested that I might enjoy reading one of his uncle’s books, mentioning in particular his “Economic and Social History

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<sup>91</sup> Some years later I wrote a paper criticizing some of his views on time. It’s unlikely he noticed.

of Medieval Europe". Unfortunately, I did not meet Maurice a second time, but I did get hold of the book he recommended, and found it engrossing. I also got to know Peter Parsons, later Regius Professor of Greek, who occupied rooms in Killcanon immediately below mine. His refined intellect and caustic wit impressed me. I greatly enjoyed the several evenings I spent with him engaged in verbal fencing—an art at which he was a master—, quaffing in excess the whisky he dispensed so generously. The Student officially deputed to keep track of my welfare was Handel Davies, a Welshman who worked in applied mathematics. On the few occasions we met, he radiated geniality.

Soon after my arrival at Christ Church I received an invitation to an "at home" from the Dean, the Very Reverend Cuthbert Simpson. I had naturally envisaged the Dean of Christ Church as an etiolated cleric of the type portrayed so memorably by Alec Guinness in *Kind Hearts and Coronets*, and accordingly I expected the Dean's *soirée* to be a genteel affair at which tea would be the strongest beverage on offer. But when I turned up at his lodgings I was surprised to find a party in full swing. My surprise was redoubled when a grizzled character with cropped white hair on the order of Spencer Tracy came up to me and growled, in an American accent, "I'm Dean Simpson. How about a dry martini?" It turned out that the venerable Dean was actually Canadian by origin but had spent some years in New York as a Professor of Hebrew<sup>92</sup>. His straight-from-the-shoulder approach was the very opposite of what I had expected.

Of the Christ Church dons it was Roy Harrod, the economist, then nearing retirement, whom I got to know best. I had already identified him as the gentleman, spare and, despite his white hair, still quite youthful in appearance, occupying the only set of rooms in Killcanon accessible without subterranean detour. One evening after dinner he took me aside, introduced himself, and said that he had a proposition to put to me, best explained, he went on, over a drink in his rooms. Thither we repaired, and, comfortably ensconced in armchairs, the whisky poured, he commenced to explain what he had in mind. The ensuing exchange went something like this.

"As a mathematical logician yourself you've doubtless heard of the French logician Jean Nicod," he must have begun.

"Yes," I presumably replied, "but I know very little of his work. Only that he formulated a single axiom version of the propositional calculus."

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<sup>92</sup> Here is George W. Rutler's description of him:

*For years he had brilliantly taught Hebrew in New York. To have an American, that is one born in Canada on Prince Edward Island, appointed to the vaunted office of dean of Christ Church was a radical thing at the time. This physical composite of Spencer Tracy and Basil Rathbone had a magnificent temper, once having tossed a student down his front steps in a conversation about Senator McCarthy. A Manhattan conductor evicted him from a public bus for bad language. When an Oxford freshman asked him if he knew Hebrew, he shouted, "I am the \*@\*%#! Regius Professor of Hebrew!" Simpson's books on revelation in the Old Testament and the pre-Deuteronomistic narrative of the Hexateuch leave anything similar in the dust. In the revolutionary years of the late Sixties, his successful method for quelling student demonstrators was to invite any budding Bolshevik in for a stiff martini. On Sundays, his verger carrying a silver mace led him along the Tom Quad to his waiting cocktail, Simpson in his scarlet academic robes, silk stockings, and silver-buckled shoes.*



"Then let me tell you that in the 1920s he wrote two important philosophical works<sup>93</sup>. These were translated into English, in my view inadequately, in the 1930s. Some years ago I approached Bertrand Russell, who, as Nicod's mentor, had a very high opinion of his abilities, with the proposal that a new translation of Nicod's works be prepared. Russell not only endorsed the proposal, but has generously put up some money to pay the translators. Now I've found someone for one of these works, and he has nearly finished. But up to this point I've failed to find a suitable translator for the other one. The job requires a mathematical logician with a knowledge of philosophical French. You are, I understand, the former. Do you also possess the latter?"

"Well, I can read mathematical French, at least."

"In that case you might be the man I've been looking for. The job pays £200, and you may also have the opportunity of meeting Lord Russell himself. Would you be interested in taking it on?"

"You bet!"

Thus I undertook, with the impulsiveness of youth, to translate Nicod's *La Géométrie dans la Monde Sensible*. But on getting hold of a copy of the original French edition of the book I found that I had bitten off more than I could chew. Nicod's French was well beyond what I had learned from Bourbaki, to say nothing of *beurre fermier*, and indeed his book was evidently more a work of literature than a mathematical text. Who better, it then occurred to me, to assist in the project than Michèle, with her native command of both French and English? I wrote to her proposing that she provide a quick transliteration of the French text, which I would then polish up into what I hoped would be philosophically acceptable prose. She quickly agreed, and we set to work.

The idea of re-translating Nicod's work was very dear to Roy's heart. In particular, he was most anxious that the translation of the *Geometry* be as accurate as possible. As the work progressed, he went over it with a fine-tooth comb. There were a number of passages where, in his view, my attempts at making the translation read smoothly had caused me to stray from Nicod's meaning. Insisting that these passages should be taken, and accordingly translated, *au pied de la lettre*, he replaced my translations with literal translations of his own devising, which, while undoubtedly exact, seemed to me awkward. Not having read any of Roy's writings at the time, I thought that this awkwardness might be typical of his literary style. In this view I was quite mistaken, for, as I later discovered, Roy's habitual style of writing was graceful, if occasionally idiosyncratic. A characteristic passage of his, of which I am particularly fond, concludes the preface of his memoir of F. A. Lindemann, the physicist:

*The only criterion for an author is that what he writes shall interest himself. This gives him no guarantee, of course, that he will thereby interest his readers. But of this he may be sure, that, if he*

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<sup>93</sup> *Le Probleme Logique de L'Induction* and *La Géométrie dans le Monde Sensible*.

*cannot interest his readers by what interests him, he will not be able to interest them in any way whatever.*

Roy was the senior member of the college, and he seemed to me rather lonely and isolated, most of his close colleagues having passed on. He loved to talk, and, after the latest instalment of the translation had been discussed, he would uncork the whisky and indulge his passion for conversation, or at least for the art of the monologue, a passion (which, like Russell's solipsist) I shared. That Roy was in fact a professional economist could not have been gleaned from his talk. Its range and sparkle conveyed the impression that one was conversing, simply, with a cultured man-about-town. (In fact, his first degree was in history, and he had received no formal training in economics whatsoever. Roy was the quintessential Oxford amateur.) He told me that his mother had come from a family of actors—the Forbes-Robertsons—and that civilized, animated discourse had played a large part in his upbringing. He had been a close confidant of John Maynard Keynes—his biography of Keynes was the first to be published, and is still, I believe, regarded as the definitive work on its subject. His high standing as an economist had been acknowledged, in the antique British manner, by the award of a knighthood, but not by the election to a Chair, a characteristically Oxonian snub which he must have found hurtful.

Roy painted a vivid picture of Oxford and Christ Church between the wars. It was from him I learned—to my surprise—that Einstein had been a visiting research Student at Christ Church in the early 1930s. Roy had come to know Einstein quite well, later setting down some of his impressions of the great man in his memoir of Professor Lindemann, mentioned above. Einstein made three visits to Oxford between 1931 and 1933, staying for a month in the spring of each year. Einstein's relationship with Christ Church seems to have been amiable but critical. In his diary, he described the dinner-jacketed and gowned Christ Church dons dining in their great hall as "the holy brotherhood in tails". It struck me as a double improbability that having once been described, however absurdly, as "potentially one step below Einstein", I should inadvertently fetch up in the very Oxford college in which my hero had happened to spend some time.

At the beginning of our enterprise Roy had mentioned the enticement that Nicod's translators were to be afforded the opportunity of meeting with Russell himself once the job was done. I was very disappointed when Roy later told me that the promised meeting was not, after all, to take place. It seemed that all attempts at communicating with Russell had been frustrated by Ralph Schoenman, Russell's then secretary. In any case, Roy went on to say, with an almost audible sniff, Russell's activities in opposition to the war in Vietnam undoubtedly took up most of his time. It was evident that Roy took a dim view of this. Roy's wholehearted support for American policy in Vietnam eventually caused a rift to open up between us. To celebrate the despatch to the printers of the finished Nicod translation early in 1968, Roy invited me to spend the weekend at his country house near Holt in Norfolk. Lady Harrod proved to be a most gracious hostess, and as far as I recall everything went swimmingly until, after dinner one evening, the

conversation turned—as it so often did in those days—to the war in Vietnam. When Roy expressed unqualified support for President Johnson’s policies, I felt obliged to voice my opposition to the Vietnam war. At this point the exchange became heated, tempers flared, and, but for Lady Harrod’s intervention, it would have been pistols and coffee at dawn. Although good relations had been officially restored by the time I took my leave the following day, I was sadly aware that Roy and I had come to a parting of the ways. This was to be the last time I saw him.

Roy died in 1978. I ever recall his cultivated intellect, enthusiasm, and passion for civilized discourse. And above all the kindness he showed me, which far outweighs, in my recollection, our political differences.

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In October 1965 Alan Slomson and I began the course of lectures on model theory arranged by John Crossley. The affair took place in a cramped lecture room in the old Mathematical Institute at 10 Parks Road. The first few lectures introducing the theory of Boolean algebras were my responsibility; I recall how nervous I was during the first of these. Among the audience of 10 or so was Wilfrid Hodges. A remarkable scholar, he had obtained Firsts in Greats and Theology. Not satisfied with these achievements, he had decided to take up the study of mathematical logic. Wilfrid is today an eminent model-theorist, and it still amuses me to claim (with at least a touch of veracity) that my hand guided his first steps in the subject.

Also present was Norma Silvia Horenstein—“Luly” of fond remembrance—an Argentinian philosopher then visiting Oxford. We became great friends—her warmth and intelligence still radiate through the years<sup>94</sup>. She introduced me to several other remarkable personalities: Luisa Rajzman, a chain-smoking, acerbic Argentinian doctor with a rapier-like wit, and Roy Enfield, a gentle, sad-faced English philosopher. I recall how impressed I was with Roy’s provocative analysis of science as the modern surrogate for magic.

At this time I met David Park, a brilliant logician turned computer scientist who, having been an undergraduate at Oxford in the 1950s, had returned briefly to his *alma mater* before taking up an appointment at Warwick. He had an anarchic streak which greatly appealed to me. I have never forgotten the occasion when, as we were walking down the High, he remarked, with a sweeping gesture taking in the college façades, “in *my* day we wanted to blow all this up”. I was saddened to learn that David died in 1990.

During the winter term of 1965 the outstanding mathematical logician Abraham Robinson was resident in Oxford as a research fellow at St. Catherine’s College. I attended the series of lectures he delivered on Nonstandard Analysis, the revolutionary approach to analysis, based on infinitesimals, he had recently formulated. Some thirty years later I wrote a letter to his biographer Joseph Dauben in which I reported my impressions of Robinson’s lectures.

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<sup>94</sup> I was saddened to learn of Luly’s death in 2002.

*As I recall, the lecture hall was [always] packed – the audience included Moshé Machover, Alan Slomson, Peter Aczel, John Wright, Frank Jellett, John Crossley, and Joel Friedman (his student who had accompanied him from UCLA). These lectures were very absorbing – it was evident that Robinson was presenting something of fundamental importance – and delivered with what I can only describe as an endearing lack of slickness. For example, he had a circuitous method of proving mathematical propositions at the blackboard which apparently proceeded as follows. To prove a proposition  $P$ , he would start by assuming  $\text{not } P$ . He would then prove  $P$  completely independently of the assumption  $\text{not } P$ , deduce that the latter must be false, and then finally infer the truth of  $P$ . This is not the familiar form of *reductio* argument:*

$$\vdash \underline{\neg P \rightarrow P}$$

$$\vdash P$$

*but rather what I came to call the “Robinsonian” form:*

$$\vdash \underline{P}$$

$$\vdash \underline{\neg \neg P}$$

$$\vdash P$$

*At the end of the course Robinson held a party to which all the members of his audience were invited. I remember this as a very warm and enjoyable occasion.*

In my letter to Dauben I also remarked:

*The only other time Robinson and I met was (I think) in Amsterdam sometime in the early 1970s. Of this brief encounter I recollect only that his friendliness to me seemed undiminished, despite the fact that not long before I had been involved in organizing an antimilitary logic conference which had not met with the approval of all logicians.*

*In my opinion, Abraham Robinson was not only a mathematician of great originality, he was truly, in Wittgenstein’s sense, a human being.*

I got to know Moshé Machover well during my first graduate year. After meeting at the Leicester conference, we saw each other at Abraham Robinson’s lectures on nonstandard analysis (see below), to which Moshé regularly commuted from Bristol. On several occasions he and his wife Ilana made me welcome at their Bristol flat, which was on the ground floor of a house in The

Paragon, a curved Georgian terrace, evidently once fashionable, but by the 1960s sadly decayed. Ilana and I shared an interest in Russian literature. Whenever I mentioned a Russian novel that I had read in English translation, she would insist that the Hebrew version was far superior. We were both very fond of the Russian satirists Ilf and Petrov; it gave me considerable pleasure to translate into English an amusing short story of theirs, *The Soviet Robinson*, and present it to her.

Moshé was both mathematician and active socialist. He had joined the Israeli Communist Party as a teenager only to be expelled (absurdly, as a “Maoist”) for rejecting the Party’s pro-Zionist line. In 1962 he and a small group of like-minded anti-Zionists—including Akiva Orr and Shimon Tzabar, both of whom I was later to meet—thereupon established the Israel Socialist Organization, known as Matzpen (“Compass”), dedicated to the establishment of a socialist, secular Middle East, uniting Arabs and Jews. Naturally, this declared aim led to the vilification of Matzpen from all sides, and a number of its members, including Moshé, were essentially forced into exile.

Moshé’s strength of conviction and lucidity of thought and expression made a great impression on me, and I looked up to him as a mentor. At once activist and perfectionist (that rarest of combinations) he brought to his political and economic analyses the same exemplary standards of rigour and clarity that distinguished his work in mathematical logic.

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At the end of my first term at Christ Church I was invited by the Aquarones to spend the Christmas vacation with them, which on this occasion included a trip to Switzerland for wintersports. Of course I jumped at the chance, since vacations spent in college were dismal affairs at best. In my excitement at the prospect of escape I got very drunk in Peter Parsons’ rooms the night before my departure, with the result that I staggered out of bed the following morning with a massive hangover. I had formerly taken the ferry across the channel, but Mike Gray had persuaded me to make future crossings by air. With his boundless knowledge of aeronautical matters, he had recommended flying from Southend to Rotterdam by Channel Airways, an organization the modesty of whose fares, I was to learn, correlated well with the low altitudes achieved by their aircraft. I arrived at Southend airport in pouring rain to find a battered DC-3, apparently straight out of World War II, revving up throatily on the tarmac. The plane’s passenger compartment consisted of a couple of rows of seats bolted to the rear portion of its bare fuselage, separated from the remainder by a tarpaulin which began to flap alarmingly after takeoff, so feeding my growing concern that in entrusting my fate to Channel Airways I had made a serious mistake. The flight was rough, and I began to feel queasy. At one point the plane suddenly plummeted, bringing it disturbingly close to the surface of the water—“just an air pocket, nothing to worry about” the stewardess (looking a bit queasy herself) shakily assured the passengers. It was this episode which caused me to refer to the company ever after as “Sub-Aqua

Airlines<sup>95</sup>". When the plane finally touched down in Rotterdam—an event for which I uttered heartfelt hosannas—I tottered onto the airstrip feeling (and probably looking) like a character out of "One of Our Aircraft is Missing". But at least the harrowing experience had obliterated my hangover.

It was, as always, exhilarating to see the Aquarones. After a couple of hilarious days in The Hague, at the crack of dawn one morning we piled into the family van and took off, our destination the Swiss Alpine village of Bettmeralp. I had had no experience whatsoever with winter sports, my knowledge of skiing<sup>96</sup> being precisely equivalent to my knowledge of deep-sea diving, that is, zero. Stan kidded me that I'd pick up the rudiments of skiing in no time—both he, from experience, and I, from the lack of it, knew how unlikely *that* was! After a full day's drive we arrived at Bettmeralp and installed ourselves in the comfortable lodge the Aquarones had booked for the week. The following morning I was buckled onto a pair of skis and let loose on the baby slopes, while the Aquarones, veteran skiers all, departed to tackle nontrivial inclines. Needless to say, no matter how hard I tried, I couldn't keep the confounded skis parallel, and so found myself sprawled in a heap within a few yards, the object of derision of the succession of infant virtuosos of the snowdrifts as they flashed effortlessly by. Finally I had my fill of humiliation. I threw in the skis and spent the time until the Aquarones returned catching up on my reading—assuredly not *The Magic Mountain*.

In Bettmeralp the old Swiss name "Stucky" was common—our abode, in particular, being part of an operation run by one "Auxilius Stucky" and a "Stucky Roman". It seemed entirely possible that the native population of the entire village consisted of the descendants of a single *ur*-Stucky. I recall that one of "our" Stuckys became exercised at discovering a damp patch on one of the cabin's beds. Failing to draw the obvious conclusion from the facts that (a) the bed was sitting right next to an open window, (b) it had been snowing heavily, and (c) the wind had been gusting, he insisted, stubbornly, that the bed had been wetted by its occupant—some kid, he must have thought. He blushed to learn that the bed in question was Mado's!

Another inextinguishable episode from our visit to Bettmeralp took place one day at lunch. Encouraged by Mado to finish up the roast potatoes, I was, as always, happy to oblige. But as I tucked into the last "potato", I was amazed to find that I had bitten into something with the taste and texture of a bar of soap—talk about melting in your mouth! When I remarked on this, the immediate response from the company at table was "Come off it, John, you've got to be kidding!" They were not convinced until I actually started to blow bubbles. It transpired that a small bar of kitchen soap, of near identical colouring and dimensions to the potatoes, sliced by Mado with her customary precision into segments of uniform size, had somehow slid off the kitchen counter into the potato pan.

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<sup>95</sup> A double joke, since I only flew "Sub-Aqua" for the purpose of visiting the "Aqua" rones.

<sup>96</sup> Curiously, however, I now recall that the Linfoots pronounced the word "skiing" as "she-ing".

Throughout the spring vacation of 1966 Michèle and I laboured at the Nicod translation in The Hague and Paris. With us now was Spencer Hagar, a quick-witted medical student whom Miche had recently met at St. Andrews. The usual hilarity was augmented by the Aquarones' recent acquisition of a television set; Stan was, I recall, particularly amused by a children's program featuring "Barend die Beer", a fake bear who soon joined Smokey in the Aquarone canon.

At the time Michèle and Spencer were in the process of falling in love, and it began to dawn on me that my presence might be just a trifle *de trop*. An instance of this was the "musical beds" episode which took place during the week the three of us spent at the Rue Budé flat. The apartment contained just two beds, a large double in the main room and a camp bed in the small adjoining room. Propriety, that absurd inhibitor, demanded that Michèle take the camp bed while Spencer and I occupy the double. What Spencer didn't know – although he was, to his chagrin, to be rapidly enlightened – was that in agreeing to share a bed with me, one of the world's most restless sleepers, he was committing himself to nothing less than a night of purgatory. The following morning Spencer, hollow-eyed from exhaustion, vowed never again to share a bed with such a maniac. Since I, too, had had a rough night, I was happy to agree to a permutation of the sleeping arrangements. Thus propriety was kicked aside and for the remainder of our stay I occupied the camp bed.

But none of this prevented Spencer and me from getting along famously. We all smoked like chimneys in those days and so we were delighted to find, concealed in one of the flat's wall cupboards, a number of old vacuum-sealed tins of Players and Senior Service cigarettes. The slogan on the Senior Service tins – "A Product of the Master Mind" – amused us sufficiently to weave it into the general nonsense. The routine had already been enriched through our continuing efforts at translating Nicod: where else could we have come across those deathless phrases "perfect cicerone" and "sensible tram"? The French reprint of Nicod's *Géométrie*, a copy of which I was able to obtain in Paris, had as a frontispiece a charming photograph of Nicod as a young man – tragically, he died of tuberculosis before his fortieth birthday. We constructed a shrine to Nicod by propping up his book, opened to his photograph, and flanking it with candles. Each evening we raised our glasses in salute to his memory.

That week the three of us spent in Paris seems in retrospect like a sequence from *Jules et Jim*, or at least something from the cutting room floor.

I journeyed up to St. Andrews by train a number of times to visit Michele, passing through such quaintly named places as Leuchars Junction and Auchtermurchtie. Miche had digs in a somewhat gloomy boarding house in Greenside place presided over by a resident troll whom I quickly dubbed "Mrs. Gruesome". It was through Miche that I met Suresh Pandya, a garrulous Indian character with whom I became fast friends. Long resident in Scotland, he had at one time been a student of physics but had not completed his degree. We would talk and smoke into the wee hours. During one such session I happened to mention Einstein's *gedankenexperimenten* ("thought experiments"). Suresh, mishearing, interjected excitedly in his characteristic Indian

accent, “What do you mean – gonga experiment?” My retelling of this anecdote led to Suresh coming to be known to the members of Michele’s circle as “Gonga”. Oddly enough, he found the business amusing, and raised no objections. As an unmarried Indian in his thirties, Suresh was in perpetual search of a suitable mate. He thought he had finally found the woman of his dreams in one Anar, a young Indian student at St. Andrews. Anar bossed Suresh around intolerably, but for him such servitude was nothing short of bliss. Anar’s combination of bossiness and stoutness of figure led to my nicknaming her the “Wine Barrel” – fortunately Suresh never found out. In the event Suresh’s efforts at wooing Anar came to nothing and he wound up marrying someone else.

One of my sudden departures to St. Andrews was the source of some anxiety to my close Oxford friends. My feelings of personal isolation at Christ Church had made me dependent on correspondence, which I saw as confirming the existence of the external world. As a test of my increasingly paranoid notion that postal delivery might be prevented through some malign intervention, over and above the usual vagaries of the postal service, it became my habit to address a blank postcard to myself and put it in the mail to await its delivery, and thereby my own deliverance from anxiety. I happened to post one of these blank self-missives a day or two before departing for St. Andrews. I had not informed anybody in Oxford that I was heading north, so that when two of my friends showed up at my Christ Church rooms to find my oak sported, they became worried. Their worry intensified when they came across the blank self-addressed postcard sitting in my mail rack at the foot of the staircase. Knowing my occasional moments of desperation, their first thought on seeing this curious communication (a self-indulgence I’d never told them about) was that it was a blank suicide note – perhaps I had made serious use of the DIY hanging equipment after all. On my return to Oxford I learned of this and we all enjoyed a good laugh.

As a confirmed night owl, I rarely surfaced before 3 p.m. By the time I crawled out of bed the pubs had shut their doors for the afternoon, so that I was reduced to obtaining what nourishment I could at the Wimpy Bar on St. Giles. I had asked the scout on my staircase, Phil Taylor, to let me sleep in and not to bother with making my bed (amazingly, Oxford scouts still performed this antique duty even for “donlets” like myself). Phil regarded me as a budding eccentric and treated me with an amused tolerance.

It was at this time I met Nick Zafiris and Demosthenes (“Demo”) Dirmikis, Greek undergraduates at Trinity and Balliol Colleges, respectively, who were to become my lifelong friends. Nick and Demo were a study in contrasts. Nick, pessimistic and cynical, conveyed his uniquely skewed view of the world and its inhabitants through the use of devastatingly accurate mimicry and a mordant wit, so reducing his listeners to helpless laughter. Demo was the embodiment of stability, with a Micawberish conviction that something would always turn up, no matter how unlikely. It became my habit to present myself at Demo’s college rooms at around 4 p.m., and prevail on him to take me to college tea, which was particularly good at Balliol. There I would proceed to make inroads into the substantial array of sandwiches which had been laid



on, wolfing a number down before my methodical friend had even finished buttering his first piece of bread.

At some point in my first year at Christ Church I came to feel oppressed by the growing conviction that life is essentially pointless. On waking the miracle of returning consciousness would quickly give way to the dismal prospect of having to face the surfeit of hours in yet another day of *ennui*. I wallowed in a self-created swamp of futility, made all the more viscous by my reading of such novels of existential angst as Sartre's *Nausea*, Hesse's *Steppenwolf*<sup>97</sup>, and Huysmans' *Against the Grain*. I took to lying face down on the floor of my sitting-room for what seemed hours at a time – given my impatience, it was probably no more than minutes – hoping for enlightenment, or a providential knock on the door. Neither being forthcoming, I would rouse myself and seek companionship so as to exorcise, in feverish talk, the demons of loneliness and boredom. I now believe my depression was caused largely by the stripping away of the vestiges of prodigism I had clung to for so long. It was painful having to acknowledge my growing recognition that my mathematical efforts were unlikely to set the world on fire. I camouflaged my fear of professional mediocrity by the cultivation of a flippant attitude to the whole business of doing mathematics, probably convincing nobody, including myself.

By the end of my first year I felt the urge to move and asked to be assigned another set of rooms. I migrated to the top of a staircase in the Meadow Buildings, a Victorian edifice (described by a prominent English architect as “joyless”), whose one redeeming feature was its view of Christ Church meadows. While my new rooms were less gloomy than their predecessors they were almost equally unheatable and, needless to say, equipped with the regulation DIY hanging equipment. In the winter of 1966 my father spent a few days in Oxford en route to a new job in the Sudan. (This was the sole occasion on which he visited me in England.) He was amused at what he saw as the primitive living conditions still prevailing in Britain, which, according to him, had hardly improved since the War. When I took him to my rooms in the Meadow Buildings he remarked that it was like entering a walk-in freezer – a memorable phrase I quickly adopted. The sepulchral atmosphere at Christ Church had led me to refer to the place as the Mausoleum, and so I now headed my letters to friends with “From the Senior Eskimo, W.I.F., Mausoleum”.

I met Francis Jellett, a graduate student of my undergraduate tutor David Edwards, in my first graduate year. Francis and I hit it off right from the start. Intelligence, articulacy, wit, mathematical and musical talent – all wrapped in a quintessentially English reserve – these qualities in him I found greatly appealing. His first name “Francis” caused me some difficulty, for, as I have observed, I had never been able to pronounce the short English “A” without sounding pretentious, and using a long “A” in “Francis” evoked in my mind the talking mule in the old Donald O'Connor movies. I christened him “Jumbo”, probably in part because of the alliteration with “Jellett”, but also because of his imposing size. Later he resolved the whole issue by adopting the name “Frank”.

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<sup>97</sup> This despite the fact that both novels end on an essentially positive note.

Jumbo's imperturbability, his English *sang-froid*, his "it isn't as bad as all that" attitude brought out the imp in me. I must have tested his good nature to the limit with my nonsense. When we first met he was living in ground floor rooms in the front quad of his college, Brasenose. He maintained his rooms in a state of Spartan tidiness which extended even to the pens and other objects arranged with near-military precision on his desk. I felt obliged to jumble these up whenever I went to see him.

Unusually for a student at that time, Jumbo had a car — a large (by British standards) red Vauxhall—which he called the "Dreamboat". He tooled around in this vehicle at breakneck speeds — "dicing with death", as he put it. We would often roar off in the Dreamboat in the middle of the night to the all-night café on the Oxford Bypass.

Jumbo's thesis topic was functional analysis, the theory of Choquet simplexes (simplices?). Facetiously, I floated the idea that, in order to make a real mark in mathematics, he should introduce the concept of a "Jumblex". When he got around to writing his dissertation in his last year at Oxford, I suggested that in his acknowledgments he should thank "my supervisor David Edwards for suggesting the problems investigated herein, my friend Brian Davies for solving them, and my department secretary for typing the whole thing up". (Brian Davies, the brilliant undergraduate I had had the misfortune of sitting next to in my finals, had also become a student of Edwards.)

I envied Jumbo his musical gifts, in particular, his talent for jazz improvisation. Within six months of taking up the vibraphone, for example, he developed sufficient technique to play the instrument in public. (Its unwieldiness led me to call it the "Peanut Roaster".) He formed a group with Peter Duncan, a trumpet-playing undergraduate at Lincoln College who became a close friend and Brian Priestley, an independent jazz pianist. The group, which I dubbed it the "Jumbo Joyriders", had regular gigs at the Newman Rooms on St. Aldates. I occasionally acted as announcer introducing the group with the line "And now, folks, we bring you the Jumbo Joyriders dead at the Newman Rooms."

Brian Priestley, whom I got to know quite well, came originally from Leeds and had taken a degree in modern languages there. But his true calling was that of jazz scholar-musician. He had perfect pitch, an excellent keyboard technique, and a truly encyclopedic knowledge of jazz. When we first met he was working in Maxwell's Bookshop near Magdalen Bridge. Later he moved to the French department at Blackwell's. As a frequenter of Blackwell's, I often dropped in to see him and exchange a few witticisms. On one such occasion, a formidable middle-aged lady sailed in. "French Literature?" she demanded of us both, in a tone reminiscent of Edith Evans's portrayal of Aunt Agatha in *The Importance of Being Earnest*. I could not resist responding "No, madam, this is the pornography department!" Fortunately, either she misheard what I had said, or didn't believe what she had heard, or else my response was actually just *en l'esprit de l'escalier*.

Brian's speech, precise to the point of pedantry, punctuated with odd stresses, and delivered in a curious nasal tone, was continually parodied by his friends, myself included. I'll always recall the occasion on which Jumbo, Pete, Brian and I drove up in the Dreamboat to Warwick for a gig

by the “Joyriders” at the university there. When we arrived, Jumbo attempted to park in some convenient spot near the university, quickly attracting the attentions of an official bent on driving us off. Brian’s protestation, “But we’re *guests!*”, was dismissed by the man with a curt “I don’t care if you’re the Queen of Sheba, *you can’t park here!*” On another occasion Brian and I visited Jumbo in his digs. Spotting a bottle of vegetable oil next to the gas ring, Brian, in his pedantic way, remarked to Jumbo, “I didn’t know you were a *user* of cooking *oil*.” I quickly jumped in with, “Sure, can’t you see, he uses it to slick his hair down.”

To the business of eating Brian brought a fastidiousness verging on the obsessive. When dining in a local nails joint, for example, it was his custom to mould the rice on his plate into a conical structure, indenting the apex to form a crater, into which he would spoon the curry, so that it resembled lava in the mouth of a volcano. This structure he would then proceed to dissect into radial slices as if it were a cake. Finally he would consume each slice until his plate was spotless.

Among those who knew him, Brian’s frugality had achieved a near-legendary status. I used to joke that an invitation to coffee *chez* Brian would mean bracing oneself for cupless, sugarless, milkless, coffeeless coffee.

In addition to being a talented jazz pianist, Brian was a walking jazz encyclopedia. With his remarkable memory, he could instantly recall every detail of the obscurest jazz record, right down to the matrix number. The first thing I learnt from him about jazz, though, was hardly obscure. It was on an afternoon sometime in the summer of 1966. I had invited Brian up to my rooms and, almost as soon as he opened the door, he spotted the copy of the *Times* I had happened to buy that day. Grabbing it and turning to the Obituaries page, he pointed to an item headed Mr. “Bud” Powell and demanded to know if I was acquainted with the name. I admitted I was not. Shaking his head at such ignorance, he informed me that Bud Powell was the greatest modern jazz pianist bar none, an icon of bebop. And, as I soon discovered on hearing his recordings, Bud Powell was all of that. For me he quickly became even more. While I liked the piano, and piano music, I had never been moved by a pianist in quite the same way as I had by Jascha Heifetz’s incomparable violin playing. At Brian’s suggestion, I got hold of Bud Powell’s *Vintage Years*, in which are compiled a number of his blazing improvisations of the late forties and early fifties. I could hardly believe my ears. Here was a pianist going for broke, yet at the same time spinning the intrinsic geometry of line that had always appealed to me in Jascha Heifetz’s playing. And, still more, producing these miracles straight out of his head. Bud Powell became an instant hero of mine. I conceived the desire to hear every (significant) note he recorded, and, as in the case of Jascha Heifetz, I’ve virtually attained that goal. But I still sought a counterpart to Heifetz on the classical piano, a classical pianist whose every recorded note I would attempt to etch in my memory. Despite the blandishments provided by the electrifying playing of Vladimir Horowitz, I was only to find such an artist in Glenn Gould, whose records I first discovered a few years later. Heifetz’s playing had long been for me the apotheosis of the continuous. Glenn Gould’s playing became for me the discrete counterpart.

Jumbo introduced me to Michael Wells – known to all as Spike – a clever, musically gifted undergraduate reading Greats at University College. Trained as a pianist, Spike had taken up jazz drumming and had rapidly attained professional status, becoming the drummer of choice of Tubby Hayes and other prominent British jazz musicians of the time. Spike cultivated a hip, ultra-cool attitude worthy of the great American jazz musicians he so revered. I was surprised to learn that he later joined the Anglican priesthood.

It was through Spike that I met Gareth Evans, a contemporary of his at Univ. A forceful personality, formidably intelligent, Gary was a rising philosophical star. When he asked me to explain the Gödel incompleteness theorem, it took him all of five minutes to grasp what was going on! Gary's subsequent career as a philosopher was to be brilliant but tragically brief: I was shocked to read of his death of cancer in 1980.

One day near the start of my second year I was lunching in a café on the High when I happened to overhear snatches of a conversation between two young men – one dark-bearded, the other carrot-haired – seated at a table nearby. My ears pricked up when I heard the words "Gödel" and "incompleteness": aha! I thought – a pair of logic students! I could not resist the urge to introduce myself as a fellow-logician. The carrot-topped one was Chris Ash, the bearded one George Wilmers, both, it emerged, new graduate students of John Crossley. Chris Ash and I failed to hit it off, but George soon became one of my closest and most enduring friends. George had a number of qualities I envied: in addition to his gifts as a mathematician, he was an excellent pianist, linguist, and chess player. In George were combined acuteness of intellect, sensibility to beauty, and a curious dreaminess. He would gaze at you abstractedly with his dark eyes, his mind seemingly elsewhere, and then, as if out of the blue, produce an observation of startling pertinence. I recall a conversation with Dan Isaacson and George in which Wittgenstein's apothegm "Death is not an event in life: we do not live to experience death" somehow came up. A few moments went by, and then George, who had seemed not to be listening, observed "In other words, life is an *open set*." Neither Dan nor I have ever forgotten George's *aperçu*.

When George deigned to pay attention to what one was saying, however, the dreamer would be suddenly replaced by a formidable critic, a merciless gadfly questioning every proposition one had the temerity to put forward. I often had to scramble to justify some unreflective remark of mine he had gleefully punctured. And, permanently humbled from my encounters with Peter Lee, I was hardly tempted to challenge George at the chessboard!

George's sensibility was manifested above all in his Mozart playing. I was moved by his rendition of the A minor Rondo, K. 511. He introduced me to the C minor Fantasy K. 475, and the A minor sonata, K. 310, works he played with passion.

By the time I met George my inchoate political orientation had already begun to swing leftwards, so I resonated with his strongly held left-wing views, his contempt for the established order. Trotsky was one of his political heroes: I recall him urging me to read Isaac Deutscher's monumental biography of the great man. Later George and I were to have a number of *gauchiste* adventures together.

I cannot recall exactly when George first invited me to meet his parents. George had told me something of his family background. His father was an engineer of German-Jewish origin (the name “Wilmers” being, I believe, a contraction of “Wilmersdoerfer”, itself possibly derived from the district in Berlin), and his mother originated from the Greek community in Istanbul. (It was this latter fact that made George leery of travelling to Turkey. He had learned that Turkish nationality is heritable through either parent; so, as a Turkish national, he would be liable for military service there.) George had warned me that his father was an old-fashioned stickler for detail, something of a pedant, in fact. I think that George introduced us in a spirit of experimentation: he must have been curious to see what would happen when two such apparently immiscible personalities were brought into contact.

George’s parents lived in a spacious apartment in the Paddington district in London (oddly, their phone number PADddington 2866 remains with me to this day). I recall the L-shaped corridor, with its rows of bookshelves, revealed when George opened the entrance door with his latchkey. A book with yellow covers caught my eye: I quickly inspected it — *China, a Short Cultural History*, by C. P. Fitzgerald. I resolved to get hold of a copy of my own. We entered the drawing room, a spacious, pleasingly proportioned, refined chamber, parquet floors bright with Oriental rugs, Bechstein upright at one wall. George’s parents—John and Rallou, then in their 50s—greeted us. I was instantly captivated by Rallou’s beauty and elegance. John, like my father, was an engineer, an expert, I soon learned, in the construction of large industrial chimneys. At tea the topic of conversation quickly turned from chimneys to politics and the lamentable state of the social order. John held a dim view of the contemporary scene, deploring the general decline in standards and expressing in his civilized, yet insistent way his doubts concerning the present country’s leadership (at that time Labour) which he saw as lacking political experience. I recall making the suggestion that all these upstarts should be replaced by a council of elders. Since my proposal had been intended as facetious, I was surprised when, after a slight pause, John said, “Yes, exactly”. He was, indeed, perfectly serious. George and his mother could hardly contain their mirth. Nevertheless, by the time I took my leave I felt a bond with George’s parents. John was old-fashioned, conservative, but cultured, sharp-witted, with a vein of impishness reminding me of his son. In my eyes Rallou was the very embodiment of grace—how lucky, I thought, George was to have such a mother, and I mourned my own mother anew. I liked these warm, cultured people, and the civilized ambience in which they lived.

John Crossley had become a Fellow of All Souls on his appointment as Lecturer in Mathematical Logic, and was pleased as Punch about it. He obligingly presented me with a key to his college room so that I might have access to his typewriter on which I was preparing my Diploma dissertation. This typewriter was unusual in that the standard keyboard could be detached and replaced by a custom-made mathematical keyboard containing a number of the symbols essential to the practice of mathematical logic:  $\forall$ ,  $\exists$ ,  $\wedge$ ,  $\vee$ ,  $\cap$ ,  $\cup$ ,  $\rightarrow$  and the like. Typing a mathematical manuscript on this contraption was a tedious business. First you had to type the prose on a given page using the standard keyboard, leaving spaces for the symbols. Then the standard keyboard had to be extracted, the mathematical keyboard inserted and each symbol

typed meticulously in its preassigned place. Photocopiers being as yet uninvented, if a reproducible version of a typescript was required, one had no alternative but to type directly on mimeograph forms, which were so flimsy that an incautious rap on a key – let alone my *martellato* approach to typing – could punch a hole clean through. So in producing the 30 pages of my dissertation<sup>98</sup> I probably used triple the number of mimeograph forms. I slaved away on the damn thing for weeks. For the Diploma one was also required to undergo an oral examination. John Crossley became sufficiently concerned at my habitual late rising to rush over to my rooms on the day of my Diploma oral and drag me out of bed. Thanks to him, and the fact that I had chosen algebra and point-set topology in addition to logic as my special subjects, topics with which I was reasonably familiar, all went well at the examination.

A year later George underwent the same process of diplomatization<sup>99</sup> but wasn't as lucky as I had been. As one of his special subjects he had chosen number theory, an area to which he was attracted but of which, it turned out, he lacked the requisite knowledge – at least, in the eyes of his examiner, who failed him in the oral. As a result he was required to undergo a written examination in the subject at the end of the summer. George duly turned up only to find that no examination had been set, the affair having, in typically Oxonian fashion, completely escaped the examiner's recollection. The authorities had no option but to award George a pass.

John Crossley had arranged to go on leave during the first half of the academic year 1966-67, and C.C. Chang, who, as I hoped, had arranged to visit Oxford that year, was to act as my research supervisor in his absence. I looked forward eagerly to working with Chang. Everything went well, even jocularly, to begin with: I recall that, with mock ceremoniousness, he would address me as "Your Most Senior Scholarship", to which I would respond in kind with "Your Highly Esteemed Professorship". But this pleasant jocularly came to an abrupt end when he gave me the official assignment of presenting some work at a seminar he had organized. The work in question was Jack Silver's recent Berkeley dissertation on large cardinals and constructible sets. This is a technical *tour-de-force* written with extreme economy, and I had some difficulty in getting to grips with it. My presentation in the series of seminars clearly did not satisfy Chang, to the point at which he finally got up in the middle of one of my lectures and proclaimed to the assembly that I didn't understand what I was doing, or words to that effect. While that may well have been true, but I was stung by this public dressing-down. I cannot now recall what my immediate response was – I would like to be able to claim with veracity that, in the best Hollywood manner, I riposted with "Well, in that case, you'd better get yourself another boy," storming off the podium in high and justified dudgeon – but whatever I said, the incident terminated my relationship with C.C. And in fact "another boy" did step in – Wilfrid Hodges, scholar *extraordinaire* – who continued the lecture series, which I, not surprisingly, ceased to attend.

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<sup>98</sup> A short account of a long topic: *Languages with Expressions of Infinite Length*.

<sup>99</sup> Parts of George's diploma dissertation, devoted to homogeneous and saturated structures, eventually found their way (with his permission) into Alan Slomson and my book, *Models and Ultraproducts*.

Sadly, my soured relations with C.C. continued at one remove when sometime afterwards I heard a rumour attributing to him the belief that in producing our book, “Models and Ultraproducts”, Alan Slomson and I had “plagiarized” his 1965 Leicester lectures on ultraproducts. I don’t know whether he actually believed this. Our exposition did draw on the published version of his lectures (which we had attended), but proper references and attributions were supplied. Perhaps we should have made explicit acknowledgement of the influence of his lectures in our introduction... His pique may well have been compounded by the fact that our effort appeared some time before his and Keisler’s book on model theory, whose publication had been delayed by the collapse of their intended publishers van Nostrand. Eventually their book was published under the North-Holland imprint and quickly became the standard reference.

Several footnotes to this affair. Some years later I was told by Wilfrid Hodges that Chang had expressed his “surprise” at my reaction to his reproof. Apparently the administering of such dressings-down to graduate students was no more than standard practice in the Tarski school in which Chang had originated. I feel fortunate that I largely avoided such “education by humiliation”<sup>100</sup>. I met Chang on one further occasion at a conference in the early 70s: we exchanged pleasantries but there was little warmth. Not long afterwards I learned that Chang had abandoned research in logic (but not his professorship at UCLA) and joined an Oriental religious sect. He died in 2014 at age 87.

During my last year in Oxford Kreisel turned up for an extended visit, and John Crossley arranged for all of his current graduate students to have occasional audiences with the great man. It had been arranged for Kreisel to deliver a course of lectures for which Jane Bridge was deputized to take notes, a task she did not relish. Although I still found Kreisel’s pontificating manner disagreeable, my few meetings with him seemed to go reasonably well. When I expressed an interest in infinitary languages, he gave me a copy of a handwritten draft of his paper on the subject that later appeared in Barwise’s conference volume.<sup>101</sup>

While Kreisel did not seem greatly impressed with our efforts in general, he went out of his way to make an exception of Dan Isaacson, an engaging American graduate student who had recently arrived from Harvard. To Dan’s embarrassment, Kreisel let it be known that he was highly impressed with the work Dan had done (on Herbrand’s theorem) in his senior year thesis at Harvard. This led me to joke that, were I to inform Kreisel that I had proved, say, the Riemann hypothesis, his reaction would be one of impatient dismissal as “utterly trivial”, while if Dan were to announce his discovery of a new proof of  $2 + 2 = 4$ , the great man would exclaim, in his strong Austrian accent, “But zis is *most* interesting!” Dan had his revenge on me a few months later when he showed up at teatime in the Mathematical Institute gleefully waving a copy of one of my newspaper clippings (see **Millfield, 1958-61**) which his mother had sent him from Oakland,

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<sup>100</sup> Years later Peter Freyd, in his contribution to Samuel Eilenberg’s obituary piece in the *AMS Notices*, observed “Sammy had an unprintable way of saying that mathematics required both intelligence and aggression.” Whether printable or not, it was the latter, in Chang’s case, that put me off.

<sup>101</sup> *The Syntax and Semantics of Infinitary Languages*, J. Barwise, ed. Springer Lecture Notes in Mathematics **72**, 1968.

California (where Dan had grown up). How his mother had gotten hold of this I don't now remember, but I do recall my blushes when Dan read extracts from my interview to our fellow students.

My interest in Boolean algebras had led John Crossley to suggest that I study Halmos's papers on algebraic logic, but I did not find these very appealing. Instead I turned to infinitary languages, a topic I had first encountered through Carol Karp's (whom I had met at the Leicester conference) recently published book *Languages with Expressions of Infinite Length*. I was less interested in the construction and analysis of formal systems for these languages (the principal focus of Carol Karp's book) than in their model-theoretic features, in particular compactness. After reading Hanf, Keisler and Tarski's papers on the connection between large cardinals and compactness of infinitary languages, I resolved to write my Diploma dissertation on this topic. At some point I acquired a copy of Mostowski's *Thirty Years of Foundational Studies* (which I jokingly came to refer to as *Thirty Years in the Salt Mines*), a masterly survey of contemporary research in mathematical logic. It was there that I first learned of weak second-order logic – logic with second-order variables ranging over finite sets or sequences of individuals – and of the then open problem of furnishing it with a (necessarily infinitary) complete axiomatization. I had the idea of adapting Rasiowa and Sikorski's Boolean-algebraic proof of completeness of first order logic – which had long fascinated me – to an appropriately tailored system of infinitary axioms for weak second-order logic. I was elated when, in my second graduate year, my efforts bore fruit. But my elation was soon punctured by the appearance in *Fundamenta Mathematicae* of Lopez-Escobar's completeness proof for a similar system of weak second-order logic. I took consolation from the fact that his proof of completeness and mine were quite different, since his employed Gentzen-type proof-theoretic method. I believed that at least I had an independently proved result worthy of the D.Phil. degree, and perhaps also of publication. The first belief was to be confirmed, but, alas! not the latter.

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Jumbo had introduced me to the novels of Raymond Chandler, to which I quickly became addicted. So I was delighted to discover that S.J. Perelman had written a Chandler parody<sup>102</sup>. I composed a variation on this parody, which I sent to Stan Aquarone in the hope that he might be amused<sup>103</sup>:

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<sup>102</sup> Farewell, my Lovely Appetizer

<sup>103</sup> As I have mentioned, Stan had introduced me to the ridiculous verses of Robert W. Service ("The Shooting of Dan McGrew", "The Cremation of Sam McGee", etc.). I produced the following variant of a typical Service stanza:

*He wanted to waltz  
Along in the schmaltz  
(Is there no end to this spiel?)  
Play five-card stud in the frozen crud  
And generally act the schlemiel.*



Oxford, 17 January 1967

Dear Sam:

THE STULTIFYING RESULT OF THREE DAYS' ADVANCED PERELMANIA WITH  
CHANDLERESQUE COMPLICATIONS

*I checked into the Arbogast building at about 10.32, narrowly avoiding a fried oyster propelled in my direction from behind the swivel doors of the World Wide Noodle Corporation (now amalgamated with Zwinger and Rumsey, Snooping Our Specialty, who pursue their shady activities just across the hall from me). The general idea of the caper was to catch up on a little of my foot dangling, which, believe me, is the safest way of impressing clients. I haven't spent my time weaving flannel kopecks during twelve years as a private op! But I had scarcely levered my way through the pebbled glass door which bears the legend:*

SCHLEMIEL INVESTIGATIONS

*Moshnik & Tiburon*

*into the crummy anteroom calculated to elicit derisive wisecracks from even a J. Edgar Hoover, and allowed the regulation six fingers of Old Tennis Shoes to burn its way down my craw, when the "Ka-chow!" of a roscoe reverberated through my think-tank, and a lead slug no bigger than one of Groucho's eyebrows split the fungus under my schnozzle. At the same time Skins Tiburon emerged from the bottom left-hand drawer of my desk, a smoldering ten-center firmly enmeshed in his dentition. "Shift those dogs, you schlemiel," he growled, "Or you'll be deader than an iced gumshoe." Now this statement in itself was interesting, coming from a gazabo whom everybody thought had been cremated in a fire sale last Walrus Emancipation Day, to say nothing of the fact that gumshoes have been known even to survive the rigors of a certain walk-in freezer I know. "Already so soon?" I replied airily, ignoring the minor blaze on my stiff upper lip that bade fair to diminish its tension....*

In 1968 I compounded the offense by producing the following piece of nonsense<sup>104</sup>:

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<sup>104</sup> Suggested by an episode of the TV series *The Invaders*.

## SIX HIX FIX MIX

OR

*IT DON'T MEAN A THING IF IT MEANS ANYTHING*

SCENE: A dingy courtroom in Gunkwick, Neb. In the gallery a crowd of honest, impartial, indifferent citizens. At the bench, Judge Bayliss Q. Arbogast, a vague expression on his even vaguer face, if that's possible. Just in front of the bench, a shyster lawyer who uses cooking oil to slick down his already vitreous hair. He has a smouldering tencenter firmly embedded in his cliff-like countenance. Under and inside the bench, the usual consignment of termites, whose presence is indicated by the steady sound of mastication. Let's grab a hunk of the action....

The Judge: *I fail to see...*

The Shyster (expansively): *You and me both, Judge. But just a second. Hold it right there. We have a key witness. Step right this way, Mr. Key.* (Mr. Key, a rotund character dressed in a shapeless grey outfit euphemistically called the "20 dollar special" by its makers, but rather more graphically termed the "crowd shroud" by the retailers, waddles his way slowly up the aisle and stops in front of the dock.)

The Recorder (mechanically): *Do you swear to tell the Truth, the whole Truth, and everything but the Truth, without resorting to fabrication of any description, ilk, species, type, category, ...*

The Shyster (roughly): *For Chrissake back off and cut that crap! He's a key witness isn't he?* (To Mr. Key): *Well, aren't you?* (Key waves his globular head in affirmation.) *OK Mr. Key, now just exactly when did you attend Law School on Mars anyway?*

Mr. Key: *Yeah.*

The Shyster (irately): *What the hell kind of answer is that?*

Mr. Key: *Basic English. (Click) Me only land yesterday. Me Hollywood alien, remember? (Complacently dangles his left dorsal flap and adjusts his face into its usual expression of bogus begninity.)*

The Shyster (reflectively): *Oh yeah, I forgot. Guess we'd better stick to the script. (Resolutely.) Get that interpreter in here! Tomorrow's out! (There appears an Interpreter, his two heads adorned with matching pairs of horn-rimmed glasses.) OK Key, feed your story to this joker and he'll make with the translation – if he knows what's good for him.*

Mr. Key: *Sqzprbodu zamsjxm whadooddlle...ttxxy... $\alpha = \omega\omega^2$ . (Rolls his eyes.)*

The Interpreter (in a monotone): *Vel, I happened already to be examining some old instruments...vel, not exactly old, maybe not exactly instruments either...*

The Shyster: *What the hell has that got to do with this case? This is a murder investigation, not a Salvation Army social!*

First Voice (aside): *Now he tells us. Who's the stiff, anyway?*

Second Voice (ditto): *Why, my dear, Brookmyer O. Fothergill, late Principal of the Gunkwick Institute of Applied Gadgetry. Where were you?*

The Judge (confused): *Do I detect a certain confusion in these proceedings?*

The Shyster (firmly): *You don't detect nothing, Judge. Just leave the detecting to me. Relax. Sooner or later somebody's gotta confess to something. (Points a spatulate finger at an Innocent Bystander sitting in the third row minding his own business and looking as if he'd like to be out to lunch somewhere.) How about you Bud? I mean get over here. But quick. Dig? Scram, Key.*

(The Innocent Bystander, an expression of sardonic amusement on his finely chiseled face, pockets his chisel – to say nothing of his face – and glides up to the dock, narrowly avoiding a collision with the crestfallen Mr. Key, who is trudging wearily back to the Extras' compound.)

The Recorder (ponderously): *Do you swear to tell the Truth, the whole Truth, and nothing but the Truth, eschewing all fabrications, falsehoods, fallacies, mistakes, misapprehensions, inconsistencies, evasions, prevarications, dichotomies, dilemmas, forks, knives and spoons (what?!), paralogisms, specious arguments, obscurities, conundrums, riddles and rhymes, palindromes, schmalindromes, errors of judgment, perception or evaluation, euphemisms, dysphemisms, platitudes, splatitudes and ingratiitudes, circumlocutions, embellishments, embroideries, filigrees, complications, complexities, prolixities, hyperboles and paraboles, ellipsisms, witticisms, puns, jokes, gags (corny or otherwise), jests, jocosities, double entendres, plays on words, archaisms, anachronisms, ambiguities, ambivalences, equivocations, inequivocations, altercations, objurgations, imprecations, ejaculations, interjections, oaths, sloths, terms of invective, abuse, vituperation or opprobrium...? And incidentally how do you take your eggs?*

Innocent Bystander (casually): *Usually through the mouth.*

The Shyster: *Wise guy huh? OK, let that ride. Name?*

Innocent Bystander: *Vincent David or David Vincent. Whichever you prefer.*

The Shyster: *Hey, wait a cottonpickin' minute. That's my cottonpickin' name! You can't do this to me, I'll sue! I'll fight this all the way to city hall...wait a second, this is city hall...OK I'll fight it all the way back! Take care of that angle later. Now sweetheart, what the hell were you doing the night Fothergill got the chop? Five'll get you ten you...*

Innocent Bystander (coolly): *For your information I was catching up on my blood sandwiches and selling my best friend down the river as far as the ocean. (Chuckles.)*

The Shyster (unconvinced). *Great. Terrific. Groovy. You're about as funny as a cement mixer. And foidermore I make the gags around here. You dig?*

Innocent Bystander (contemptuously): *You do a dandy job, that's for sure. And there's only one cement mixer around here – you. So make with the mix, baby.*

(There is a grinding, slushing sound as the Shyster is slowly transformed into a ten ton cement mixer complete with consignment of Grade A cement.)

Innocent Bystander: *Well, Judge, I guess that just about wraps up this case.*

The Judge: *What case?*

FADE OUT

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In June 1967 I made what was to be the last of my triennial pilgrimages to California. By this time air fares had fallen sufficiently for my father to be able to afford to stake me to a nonstop flight from London to San Francisco, so that I was spared another transcontinental ordeal on the Hound. But other difficulties lay in wait. Within a few days of my return my father began to drop heavy hints to the effect that, rather than hanging around the house doing next to nothing, I should seek gainful employment for the summer. This didn't seem unreasonable to me, but I hadn't a clue as to what sort of job I should look for. By way of suggestion, my father mentioned the many temporary occupations he had taken up as a young man—canning fish, shining shoes, hawking newspapers, flogging encyclopedias, castigating hogs, and the like. A search of the classified section of the local newspaper turned up a suitable position as an encyclopedia salesman, and I duly found myself traipsing from door to door in a vain attempt to communicate the merits of the *Encyclopedia Americana*. On the rare occasions that a door actually opened, the response of the potential customer ranged from annoyance—"If Ida knowed you was selling encyclopedias, Ida bolted the hatch!"—to outright hostility: "If ya don't stop bothering me, I'll phone the cops! Get the hell *outta* here!" Who would have thought that the mere mention of encyclopedias could provoke such ire? (Of course, it might have been my face.)

Having failed to make a single sale, after a few days I threw in the towel. Unemployment loomed. I had the good fortune to be rescued by Peter Perkins, Margery's son by her first marriage. He was just embarking on a new career as a commercial photographer in San Francisco, and had rented a studio there for that purpose. He proposed taking me on as his assistant over the summer, my duties to include the performance of odd jobs around the studio such as sweeping floors, painting shelves, and the like. I was also to learn how to load cameras and prepare them for photo shoots. Since working for Peter meant returning to my beloved San Francisco, I didn't take much persuading. The sole remaining problem was finding somewhere to live. Providentially, there was a spare room in the apartment Lynette—then working in S.F.—shared with a couple of other people. I moved there within the week.

Lynette's apartment was on Noe Street, just a few blocks from the fabled Haight-Ashbury district, the Mecca of the hippie movement. Like many of my generation, I was excited by the break the hippies had made with the past, their self-liberation from the conformism of the 50s

when most young people aspired to nothing more than donning the grey flannel suits of their elders. Also appealing was the idea of the bohemian life-style, with its heady romantic mixture of drugs and free love, emblematic of the movement. Yes, truly

*Bliss was it in that dawn<sup>105</sup> to be alive*

*But to be young was very heaven!*

Lynette's flatmate Paula, a cool, attractive blonde in her late twenties or early thirties was one of the numerous San Franciscans who, while not *echt* hippies, had adopted certain aspects of the hippie lifestyle. She had, I learned, broken away from a conventional marriage, subsequently shacking up with a number of men—one of whom, she claimed, was Art Blakey, the drummer and founder of the Jazz Messengers.

Sandra (Sandy) Lauler was a schoolfriend of Lynette's I had met briefly three years before in Santa Cruz. A pretty seventeen-year-old, with long blond hair, I recalled liking her but little more. I must have been blind! But when we met again in San Francisco early in the summer of 1967 I fell for her utterly. Into the preceding three years she had compressed what seemed to me then a lifetime of experience, having been married—thereby acquiring a new surname, Carmona—separated from her husband, and left with the upbringing of a year-old son. She had returned to her family home in Los Altos Hills to live with her mother and adoptive father. While hardly reciprocating my infatuation with her, she liked me sufficiently to extend an invitation to stay with her family. My infatuation must have been obvious to everyone, in particular, Sandy's younger sister, who, on spotting my skeletal chest incautiously exposed to the sun one afternoon, scornfully nicknamed me "Bones".

Sandy and her family planned to move to Beirut (where her stepfather had obtained a job) at the end of the summer. She intended to study at the American University of Beirut at which coincidentally, the previous year Wasfi Hijab had offered me a job—I regretted at that point that I had turned it down. I vowed to correspond with Sandy once I had returned to Oxford, in the hope of persuading her to come to live with me in England.

One evening I decided to tag along with Lynette and Sandy to a rock concert at the Fillmore (later known as "Fillmore West"). I did this not because of a burning interest in rock music, but in order to be near the object of my passion. It turned out to be a memorable evening. Entering the auditorium, which was filled to capacity with gyrating ravers, one's senses were assaulted by acid rock belted out at top volume, and a brilliant display of varicoloured lights. The auditorium would intermittently be plunged into darkness and stroboscopic spotlights switched on, producing the strange effect of seeing one's fellow gyrators as if presented in a series of still

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<sup>105</sup> But in fact by the summer of 1967 the hippie movement had reached its zenith. In the fall of that year the soft drug market was taken over by the Mafia, marked by the discovery of the body of a murdered hippie drugs dealer.

photographs—the discrete overwhelming the continuous. Although hardly a rock aficionado, I was impressed by the music which was provided by the likes of Cream and Jefferson Airplane, among the select rock bands of the day. But for me the evening peaked with the unexpected appearance of Gary Burton, the jazz vibraphonist, and his group. I had heard of him through Jumbo, who before my departure for the U.S., had commissioned me to buy *The Time Machine*, a disc of Burton's unissued in Britain. Jumbo described Burton as a matchless virtuoso on the instrument, a description his performance that evening showed was fully merited. The brilliance of Burton's technique, unprecedented on the vibraphone, was simply staggering. I watched and listened transfixed as, with extraordinary dexterity, he manipulated his four mallets in intricate, rhythmically propulsive improvisations resting on some of the most intriguing harmonies I had ever heard. The bell-like sound of his playing continued to reverberate in my inner ear for days afterwards. I immediately resolved to get hold of as many of his recordings as I could. I was later to see him play in London on a number of occasions.

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By the end of my second year at Christ Church I had had my fill of being “pent mid cloisters dim” and resolved to leave college for the real world, or at least for what passed as such in Oxford. I applied to the college authorities for a housing allowance in lieu of my free rooms. This being granted, I began to search for some decent lodgings. One day I ran into Andrew Evans, an undergraduate at University College whom I had met through Spike Wells. In his own quest for accommodation Andy had found a room on the ground floor of a house on Walton Street, not far from the Oxford University Press. He told me that the basement flat of this house was currently unoccupied and that I might be able to snap it up. An attractive feature of the arrangement was that its troll, a Mrs. Pressman, was nonresident. On inspection the flat seemed a bit damp and the £7 weekly rent was really beyond my slender means, but in my determination to have a place of my own I brushed these considerations aside. I was also swayed by the presence of a small but serviceable kitchen, which I saw as my instrument of liberation from the poor restaurant fare in Oxford—the idea, in particular, of escaping the burnt offerings at the local Wimpy Bar was not to be resisted.

I arranged to move in to the Walton Street flat at the start of the Michaelmas term. Initially the place was fine, if a trifle damp. Cooking my own meals was fun. I also liked being in a position to entertain guests. When Joe Harriott, the tenor saxophonist, came to town I put up his drummer and bassist overnight, regaling them with my records of Heifetz playing Bach solo sonatas, on hearing which they expressed astonishment at the violinist's technique. Next morning the drummer, Noel Norris, gave me his London phone number, which, he was delighted to point out, began N-O-E-L, and invited me to look him up whenever I was in the Smoke. Sadly, I never did.

Andy Evans proved to be an agreeable fellow, bubbling with enthusiasm. A talented musician, he had begun with the piano but turned to the bass, which had converted him to jazz.

Unlike most of the jazz musicians of my acquaintance, who paid lip service to classical music but were fundamentally indifferent to it, Andy was a genuine devotee of the art, and had amassed a collection of classical records which he continually augmented through record sales—I still remember him bursting through my door one day waving the cut-price copy of Isaac Stern's recording of Bloch's *Baal Shem* he had just come across at a sale at the local W. H. Smith. (Of course I rushed out to snap up a copy myself.) Unfortunately, Andy's enthusiasms led him to neglect his official studies with the result that he failed some exams and was rusticated at the end of the term: I recall his parents, understandably dejected, turning up at Walton Street to collect his belongings. But Andy, ever the optimist, put a brave face on the matter, vowing that he'd be back to complete his degree—I later learned that he was as good as his word. He finally found his *métier* as a psychologist counselling artists and musicians.

Over the Christmas vacation I fell victim to an especially nasty gastric flu and was laid up in bed for more than a week. My Greek friends Nick and Demo, also stranded in Oxford over that vacation, were able to provide me with the little sustenance I was able to hold down. When I recovered sufficiently to venture out I went with Nick for a meal at the local nails joint, the *Dildunia* on Walton Street. I decided to spare my stomach by steering clear of the usual Bhuna Schmaltz or Tack Gosht and instead order a mixed grill or something of the sort from the uninspiring English section of the menu. Having long conceived a loathing for the waxy peas that invariably accompanied such offerings, I asked the waiter if there were other vegetables to be had. This innocent request led to a ludicrous exchange, which Nick, after more than 30 years, is still able to reproduce to perfection, complete with accents. It went something like this.

Waiter: *Vegetables, sir? Of course, we have them. Peas, sir!*

Self: *No, no, I meant vegetables other than peas.*

Waiter: *Peas sir, yes sir, thank you, sir!*

Self (abandoning the struggle after numerous repetitions): *OK, the hell with it, give me the Bhuna Schmaltz.*

With the onset of winter the dampness in the flat had worsened appreciably and even before I fell ill I had resolved to move. Providentially, a room on the top floor of the house fell vacant. While small and kitchenless the room was cheap, and, above all, dry. I packed up my belongings and migrated upstairs. I struck up an acquaintance with my next-door neighbour, Petronella Pulsford, a glamorous undergraduate in her final year of reading English at Lady Margaret



Hall<sup>106</sup>. An aspiring actress, Petra had appeared in various OUDS productions, including the Burton-Taylor presentation (later filmed) of Marlowe's *Dr Faustus*. Her flamboyance, worldliness, and intelligence greatly appealed to me, and we became great friends. She had a constant stream of visitors, mostly male, some of whom I got to know. I recall Michael Black, the sculptor, who was later to restore the sadly decayed heads around the Sheldonian Theatre. Richard Heffer, also an actor<sup>107</sup>, impressed me with his wit and remarkable ability as a cartoonist.

In that last year at Oxford I got to know Jane Bridge<sup>108</sup>, a new graduate student of John Crossley's at Somerville College. She had been awarded the top First in her year, and was on the brink of an outstanding career as a mathematical logician. Jane and I became close friends. I had the good fortune to enjoy the hospitality of Jane's family at their home in London and, later, in Gloucestershire.

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John Crossley had persuaded the North-Holland Publishing Company to publish the notes<sup>109</sup> of the lectures on model theory that Alan Slomson and I had given during 1965-66. Alan, who had completed his D.Phil. in 1967 and taken up a lectureship in Leeds, shouldered the task of typing up the manuscript and submitting it to the publisher. Early in 1968, when the galley proofs of the book arrived, I shirked my proofreading duties, giving the proofs no more than a cursory inspection. The result was that the first edition of the book (1969) was a mass of misprints, a fact rubbed in with a heavy hand by the reviewer of the book for the *Journal of Symbolic Logic*. The "review" consisted of 10 lines or so of neutral description of the book's contents, followed by a lengthy list of errata (a number of which had been supplied by ourselves). Nevertheless, the book sold very well and went through 3 printings before finally being (in our view, unjustly) mothballed by Elsevier in 1983<sup>110</sup>

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Sandy had meanwhile moved to Beirut. I wooed her by correspondence throughout my last year at Oxford, finally persuading her to come to Britain—with her now eighteen-month-old son Chris—and shack up with me. Up to then my attempts at establishing amorous relations with

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<sup>106</sup> In this connection I might mention that Hubert Linfoot's sister Margaret, long an Oxford don, had married the economist Robert Hall and so after he was knighted became Lady Margaret Hall. Further coincidence, however, was frustrated by the fact that she was a fellow of Somerville.

<sup>107</sup> Richard had a considerable TV and movie career. Seeing him in the final reels of Ken Russell's *Women in Love* gave me a pleasant shock of recognition. Later he played a stiff-upper-lip RAF captive in the BBC TV series *Colditz*.

<sup>108</sup> Sadly, Jane died in 2019 at the age of 75.

<sup>109</sup> These notes had originally appeared in 1965 as an Oxford Mathematical Institute publication entitled "Introduction to Model Theory."

<sup>110</sup> In 2006 it was revived as a Dover reprint.

women had met with rebuff, so that Sandy's positive response to my blandishments naturally led me to suspect that she saw me less as potential lover than as deliverer from her predicament as a divorced mother forced to take parental charity. But I didn't give a damn! My obsession banished all suspicion – indeed, like a character in a Russian novel, to achieve the object of my desire I was prepared to abandon rational calculation altogether. Still, the three of us had to live somewhere and so I asked Joyce Linfoot if we could use the house in Eachard Road in Cambridge which she and Hubert had bought as an investment some years before and which was currently unoccupied. Joyce generously agreed, even offering to provide us with some new furniture.

At the beginning of the summer of 1968 Sandy and her son arrived from Beirut and we proceeded to set up house at 50 Eachard Road. Our first days together were magical, idyllic. Bewitched by Sandy's sensuality, I felt that all my inchoate fantasies had finally been brought to fruition. We feasted on strawberries and sex, and I, at least, cared not for what the morrow might bring.

But trouble loomed. Soon after we arrived Joyce informed me, with some embarrassment, that she and Hubert had become uncomfortable with the idea of an unmarried couple with a child living together in their house and that, worse, the neighbours might be scandalized at the idea. She suggested that I ask a respectable male friend to share the place with us. To whom else could I appeal but the ever-reliable Jumbo? Fortunately, he was free, and willing to join us: having been an undergraduate at Cambridge it perhaps amused him to return to his *alma mater* under such novel circumstances. He and Sandy hit it off instantly, and I thought our immediate problems were solved.

But I was wrong. For even Jumbo's solid presence failed to confer sufficient respectability on our *ménage* to overcome the Linfoots' (mainly Hubert's) doubts. So it was that Joyce informed me, with redoubled embarrassment, that we would have to decamp. On learning of this reverse, Jumbo generously proposed that we migrate to his flat in Sheffield, in which I had previously been his guest on a number of occasions. In his absence he had offered the place to one of his students as a temporary billet, but he assured us that in an emergency such as the present one the fellow would accept the necessity of moving out.

So we piled our belongings into the Dreamboat, and bade farewell to Cambridge. We arrived in Sheffield to find Jumbo's tenant still very much in residence. He had dismantled his car and strewn the parts all over the place, transforming Jumbo's flat into what appeared to be a breaker's yard. The guy cheerfully informed us that he'd reassemble his contraption in a jiffy and be on his way. The "jiffy" stretched into a couple of days, the car parts remained frustratingly unassembled, but he finally packed up and departed. Meanwhile the four of us tried to settle in. Jumbo had formerly occupied the flat by himself and must have found the cramped conditions now prevailing irksome, but, ever the gentleman, he never complained.

Relations with Sandy became strained after our move to Sheffield. Given the reverses we had encountered in our experiment in living together it is hardly surprising that she had become disenchanted with me. But my infatuation with her remained undimmed.

In September 1968 I was due to start teaching at the LSE so that a move to London was dictated. Sandy had arranged to stay with some friends in Shepherd's Bush; I had found a room with a landlady in Bayswater. In the last week of September the ever-supportive Jumbo drove us to London. As we neared the city I became increasingly agitated, knowing that our arrival would precipitate the final parting with my inamorata and cause all my castles in the air finally to crash to earth. So it happened that when we stopped at a traffic light as we passed through Highgate in North London, I was seized by an overmastering impulse to flee the inevitable. I leapt from the car, feeling at once absurd and ashamed, leaving Jumbo to convey Sandy to Shepherd's Bush, where she had arranged to stay in a friend's flat. But still I could not resolve my contradictory feelings towards her. I remained besotted, pathetically hopeful that the cinders of our relationship might somehow be rekindled into flame, yet at the same time grasping the impossibility of continuing together even had she so wished – it being rather obvious then, even to me, that she didn't. The pitiful embodiment of an erstwhile lover trying to catch the merest glimpse of his lost love, I haunted Shepherd's Bush for months afterwards.

It was only after meeting my future wife Mimi that my infatuation with Sandy began to subside. Sandy returned to Beirut, and then, a year or so later, resurfaced with a new husband, a young guy by the name of Mark Defrates who, by a curious coincidence, was an undergraduate at my old college Exeter. My last meeting with Sandy was at the house she and her husband had rented in Marston not far from Oxford. Finally free of my obsession, I wished them well<sup>111</sup>.

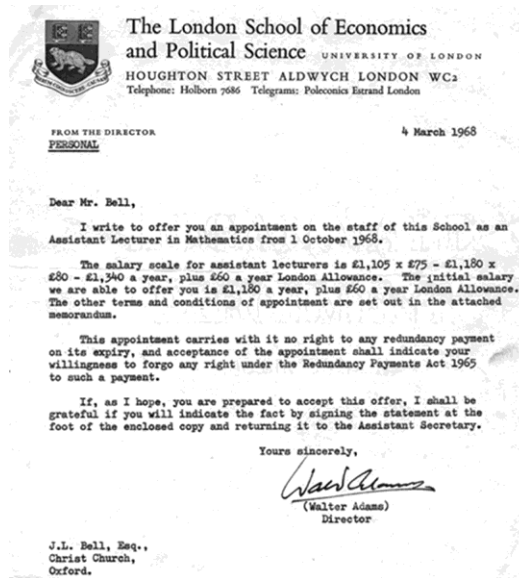
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<sup>111</sup> More than 40 years later Sandy and I were to renew our relationship and achieve happiness together.

## LONDON, 1968-73

Moshe Machover's lectures on set theory at the 1965 Leicester conference had so impressed Imre Lakatos that he resolved to recruit Moshe to the LSE. Negotiations between the two were still under way after Moshé's return to Israel, but communication broke down when Moshé was impressed into the Israeli army at the of the six-day war in 1967. Lakatos had meanwhile heard that Alan Slomson and I had been giving lectures on model theory in Oxford, and wrote to us proposing that we offer our course at the LSE. Alan and I readily fell in with the idea, but a few weeks before we were due to begin we received an apologetic letter from Lakatos calling the whole thing off, on the grounds that his graduate students were, in his words, "revolting" against overwork.

By the end of 1967 I was itching to leave Oxford and so, on the strength of Lakatos's earlier offer, I wrote to him to enquire whether there might still be a vacancy in his department. In his reply he told me that, although the logic job originally intended for Moshé had been filled, I might nevertheless be interested in a position in the recently founded mathematics department at the LSE. He mentioned one minor obstacle: the closing date for applications had expired some weeks earlier. But he genially assured me that he would get round this by "smuggling my application into the file." And indeed he was as good as his word, for a couple of months later I was summoned for interview at the LSE. The interview itself (which I cannot now recall) must have gone well, for a few days afterwards I received the following communication:



Naturally I was thrilled by this, my first real job offer, and I hastened to accept. I was to find that the salary, already less than princely on paper, was also in practice barely enough to live on in London—in fact during my first few years at as a lecturer LSE I was financially worse off than I had been as a Senior Scholar at Christ Church. But that hardly mattered, for, as I saw it, I was finally to break free of the womb of Oxford and attain the bright lights of the capital.

In moving to London I was faced with the familiar problem of finding somewhere to live. I wrote to the London University accommodation bureau to see if they could help me out. They informed me that, at this late stage, most of the rooms on their list had already been taken; but they could offer me a room in a flat in Bayswater occupied by an elderly lady, a Mrs. Heymann. My relations with landladies, Nina excepted, having been less than cordial, I was reluctant to allow myself to fall into the clutches of yet another resident troll. But a reprieve of sorts was granted. For when at the end of September 1968, I presented myself at the massive apartment building in Hatherley Grove in which I had arranged to take up residence, I learned that some days before my landlady-to-be had been felled by a stroke from which she was presently recovering in hospital. She had left me a key to gain access to her flat together with a note to the effect that while she was happy for me to live there for the couple of weeks (she estimated) before her discharge from hospital, she regretted that on her return my room would be needed by the full-time nurse she had been obliged to engage for her care. When I visited Mrs. Heymann in hospital she proved to be a charming and cultured *mitteleuropean* lady—the very opposite, in fact, of my conception of a resident troll. She was most apologetic that I would have to find somewhere else to live, but there it was.

All I can remember of the week or so that I spent alone in Mrs. Heymann's flat was seeing on television for the first time the great late film noir *Kiss Me Deadly*. When I saw it again a number of years later I was convinced, as I had been with 1984, that the final scenes differed from those I

remembered. This was recently confirmed (2001) through the reissue on DVD of the movie with both versions of the ending – the one I saw originally, in which the protagonists struggle into the ocean to escape the exploding house, and the other version which ends abruptly with the house’s disintegration<sup>112</sup>.

Jane Bridge’s uncle, Tony, who was Vicar of Bayswater, had just been appointed Bishop of Guildford and was in the process of vacating his old residence. He told me that I was free to doss down on the floor of the place until the installation of his successor. Having nowhere else to go at that point, I was grateful. But I found that he had made the same offer to a number of other homeless young people, so that the vicarage floors, while devoid of furniture, quickly became crowded with sleepers.

Nick Zafiris and Demo Dirmikis had completed their first degrees at Oxford and come to London to pursue Ph.D.s, Nick at LSE and Demo at King’s College. When they learned that I was to be turned out of my digs, they suggested that the three of us look for a flat to share. We proceeded to pound the streets in search of accommodation, scanning each day the “Rooms for Rent” and “Flats to Let” columns of the *Evening Standard*. These were replete with unenticing ads offering “Fourth Man, Own Room” (“Fifth Man, Own Chair”, would be more to the point, I ventured to suggest), but little else. The few places whose description seemed to fit our needs turned out, on further investigation, either to be situated in obscure locations such as Ongar or Cockfosters, light-years from central London, or, if more accessible, to be hell-holes firmly in the grip of resident trolls. I recall inspecting one joint which was, the ad proclaimed, “fully equipped with hot and cold running basins”. When we turned up at the place, situated in a run-down building in Ladbroke Grove, the landlord proceeded to launch into an enumeration of the advantages of his establishment. He led us down a flight of stairs into a damp dungeon-like chamber with a single window half buried in the earth, whose top half afforded a magnificent view of a garbage pail. Was this, I wondered, one of the so-called advantages? Apparently not, for the landlord pointed with pride at the wash-basin which had recently been attached (somewhat askew) to one wall. This “advantage” was the only one I can actually recall, but whatever the others may have been, they would have proved insufficient to induce us to take up residence there.

Finally we resorted to accommodation agencies. Our dealings with these establishments typically ran along the following lines. We began by asking the young lady on duty whether there were any flats available for less than, say, £8 per week. After a perfunctory inspection of ledger pages, she would look up and say, dismissively, “So sorry, nothing under £8 per week.”

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<sup>112</sup> Directed by Robert Aldrich, released in 1955, and starring Ralph Meeker as Mike Hammer, this black and white movie is an extraordinary combination of *film noir* and science fiction years ahead of its time. One of the most startling scenes in film is that in which Hammer’s search for the “great whatsit” culminates with his discovery, in a locker, of a box which he opens slightly to release a startling shaft of incandescence. Frank Devol’s eclectic score, with its echoes of Hindemith and the Second Viennese School, adds a curiously appealing touch. The film is studded with memorable character actors: Fortunio Bonavia (the voice instructor in *Citizen Kane*), Paul Stewart (also in *Citizen Kane*, as the butler), Cloris Leachman, Wesley Addy, Juano Hernandez, Nick Dennis, Albert Dekker, with Jack Lambert and Jack Elam as heavies. I was delighted to learn recently that Gaby Rodgers, the actress portraying the devious Pandora who is finally incinerated by the mysterious box’s contents, was a grandniece of the philosopher Edmund Husserl, the intricacies of whose work I have wrestled with for a number of years.

"Well, in that case," we persisted, "what about *over* £8 per week?" A slight hesitation, a somewhat lengthier riffling of ledger pages, and the reply "I'm afraid not." "All right, then, how about *exactly* £8 per week?" At this point, having exhausted the girl's patience, we were firmly shown the door.

While our collective search for a place to live in London was proving to be a fount of humorous anecdotes, it was frustratingly barren of concrete results. We decided to try our luck separately. As a last resort I turned to another flat agency, Rambler's, a chi-chi establishment specializing in the Earl's Court/Kensington/Knightsbridge area of London. By this time I'd have sold my soul for a broom closet and so when Rambler's came up with what they were pleased to term—in their quaint parlance—"suitable accommodations", I grabbed them with both hands. The room on offer proved to be tucked under the rafters of an imposing Georgian house at 1 Ovington Square in Knightsbridge (pronounced, in the posh local accent, "Uvington Squah in Natesbridge"). In Victorian times, the house with its numerous rooms, large, small and infinitesimal, must have been the seat of a prosperous upper-middle class *paterfamilias*, and my broom closet—for that is certainly what its cramped dimensions brought to mind—the quarters of a minor servant, the second assistant bootblack, or the like. Despite the pretensions of its present owners, the place was now in truth just a boarding house, whose superior status (reflected in the high room rents) failed to disguise the fact that every available cubic inch on the premises had been rented out.

The resident landlord, Colonel Kayll, whom I quickly dubbed "Colonel Bagshott", occupied a suite of rooms on the ground floor of the place. Long retired from some antique Scottish regiment, he retained a military bearing which was reflected in his usual attire of tweeds and regimental tie. He and his wife had separated, and he seemed somewhat lonely. I recall that one evening as I came through the front door he suddenly emerged from his quarters and invited me to partake of a wee dram. Expecting to be offered a fine single malt, I was taken aback when, as we entered his inner sanctum, the Colonel pointed to a crate of Guinness sitting on the floor and asked me to help myself. I was not partial to Guinness, but to refuse his offer would have been churlish. As I sat nursing my drink the old gentleman reminisced about his soldiering days, and then, out of the blue, asked me if I knew whose house this had once been. "No," I replied. "Well," he continued, "at one time it was occupied by Lady Wilde, Oscar Wilde's mother, and indeed by Oscar himself." I expressed surprise at this, remarking that the fact had not been signaled by one of the familiar blue plaques attached by the London County Council to the past dwelling-places of the illustrious. "True," he rejoined, "but nevertheless Oscar did live here. In fact the décor in the front room on the first floor was his conception. Would you like to see the room? I believe its present occupants are out this evening." I certainly did, and so we trooped up the stairs to view what the Colonel was pleased to call the Wilde Room. With its purple wallpaper and heavy velvet curtains, a splendid chamber it turned out to be. I wasn't wholly convinced that the room had really been furbished by Oscar Wilde himself, but the décor looked authentic, at least to my amateur eye. Partial confirmation of the Colonel's claim was provided many years later

when I learned from Richard Ellmann's biography of Wilde that Lady Wilde (and Oscar's brother Willie) had indeed resided for a time at 1 Ovington Square.

Old Bagshott had the tiresome habit, not uncommon in resident trolls, of subjecting any tenant he might happen to meet on the staircase to a lengthy and tedious discourse. To avoid this I took to tearing down the stairs and catapulting through the front door at lightning speed, or, when collecting my mail, beetling back upstairs with equal celerity. On one such occasion the old boy caught me just as I was about to rush back to my room. When I fibbed that I'd just received an important piece of mail which required my immediate attention, he, clearly unfooled, retorted that most of *his* post came "in the form of bills".

I had never regarded Ovington Square as anything more than a temporary billet. For a start the rent was excessive owing to the fashionable location of the place, and my meager salary buckled under the weekly outlay. There was also the irritating necessity of having to feed the voracious gas and electricity meters with which the place was replete so as not to be suddenly plunged into darkness and cold—even worse, interrupting my reading of Trotsky's *History of the Russian Revolution*, in which I was engrossed at the time, and my endlessly repeated playings of Bud Powell's *The Vintage Years*. There were, needless to say, no cooking facilities. And as a finishing touch the "hot" (i.e. lukewarm) water boiler was shut off promptly at 9 p.m., turning late baths into spartan exercises.

Accordingly I resolved to move yet again. George Wilmers had recently returned to Oxford to finish his D.Phil., but found living there in digs stifling. It seemed natural for him to move to London, and in that case, why shouldn't the two of us share a flat? To find a suitable place we decided to look up estate agents in the telephone book and enquire directly whether they might have apartments to let. As a North Londoner by origin and preference, George regarded the region south of the River Thames as a kind of magma, so we directed our enquiries northwards. Our fancy was caught by the name of a Mr. Blumenfeld, with offices on Archway Road not far from Highgate tube station. We proceeded there to be told that he had a furnished flat available on Talbot Road just a stone's throw away. The place turned out to be the first floor of a two floor apartment—two bedrooms and kitchen, together with a bathroom shared with the occupant of the floor above. The rent being quite reasonable, we took it. The bedrooms had originally served as dining room and sitting room; the former had a port in one wall opening onto the kitchen. Both of us preferred the larger ex-sitting room, and it seemed only fair to resolve the issue of occupancy by flipping a coin. Losing the toss, I moved my belongings into the ex-dining room. In addition to adjoining the kitchen, the room turned out to have a number of further disadvantages. Its windows opened onto an alley leading to the garage entrance of *Hexagon of Highgate*, a local car dealership specializing in expensive sports vehicles. No hour of the day was free of the revving of engines and the smell of exhaust fumes as what seemed, to my ears, a constant procession of automobiles roared up and down the alley. And each evening, just as Hexagon shut down operations for the day and a blissful quiet descended outside, the floor of the room would begin to pulsate with rock music, belted out at top volume by the occupants of the flat immediately



below. This was all very trying. Lucky George, in the other room, suffered none of this aural assault, and professed not to understand what I was complaining about.

There were a couple of further irritants. The first was the room's dull wallpaper—this eyesore I gleefully drowned in an ocean of white paint, a treatment to which I had long yearned to subject the walls of my previous rented rooms, but in whose application I had always been frustrated by the looming presence of the resident troll. The second was the massive, and quite useless wardrobe half-filling the room—its rounded edges and faux-walnut finish the acme of style, perhaps, in the 1930s, but by the 1960s just an affront to the eye. This monstrosity stood there, inanimate but somehow threatening, like something out of a Magritte painting, its sheer bulk defying anyone to move it. But shift it I did—risking a hernia in the process—out into the corridor.

Our landlord, Mr. Clifford, could not understand how anyone could find his wallpaper or furniture objectionable, but being easy-going by nature he tolerated both the obliteration of the former and the displacement of the latter. It was a different story with his wife, however, who assumed the management of the place after her husband's sudden death, which occurred within a few months of our arrival at Talbot Road. The flat had, we learned, been the couple's first residence after their marriage and so Mrs. Clifford's interest in the place was as much sentimental as proprietary. Not only did she take great exception to the rearrangement of her precious furniture, she was outraged, more reasonably perhaps, at the squalid state to which a pair of young bachelors had reduced her kitchen. If she was to be believed, in her day the kitchen floors had been "clean enough to eat off of"—I speculated that she had probably done just that during her tenure. Clearly "Mrs. Cliffhanger", as I came to call her, meant trouble.

George and I got along reasonably well, but inevitably there was some friction between us. In the aftermath of my affair with Sandy I had been suffering from depression and insomnia, for which I was receiving medication from a doctor in Ladbroke Grove. My disturbed mental state may have caused me to behave oddly—certainly George had every reason to be irritated by the contrariness of my behavior at that time. On one occasion the two of us had accepted an invitation to attend a party organized by a fellow we had met in a pub a few days previously and with whom both of us had become quite friendly. At the very last minute I refused to go, leaving a wrathful George with the burden of making excuses for my non-appearance. I'm glad to say that our friendship survived nevertheless.

The flat was just a stone's throw from Highgate tube station, one of the deepest in London. When the escalators broke down, as they did with tiresome regularity, passengers were advised to alight elsewhere, presumably to avoid the heart attacks risked through attempting to climb the station's Himalayan emergency stairs. Highgate station had the additional disadvantage of being on the Northern Line, known to Londoners at that time as the "Misery Line" because of its ancient rolling stock and the lengthy delays to which its passengers were customarily subjected. I thought that, following Bertrand Russell, a warning should be posted at Misery Line stations to the effect

that only passengers of sufficient longevity should expect to reach their destinations still breathing.

In the immediate vicinity of the station was a clutch of shops and small businesses. George and I used occasionally to take breakfast at Alf's Café, where it was not so much chips, but grease, with everything. Thus, for example, the "Big Three" – sausage, egg and chips – became the "Big Four", that is, the Big Three plus a pool of grease. But the portions were generous, and the accompanying mug of tea big enough to drown in. We also became friendly with the local newsagent, a vivacious Yugoslav lady called Joan Christian, with whom we had heated debates about socialism and communism.

In July 1969, as everyone knows, the first American moon landings took place. George and I acquired a television from somewhere, set it up in my room and invited a bunch of people over to watch the broadcast of the proceedings. A number of our guests were left-wing Latin Americans George had met in Poland, and so they had little reason to applaud any *Gringo* undertaking. But the novelty of the event overcame even their reservations. The providential clearness of the night allowed the full moon to shine in all its glory through the balcony windows, in striking synchronicity with the its image on the television screen. A festive mood prevailed. When Neil Armstrong opened the door of the module capsule, poised to set foot on the moon's surface, I couldn't help piping up, in a spirit of irreverence, with "Peanuts, popcorn?" as if to a movie audience. Nobody laughed. Then as Armstrong uttered his historic words (which at first I thought I'd misheard) "A small step for (a) man, a giant leap for Mankind", my mind flashed back to the story I had written while at school in which the spaceship is engulfed by lunar dust. How wrong I had been in my speculations. The lunar surface was solid as rock, in fact was rock! When the astronauts proceeded to engage in what NASA termed "extra-vehicular activity" – i.e. began to move around on the lunar surface – I was struck by the fluidity of motion permitted by the low gravity. How far the real thing surpassed the special effects which had impressed me in the movie *2001: A Space Odyssey*! Bathos supervened when President Nixon, old "Slippery Dick" himself – whom we all loathed – appeared onscreen to communicate some platitudes to the astronauts. ("Mars next, boys!" I seem to recall him saying. Or is that remark attributable to the unspeakable Spiro T. Agnew, Nixon's vice-President, of "nattering nabobs of negativism" fame?) The tension again mounted when communication with the astronauts was severed during the few minutes following the lunar module's takeoff in its effort to rejoin the orbiting spacecraft. The feeling of relief was palpable when it was announced that the rendezvous had been successful. The astronauts safely on their way back to earth, we called it a night.

George had been offered a research fellowship at the University of Sheffield from October for the 1969-70 academic year. Coincidentally, Jumbo was due to leave Sheffield to take up a lectureship at Chelsea College, so it was natural that he take George's place at Talbot Road. At the end of the summer Jumbo moved in, and we quickly picked up our old jokey relationship once again. One anecdote I recall from that time arose in connection with *Batty and Stevens*, a firm of estate agents whose signs were plastered throughout the neighbourhood. I never tired of pointing out to Jumbo that "you'd have to be *Batty* to go into partnership with *Stevens*." I could

scarcely believe my luck when one morning we found that the signs had been changed to *Batty, Stevens and Good*, so enabling me to announce that “apparently, you’d have to be *Good* and *Batty* to go into partnership with *Stevens*!” Life rarely offers such golden opportunities.

Jumbo’s installation at Talbot Road was, as it happened, most timely. For Mrs. Clifford – still angered by the appalling state to which her kitchen had been reduced and the cavalier treatment of her furniture – was bent on replacing us with tenants more to her liking. Early one morning we were woken by a hammering on the front door. It was Mr. Blumenfeld, who announced that Mrs. Clifford’s patience was at an end and that she wanted us out. After Blumenfeld left I put it to Jumbo that he might be able to persuade Mrs. Clifford to reverse her decision. I argued that she would surely view him, a graduate of both Oxford *and* Cambridge, as a paragon of respectability, someone whom she could trust to serve as a moderating influence on the remaining lunatic to whom her agent had originally let the place. I cannot now recall whether Jumbo actually met with Mrs. Clifford herself, but he deployed all his considerable diplomatic skills in winning Mr. Blumenfeld over, with the result that the threat of eviction was lifted.

Michele and Spencer, who were married in the summer of 1968, had meanwhile moved to East London, where Spencer, having obtained his medical degree, was serving his internship at Albert Dock Hospital. This was situated close by gas and sewage works in a decayed corner of London’s dockland; and the quarters Spencer and Michele had been assigned near the hospital grounds were correspondingly dingy. The walls of the place were so saturated with the remains of the numerous curries prepared by the previous occupants that it seemed a full meal might be obtained merely by direct scraping onto one’s plate – “wall bhuna”, no less. With her usual optimism, Michele made light of these unappealing conditions, and proceeded to scrub the walls until they were several shades lighter and the odour of curry, while not wholly obliterated, had been reduced to a tolerable level. Not long after Michele and Spencer’s move to Albert Dock, their first child, and my godson, Gabriel, was born.

Brian Priestley had also migrated to the Smoke, taking up a day job at Dillon’s bookshop on Malet Street. Not only had he landed a regular gig tickling the ivories at Kettner’s restaurant in Soho, his unmistakable voice could now be heard on the air, since he’d become the co-host of the Radio London program *All that Jazz*, which featured regular interviews with jazz musicians. Brian gave full expression to his scorn of his co-presenter, a fellow with the unlikely monicker of Don Dive. According to Brian, Mr. Dive’s interviewing technique consisted mainly of the posing of inane questions such as “Do you come from a musical family?” and “What is your favourite tune?” I speculated that, by contrast, an interview with Brian at the helm might go something like this:

Jazzman (expansively): *Well, I was born on the wrong side of the tracks in Lynchtown, Alabama, way back in 1925. And times were hard then, man.*

Brian (with scholarly impatience): *Yes, yes, that's all very interesting. But what I really wanted to know was the exact date of the session on which you and the other members of the Flatfoot Five waxed the version of Washtub Blues which became immortalized as Matrix Number 123581321.*

Jazzman (emphatically): *I don't know nothing about that, man. Hell no.*

Mr. Dive soon departed, leaving Brian in sole charge of the program, whose standard rose several notches as a result. I recall my excitement when Brian phoned up one day to invite Mimi and me to join the audience at his broadcast interview with the legendary jazz pianist Bill Evans. On the occasion we saw him Evans looked grey-faced and ill, and I was struck by the puffiness of his hands, the result of a struggle with narcotics addiction. But he was impressively dignified throughout Brian's interview, which turned out to be exemplary, a far cry from my attempt at parody.

Brian went on to become one of the most prominent British jazz critics. I have no idea what became of Don Dive.

Ronnie Scott's club on Frith Street in Soho was the Mecca of the London jazz scene at that time. I heard a number of outstanding musicians perform at "Ronnie's", among them Dizzy Gillespie; Horace Silver; Wayne Shorter; Joe Henderson, the great tenor player whose work with McCoy Tyner on the album "The Real McCoy" had so impressed me, and whose business-like appearance somehow complemented the electrifying sounds he laid down; the wild blind reed virtuoso Roland Kirk, whose gimmick it was to play three instruments simultaneously, and who I recall attempted to heave one of the patrons over the bar. The heights were reached on the several occasions I heard Gary Burton. His appearances were usually billed as the Gary Burton Quartet—the first with Larry Coryell, Steve Swallow and Larry Bunker, the second with Jerry Hahn, Swallow, and Roy Haynes. But on one memorable occasion he showed up by himself. A couple of Ronnie's excellent house sidemen accompanied him in his first set. Then, not far into the second set he dismissed them—whether by prior arrangement or spontaneously I could not tell—and proceeded to play the remainder of the set solo. Along with the rest of the audience, I could not believe my ears, or indeed, my eyes, at what then ensued. The impact of Burton's playing in such intimate surroundings was overwhelming: I have never had another live musical experience of comparable intensity. We all wanted him to continue playing <sup>113</sup>. There is an approximation to the musical experience of that night on his later solo album, *Alone at Last*.

Ronnie Scott, the owner-manager of the club, was an accomplished tenor saxophonist himself, and on occasion performed with his own group. He had become popular for his spiels as master of ceremonies, in the course of which he would invariably trot out the same jokes,

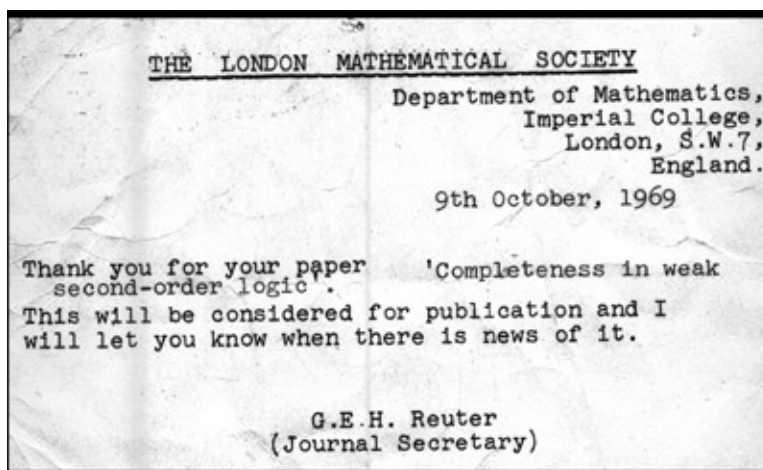
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<sup>113</sup> Musicians are the true magicians, and thank God for them! But according to Plato, music leads one astray, and André Breton dismisses music as an "art of pure sensation"; I have occasionally heard from the lips of my own colleagues, that music is "distracting". I would ask, from what does it lead us astray, or distract us? The business of pursuing pure philosophy, or pure mathematics, or pure...business?

relying, in something like the world-weary manner of Jack Benny, on his impeccable sense of timing to make them fly. No soiree at Ronnie's could be considered complete without his launching into his "Miles" routine... "I've got all kinds of attractions lined up...for next week, I've booked Miles (pause)... Bernard Miles." And, on evenings when business was slow, he would observe lugubriously: "The bouncers are working overtime tonight—throwing the customers *in*."

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In my eagerness to get out of Oxford, I had departed before completing my D.Phil. dissertation, which left the pressing matter of writing it up. This I did soon after my move to Talbot Road, submitting in May 1969. Months went by before I was summoned for the oral by the examiners, who I had already learned were to be Michael Dummett and John Shepherdson. In the meantime I had discovered an error in the proof of one of my theorems. Shock! Horror! At the examination I found that this error had gone quite unnoticed by my examiners, but I brought it to their attention and devoted the greater part of my oral efforts to show how it could be corrected. Although they didn't seem particularly impressed with all this, they informed me at the end of the examination that I had passed. Later I was disappointed that my thesis failed to win the Oxford Senior Mathematical Prize. Another disappointment was the fact that the principal result of my thesis, a completeness theorem for weak second-order logic which I had obtained more than a year before, had been formulated and proved independently at about the same time by Lopez-Escobar and had just appeared in print. Despite the fact that my proof was quite different from Lopez-Escobar's (employing algebraic as opposed to proof-theoretic methods), my presentation of the theorem was rejected both by the *Journal of Symbolic Logic* and *Fundamenta Mathematicae* on the not unreasonable grounds that the result was already known. As a last resort I sent my paper to the *Proceedings of the London Mathematical Society*. In response I received the following card:



That was 34 years ago. Like the protagonist of Kafka's *Great Wall of China*, I still await news<sup>115</sup>!

In 1969 the eminent logicians Leon Henkin and Andrzej Mostowski were at All Souls College as Visiting Fellows and I had the privilege of meeting both of them. Henkin was a droll man, very indulgent to his two young sons, who clearly didn't take him very seriously. Mostowski combined old-world graciousness with wit and warmth in an appealing way. At a pleasant lunch with Jane Bridge and her family to which both Mostowski and I had been invited, I remember him pointing out with evident amusement that his name and that of his hosts were cognates: in Polish "most" means "bridge", and so his name could be translated "Bridgeson. While at All Souls, the political situation in Poland reached a crisis point, and he cut short his visit to Oxford to return there.

In the summer of 1970 I attended the conference in mathematical logic held at Bedford College in London. Among the participants were Sol Feferman, Haim Gaifman, Angus Macintyre, Jeff Paris, Hartley Rogers, C.C. Chang, H.J. Keisler, Peter Aczel, Max Dickmann, Yoshindo Suzuki and Alan Slomson. My contribution to the proceedings was a brief account of a paper I had coauthored with Jumbo, *An effective implication in functional analysis*<sup>116</sup>. As I gave my talk I wondered who the distinguished-looking elderly gentleman in the audience might be. It turned out that he was Arend Heyting, a founding father of mathematical intuitionism. At that time I knew next to nothing about intuitionistic mathematics, but I now surmise that the reason for Heyting's attendance at my talk may have been the presence of the word "effective" in its title. If that was indeed the reason, then Heyting must have been disappointed, for by "effective" I meant merely the eschewing the use of the Axiom of Choice - a far cry from the term's intuitionistic meaning. After my talk one of the participants, the brilliant set-theorist Robert Solovay, came up to me and rapidly outlined another method of proving our result. This is the sole occasion on which I met Solovay, but the sheer speed of his thinking left an indelible impression.

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The year 1968 retains great significance for the Left. For many of the young, myself included, it was a time of political awakening, the moment at which questioning the established order was transformed into active protest against it. It was in France during May-June 1968 that the newly radicalized younger generation came closest to unseating the establishment. What happened there demonstrated the possibility, at least, of achieving that elusive goal, revolution in advanced capitalist countries—a goal which now seems impossible of realization. The events in France in 1968 brought the country to a revolutionary crisis. Starting with a student insurrection on one

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<sup>115</sup> 50 years have now passed, and I've finally given up on this.

<sup>116</sup> Later published as *On the Relationship between the Boolean Prime Ideal Theorem and Two Principles of Functional Analysis*, Bull. De l'Acad. Pol. Des Sci., XIX, No.3, 1971

campus, the revolutionary fervour quickly spread through the student community, in the process surprisingly drawing in the working class, and culminating in a ten-million-strong general strike which brought the French government to the point of collapse. The country teetered on the very brink of revolution, and but for the inhibiting role played by the Communist Party and the trade union leadership, revolution might well have come about.

At the same time opposition to the Vietnam war had begun to mount, not only in the United States, but throughout Western Europe. March 1968 had already seen a huge demonstration in London and a second was planned for the last weekend in October. In Britain the protest was directed not just at the US government, but equally at the British Labour government under Harold Wilson which sided unequivocally with the Americans. It seems likely that it was only the strength of protest that deterred Wilson from sending British troops to Vietnam to support their American “allies”.

Having long acted as a magnet for the politically motivated, LSE naturally came to serve as the organizational centre of British student protest against the establishment in general, and the Vietnam war in particular. When I appeared at LSE in October 1968 I was immediately caught up in the political atmosphere – the spirit of revolt was quite intoxicating. Like 1967 San Francisco, it was all exhilaratingly different from Oxford. The political pot came to the boil straightaway with the occupation by LSE students of the School buildings over the weekend of the October anti-Vietnam war demonstration. In an attempt to forestall the occupation, the School’s Director, Walter Adams, officially declared the institution closed, and issued a warning to students and staff members that participation in the occupation would constitute trespass and could lead to expulsion or sacking. Despite this threat, a number of staff members, including myself, became actively involved in the occupation<sup>117</sup>. Over that weekend the place was transformed into a kind of political laboratory with American-style teach-ins and nonstop heated discussion of revolutionary strategy. Rumours that the police were on their way continually circulated. On hearing one such rumour which seemed to have some foundation, my sense of self-preservation momentarily overcame my revolutionary resolve: I hastily made myself scarce, returning only when it became clear that the boys in blue were not going to arrive. A number of French students, veterans of May ’68, and so heroes in our eyes, showed up to instruct us in the craft of poster production, converting the student canteen (the Refectory) into a veritable poster factory. George Wilmers and I enthusiastically churned out a raft of flyposters showing the time and place of the demo. For good measure, we threw in inflammatory slogans such as “The Struggle Begins” and “Down with Imperialism!” At the crack of dawn of the day of the demo, the two of us piled into George’s little Ford Anglia and chugged around East London, stopping here and there to affix our amateurish productions to a series of crumbling walls. As George was doing the driving (necessarily, since at that time I had not even attempted the driving test), the actual affixing was largely my responsibility. In my anxiety to avoid being nabbed by the police for illegal flyposting

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<sup>117</sup> A detailed account of the occupation and of the subsequent “Gates” episode (see below) is given in *LSE: The Natives are Restless*, by Paul Hoch and Vic Schoenbach (Sheed and Ward, 1969).

I performed this operation as quickly as I could, in the process covering myself with glue and rubbing my hands raw.

The demonstration itself, which attracted upwards of 100,000 participants, was the first really large political manifestation in which I took part. It was an uplifting experience. One of the banners, I recall, proclaimed “We are all foreign scum”, mocking the infamous description of the demonstrators by a reactionary Tory MP as “scum from abroad”. At the rally in Trafalgar Square Tariq Ali (a contemporary of mine at Exeter College whom I knew only by sight) addressed the assembly. I was impressed.

Four days after the occupation LSE’s Court of Governors issued a public statement, which contained the following ominous passage:

*...We have considered the position of certain junior members of the staff who are alleged to have to have encouraged and participated in the unauthorized occupation. On this occasion, having regard to the immaturity of those concerned, we take the view that the process whereby staff in clear breach of contract can be dismissed need not be invoked. But we declare that any future attempt on the part of members of staff, senior or junior, to encourage or participate in action on the part of students likely to endanger the integrity and orderly conduct of the School could be regarded as misconduct warranting the termination of contract.*

This was typical of the menacing pronunciamientos issued by the LSE authorities at that time.

The prolonged struggle between radical students and authority at LSE came to a head on the night of 24 January 1969 with the notorious “Gates” episode. In this doomed effort at re-enacting the storming of the Bastille, a group of students, supported by majority vote of the LSE Students’ Union, proceeded to dismantle a number of internal security gates which had been installed, quite provocatively, by the LSE authorities. Certain senior academics ascribed these gates such importance as symbols of authority as to defend them bodily against attack, grappling with the students bent on their removal. Since the “unauthorised” October occupation, a widespread rumour had emerged that the LSE authorities were seeking to close the School so as to weed out the troublemakers. Certainly the “Gates” affair provided the ideal pretext for shutting the place down. That is precisely what Adams did, enlisting the aid of hundreds of policemen in sealing all three LSE buildings later that evening. In a shameful subsequent episode, members of the LSE staff who had witnessed the affair were encouraged to finger any participants as could be identified as they filed out of the building, flanked by policemen. (Apparently this led to just three arrests.)

During the ensuing lockout, which lasted a number of weeks, LSE staff and students underwent a kind of local diaspora, migrating to other London University colleges for classes and lectures. Along with the fellow-members of our fledgling mathematics department, I found



myself chalking the blackboards at Birkbeck College—an irony I noted since I had once been turned down for a position there.

Everyone knew that the authorities were bent on making an example of the perpetrators of the “Gates” affair—at least those who could actually be identified—and rumour had it that a number of “kangaroo courts” were to be held for the purpose of legitimizing the expulsions that would inevitably take place. Those to be “tried” included two lecturers, Nick Bateson in Psychology and Robin Blackburn in Sociology. Neither one was accused of involvement in the actual destruction of the gates —Bateson had, it seemed, merely “encouraged” the students to dismantle the gates, and Robin Blackburn’s “crime” amounted just to his public approval of the gates’ dismantling *after* the fact. Obviously the whole idea of targeting these two was to put the fear of God, i.e., of the LSE authorities, into the rest of us. Bateson and Blackburn were both fired.

Almost as soon as the School reopened the sackings became public knowledge. The students immediately declared a strike, picketing classes and lectures, and in some cases, disrupting them. “Free, Free LSE! Take it from the bourgeoisie!” became a familiar refrain. A squad of the more militant students marched into the School’s Senior Common Room and proceeded to harangue the academics with a loud-hailer. When this threatened to become a daily occurrence, the senior staff members responded by attempting to turn their *sanctum sanctorum* into a fortress. Although I rarely ventured into the SCR, finding the atmosphere there somewhat stuffy, I was, as a member of staff, entitled to do so. When, just for the hell of it, I attempted to exercise my right of entry, I was immediately challenged by an officious senior member of staff with a shrill “You can’t come in, you’re a student!” My long hair, tielessness, and generally scruffy appearance made such (mis)identification natural, but the fact that I had been challenged at all provided sad evidence of the width of the gulf that had opened up between the students and their instructors. Word later came that a gang of militant students —“academic thugs”, as they were identified in the Press — had committed the ultimate sacrilege of removing the portrait of Lord Robbins, the Chairman of LSE’s Court of Governors, which occupied pride of place in the Senior Common Room.

A group of staff members opposed to the sackings issued the following statement, which I signed:

*The undersigned members of the staff of the London School of Economics believe that the dismissal of university teachers for the expression of their opinions alone is a breach of academic freedom; that such action on the part of School authorities is detrimental to the life of the School as an academic institution that makes impossible any solution to the School’s problems. We believe that it is essential for the future of the School that this action be reversed.*

The sole effect of this declaration was to increase the apprehension on the part of its signatories that they might themselves suffer Bateson’s and Blackburn’s fate.

It happened that one of my first-year students, Brian Gallen, had become entangled in this affair. The inflammatory political atmosphere at LSE had quickly transformed him into a firebrand, as witnessed by the newspaper photo bedecking the front cover of Hoch and Schoenbach's book<sup>118</sup> which shows Brian at the School's entrance at the start of the October occupation, arm upraised, beckoning other students to join the fun. He came up for "trial" by the LSE authorities – I cannot now recall whether it was through participation in the "Gates" episode, or whether he had been involved in the later disruption of lectures. He naturally asked me, as his tutor, to write a letter in his support. I regarded the "Gates" business itself as an instance of left-wing infantilism, but I felt sufficient solidarity with courageous defiers of authority such as Brian to agree to provide such a letter. Attempting to summon up a guile which was in truth quite beyond my slender diplomatic capacities, I envisaged that in my letter I would argue against Brian's expulsion on the purely academic grounds of his evident ability as a student, so avoiding actual endorsement of his actions. Given what had befallen Bateson and Blackburn, I was uncomfortably aware that donning the academic mantle might not serve to shield me from being tarred with guilt by association. This was, in fact, precisely what Cyril Offord, the head of department, said to me when I informed him of my intention. But he didn't suggest that I withdraw my support. Indeed, he took a dim view of the heavy-handed way in which the LSE authorities were attempting to deal with the situation. In any event my offer stood, and I actually drafted the letter. Fortunately for me, Brian decided to withdraw from LSE before his hearing was due to take place. I later heard that he had become the manager of a rock group.

At the time I joined it, the LSE Mathematics Department was not, strictly speaking, a separate entity, but an offshoot of the well-established Department of Statistics. There were just four of us mathematicians: the elderly Professor and Head of Department, Cyril Offord, a prominent analyst and an FRS; Haya Freedman, an algebraist; and the two recent appointees, Dick Hornblower, another analyst, and myself, unquestionably in need of one. Dick and I had been assigned a shabby office on the ground floor of the Dickensian building in Clare Market that LSE was then using to accommodate its influx of new staff. We were both amused to see "Mr. Bell and Mr. Hornblower" painted on our office door: juxtaposed in this way, our names evoked the nautical associations of swabbed decks, billowing topsails, and walking the plank. The building itself boasted a porter tucked away in a tiny office complete with coal fire. Among that worthy's duties was tugging on the ropes (whose exact function still escapes me) of the antique lift that conveyed the occupants of the upper floors – chiefly employees of obscure legal firms – precariously to and from their places of employment. It all seemed straight out of Dickens. Dick and I soon found sharing a room irksome, so I decamped to a minute unoccupied office nearby. This cubbyhole was even smaller than my Ovington Square broom closet – indeed could barely accommodate a desk and chair – but it did provide privacy.

As a newly minted Assistant Lecturer in Mathematics, I had been charged with teaching a portion of the portmanteau course Real Variable, Analysis and Mathematical Methods. I chose

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<sup>118</sup> See previous footnote.

Analysis, interpreting it as my beloved General Topology. Lacking experience in lecturing to undergraduates, I mistakenly adopted a Bourbakoid approach, starting my course with a number of arid definitions. Not surprisingly, my audience was completely mystified, with the result that at the end of my first lecture I found myself pinned against the blackboard by a squad of the class's more demonstrative members demanding an explanation. I proposed that we repair to the pub, where enlightenment could, I felt sure, be attained through the downing of sufficient pints of ale. This is how I got to know the members of my first undergraduate class.

Soon after I arrived at LSE I was contacted by a reporter from the *Daily Telegraph* in connection with an article on ex-prodigies she was writing for their colour magazine. She was interested in finding out what I was doing now and whether I had fulfilled my early promise, and proposed an interview. In an access of modesty I now regret, I told her that, rather than bothering with me, she should seek out *echt*-prodigies such as Jascha Heifetz or Yehudi Menuhin. How little I then cared about my past!

In the late 1960s a number of curious and interesting characters were swept in by the LSE vortex. One such was Marty Siegel, an intense pale slender red-haired fortyish New Yorker. He could be found in the Refectory at all hours of day or night scribbling away at a mysterious manuscript. I can't recall exactly how I got to know him, but no one within close range of this singular fellow could fail to hear his feverish talk. His favourite theme was the Nixon administration's intent to establish Nazism in the USA. Still ringing in my ears is his pronouncement, in his strong Brooklyn accent, "Do you *realize* that they're setting up *concentration camps* in Central Park at this *very moment*?" He took a shine to me when he learned that I was a mathematician, claiming that he was an ex-mathematician, having been at one time a graduate student in algebraic geometry at Columbia. And indeed he did have a fragmentary knowledge of advanced mathematics, a familiarity with mathematical terms such as manifold and sheaf and illustrious mathematicians' names such as Eilenberg, Serre and Grothendieck. So emerged a curious kind of comradeship between us, which culminated in his handing me one day a typescript of what proved to be his youthful reminiscences. Finally I had found out what he was continually scribbling away at! I read through the manuscript, but retain only a vague recollection of its contents: the story of a nice Jewish boy from the Lower East Side, the apple of his mother's eye, an aspiring mathematician, graduate student at Columbia, dropping out...etc. etc. Except for the last part, I wasn't sure how much was invention — not that it mattered! It was never clear what Marty's current occupation (if any) actually was. He claimed to be a political essayist for an underground newspaper he identified as "Red Rat", as well as the manager of a ballet troupe. But Marty's status as an ex-mathematician was confirmed when one day he introduced me to a friend of his, a bona-fide mathematician at New York University, who said that he and Marty had been fellow students at graduate school. Marty hung around LSE for a couple of years, and then dropped from view.

Of all the oddballs I met at LSE, the oddest and most memorable was Richard B. Beall — "Dick" to his friends, hence "Big Deal", in my affectionate near-Spoonerism — a hard-drinking American in his late thirties then pursuing a Ph.D. in operational research part-time. He was a

spontaneous, sprawling character with whom I hit it off instantly. He had acquired a reputation among the students for his largesse in standing everybody rounds of beer in the LSE bar, and I was doubtless on the receiving end of his generosity at our first meeting. By my impecunious British standards, Dick earned a vast salary, enabling him to house his family in Thames Ditton, a posh suburb in the stockbrokers' belt south of London. With his crewcut, grey suit and clip-on tie, he appeared every inch the American executive he in fact was – employed in some capacity by a company affiliated to NATO (for me an irony: see below). But it soon became clear that behind Dick's grey flannel suit lurked a soul whose unconventionality exceeded even that of the bearded (in my case unbearded) freaks for whom he stood drinks. Who else but Dick would build a treehouse for his children and, goaded by their lack of interest in the thing, perch in it himself – in pajamas – swigging away at a whisky bottle, to the consternation of his staid neighbours? And no one but Dick could have had the delightful notion – of a truly American wackiness – of naming his son Richard B. Beall IV, jumping two generations so as to achieve additional class. Dick came to regard me as a kind of honorary younger brother. He was delighted when I passed my D. Phil. oral examination, and threw a celebratory party – at which the two of us got thoroughly smashed. Dick suffered from manic depression and in his youth had, he told me, been subject to delusions. As a 19-year-old in Illinois he had become convinced he was God, upon which his alarmed parents quickly committed him to a mental institution. But somehow he later managed to make good. Dick was fascinated by the sinister and remarkably persuasive creed of Scientology and tried to convince his research supervisor Frank Land that an analysis of its "operational effectiveness" in having successfully converted whole swathes of American corporate executives to its creed might constitute a suitable thesis topic. Knowing Dick, I felt that this was a case of "there but for the grace of God went he," so I wasn't surprised when Frank demurred. I was startled, though, when Dick then asked me if I would be willing to take him on as a Ph.D. student. I declined, for, close as I had come to feel to Dick, the idea of acting as his supervisor was simply too bizarre. Also I had already attempted to read through some of his drafts, offering, at his insistence, suggestions for improving his style. My heart sank when he presented me with his "finished" typescript, a jungle of prose through which, as a friend, I had no choice but to hack my way. I buckled down to the task, ruthlessly expunging what I regarded as barbarisms and extirpating whole thickets of redundancy: I recall scoring through a complete paragraph of Dick's jargon and replacing it with the phrase "such that". Dick's long-suffering Belgian wife Yvonne, with whom I also became friends, had stood by him for many years, but by 1971 relations between the two had become sufficiently strained for Dick to move in temporarily with Mimi and me at our Finsbury Park flat, before he departed to take up a new job in Texas. That was the last I saw of Dick. A few years later I was saddened to learn from Yvonne that he had died of a heart attack in 1978 at the age of 51. He was a dear, unique, uninventable man, and I still miss him.

Imre Lakatos, my original LSE contact, was one of the most colourful members of the LSE faculty. Trained originally in mathematics, he had been an active member of the Hungarian communist underground during the war. Later he rose to a prominent position in the Hungarian

Ministry of Education, only to be purged, as were many sincere communists, in the early 1950s. He escaped to the West during the 1956 uprising, took a second Ph.D. at Cambridge, and joined the LSE philosophy department, where Karl Popper – the great philosopher of science who had become Lakatos's idol after his disillusionment with communism – still taught. (Popper retired from the LSE in 1969, so the two of us were, technically at least, colleagues for a year.) Lakatos's academic fame rested on *Proofs and Refutations*, the published version of his Cambridge thesis. In this brilliant, polemical work, the tangled history of the development of Euler's polyhedron formula  $V - E + F = 2$  is dissected by Lakatos with infectious brio. The text bears witness to the continuing influence on him of the Marxist dialectics of his youth – a fact causing some embarrassment to the work's conservative editors when it was finally published in book form in 1976, two years after its author's death. But by the time I met Lakatos he had become a model reactionary, an "inverted Stalinist" in Moshé Machover's apt phrase. Imre was shrill in his support for U.S. policy, in Vietnam and, indeed, everywhere else; he identified the Soviet Union as an evil empire, long before Ronald Reagan popularized the phrase. I felt fortunate that I was not a member of his department, since, had I been, our widely divergent political views might have sparked off something more serious than the mere verbal sparring we happily, and harmlessly, engaged in.

Imre's volatility, capacity for dramatization, and massive, yet curiously vulnerable ego were all reminiscent of the stage Hungarian, as if straight out of a Molnar play. Imre was known for the sharpness of his wit, an attribute to which I can testify when I recall the occasion on which he had invited Michael Dummett to speak at his seminar. Before Dummett's lecture Imre and I had been going at it, as usual, hammer and tongs (if not sickle): somehow the subject turned to the Soviet authorities' recent incarceration of political dissidents in psychiatric wards, a repellent policy with which Imre seemed to associate all "leftists" such as myself and "liberals" such as Dummett. Imre was still gnawing away at this bone of contention as we entered the lecture hall. Soon after the start of Dummett's lecture, Imre excitedly scribbled a note and passed it to me. It read: "The political views of people like you and Dummett will eventually land both of you in a psychiatric ward." Quickly I scrawled back: "If so, you'll be there with us." Imre topped this with: "Yes, but I'll be the warden!"

Clausewitz, famously, defined war as "the continuation of politics by other means". For Imre, this phrase served to define philosophy, or his brand of it, at least. He was still sufficiently Marxist to cleave to the view that "the philosophers have interpreted the world – the point is to change it", even if the world he was now bent on changing had shrunk to no more than the arena of professional philosophy. He fought an unceasing battle against the Oxford philosophical tradition, which he saw as both ingrown and effete, and whose domination of the British academic scene he thoroughly resented. (I took it that he forgave me my attendance at that antique institution on the grounds that I was a mathematician, not a philosopher.) Imre's combative nature caused him to fall out even with his allies. In an unparalleled act of apostasy, he provoked a schism in the Popperian "church" by rejecting his mentor's doctrine of pure refutationism, and substituting his own "methodology of scientific research programmes".

Master and ex-disciple hurled anathemas at each other virtually until the day of Imre's death. Paul Feyerabend, the prominent philosopher of science and, latterly, controversialist, was another former ally of Imre's who showed up at LSE now and then. When Feyerabend came to advocate his notorious "anything goes" attitude toward science (which struck me as a pose, a way of cocking a snook at the academic establishment—a bit of a lark in fact), Imre took up the cudgels in defense of scientific responsibility, denouncing Feyerabend's anarchism as an outrageous dereliction of intellectual duty.

But Imre himself had an irresponsible streak, which sometimes got him into trouble. I well recall the occasion on which Mostowski, then visiting Oxford, came to speak at Imre's seminar. We had all been invited to dinner afterwards by Moshé Machover. On the way over Imre treated us to a somewhat boastful account of how he had managed to extinguish a fire in his flat's curtains by pulling them down with his hands—his fingers, amazingly, suffering no ill effects. I remarked that either this was a miracle or he must have asbestos fingertips. This amused everyone except Imre, who rarely appreciated other people's humour. Later, at dinner, Mostowski mentioned his concern about mounting an effective defense for a number of his students who, as political dissidents, had run into difficulties with the Polish regime. He then asked Imre what he would do in similar circumstances. Imre responded flippantly that they would simply have to sink or swim—it was no responsibility of his. Shocked by this reply, Mostowski told Imre that he regarded his attitude as nothing short of irresponsible. The evening ended on a somewhat sour note. Before this contretemps Imre had sung Mostowski's praises without cease; I noted that, a few days later, he had changed his tune completely.

Imre's communist past naturally made him an object of suspicion in the eyes of the British political authorities. Rumour had it that, despite his fervent disavowal of Marxism, he never succeeded in acquiring British nationality. I recall entering his office one day and spotting an unopened parcel on his desk addressed to "Sir Imre Lakatos". Pointing at it, I remarked, "Wishful thinking, eh?" His reply: "Yes, now they're confusing me with Sir Karl!" — Popper having been knighted in the 60s.

Imre ran his department along the lines of a Renaissance studio, with a touch of Hollywood thrown in. Responsibility for the grand design was his alone, leaving minor details to be filled in at his direction by his apprentices—that is, his graduate students. When Mike Hallett, whose reputation in the philosophy department had been secured by obtaining the top First of his year, expressed the desire to study the philosophical foundations of set theory with me, Imre raised two objections: that mathematics was generally much too difficult for philosophers, and that in any case he, Imre, had already assigned Mike his niche in the grand scheme of the methodology of scientific research programmes (I can no longer recall what that niche was). In the end I convinced Imre that Mike's mathematical talents were more than adequate to meet his first objection. But Imre refused to give way entirely on the second, insisting that Mike find a way of fitting his work into the grand design.

Imre had fought hard to achieve his position, and could be very aggressive in its defense, as is shown by the following episode. My student Graham Priest wanted to obtain his Ph.D. in philosophy, rather than in mathematics, as would normally have been the case in my department. I told him that I'd look into the matter, suggesting that a compromise solution might be to call it "philosophy of mathematics." Somehow Imre got wind of this, and as a result I was subjected to a midnight phone call from the great man, in which he spluttered, with his Bela Lugosi accent, "I am ze philosopher of ze mathematics at ze LSE and *you* have no status in awarding degrees in philosophy." So Graham had to be content with a doctorate in mathematics.

It was through Imre – as editor-in-chief of the *British Journal for the Philosophy of Science* – that I came to write my first book review, of S.W.P. Steen's *Mathematical Logic: with Special Reference to the Natural Numbers*. Steen had acquired a legendary reputation amongst Cambridge mathematics undergraduates for the impenetrable obscurity of his lectures. Although I had never attended Steen's lectures myself, I had seen the arcane examination questions, expressed in his own peculiar notation, it was his habit to set in Part III of the Cambridge Mathematics Tripos. These would typically assume the form: *Show that  $\exists_{\Pi} d'' \Upsilon \in L\S$* . While at Cambridge Imre had attended Steen's lectures, and the experience still rankled. He required from me less a review of Steen's book than a demolition job. Although I could not disagree with Imre that Steen's tome, of some 640 dense pages, was hardly a masterpiece of exposition, I was unwilling to assume the role of hatchet man, and so I turned in a brief neutral review à la *Mathematical Reviews*. Imre was most unhappy with my effort, claiming that it was too short, by which I knew he meant that it was insufficiently critical. I returned to the drawing board and produced a piece peppered with references to the book's shortcomings (which were, truth to tell, all too easy to find) to satisfy Imre. I vowed that in future I would review only books that I could praise without reserve, a promise I have kept.

The rift between Imre and Karl Popper was underlined in an amusing way. After Imre's death Mike Hallett was commissioned to catalogue his extensive collection of philosophical books, which his partner Gillian had bequeathed to the LSE library. This involved Mike's making a number of trips to Imre's Hampstead flat, where the books were assembled on shelves stretching from floor to ceiling. These shelves were supported by uprights, a number of which had been camouflaged to resemble the spines of books. According to Mike, the section devoted to Popper contained a support bearing the title *The Open Society, by One of Its Enemies*.

Imre died suddenly in 1974, at the early age of 51. With his passing the colour faded out of the LSE philosophy department.

While my relations with my LSE colleagues were, on the whole, harmonious, it was from among the graduate students that I drew my closest friends: Gregory and Melina Serafetinides, whose warmth and boundless hospitality led to many delightful dinners at their well-appointed flat in South Square; Peter Clark, whose unusual height and thinness led me to nickname him the "One-Dimensional Man"; Graham Priest and John Lake – my first Ph.D. students in mathematics – whose long hair and beards gained them the appellation of the "two Jesuses"; Ross

Skelton, a sardonic Irishman then studying philosophy at University College; Mike Hallett, of all my students the one to whom I came to feel closest; Denis Gloess, a handsome young Frenchman from the *École Normale Supérieure*, whose “temporary” billeting with us between landladies stretched to three months; and my Italian student Marco Santambrogio, through whom I came to learn of the glories of Tuscany.

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I first glimpsed Mimi, my dear wife of more than three decades, pounding a typewriter in the office she shared, as a permanent temp<sup>119</sup> in Operational Research, with Barbara Silver, the mathematics department secretary. Succumbing instantly to Mimi’s Oriental charm, I started to hang around the office trying in my shambling way to scrape up an acquaintance with her. Eventually I succeeded in persuading her to accompany me to the British Museum, just a few minutes’ walk from the LSE. I’d somehow conceived the notion that Mimi was Japanese, and as we wandered around the museum I claimed—in a ludicrous effort to impress—that I could distinguish a Chinese from a Japanese on appearance alone. Naturally, she then put my so-called ability to the test, asking me which I thought she was. “Japanese,” I asserted confidently. “Ha! I’m Chinese,” she responded, the triumph evident in her voice. “Oops,” was all I could come up with at that point. Having successfully made a complete fool of myself within the first five minutes of our first date, I desperately sought some way of redeeming myself. My opportunity arose when Mimi told me that she was Singaporean. I immediately launched into a disquisition on, of all things, urban monkeys, which I happened to know were common in Singapore and other South East Asian cities. She seemed impressed by my apparent familiarity with this subject. Sadly, my status as an expert on urban monkeys collapsed when I let slip the fact that everything I knew about them had been gleaned from the pages of a recent number of the *Scientific American*.

Despite this initial fiasco (and Barbara Silver’s warning Mimi that I was mad), we began to see each other with increasing frequency. Mimi’s spoken English was peppered with Singapore usages, which I found amusing. For instance, in expressing disgust, she would not say “ugh” but “ughs”. She also had a trick of displacing stress from verb to pronoun. So, for example, in place of “You should have *told* me”, Mimi would say “You should have told *me*.” To this I would quip, “As opposed to the man in the *moon*,” the sort of remark which mystified Mimi at first, but to which she soon began to respond with “Oh John, you’re so *irritating*!” Speaking of the moon, I recall that when one evening I pointed to the full moon with an extended forefinger, Mimi informed me that according to Chinese folklore in doing so one risked having the tip of one’s finger turn into a snake’s head. Mimi would also on occasion say “hand” when she meant “(fore)arm” — because, as she explained, in Chinese, the term “hand” signifies that part of the arm extending from elbow to fingertips. (After Mimi and I were married I joked to her that instead of

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<sup>119</sup> The term “temp” was used for a secretarial worker provided by an employment agency ostensibly on a temporary basis. Once a temp had held her job for a sufficient length of time she was deemed to be “permanent”.



complaining “I’m sick and tired of waiting on you hand and foot”, she would come up with “I’m tired and sick of waiting on you arm and leg”.) A memorable linguistic mixup arose as a result of Mimi’s interest in swimming. I was impressed that she had been a swimming champion at her high school in Singapore. One day she told me that she was going for a swim, and in all innocence I asked her “Do you use the ULU pool?” – meaning the University of London Union, commonly known by its initials. To my bewilderment, she bristled at the question, demanding angrily to know what I meant by “the ULU pool”. When I explained, she told me that she had thought I was ridiculing her, since in “Singlish” (Singapore English) the term “ulu” is the equivalent of “the sticks” or “fifty miles from nowhere”. (But how could I have known this usage of the term? Maybe Mimi thought that I learned it in connection with my research on urban monkeys.) Another instance was the occasion on which Mimi pulled from her purse a cylinder of the Singaporean plum wafers<sup>120</sup> she adored and offered me one. “An aphrodisiac?” I enquired hopefully. “After this what?” was her response.

Sometime in 1969 Mimi moved into a flat near Archway, not far from the Talbot Road apartment I was then sharing with Jumbo. Mimi’s flat, which she shared with Sarah Schofield, an LSE sociology student, occupied the top floor of a dilapidated house owned by an obsessive Greek Cypriot, whom we quickly christened “Mr. Acropolis”. This character, a Levantine counterpart to the yet uninvented Basil Fawlty, made my landlady Mrs. Cliffhanger seem positively enlightened. The instant Mimi and her flatmate moved in, Acropolis emerged, as if from the woodwork, and commenced to lay down a number of curious rules and regulations. Among these was the injunction that there were to be no more than two visitors on the premises at any one time, since, as Acropolis put it, the presence of any more “might cause the floors to give way” – an eventuality the decrepit condition of the place made all too likely. He also urged that use be made of the vacuum cleaner that he had, with unparalleled generosity, made available. He evidently took great pride in this appliance. Tenants had only to phone him up and ask if they could borrow it. “Sometimes I say yes, sometimes I say no,” he finally announced with proprietary satisfaction. (“And sometimes,” I quipped, “I let the vacuum cleaner do the talking.”) I don’t recall Mimi and Sarah rushing to take up Acropolis’s handsome offer. In any case it would have been foolhardy to apply a vacuum cleaner to floors that, according to the man himself, might collapse under the weight of a mere extra guest. Another of Acropolis’ idiosyncrasies was his apparent fascination with the contents of his tenants’ dustbins. He could often be seen in the morning subjecting these to minute scrutiny, as if in search of some discarded treasure.

Mimi and I marched together on a number of anti-Vietnam war demonstrations, one of which was the massive effort in London in 1970 in protest at Nixon’s enlargement of the war to Cambodia. In an attempt at preventing protestors reaching the American embassy in Grosvenor Square, police on horseback mounted a charge. This induced a human wave in the phalanx

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<sup>120</sup> These are similar in size and shape to the Necco wafers with which I was familiar from my American upbringing.

coursing down the narrow street in which we happened to find ourselves, with the result that, literally, and frighteningly, Mimi was swept off her feet: instinctively, I grabbed her and tried to keep both of us from being sucked under. By some miracle we contrived to struggle our way through the crowd, emerging shaken but unscathed.

My first exposure to the delights of Chinese cuisine came through accompanying Mimi to restaurants in Soho's Chinatown. At that time it was unusual, even in London, for Chinese girls to go out with Western boys, and it was obvious that the Chinese waiters took a dim view of our appearance together. We often had to wait unconscionably long for our order to arrive – the old "slow boat from China" routine, I called it. While we cooled our heels the waiters would mutter in Cantonese (not Mimi's dialect, but she could understand more or less what they were saying) "What's she doing with a red devil? Aren't Chinese boys good enough for her?" The ultimate affront to the waiters at one Soho restaurant was delivered when Mimi showed up for lunch one day with no fewer than three barbarians in tow – Jumbo, Pete Duncan and myself.

My long hair and NHS specs, coupled with Mimi's evident oriental origins, lent us as a couple a superficial resemblance to John Lennon and Yoko Ono. Walking together through the London streets in the late sixties we would occasionally hear the cry "John and Yoko!". "It's Mimi, not Yoko!" I would shout back, equivocally. I had always assumed that nobody really took us for John and Yoko until we made our first visit to Michele and Spencer following their move from Albert Dock to Dorking. They later told us that soon after our departure one of their neighbours rushed over and asked in all earnestness whether the visitors she had seen arriving had been John and Yoko. (Evidently the locals regarded Michele and Spencer as sufficiently glamorous for such a visit to be within the bounds of possibility.) The lady was understandably disappointed to learn that we were not the famous couple.

Mimi and I soon decided to shack up together. The obvious place for us to set up house was at 32A Talbot Road, which meant displacing Jumbo, who fortunately was able to find himself a new billet up an adjoining street. Later he and Pete Duncan bought a flat in Southfields near Wimbledon.

In the summer of 1970 Mimi and I stayed with Ross Skelton and his family at their farmhouse in County Antrim. This was situated near a hamlet called something like Ballycronanmoor; I'm sure the "Bally" is right because every other village in Antrim is called Ballysomething. That part of Northern Ireland is quite beautiful, lushly green, but also notorious for its overcast skies and incessant drizzle. After a week or so we began to crave even a scintilla of blue. While we were there we made a number of pilgrimages to the local shrines. On a visit to the seaport of Carrickfergus Ross pointed out the place, marked by the imprint of a horseshoe, where William III is supposed to have disembarked in 1690 on his way to fight and win the Battle of the Boyne. Noting that the horseshoe pointed seawards, I remarked undiplomatically that William, or his horse at any rate, must have been in a hurry to return to England.

Ross and his father, a rather dour gentleman, were not on the best of terms, and as a result the atmosphere at the farmhouse was somewhat tense. I fear that I inadvertently made the

situation worse. Ross and his brother, Jocelyn (known as “Joss”) decided to do some digging in the garden. In a misguided attempt at showing *esprit de corps*, I picked up a spade and followed suit. After a few thrusts I heard an ominous hissing sound, and a cascade of water began to bubble up. What had I done? Mr. Skelton was furious to find that I had succeeded in severing the underground rubber pipe served as the water main supplying the house. Mr. Skelton didn’t express his anger by shouting or shaking his fist at me, but it could be read from his scowl and baleful silence. One evening we were invited to a party thrown by one of Mr. Skelton’s buddies. Good Irish whiskey flowed in abundance but orange squash had been laid on for those who, like Mimi and Ross’s new German wife Carla, felt uninclined to partake of the hard stuff. Strangely enough, after an hour or so the squash drinkers began to stagger about in what seemed a remarkably convincing imitation of drunkenness, quite outstripping the whiskey drinkers (including myself) in that regard. It transpired that the host had slyly spiked the squash with vodka. For all I know, it may have been a local custom to spike ladies’ drinks, but it came as an unpleasant surprise to Mimi and Carla, both of whom became thoroughly sick.

Soon after our return to London Mimi received an alarming communication from the British Home office stating that her student visa was to be withdrawn and that she would accordingly have no right to remain in the country. She contacted an immigration official as to what she could do to avoid deportation, and was told that her sole recourse would be to acquire British nationality by finding a British husband — “and *that’s* not very likely, is it?”, the bureaucrat adding nastily. What of course the man didn’t know was that Mimi did have a potential British husband — myself. Clearly, marriage had become a necessary condition for us to remain together. (As Stan Aquarone observed after we tied the knot, “Some people have shotgun weddings, yours came courtesy of the British Home Office.”) But still we wavered. In an unconscious updating of *Hamlet*, I told Mimi that, if marriage could be effected by the mere push of a button, I’d be the first to push it: to push, or not to push! Of course, my problem, unlike Hamlet’s, was to locate the button. I found and then pushed my own button after a sleepless night at George Wilmers’ flat in Manchester. George had provided us with what looked like a perfectly serviceable mattress on which to bed down. But it proved to be stuffed with a variety of curious sharp objects which surfaced throughout the night. After tossing and turning till daybreak on this bed of nails, I finally broke down and asked Mimi for her hand. My proposal was accepted (but Mimi wisely hung on to her hand) and we quickly advanced to the next hurdle: how to present our impending union to Mimi’s parents without giving them heart attacks. As traditional Chinese, they would take an even dimmer view of our relationship than had the Soho waiters — the very idea of their youngest daughter marrying a Western barbarian (a red-haired devil, in Chinese parlance) would be nothing short of anathema. (It mattered little to me what my own father thought of an interracial marriage, but I was somewhat disappointed to learn that he had reservations about the idea, even though he claimed later to have overcome them.) Mimi’s sisters kindly assumed the responsibility of breaking the news to her mother, who could not in any case have been prevented from hearing of it. Alarmed at first, Mimi’s mother was relieved when she learned that her daughter’s prospective husband, while non-Chinese, was at least a scholar of some sort (however obscure).

It was felt that Mimi's father, who was considerably older than her mother and in failing health, should be spared the full blow, so he was told that I was "half-Chinese", thereby receiving, presumably, a mere half-blow. I suggested half-seriously that perhaps I should send a photograph of myself suitably doctored to furnish me with oriental features—along the lines of the current "Tricke Dick" cartoon which showed an orientalized Richard Nixon on his much-publicized visit to China. Needless to say, this suggestion was not acted on.

So it was that on the morning of 28 November 1970 the "three me's" (as I had come to refer to Mimi and me) formally tied the knot at the Wood Green Register Office. In close attendance at this historic ceremony were some of my dearest friends—Michele and Spencer, George, Jumbo and Pete Duncan—as well as Mimi's niece Ling. Mimi recalled that at the crucial moment the presiding official mispronounced her full name—*Mimi Lian Eng Chia*—and I, ever the pedant, corrected him. Afterwards we repaired to 32A Talbot Road for an extended bout of revelry. A number of our friends drifted in and out during the day—George's mother, Nick and Demo, Demo's mother, Sarah Schofield, our Peruvian friend Luis Pacheco, and probably others whose presence I cannot now recall. Dick Beall showed up brandishing a bottle of Scotch; he managed to get Jumbo thoroughly drunk—the only time I have ever seen this happen. Around 2 a.m., now peckish, we trooped down with the remaining revelers to Soho for a Chinese meal. I cannot recall how we got there—it could not have been by tube since they had stopped running for the night. The following day, a Sunday, Mimi and I surfaced in the early afternoon feeling delightfully light-headed. We wandered around Lincoln's Inn Fields, where Mimi took a few snapshots of me bedecked in her purple felt hat and billowy Indian scarf, which I had zany insisted on donning. The affair was wholly sixties self-indulgence à la *Barefoot in the Park* or *Breakfast at Tiffany's*—but we were happy and cared not for what the morrow might bring.

Once our nuptial ecstasies had subsided, Mimi and I took stock of our situation. The most pressing issue we faced was that of finding an unfurnished flat—an apartment uncluttered, that is, with the monstrosities passed off as furniture by a troll, resident or not. At that time such occupancies in London were extremely scarce, owing to the fact that rent controls applied only to unfurnished flats and not to their furnished counterparts. (Of course this meant that an unscrupulous landlord could contrive, usually with success, to delete the "un" in an unfurnished flat by throwing in a couple of seatless chairs, a three-legged table, and sufficient morsels of cheese to attract a few companionable mice for the ultimate domestic touch.) Unfurnished flats, with their low regulated rents, were treated by their tenants as precious heirlooms, to be handed down with discrimination from one generation to the next. On the rare occasions on which one of these desirable billets changed hands, it was accompanied by the disbursement of the so-called "key money", a sum whose exorbitance varied, in the Newtonian manner, with the inverse square of the rent, and for which one received nothing in return but the latchkey.

Our unfurnished Xanadu turned up as the result of a happy chance. Driving through Highbury Corner one day, Jumbo and Mimi happened to spot a "Flat to let (unfurnished)" sign posted in the display window of a furniture store, London Ideal Homes. We were pleasantly surprised to find on enquiring there that a three room unfurnished flat was indeed available to

let, at the amazingly low monthly rent of £23.83. To secure the place we had merely to purchase £300 worth of furniture from London Ideal Homes. While £300 was a considerable sum (my annual salary at that point not exceeding £1500), unlike key money it would at least be parted with for the purchase of something tangible. Fortunately by that time I had received the initial royalties for *Models and Ultraproducts* which more than covered the amount.

We were taken to view the apartment by a Mr. Coffey, an affable salesman type. The place proved to be the very opposite of a flat, its rooms dispersed among the top several floors of a large 19<sup>th</sup> century terrace house in Alexandra Grove, just off Seven Sisters Road adjoining Finsbury Park. We trod up a grimy windowless staircase to an entrance door which, like an Oxford oak, was hinged to open outwards – but instead of concealing, as at Oxford, yet another door, it opened directly onto a short steep flight of steps leading upwards to the first landing. The apartment consisted of three large rooms, one per floor, each of which was gratifyingly empty. We were delighted with the place and eager to take it. Mr. Coffey scribbled something in a notebook and told us that the place was ours provided we came up with the furniture money. I was curious to see what he had written and managed to get a look at his notebook. I was taken aback to spot, among the various annotations concerning our suitability as tenants, the observation “wife Chinese”. Mr. Coffey’s affability suddenly seemed rather less appealing. In those days of racial discrimination, we might well have been turned away had either of us been black. But as a Chinese Mimi must have counted as an honorary white.

So all that remained was the selection of the furniture. Unfortunately, the merchandise London Ideal Homes had to offer consisted chiefly of mint versions of the chintzy old furnishings which we were so eager to see the last of. Finally we settled on an immense double mattress and two large pieces of carpet, one red, one blue. These came to no more than £300, to the chagrin of the salesman who kept urging us to buy more.

Setting up house for ourselves for the first time provided the exciting opportunity to exercise our fancy in choosing the décor. In particular we ventured beyond clinical white to the use of more daring colours. We painted the end wall of what served as our living room an iridescent red. The top room we covered completely in psychedelic purple, with carpet to match. In a fit of extravagance, we smothered the walls of the small bathroom with fuzzy Indian restaurant wallpaper.

Located within easy reach of Central London, our new establishment—which we quickly dubbed Alexandra Groove—proved highly attractive to visitors, and they arrived in what seems in recollection a continuous stream. Peter Riswold, whom I had not seen for a number of years, was an unexpected early arrival. Peter had developed into a good chessplayer—naturally he made mincemeat of me when I foolishly accepted his challenge to a game. I was curious to see what would happen when he encountered a really accomplished performer like George. Peter was beaten, but he cheerfully accepted George’s superiority as a chessplayer.

Another early visit to our newly founded establishment was paid by Mimi’s mother on the only trip to the West she ever made. Mimi had told me that it would please her mother if I were

to call her “Meh”, the Hakka (Mimi’s dialect) version of “Ma”. The uttering of a mere monosyllable being well within my grasp, I did so, and I was moved to see Meh’s face light up. I recall how pleased she was with the breakfast I cooked for her one morning, complete with sausages and tomato. As a high-born Chinese lady, she had never so much as boiled an egg, so my humble efforts must have impressed her. We got along very well, undoubtedly aided by (but I hope not entirely due to) the fact that her English was on a par with my Chinese, that is, nil.

A later house-guest was the Argentinian logician Max Dickmann, whom I had first met in 1969, and who had recently been rendered jobless by Pinochet’s coup in Chile in September 1973. It is a testimony to Max’s mental toughness (a quality in Moshe Machover which I also admired) that the loss of his job and the brutal obliteration of his political hopes (for more about which see below) had failed to demoralize him. Of course he still had mathematics – Max was, and is, one of the most dedicated mathematicians I have ever met. I have always admired him for his devotion to the subject. By comparison my own relationship with mathematics amounted, I felt, to little more than a youthful flirtation.

Mimi and I offered Max the use of our spare room as a London base while he searched for a new position. During the weeks he lodged with us we spent many evenings in heated political and mathematical discussion, deepening my feelings of camaraderie with him. I was delighted to find that we shared a sense of humour – an indispensable attribute in any houseguest of ours. Max took instantly to the sublime nonsense of S. J. Perelman, excerpts from whose writings I would regularly read out loud after dinner. *Insert Flap ‘A’ and Throw Away, A Farewell to Omsk, Farewell, My Lovely Appetizer, Westward Ha!* – I could scarcely believe my eyes on first reading these pieces, nor could Max believe his ears when he first heard them. Max was also greatly amused by the so-called “cat vibrations”. This remarkable phenomenon came about by placing our tabby cat “Pussoids” on a ledge on the kitchen cupboard, and tickling her back paw nearest the cupboard door. This induced a rapid vibratory motion of the paw against the door, producing a drum-like tattoo. Another of this singular feline’s accomplishments, which I proudly demonstrated to Max, was her retrieval of corks. If one was thrown down the stairs, she would rush off in dog-like pursuit, catching it in her mouth before it reached the bottom, and then scamper back up the stairs and deposit it on our bed. Even more canine was her habit of picking up a cork in her mouth, dropping it in front of us, and waiting for it to be thrown for her retrieval. I don’t doubt that, like the fabulous Siegel felines, she could also have mastered the technique of stamp-licking, but this was never put to the test.

Mimi’s brother-in-law, who ran a television rental and repair business in East London, sold us a series of reconditioned sets at nominal prices. Each would last a few months, and then expire with a loud bang, a blinding flash, and a puff of acrid smoke. It was on the murky screen of one of these temperamental contraptions that we watched the historic struggle in the summer of 1972 between Bobby Fischer and Boris Spassky for the world chess crown. This, the sole occasion on which a chess match held the world’s attention, was a singular combination of drama and farce. Fischer’s erratic behaviour made it unclear whether the match would actually get off the ground. After a late start Fischer lost the first game through comparatively weak play. Then he made a

fuss about the presence of television cameras, which led to his failure to turn up for the second game, thereby forfeiting it. At this point most observers believed that Fischer, now 2-0 down, had self-destructed. But he made a spirited comeback and eventually beat Spassky 12 ½ – 8 ½ . Conducted at a rarefied level, this was one of the most remarkable battles of the Cold War.<sup>121</sup>

Also memorable, if for different reasons, was the battle that took place early in 1972 between the mineworkers' union and the Tory government of the day, led by Edward "Grocer" Heath. In January the miners struck for the first time since 1926, to which Heath responded by imposing a three day working week and rotating power cuts. Government spokesmen suggested ludicrous power saving measures such as sharing baths and brushing one's teeth in the dark. The nadir of absurdity was plumbed by Patrick Jenkin, a minor minister in Heath's cabinet, who in an interview claimed that he had taken up shaving in the dark, later admitting that he used an electric razor. The 1972 strike was resolved within a few weeks, but when two years later the miners struck again, Heath's government was toppled.

Fond as we had become of our quarters in Alexandra Grove, it had to be admitted that the neighbourhood itself was somewhat grotty. The area had become a notorious red light district. This was brought home forcibly to us when one evening we answered a knock on our door to admit a police constable who told us that he was "making inquiries into the recent violent demise of a young woman of these parts", or some such locution. It seemed that, a few days before, the poor woman, a prostitute, had been murdered just around the corner. The constable wanted to know whether we had seen or heard anything "out of the ordinary" at the time in question. We responded in the negative, adding that, in these parts, drunken shouting in the street below at night was hardly unusual. I don't know whether the murderer was ever caught.

The Finsbury Park area was crowded with pubs, most of which were sawdust and spittoon joints on the order of the Malemute Saloon, into which one ventured at one's peril: I christened them "The Broken Arms", "The Old Ruptured Spleen", "The Fractured Skull and Bludgeon", etc. Once Mimi and I came across a trail of bloody footprints on the sidewalk leading from one of these establishments straight into the nearest betting shop, of which there was also no shortage in the neighbourhood. There was a pub close by the childrens' playground in Finsbury Park, and it was the custom of local mothers to bring their toddlers to this playground early in the afternoon. When the pub closed at 2.30 the drunks, sluiced unceremoniously out into the street, would lurch straight into the playground, and mingle with the toddlers, to the consternation of their mothers. I joked that one of these drunks might well regale the toddlers with the old routine:

*Is this Wembley? No, it's Thursday. So am I, let's have a drink!*

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<sup>121</sup> Sadly, Fischer—whom many believe to have been the greatest chess player of all time—later became deranged, making a number of radio broadcasts bristling with paranoid denunciations of American Jewry, which he had come to believe were conspiring against him (Fischer is himself of Jewish origin).

On first moving to Alexandra Grove we discovered that the pub nearest us, the Hornsey Wood Tavern, afforded a pleasant contrast, with an amiable landlord and a quiet atmosphere. But this was, sadly, not to last. We walked in one day to find that the place had been taken over by a bunch of National Front fascists, barely able to suppress their *Sieg Heil*!s. From that point on we avoided the place.

Such unpleasantness was, unfortunately, not to be fully escaped even once our front door was shut. The trouble arose with the flat just below us. When we moved in this was occupied by a pleasant middle-aged couple and their teenaged daughter. A few months later the parents decamped leaving the daughter in sole residence. She quickly installed her current boyfriend, a thuggish-looking “wide boy” bulging with muscles. Judging from the thuds and yells which began to filter through our living-room floor, this brute made it a habit to bounce his unfortunate girlfriend off the walls each night. I soon nicknamed him “The Pig”. Each evening he would pull up in a flashy new vehicle, prompting the speculation that he was in the hot car business – which turned out to be the case. A succession of officials from the utility companies began to arrive in pursuit of payment of overdue gas and electricity bills, banging unproductively on the couple’s door. All this came to a head one day when the whole building became suffused with the smell of gas. The leak was quickly traced to the Pig’s flat, so I phoned the Gas Board and informed them accordingly. An official duly arrived and commenced the customary pounding on the door. I knew that the couple were in, but they refused to open up. Eventually the gas man gave up and departed. By this time I had become sufficiently incensed to overcome my fear of being “duffed up” by the Pig and began to hammer on the door myself, shouting that their bloody gas leak was endangering everybody in the building. Realizing that he now had to deal with a mere resident, the Pig finally opened the door and advanced menacingly on me, at the same time venting a stream of invective which curled my ears. Our altercation soon attracted the attention of Pat, the diminutive Irishman who occupied the ground floor flat with his young family. He had also had his fill of the Pig, and raised his voice in my support. This enraged the Pig still further, and he turned on Pat, threatening him that if he didn’t shut his gob, he and his kids would be sorry. But Pat and I stood our ground, and the Pig, to our relief, withdrew into his lair. A few days later he disappeared, never to return. He must have been no more than one jump ahead of the law, since not long after his departure a couple of policemen arrived to question his girlfriend. It was then that we learned that he was wanted in connection with the theft of a number of vehicles, which were doubtless never recovered.

Despite her questionable taste in men, the girlfriend (whose name I cannot now recall) was actually quite pleasant. Mimi and I thought that her experience with the Pig might turn her off the wide boys. But no, for not long after the Pig’s departure she installed a new boyfriend, a diminished version of the Pig who inevitably became known as “The Piglet”. After his installation yells and thuds could again be heard, but now on a reduced scale. And, thankfully, we were spared further gas leaks.



In August 1972 Mimi and I made our first trip to Italy at the invitation of Marco Santambrogio. Thinking of this visit invariably evokes a warm glow. Yet the trip began inauspiciously. We first made our way to Paris to spend a few days at the Aquarones' flat in the Rue Budé, which they had placed at our disposal in their absence<sup>122</sup>. Mimi managed to tumble down the building's stairs, sustaining some painful bruises, and I developed a cough which soon effloresced into full-blown bronchitis. It was in this parlous state that we boarded the train to Milano. We sat up all night in a crowded compartment, my racking cough causing alarm among our fellow passengers. We were met at Milano's *stazione centrale* by Marco and his beautiful, vivacious new wife Susanna. They took us to Marco's parents' apartment, where we were treated to a delectable lunch, starting with *prosciutto e melone* and followed by pasta with olive oil, each of a delectable simplicity neither Mimi nor I had experienced before ... I still recall the wonderful feeling of uplift as we ate this delicious food in that sunlit dining room. But I was clearly ill, and so Susanna's physician brother was called in to give his opinion. He prescribed a course of antibiotics which quickly got to grips with my malady.

The four of us soon migrated to Susanna's mother's villa near Parma. The weeks we spent there, in the enchanting Tuscan countryside, were idyllic. Meals at the villa were prepared by Susanna's mother's resident cook, and each was a memorable gastronomic experience. Mimi was particularly impressed, I recall, with the handmade *minestrone* and the veal rolled in egg.

Susanna's mother had the same energy and electric sense of life as her daughter. I had regarded myself as a fast talker until I heard Susanna and her mother conversing in their native language. They spoke with such stupefying rapidity that I could scarcely believe my ears.

Marco and Susanna's love was then in its first bloom and their harmony seemed to merge with the closeness Mimi and I felt. We greatly enjoyed each other's company, and much lighthearted badinage was exchanged. An instance: Marco told me that fashionable Milanese had taken up the use of *di corso* for "of course", I proposed an analogous transliteration of "to hit the old sack" — *colpire il vecchio sacco*. And, for me, *il vecchio* has meant "bed" to this day. I was also amused by the Japanese patented "electric mosquito destroyer" we found in our bedroom. Attempting a Mr. Moto accent, I gleefully read out the accompanying instructions for use, adding a gloss to the effect that the device was "totally effective in destroying electric mosquitoes, supply of which can be ordered from company."

Mimi and I spent the last part of our Italian junket in Florence, where we occupied a vacant apartment some friends of Marco and Susanna's had made available for our use. Once again I was struck by the breadth of Italian hospitality. The journey to Florence had its moment of low comedy. We boarded the fast train from Milano, for which I had bought what I thought were the appropriate tickets. When the inspector checked them on the train, he shook his head and said

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<sup>122</sup> There is a record of our stay at the Rue Budé in the form of a charming photograph of Mimi. She is leaning back to one side of a framed enlargement of the well-known image of the 17-year-old Rimbaud on the drawing room wall. Immediately above Mimi's head one sees a framed mirror, within which can be glimpsed a blurred image of the photographer—myself—peering through the camera. The photograph, now somewhat faded, has, as a result, a pleasantly old-fashioned patina, reinforced by the sober but intricately patterned wallpaper which provides the backdrop to the tableau.

something unintelligible (my Italian being on the *vecchio sacco* level). I pointed to the tickets, on which *Firenze* was clearly inscribed. Equally emphatically, the man kept shaking his head. The result was that we found ourselves booted off the train at Bologna – “Bologniated”, as I came to term it. Apparently we had failed to pay some obscure supplementary charge. We completed our journey to Florence on a *treno di latte* which stopped at every station along the way.

Nevertheless, this *contratempo* did not prevent us from enjoying to the fullest our stay in Florence. The apartment provided by our unseen hosts was situated not far from the city centre, and quite luxurious (by British standards). I was pleased to discover a pile of 1950s American magazines – *Life*, the *Saturday Evening Post* and the like. These vividly brought back my own origins. I was fascinated to see the advertisements declaring their companies’ unswerving allegiance to the American way, and, by implication, their detestation of Communism. As I turned the pages of these crumbing emblems of the past I wondered who our hosts might be. I never found out.

Mimi and I sampled as many of the aesthetic delights on offer in Florence that we could find time for. Visits to the Uffizi and Pitti museums, crammed with *quattrocento* masterpieces, were, naturally, *de rigueur*. At the Uffizi new depths of absurdity were plumbed by the American lady tourist preceding us in the queue lined up to view the Botticelli *Venus*. Pulling impatiently at the audio commentary device with which she had been issued, she turned to the man next to her (her spouse presumably) and, in a strong Middle West accent, enquired “Elmer, do you hear *music* through your earphones?”

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In December 1973 Mimi and I made our first visit to Singapore together. Before we left I reluctantly visited a barber in order to avoid falling foul of Singapore’s strait-laced policy of refusing to admit “hippies”: it was not unknown for long-haired young men arriving at Singapore airport to have their locks shorn on the spot.

But this was a trifle. In fact, like the Tuscan trip earlier that year, my first visit to Singapore was a voyage of discovery still luminous in recollection. Above all else I recall the sheer novelty of being received into the bosom of a vast and intricate Chinese family. We stayed in the mansion which Mimi’s father had built at the height of his commercial success in the 1930s. Although the house had clearly seen better days, the grandiosity of its conception was still evident, bringing to mind an antebellum mansion in the U.S. Old South. Its sheer scale was impressive: its many rooms accommodated four separate families. The rooms’ ceilings, designed for maximum air circulation to offset the equatorial heat, had a cathedral-like loftiness; their floors and fittings were of teak.

Our reception was nothing short of regal. We were continually taken out to lunch and dinner, a pure delight since at that time Singapore was a culinary paradise. Singapore boasted such a number and diversity of restaurants that it seemed half the Singapore population was in the business of cooking for the other half. I recall in particular the piquant curries at the *Rendezvous*, the succulent chicken rice at *Swee Kee*, the amazing seafood, the delectable dim sum, and Mimi’s favorite, *Char Kwei Teow*, hawkers’ fried noodles.

Several of the numerous members of the Chia clan stand out in my recollection. Mimi's brother Teck Sian and his family, in whose sector of the house, on the second floor, we stayed, were the souls of kindness and could not have been more hospitable. Her oldest brother Mun Sien, who lived with his family on the floor below, was an interesting character. As his father's eldest son, he had inherited the lion's share of the old man's fortune and as a result had been spared the necessity of earning a living in the usual sense. He had become quite reclusive, and was also something of a hypochondriac, as a result of childhood illness. On the rare occasions he would venture from the house it was to observe the horses at the racetrack, on whose performance he would advise his betting pals, to whom his shrewdness had become well known. His combination of native intelligence and mandarin isolation, unique in my experience, rather fascinated me. But his male chauvinism, while unconscious, was deplorable, as was brought forcibly to my attention when, right out of the blue, he would order Mimi to "bring John a drink." Later I attempted to make light of this, but Mimi was justly incensed.

As tourists, Mimi and I naturally made a number of excursions. I recall our visit to the Singapore Botanical Gardens, and to Changi Beach, where the extreme pallor of my body shocked the local populace. (Mimi had come to call me the "beached whale".) Teck Sian lent Mimi his Volkswagen so that we could drive up the west coast of Malaysia, the idea being to get to Penang. In the event we got no further than Malacca, where we stayed in a hotel which I recall only through the proximity of our room to the lift, the groaning of whose machinery kept us awake all night. Malacca itself is now a somnolent little town, but it was once an important seaport, held successively by the Portuguese, the Dutch, and the British. It still shows much Portuguese influence, as exemplified by the old fort, whose crumbling walls and rusty cannons received our touristic scrutiny.

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In 1971 I became involved in the organization of the Bertrand Russell Memorial Logic Conference, an initiative launched by a group of logicians opposed to NATO financing of conferences in mathematical logic. During the 1960s a number of British logic conferences had received funding from NATO<sup>123</sup>, thus becoming officially identified as "NATO Advanced Study Institutes". The funding of scientific conferences by military organizations such as NATO seems to have gone more or less unquestioned until in 1969 a public protest against such financing was mounted at the NATO supported logic conference held in Manchester. (I was not a registered participant at the Manchester conference, but I attended the meeting for a couple of days, staying with Peter Aczel.) The resulting declaration, which concluded with the phrase

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<sup>123</sup> The '65 Leicester meeting I attended in my salad days was, happily, free of NATO support.

*we believe that scientific conferences should not be linked with organizations of this [i.e., Nato's] character*

attracted nearly 40 signatures.

But this protest was ignored, and early in 1971 it emerged that the organizers of the logic conference to be held in Cambridge that summer—Robin Gandy, Adrian Mathias, Hartley Rogers, and Gert Müller—had secured NATO funding for it. Max Dickmann, Yoshindo Suzuki and George Wilmers, all of whom had signed the Manchester declaration, and who also happened coincidentally to be visiting the Mathematical Institute in Aarhus, Denmark, decided accordingly to launch a stronger protest. They conceived the idea of staging a counter-conference somewhere in Denmark timed to coincide with the Cambridge meeting. To gain support for the proposal they wrote to a number of logicians whom they felt might be sympathetic to its aims. A copy of their letter was also sent to the members of the organizing committee of the Cambridge conference. This letter contained the forthright declaration:

*It is a fact – all too often an accepted fact – that NATO is a military alliance which gives ideological support to the massacre of hundreds of thousands of innocent people in Indo-China, and material support to a fascist dictatorship in Greece and to the furtherance of the aims of imperialism all over the world. We believe that it is morally indefensible that the scientific community should continue to prostitute itself by lending to this organization an air of respectability and culture in return for funds which it is sometimes difficult to obtain elsewhere.*

Brave words! And words which resonated sufficiently with three of the letter's recipients—Moshe Machover, Alan Slomson, and myself—to move us to offer our active support for the project. Thus it was that our names came to be added to those of the original proposers of the counter-conference to form its Provisional Organizing Committee.

As the newly formed “Gang of Six” we proceeded to issue an urgent, and widely circulated letter to British logicians drawing to their attention the fact that the Cambridge conference was NATO financed and explaining our opposition to this in much the same language as the quotation above. We also emphasized that while our proposal had originally been conceived in protest against the NATO sponsoring of the official conference, we also had it in mind to launch what we called an alternative conference which, in addition to offering the technical presentations customary at such meetings, would attempt to come to grips with the larger implications of our activity as mathematicians and logicians:

*Our project is planned with the following principles in mind:*

*(1) Mathematicians should consider the social implications of their activity. (It is clear that a NATO sponsored conference would be unable to take into account such a principle.)*

*(II) The primary concern of mathematical logic is to analyse the foundations of mathematics. The (often abstruse) technical aspects of logic are of importance only within this context.*

Meanwhile Robin Gandy, the Chairman of the organizing committee of the Cambridge conference, had responded to the first letter. He made the seemingly reasonable suggestion that we time our meeting so as not to clash with the Cambridge conference, thereby making it “possible for people to attend both,” and wound up his letter with the following appeal:

*In conclusion may I once again beg that you will do your utmost to avoid splitting logic into “left” and “right” factions. Such a split may give satisfaction to those for whom politics is primarily an emotional outlet, but it has no rational merit. Even judged on purely political grounds it is foolish, as it means that those with strong political convictions can only preach to the already converted. And for our common interest – mathematical logic – it could be disastrous.*

*We likewise will do our best – by investigating ways in which NATO support can be dispensed with – to promote unity.*

Alan pointed out that Gandy’s response already represented a partial victory for our cause and suggested that all that we should now require from the organizing committee of the Cambridge conference was some sort of public assurance that they would not seek NATO funds in future. In return we should, he thought, offer to change the date of our conference. The open letter with which we finally responded to the organizers of the Cambridge conference incorporated Alan’s suggestion, but in a stiffened form which I think we knew was unlikely to be acceded to by the Cambridge committee. George and I laboured on putting the finishing touches to what amounted to a manifesto:

*Dear Colleague,*

*You will probably be aware that a NATO supported logic conference is to be held in Cambridge this August. We the undersigned are opposed to military involvement in science and have therefore proposed an alternative conference having no connection with any military body, to be held in Denmark at the same time as the Cambridge conference. We have already circulated a letter outlining our proposals to our colleagues which has met with an extremely encouraging response.*

*The Chairman of the organizing committee of the Cambridge conference has written to us suggesting that our proposed alternative conference should be held at such a time as to enable people to attend both. This open letter is a reply to this proposal and an attempt to explain our motives for the action we have taken.*

*Our aims in calling for an alternative conference are threefold:*

- (I) To provide an alternative for those logicians who do not wish to attend a conference which is publicly associated with NATO.*
- (II) To ensure that there are no future logic conferences which are financed either by NATO or by any other military body.*
- (III) To create a gathering-point which would enable logicians to analyze the social implications of their activity and to assess the relationship of their science to mathematics generally.*

*It is precisely because of (II) that we are planning to hold our conference **at the same time** as the Cambridge meeting; we therefore cannot accept the proposal that we merely **postpone** our conference so as not to clash with the one at Cambridge. However, we have formulated a proposal which, if accepted by the organising committee of the Cambridge conference, would make it highly improbable that NATO would continue to finance logic conferences; under these conditions we would agree to cancel our conference. Our proposal is contained in §7 below.*

*§1. NATO is a political and military organization whose aims and activities are deplored by many people. It is highly improper that logicians who share such views should be faced with a choice between forgoing the professional benefits of an annual conference, and attending a conference publicly associated with NATO.*

*§2. Why does NATO support logic conferences? Is it for purely altruistic reasons, out of an unquenchable love for science? Or does NATO obtain something in return, if only the association of its name with a cultural activity? It is clear that the organizers of the Cambridge conference found it necessary to associate their conference with NATO not because they are fanatic supporters of NATO but only because they knew that, implicitly or explicitly, this was required of them if they were to obtain NATO funds. We surmise that NATO supports scientific conferences because by so doing it lends itself an aura of culture and respectability and encourages the acquiescence of the scientific community with regard to its political and military activities.*

*§3. Another, more sinister aspect of NATO support is the growing dependence of the scientific community on funds administered by military sources. In the U.S. this dependence has already reached such a stage as to prove quite sufficient to reduce a large section of the community to complete political docility. Those few who have had the courage to make an open political protest have often been threatened with the withdrawal of their research grants – a fact which has proved an excellent deterrent to the others. §4 provides evidence that this phenomenon is beginning to occur nearer home.*

*§4. Some people have claimed that our action in organising a “counter”-conference is “divisive” of the logic community. We completely repudiate this charge. A short account of the events leading to our action is appropriate at this point.*

*At the Manchester conference two years ago 36 people (some 20% of the participants) signed a declaration dissociating themselves from the aims of NATO and expressing the conviction that scientific conferences should not be linked with organizations of this character. In connection with §3 it is particularly interesting that many of the participants who did not sign let it be known that they entirely agreed with the content of the declaration but that they did not wish to publicly associate themselves with such a statement **because they feared the financial consequences.***

*In view of the above, the organizers of the Cambridge conference cannot claim that they were unaware of the strength of feeling on this issue. To have deliberately ignored this and set about organising a further NATO-sponsored conference **was itself a divisive action.** It is however possible that the organizers felt that they were in a sufficiently strong position to be able to ignore such protests; that the Manchester protest was treated with some contempt is illustrated by the fact that the published colloquium proceedings contains only a short paraphrase of the protest in a footnote; the names of the signatories are not given. Moreover, the account of the colloquium in the JSL (Dec. 1970, p. 598) **completely fails to mention the protest.***

*§5. It has been suggested that our action threatens to “split logic into ‘left’ and ‘right’ factions. Not only is that not our intention, but even the idea that this might be the objective consequence of our action is rather strange. There is no question of debarring anyone from our conference because of his political views. We simply do not wish to be associated with NATO. Indeed, if aim (II) of our conference is achieved, the original cause of the “split” will disappear.*

*§6. It is certainly possible to organize conferences without NATO support. Leicester '65 and Bedford '70 are examples. Dr. Gandy has pointed out to us that there is a considerable difference between the cost of a large conference such as Manchester '69 and that of a smaller conference as Bedford '70, and that it does not seem possible to organize such a large conference as Manchester '69 without support from some military body. Even if this is true (and it is not proven), the answer is that in the immediate future logicians will have to be content with smaller, but by no means inadequate budgets if they are to preserve their unity. This is the price we must pay, not only for unity, but for maintaining the integrity of our science. In our opinion it is not too high a price.*

*§7. We propose to the organising committee of the Cambridge conference that they issue the following statement which would also be printed verbatim in the conference volume”*

*“The organising committee wish to state that, whatever the views of individual members, this conference, as a organization, totally dissociates itself from the political activities and aims of NATO.”*

*§8. In conclusion, we observe that if the content of the above statement does not conflict with the true relationship of the Cambridge conference to NATO, then there is no reason why the organising committee should not make this statement publicly; if it does indeed so conflict, then our assertions concerning the prostitution of our science are indeed proven.*

This was typed up by Mimi, photocopied at LSE, and disseminated to our fellow logicians.

After six weeks' silence, Robin Gandy finally responded. We had not really expected the Cambridge organising committee to accede to the proposal we had made in §7 of our letter. Indeed, §8, on which George and I had toiled, was appended to the document to furnish the moral justification for a proposal which we, in truth, felt would be rejected by our opponents; in anticipation, we had already begun to make preparations for our alternative conference. And sure enough, Gandy (an intelligent, genial English ex-communist, known anagrammatically as "Bingo Randy" to the merciless Oxford undergraduates he taught in the final stages of his academic career) began his reply by remarking:

*You will not be surprised to learn that our committee was unanimous in deciding not to pass a resolution of the kind proposed in your letter.*

But the tone of his response was conciliatory, and after attempting to answer a couple of the points made in our letter, he concluded:

*Speaking for myself, I am now less distressed than I was by the notion of an alternative conference. You seem to have assembled a good (if intensive) programme. It only remains for me to wish you very success.*

Now that our conference was definitely going ahead, it occurred to us that it would be natural to dedicate it to the memory of Bertrand Russell, who had died, at the age of 98, the previous year. We felt that Russell, old radical that he was, would have been sympathetic with the anti-military aims of our conference. It happened that Moshe was acquainted with Chris Farley, the secretary of the Bertrand Russell Peace Foundation who had succeeded Ralph Schoenman. Over dinner one evening Moshe and I sought Farley's approval for associating Russell's name with our conference, asking him at the same time if the Russell Foundation might see its way to providing some much-needed financial support for our venture. He was happy for the Russell Foundation to endorse our conference, but regretted that the Foundation's present impecunious state made the provision of any financial support impossible. This was a disappointment, but at least we had succeeded in linking Russell's name with our effort. We did not fail to note the irony of the fact that the Cambridge conference was to be partly held in Russell's old college, Trinity, while at the same time it would have quite unthinkable to associate Russell's name with NATO.

Word of the "logicians' conflict" had by this time reached the ears of the wider world, and at the end of June Moshe and I were interviewed by a reporter from the *New Scientist*. On July 1<sup>st</sup> the following article appeared in the magazine's *Feedback* column:



### ***Rival conference***

*By accepting money from military establishments do scientific researchers compromise their autonomy and give implicit support to the military's activities? This question, which often crops up at professional meetings, is usually approached by the scientific community in unofficial, detached, and academic debates and discussions. However, a group of mathematical logicians, who used to attend a biennial "NATO Advanced Study Institute", can take no more. They are organising their own conference, called the Bertrand Russell Memorial Conference, which will clash with the NATO-sponsored one. The break-away group want to force their colleagues' hands. The conference, financed from the coffers of the North Atlantic Treaty Organisation, a predominantly military alliance between countries of North America and Western Europe, will be held this August in Cambridge. To prevent some of their fellow travelers from having it both ways by attending both conferences, the rebels will hold their meeting at the same time but in Denmark.*

*The rift in the logic community stretches back to the 1969 NATO conference in Manchester. At that meeting 36 people (about 20 per cent of the participants) signed a declaration dissociating themselves from the aims of NATO and expressing the conviction that scientific conferences should not be linked with organizations of this character. Many other participants privately agreed but refused to sign because they feared the financial consequences. When this year's organising committee, which includes Professor Robin Gandy, Oxford, accepted NATO funds, logicians in Denmark and in Britain went into action.*

*The provisional organising committee of the Russell Memorial Conference includes: Max Dickmann and Yoshindo Suzuki, Aarhus University (where Rudi Duetschke is studying); John Bell, LSE; Moshe Machover, Chelsea College; Alan Slomson, Leeds University; and George Wilmers, Manchester University. They feel that NATO hands out such funds to gain an aura of cultural respectability and to stifle the political and military [sic!] activities of scientists.*

*To the accusation that they are splitting logic into left and right factions, they reply that anyone may come to their conference. They offered to cancel the alternative conference if the organising committee of the Cambridge conference formally dissociated itself from the political aims of NATO. No such assurance was forthcoming so the alternative conference was on.*

*Machover estimates that between 50 and 60 will attend the conference. They already have the active support of such notables as Noam Chomsky of MIT, and Alexander Grothendieck, a freelance mathematician recognized as one of the "greats". However, money which is needed to bring speakers from America and to reimburse students' expenses, remains a problem.*

Two weeks later this article elicited from a clearly nettled Gandy a reply with a nasty sting in its tail:

*Sir, – There is one point at which your account of the rival conferences in mathematical logic...is not accurate. The Organising Committee of the Cambridge Summer School in Mathematical Logic was asked to do much more than dissociate itself from NATO's political aims. The relevant paragraphs in a letter from the breakaway group read (with my [emphasis]), as follows: –*

*“However, we have formulated a proposal which, if accepted by the organising committee of the Cambridge conference, would make it highly improbable that NATO would continue to finance logic conferences; under these conditions we would agree to cancel our conference. Our proposal is contained in §7 below.*

*§7. We propose...that they issue the following statement which would also be printed verbatim in the conference volume”*

*“The organising committee wish to state that, whatever the views of individual members, this conference, as a organization, totally dissociates itself from the political activities and aims of NATO.”*

*The aim is clear: no more NATO sponsored conferences. Now these conferences (Oxford 1963, Bristol 1964, Leeds 1967, Manchester 1969) have been highly successful exercises in transatlantic and East-West collaboration. (At Manchester there were lively contingents from Poland and Czechoslovakia; at Cambridge there will be Poles and Hungarians.) They have enabled Europeans to learn about the latest results in America – where much exciting work has been done – and they have stimulated the interest of many young mathematicians in mathematical logic. I am sure that most of the participants would wish this series of conferences to be continued. I do not know how this could be done without NATO support. (The Cambridge conference will cost over £10000.) Thus, if our committee had passed the proposed resolution, it would have been acting in a very bureaucratic, undemocratic, and unpopular way.*

*One of NATO's aims is to promote scientific collaboration between its members. This is the only policy with which the conference, as an organization, is associated. At Cambridge (as on the committee) there will be both supporters and opponents of NATO's strategic and political policies. It should be clear, and the committee is happy to affirm, that attendance at the conference in no way implies support for these other policies.*

*The Scientific Affairs Division of NATO finances some 50 scientific conferences each year. The only tests applied in deciding which conferences to support are scientific, and no political strings are attached. And, unlike the organizers of the Bertrand Russell Memorial Conference, it does not use its scientific conferences for propaganda purposes.*

Our conference duly took place in August in the well-equipped high school in Uldum, a village not far from the port of Esbjerg in Denmark. Sixty people participated, including Peter

Aczel, Jane Bridge, Anders Kock, Bill Lawvere, Per Lindström, Per Martin-Löf, Janos Onyskiewicz (a logician who, twenty years later, was to become the Minister of Defense in the immediate post-communist Polish government), Graham Priest, Jan Smith, Bill Tait and Aldo Ursini. Given Lakatos's enthusiastic support of everything NATO stood for, I expected him to forbid the students in his department to attend the meeting. To my surprise, however, he issued no such interdict, and three of his students actually did participate.

We were extremely fortunate in securing the presence of Alexandre Grothendieck, then in his early forties, and already arguably the greatest mathematician of the second half of the 20<sup>th</sup> century. I was struck, as were many of us at the conference, by Grothendieck's sincerity and luminous intensity. With his shaved head and simple attire, he had the appearance of a Buddhist monk; from his talk one quickly became aware that one was in the presence of a man with a remarkable moral power. Himself an offspring of left-wing political radicals, Grothendieck's own political radicalization in the 1960s had led him to form the group *Survivre*<sup>124</sup>, dedicated to combating the ideology of scientism, the elevation of science into the "religion" of modern society. His pacifism had led him to resign his position at the *IHES*, the French counterpart of the Institute for Advanced Study, when he learned that it was being partially funded from military sources. He was currently embroiled in a dispute at the *Collège de France* over his proposal to conduct a course on scientism. An active opponent of the American intervention in Vietnam, he had spent several months in Hanoi under sustained aerial bombardment while teaching at the city's "subterranean university". He gave a vivid account of his experiences during one of the evening discussions which took place at the conference; he also introduced a discussion on scientism and delivered a spellbinding lecture on his work in algebraic geometry. While the actual content of this latter was largely over my head, I recall being greatly impressed by the manner of its delivery: after speaking nonstop for two hours without notes, Grothendieck paused, extracted from his shirt pocket a slip of paper scarcely larger than a postage stamp, glanced at it as if to remind himself of something, returned it to his pocket, and then resumed lecturing for another couple of hours. He was very approachable and talked to everybody; in particular I had a number of animated conversations with him. He sketched his early life, remarking that he had been in an internment camp in France as a boy during the war. Our conversation took a musical turn and he confided to me that his favourite recording was none other than Heifetz's version of the Bach solo violin sonatas. As a mathematician he was so far above me that the subject hardly came up in our discussions, but he never betrayed the slightest hint of condescension in that regard.

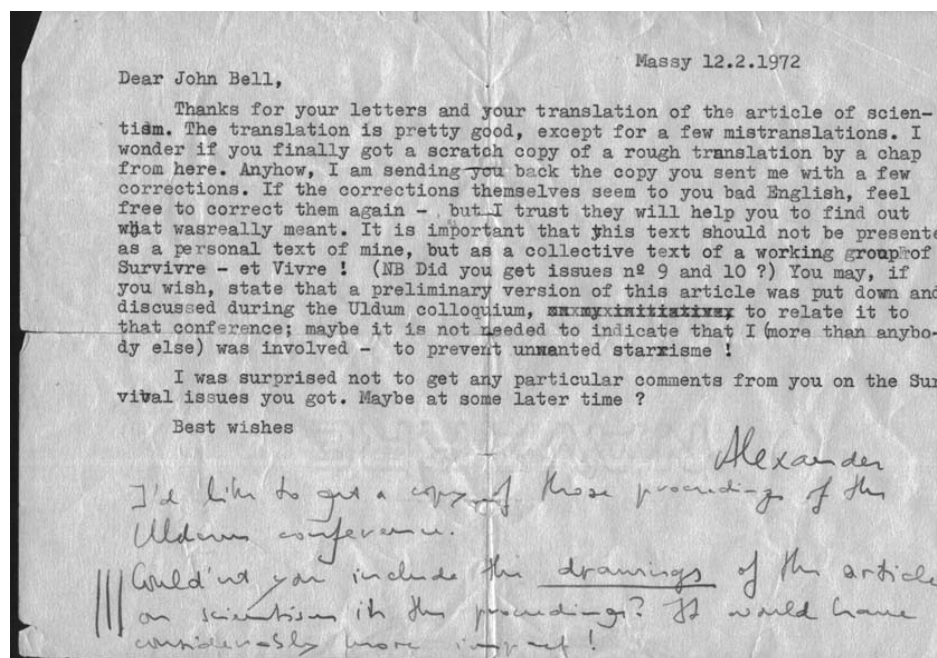
During the session on scientism Grothendieck read a preliminary draft of an editorial, entitled *The New Universal Church*, for a forthcoming issue of his group's publication *Survivre et Vivre*. This excited considerable response, both pro and – from some "hard left" brethren – con. It must be admitted that the latter had a point: by comparison with his unexampled mathematical sophistication, Grothendieck's political attitude was perhaps somewhat naïve. But Grothendieck's naivety was on the order of Tolstoy's, an unwavering refusal to compromise,

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<sup>124</sup> Other members of this group included such prominent French mathematicians as Pierre Cartier and Pierre Samuel.

white-hot in its intensity. It now seems to me that the *Survivre* group can be seen as a forerunner of the ecological movement and the Green Party, which of course itself encountered a good deal of opposition from the communists in its struggle for emergence.

After Grothendieck's presentation I proposed to him that I make an English translation of the essay, which would appear in the published proceedings of the conference. He readily agreed; some months later I received the following letter from him:



Massy 12.2.1972

Dear John Bell,

Thanks for your letters and your translation of the article of scientism. The translation is pretty good, except for a few mistranslations. I wonder if you finally got a scratch copy of a rough translation by a chap from here. Anyhow, I am sending you back the copy you sent me with a few corrections. If the corrections themselves seem to you bad English, feel free to correct them again - but I trust they will help you to find out what was really meant. It is important that this text should not be presented as a personal text of mine, but as a collective text of a working group of *Survivre - et Vivre* ! (NB Did you get issues n° 9 and 10 ?) You may, if you wish, state that a preliminary version of this article was put down and discussed during the Uldum colloquium, ~~many initiatives~~ to relate it to that conference; maybe it is not needed to indicate that I (more than anybody else) was involved - to prevent unwanted starrisme !

I was surprised not to get any particular comments from you on the Survival issues you got. Maybe at some later time ?

Best wishes

Alexander

I'd like to get a copy of these proceedings of the Uldum conference.

||| Could you include the drawings of the article on scintillation in the proceedings? It would have considerably more impact!

The increasingly eccentric course that Grothendieck's life took since that time reinforces the parallel with Tolstoy. In 1973 Grothendieck left Paris for the south of France, where he lived for a number of years in seclusion near Montpellier. During 1980-90 he wrote thousands of pages of meditations, both mathematical and non-mathematical. Among the latter are the vast memoir *Récoltes et Semailles*, in which he excoriates the French mathematical establishment, and *La clef des songes* (The key of dreams), in which he presents his conviction that dreams are communicated by an external agency, the "Dreamer", itself identifiable with God. In 1988 Grothendieck refused the award of the prestigious Crafoord prize for his mathematical work. In his letter to the Swedish Royal Academy of Sciences turning down the prize, he explains his principal reasons for doing so, ending on an apocalyptic note:

*The work that brought me to the kind attention of the Academy was done 25 years ago at a time when I was a member of the scientific community and essentially shared its spirit and its values. I left that environment in 1970, and, while retaining my passion for scientific research, inwardly I have retreated more and more from the scientific "milieu". Meanwhile, the ethics of the scientific community (at least among mathematicians) have declined to the point that outright theft among*

*colleagues (especially at the expense of those who are in no position to defend themselves) has nearly become the general rule, and is in any case tolerated by all, even in the most obvious and iniquitous cases. Under these conditions, agreeing to participate in the game of “prizes” and “rewards” would also mean giving my approval to a spirit and trend in the scientific world that I view as being fundamentally unhealthy, and moreover condemned to disappear soon, so suicidal are this spirit and trend, spiritually and even intellectually and materially*

*This...reason is for me by far the most imperative one. Stating it is in no way meant as a criticism of the Royal Academy's aims in the administration of its funds. I do not doubt that before the end of the century, totally unforeseen events will completely change our notions about “science” and its goals and the spirit in which scientific work is done. No doubt the Royal Academy will then be among the institutions and the people who will have an important role to play in this unprecedented renovation, after an equally unprecedented collapse of civilization.*

In 1992, Grothendieck vanished, severing all contacts with family, friends and colleagues. In 1996 he was reported to living somewhere in the Pyrenees, but according to Pierre Cartier, his present whereabouts (2003) are unknown<sup>125</sup>.

Looking back, the mix of politics and mathematics at our conference could have been the agenda for a party to which nobody showed up. (It would doubtless be just that in the present politically vacuous epoch.) But on the contrary, the affair turned out to be a great success. Indeed many of the participants remarked what fun it had all been. My own participation was curtailed by coming down with a nasty form of flu during the final week, but before succumbing I gave the elementary course on set theory I had offered to provide, and a contributed paper. This latter—*A Geometric Form of the Axiom of Choice*<sup>126</sup>—was a joint effort with David Fremlin, a talented Cambridge functional analyst I had met the previous year on a visit there – ironically, at the invitation of Adrian Mathias. Fremlin was less than happy with the idea of being associated with the political aims of our conference; in a letter he stated that he shouldn't like anyone to assume that, simply because he was part author of a paper presented at our meeting, he had objections to NATO. I never got to know him sufficiently well to establish with certainty whether he actually entertained any such objections, but I would now guess that, like most of his mathematical confrères, he was fundamentally indifferent to the whole issue of political intrusions into mathematics, and so—in the case at hand—perturbed only at the possibility that a collaborator of his at a harmless mathematical level could turn out to be a dangerous hothead. He suggested that I preface my presentation of the paper with an oral disclaimer for him, to which I agreed. But the irony of my having to proclaim my coauthor's dissociation from the dissociators was not lost on the audience, who responded with hoots of laughter.

The Russell Conference was also successful in helping us achieve our acknowledged goal of preventing future NATO financing of logic conferences. Remarkably, for the next seven years no applications were made for NATO money by logicians.

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<sup>125</sup> Grothendieck died in 2014n at the age of 86.

<sup>126</sup> Later published in *Fundamenta Mathematicae* LXXVII, 1972.

Along with Julian Cole, Graham Priest, and Alan Slomson, I became an editor of the conference proceedings. The publishers Davis-Poynter Ltd. expressed an interest in them. I had a meeting in London with the head of the firm, Mr. Davis-Poynter himself. He struck me as a bit smarmy, but I came away feeling reasonably certain that he would agree to publish. However upon receiving the typescript from Alan Slomson he turned it down, owing to, as he put it, “the complexity of the material”. If he thought that Alan was simply going to accept this rejection without a fight he had badly underestimated his man. There followed a lengthy, and memorably farcical exchange of letters between the two, in which Davis-Poynter, backed into a corner by Alan, finally admitted that he “did not wish” to publish the proceedings. In the copy Alan circulated of this last letter he appended, as a parting shot, the remark: “Not even a Christmas card in reply!”

Davis-Poynter’s defection left us with no alternative but to publish the proceedings ourselves. I asked Barbara Silver if she would be willing, for a modest fee, to retype the manuscript. She readily agreed. So much, I thought, for Davis-Poynter’s “inability to cope” with the retyping! Alan came up with a printer willing to produce the volume at reasonable cost. We sent out leaflets describing the contents of the volume, accompanied by an order form for purchase at a modest price. The response was highly gratifying—indeed we were surprised to find that sales of the volume yielded a handsome profit. This was deposited in a bank account opened in the name of the Russell Memorial Conference. How this money should be spent posed a problem we had not envisaged. We decided to hold an essay competition, with a prize of £100 awarded for the best (in our estimation) contribution on the social significance of mathematics. A number of efforts were submitted, but it seemed to us that none deserved the prize. So the idea of an essay competition was abandoned, and, lacking any other ideas, we left the money to languish in the bank, where it slowly accumulated interest. After a few years, Alan, who had responsibility for the account, began to worry that it might come to attract the unwelcome attentions of the Inland Revenue. He suggested that we quickly find a means of spending the money, which had, to my surprise, grown appreciably in the meantime. We decided that our best course was to use it to provide bursaries for Eastern European students wishing to attend Western logic conferences, which, thanks to our efforts, were still then unfinanced by military sources. This proved a most effective mode of expenditure.

The published conference proceedings provide a reasonably faithful picture of what took place at the conference itself. It is an odd mixture of technical, philosophical, critical and political material, unique in the annals of logic: that it frightened Davis-Poynter off is, on reflection, hardly surprising! Along with articles on such technical matters as infinitary logic, nonstandard models for set theory and category theory are to be found analyses of NATO’s role as a counter-revolutionary force, discussions of esotericism in mathematics, Grothendieck’s critique of scientism along with critiques of his critique, various papers on the philosophy of mathematics, Alan’s account of the events leading up to the conference, and a reprinting of Russell’s obituary in the *Times*. Given our liberal editorial policy, the result was surprisingly coherent.

During the conference I had brought to Per Lindström's attention some problems on a logical system I had introduced in my thesis: weak second-order logic with variables ranging over elementarily definable sets. While I had not been able to solve these problems, Lindström, an exceptionally talented logician, formulated elegant solutions to them which he wrote up and contributed to our volume.

My own contribution was a sub-Marcusian essay entitled *Some Remarks on Current Mathematical Practice*. Here are a few extracts:

*Contemporary mathematics confronts the spectator with a formidable array of results and techniques, most of which appear to have little or no connection with reality. A point has been reached where mathematics, of necessity abstract, has become so arcane that it is difficult even for practicing mathematicians to see where it is going<sup>a</sup>. As in other areas of scientific activity, production for production's sake has become the mathematician's chief aim, with the result that technical papers of an ever more mystifying nature are proliferating at an enormous rate. Underlying this state of affairs is a formalist ideology which, by encouraging the mathematician to assume a "neutral" attitude toward his activity and to devote himself exclusively to the imperative of production, has obscured the relationship between mathematics and reality and stifled work in the foundations and philosophy of mathematics.*

*The greater part of research activity in mathematics is devoted to proving theorems within the established mathematical framework which has made its appearance within the past three or four decades. This framework has three principal features:*

- (i) its basic constituents are officially regarded as being of a purely formal character, i.e. meaningless in themselves;*
- (ii) it is sufficiently flexible to allow for the development of increasingly refined techniques within it;*
- (iii) it is, ostensibly, broad enough to enable all current mathematical notions to be expressed within it.*

*In view of (i), the question of the meaning or use of the notions expressed and the results proved within this framework becomes an external problem, hence usually ignored. Once the questions of meaning and use have been removed from the scene, only technical internal criteria remain for determining the import of a mathematical result. This has the effect of making mathematics immune to criticism from the outside. Furthermore, this confining of attention to purely internal, technical aspects of the framework, together with the reinforcement provided by features (ii) and (iii), creates the impression that the framework is absolute. If a problem is insoluble within the established framework, it has become customary to regard it as absolutely insoluble (the continuum problem in*

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<sup>a</sup> Physicists are frequently critical of mathematical obscurity. A French Nobel laureate in physics declared recently that the unnecessarily exacting requirements imposed on physics students in French universities was scaring them off not only mathematics, but physics as well!

set theory for instance)<sup>b</sup> The idea of searching outside this framework for inspiration is regarded as impious and, worse still, unprofessional. Activity within the framework itself boils down to a purely operational procedure applied to its constituents. Thus mathematical activity itself comes to be identified with operations within the framework, and mathematical concepts with its unchanging objects. In particular, the introduction of new mathematical concepts becomes a matter of reducing them to notions already present in the framework: if such reduction cannot be effected, the concept is rejected.

Under these conditions, mathematics comes to be viewed as a bundle of technical operations performed on a collection of fixed formal objects, from which all intrinsic meaning has been extracted. This in turn induces a shift in emphasis from content to production, from substance to technique. In this respect contemporary mathematics resembles the world of mass technology, which involves the production and manipulation of “neutralized” objects (including human beings) within an established economic structure. Certainly mathematics provides an excellent system for expressing technological manipulations in abstract “objective” form. Such subjects as military logistics and management “science” become both efficient and respectable when clothed in mathematical formalism.<sup>c</sup> Establishment economics, with its expansionist goals and its plethora of “models, becomes merely another chapter in the growth of “neutral” mathematics. In cases like these the tremendous authority of mathematics has the effect of disguising the true nature of the subjects formalized.

The abstract-operational character of contemporary mathematics<sup>d</sup> causes it to assume the form of a kind of rarefied technology, so that the goal of mathematics becomes the technological goal of production for its own sake. The struggle to produce forces mathematicians to become increasingly competitive: in order to survive as a mathematician, one must produce more results than one's competitors. “Publish or Perish” becomes the order of the day. The competitive struggle is rendered all the more efficient by the elimination of embarrassing questions of meaning, purpose, etc. Moreover, the narrower the field of competition, the fewer the techniques one is required to master in order to succeed (and the fewer the competitors), so a tendency to specialize appears. (I do not mean to claim that the competitive struggle is the sole reason for specialization, only that it is an important factor in its emergence.) As the field of specialization itself narrows, its connection with the whole becomes less and less evident, so that the specialized activity becomes increasingly esoteric. But the imperative of technical production places both esoteric specialization and the “expert” practitioner entirely beyond criticism, so much so that many mathematicians profess to be ignorant of the meaning of the word “esotericism” when it is applied to their own activities!

Professional esotericism in mathematics has also had an adverse effect on its teaching. Mathematics is routinely taught in an isolationist fashion, with great respect accorded to the minutiae of rigour, but little or none to the relationship of mathematics with reality, or to the historical genesis of

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<sup>b</sup> Compare this with the orthodox interpretation of the Heisenberg uncertainty principle in quantum theory, which is believed to provide an “absolute” refutation of causality in the small. For a critique of this interpretation, see D. Bohm, *Causality and Chance in Modern Physics*, pp. 94-103.

<sup>c</sup> No doubt the war analysts at the Pentagon would be delighted if World War III could be expressed in terms of, say, non-commutative semigroups.

<sup>d</sup> It is of interest to note that certain philosophies, structuralism for instance, which assume contemporary mathematics as a basic descriptive framework, have a distinctly operational character.



*mathematical ideas, or even to applications. The student of mathematics often leaves the lecture theatre completely mystified, and when he succeeds in gaining some understanding of the subject, he has the demoralizing impression that its creators must be intellectual supermen, of unchallengeable authority. The situation is still worse for the philosopher of mathematics, who is frequently regarded as a kind of failed mathematician. Under these conditions it is hardly surprising that the philosophy of mathematics is regarded by many mathematicians as a "dead" subject, a closed chapter in the history of mathematics, and in any case a subject distinctly inferior to mathematics itself. Mathematics is self-justifying, they proclaim, so why bother to develop a philosophy for it?*

When I circulated this essay among my colleagues it elicited one of two responses: guarded approval or outright rejection. While a number of the claims made in it now seem to me somewhat exaggerated, the product of an overheated youthful radicalism, I believe that my central point concerning the imperative of production remains valid. Witness the present (2003) lamentable state of British universities, in which this imperative reigns supreme!

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Early in 1972 Max Dickmann took up a position in the mathematics department of the Catholic University of Santiago in Chile. The election not long before of Salvador Allende's socialist party had excited real hopes that a peaceful transition to socialism there might be in the offing. George and I were keen to visit the country, and the fact that the Allende government had vastly expanded the budget for universities had made Max sanguine that he might be able to arrange positions for us in his new department. Soon after his arrival in Chile Max wrote us a richly detailed letter, the first of several, in which he confirmed that positions could be arranged for both of us, George to come the following year and myself the year after that. The greater part of Max's letter was devoted to an analysis of current political conditions in Chile. As a left-wing Latin American himself, he was naturally excited by the possibilities offered by the Chilean road to socialism.

Concerning the leader of the Chilean government Max had this to say:

*The big [unknown] in this process is: where is Allende? His course is ambiguous and he means to hesitate between the "left-wing" parties of the CP strategy. Soon we'll see what line he's taken, but I'm afraid it could be the wrong one. If this is the case, and no means is devised to crush the right wing...then I'm afraid the whole thing goes to disaster.*

Max's observations on the role of the Chilean military at that point are also of interest:

*...the position of the military is peculiar. They seem to have been coopted into the government (or, at least, out of the opposition ranks) by political work at all levels... The fact is that they have purged.. those officers inclined to coup-making (and there are some of them).*

In a communication written not long after the overcoming of the 1972 “bosses’ strike” against the Allende government Max observed:

*Another important factor [in the overcoming of the strike] was that the combined pressure of the bourgeoisie and imperialism were not enough to twist the arm of the Armed Forces into any sort of coup.*

But, he continued,

*What about the military? Clearly, this is not a homogeneous body, but with very few exceptions one may say that they do not play the game of the propertied bourgeoisie; this should not be interpreted, of course, as saying that they are revolutionary in any sense. There seem to exist two main lines: one, strictly legalistic, does not want to mix in politics and fear very much that their irruption in the political scene will result in a military dictatorship which at worst could end in a terrorist regime, Brazilian style, and, at best, in a failure like Argentina’s military dictatorship... The second faction... is more “pro-Peruvian”, that is, they want a state capitalist system...in which the state may be the agent of social change... in other words, some left- wing form of the process in Peru. Besides these tendencies, there are, of course, simply reactionary sectors, but it is difficult to estimate their real power, since they haven’t expressed themselves at all in this crisis...*

Even Max could not have anticipated that the “legalistic line” he had identified would be crushed — along with the whole brave Chilean left-wing movement — by the hitherto silent, but, as we now know, devious, reactionary sectors of the Chilean military, led by the monstrous General Pinochet. Nevertheless, in his very first dispatch from Chile Max had written:

*The “Chilean Road” to socialism is a two-way road; either it proceeds to a higher level of struggle and radicalism, or it will be defeated, and a defeat here will mean fascism, simply because the bourgeoisie has also had a taste of what is to be lost and knows that a recovery of its control of the political system could involve rivers of blood; not for nothing some “ultras” have occasionally written “Djakarta” on the walls of Santiago.*

This was prophetic. For the Chilean coup of September 11, 1973 unleashed a fascism of extreme ferocity. Allende himself died attempting to defend the Presidential Palace against the onslaught by Pinochet’s forces. In the ensuing holocaust thousands of people were rounded up; many later vanished without trace. It was fortunate that Max chanced to be out of the country at the time of

the coup, for he would almost certainly have been among the “disappeared”. And George, too, was lucky in this regard. Max had, as promised, fixed a position for him in Santiago, which he was to take up in September 1973. George had arranged leave from his department in Manchester for the coming academic year, and was all set to take off. In the last week of August Mimi and I threw a farewell party for him at which we toasted his impending departure with a resounding “Next year in Santiago!” George was virtually about to board his flight to Chile when news of the coup broke. Had that horror taken place just a few days later George might well have wound up in the league of the vanished.

— — London, Ontario, 1998–2003

## OBITUARY

### EDWARD HUBERT LINFOOT

Edward Hubert Linfoot, formerly John Couch Adams Astronomer at the University of Cambridge, died on 14 October 1982 at the age of 77. Although the bulk of his scientific work was in the field of mathematical optics—an area to which he made many important contributions—during the initial stages of his career he was a pure mathematician of distinction. He was a member of the Society from 1926 to 1971.

Edward Hubert Linfoot was born in Sheffield on 8 June 1905, the eldest child and only son of George Edward Linfoot, musician, and his wife Laura (née Clayton). He attended the King Edward VII school in Sheffield and won a mathematical scholarship to Balliol College, Oxford, at the early age of 16. He matriculated in 1923 and in 1926 took his B.A. in mathematics with first class honours. During this period he first came into contact with G. H. Hardy, who inevitably exercised a strong influence on his development as a mathematician. Evidence of Linfoot's mathematical precocity is provided by his first paper [1] which was written while he was still an undergraduate. It was also as an undergraduate that he developed the technique of preparing notebooks—of a well-nigh lapidary quality—based on the lectures and tutorials he attended, which was to result in a lucid written record of the mathematics of his time. (Many of these notebooks—a list of which is appended to this notice—will be kept in the Archives of the Society.) One of the early notebooks [A12] is especially interesting as it records the tutorials he received during 1925–26 from Besicovitch, who was then visiting Oxford at Hardy's invitation. These tutorials were the result of Besicovitch's desire to improve his English by the natural device of teaching English students. However from Besicovitch's reported remark, "I am not learning enough English— he [Linfoot] understands before I explain", one may conclude that he did not regard Linfoot as being ideal material for this purpose!

Linfoot spent the academic years 1926–28 in Oxford and was an active participant in Hardy's seminar, whose members also included L. S. Bosanquet (later to become his brother-in-law), Mary Cartwright and Gertrude Stanley. (Many of Hardy's lectures of this period were transcribed by Linfoot and appear in his notebooks [A1]–[A11].) In 1928 he obtained his D.Phil. with a thesis on almost periodic functions.

During 1928–29 he spent 2 semesters in Göttingen where he attended lectures and seminars by Landau on number theory, H. Bohr on almost periodic functions and van der Waerden on topological groups: all of these are written up (in English) in his notebooks ([B1]–[B5]). Despite the briefness of his stay in Göttingen, he was able to establish good links with the local society by virtue of the fluent and accurate German he had begun to acquire as a boy (the language being particularly well taught at his school). While at Göttingen it seems that his command of the language developed to a point where a new acquaintance, possibly finding his accent difficult to identify, felt impelled to ask him: "And what part of Germany do you come from?"!

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Received 6 May, 1983.

*Bull. London Math. Soc.*, 16 (1984), 52–58

During 1929–31 he was the recipient of a Jane Eliza Procter Fellowship at the Graduate College of Princeton University. His notebooks of this period ([C1]–[C4]) reveal that he attended courses and seminars by Alexandroff on dimension theory, and Robertson and von Neumann on quantum mechanics. (The notes ([C3]) on von Neumann's 1930 Princeton lectures are of particular interest since they provide a record of von Neumann's Hilbert space formulation of quantum mechanics before the publication of his well-known *Mathematische Grundlagen der Quantenmechanik* in 1932.) In 1931 he returned to England and taught at Balliol until 1932 when he was appointed Assistant Lecturer, and later Lecturer, in Mathematics at Bristol. It was at this time that he came to know Hans Heilbronn and collaborated with him on the well-known paper [16].

In 1935 he married Joyce Dancer, herself an able mathematician. Their daughter Margaret was born in 1945 and son Sebastian in 1947.

While at Bristol his scientific activity gradually shifted from pure mathematics to optics. Remarkably, this was due in large measure to his grasp of the political situation in Germany at the time. As early as 1929, when he left Göttingen, he became convinced that another war with Germany was likely, and his views on the matter were confirmed by his conversations with the German refugee scientists arriving in Britain after 1933. Linfoot, a man of delicate physical constitution, knew that he would be unfit for military service, and so he began to consider what he could most usefully do. The presence of Dr. C. R. Burch in the H. H. Wills Physics Laboratory at Bristol stimulated him to begin the study of optics, a subject which he felt was of great practical value and in which he had retained an interest since boyhood (in his teens he had constructed a small telescope for lunar observations). As an accomplished mathematician he was certainly in a position to advance the theoretical aspects of the subject, and his delicacy of touch and visual acuity enabled him to contribute to its practical side as well. His skill in this latter respect developed sufficiently for him to be able to exhibit a microscope of his own construction at the 1939 Annual Exhibition of the Physical Society.

During the second world war, as he had foreseen, optical systems of advanced design were urgently needed for photographic aerial reconnaissance, and, while remaining at Bristol, he did substantial work in this area for the Ministry of Aircraft Production. In this period he was also associated with Professor Mott's research group which was working on a variety of urgent technical problems.

His professional status in mathematical optics was publicly confirmed in 1948 when he moved to Cambridge to become Assistant Director of the University Observatory (and, later, John Couch Adams Astronomer). This was an especially propitious moment for him to arrive in Cambridge since the Mathematics Laboratory had just begun its activities and was engaged in the early stages of the construction of Edsac I, one of the first generation of fast computers. The development of these was of crucial importance for optical design, where the sheer weight of the arithmetical calculations constituted a real barrier to progress. Linfoot began almost immediately to write programs which were well received by the Laboratory personnel since they ran for a reasonable length of time and so enabled the computer's performance to be properly assessed. He developed at this time a keen interest in computers which came to exercise a strong influence on his thinking. I remember him remarking to me, sometime in the late 1970s, in response to my observation that I would be hard put to give a satisfactory definition of mathematics, that he wouldn't find it an easy task either, but of one thing he was sure: mathematics

is the most efficient means of programming the human central nervous system so far devised!

Despite his professional shift to optics, Linfoot never lost his interest in pure mathematics, and he made resolute efforts to keep abreast of contemporary developments. In the early 1960s he studied Kelley's *General topology* and Loomis' *Abstract harmonic analysis*: I well recall how amused he was at the fact that most of Kelley's book of 300 pages is summarized in the first 12 pages of Loomis'!

Until his retirement in 1970 he produced a stream of papers on optical subjects; in addition, he wrote two books: *Recent advances in optics*, 1955 and *Fourier methods in optical image evaluation*, 1964. This latter work is a striking testimony to Linfoot's mathematical prowess: he applies the methods of Fourier analysis employed in information theory to the problem of evaluating an optical image on, for example, a photographic plate.

Linfoot had a wide range of interests in addition to his professional specialities. Music was especially important to him: his father had been a violinist and, although he did not take up an instrument as a child, he learned to read musical notation and much enjoyed score-reading. In his 30s he taught himself to play the piano and acquired enough technique to play the preludes (but not, to his chagrin, the fugues!) of Bach's '48'. He was also well-read in many branches of literature and had built up a large and diverse personal library. He was a fine chess player (he played for Oxfordshire), and had a keen interest in the Japanese game of *Go*. (One of his Japanese research students gave him a magnificent *Go* board as a gift.) He had a talent for line drawing, revealed in the graphs and diagrams of the many notebooks (to be housed in the Manuscript Section of the Cambridge University Library) which record his thirty years study of optics. His graphic ability was remarkable: left-handed from birth, but right-handed by education, he could write rapidly and legibly with either hand. As his notebooks show, with pen he habitually used his right hand, with pencil, his left.

Linfoot's retiring nature and delicate health caused him to lose contact with many of his colleagues as he got older, and this may have been responsible for his work receiving less than the recognition it deserved. On the other hand those who, like myself, had the good fortune of knowing and receiving instruction from him during his later years benefited greatly from his encouragement and wise counsel. I had the privilege of being the Linfoots' guest at various periods during the 1960s and I shall always remember their kindness to me. In the spacious drawing room of their delightful house in the Cambridge Observatories, immersed in such a stimulating cultural atmosphere, one felt in some way close to the heart of things.