

LETTERS TO LILY: SOME BACKGROUND WALKS

Alan Macfarlane, April 2005

Preface

As I was writing 'Letters to Lily' in 2003-4, I wrote a number of autobiographical accounts of what I thought lay behind the letters.

Originally I had intended to put these on the web-site behind the book. On reflection, and with advice, I decided not to do this since there is some overlap both between the different 'walks' here, also some similarity to the 'Letters to Lily' themselves.

However, it does seem worthwhile preserving these reflections on some of my life's experiences which led to the various letters to Lily, with all their repetitions and half-remembered hints.

They are perhaps the nearest I will approach to a sort of intellectual autobiography. They are offered here as a brief insight into a few fragments of the creative process of writing a book.

There is to be a small book titled 'How the World Works; Letters to Lily Explained', which incorporates four of these 'Walks' and gives more context.

Contents of ‘Letters to Lily’ and associated ‘Walk’

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(Why write to you?)

Why write

During my last two years at school I began to ask those questions which many people puzzle over in their late teens. Is there a God? Is there Heaven and Hell? What is the difference between right and wrong? Why is there so much pain in the world? How has the world come to this point? Is magic real? Is it possible to be altruistic? Why do I feel anger, fear, shame?

These questions took their particular flavour from my experience until then and especially from certain shocks and contrasts. There was the experience of vague memories of my first few years in India and coming to England when I was six, and of two further visits to India. There was the pain of scarcely seeing my parents during my childhood. There was sickness and loneliness and comradeship at school. There was minor bullying and competition, the pleasure of music and games, the excitement of crushes on other little boys and girls. Towards the end there was poetry (especially Wordsworth and the Romantic poets) and some of the most beautiful mountain scenery in Britain in the Lake District where we lived and the Yorkshire moors where my boarding school was.

Of course I met some teachers, family and friends who tried to explain bits of the jigsaw. And I read books which jolted me out of my complacency. Some of those which I found most interesting I have listed in 'further reading' on my web-site, which charts my reading and thoughts through my life. At school I thought that Western literature, great poetry, plays, novels, might hold the key. I also hoped that my strenuous Christian faith might answer the big questions. Yet neither of them did more than give glimpses.

All the broad questions one asks at that age began to be focused a little when I went to University to study history. I hoped that looking at the past, history, might explain how we are and why we are here. But the kind of fairly dry institutional and economic history I mainly studied as an undergraduate at Oxford failed to provide anything more than a few more glimpses of how things worked. However, I did see something of what I was searching for in the work of R.H. Tawney and some social historians.

At University I spent much of my time trying to reconcile a growing freedom and feelings of adulthood with a desperate desire to retain a religious vision of the world. As I saw it then, I was suffering the same fate as Wordsworth. The magical, integrated, vision of my childhood was 'fading into the light of common day'. The interconnectedness of things, the innocence, the simple black and whites were being lost.

I remember, for example, an essay I wrote on the loss of faith of the Victorians in which Arnold's *Scholar Gypsy* and *Dover Beach* figured significantly. I loved Keats, Swinburne, children's stories about magic lands. I was deeply moved by Llewellyn Powys' *Love and Death*, with its passion and elements of otherness, a continuation of my childhood love of Kipling and fairy stories. In other words I was suffering from that split between mind and body, between spiritual and material worlds, which

William Blake and later, I discovered, the sociologist Max Weber and many others have analysed. Yet I did not really have the tools to analyse what was happening to me.

So when I decided to continue and do a doctorate, I tried to choose a subject which would focus on the problems of disenchantment, of alienation, of what T.S.Eliot called the 'disassociation of sensibility'. I proposed a grand study of how this split had occurred in the seventeenth century, but was rightly warned that this was too large a topic for a D.Phil. So I narrowed it down to one aspect, namely part of the problem encapsulated in the title of my supervisor Keith Thomas' book, *Religion and the Decline of Magic*. So I focused on the history of witchcraft in England.

As I wrote my thesis I discovered the discipline of anthropology where much of the best work on witchcraft had been done. This discipline seemed to integrate the different worlds which were coming apart in my life as I grew up in a capitalist and individualist society. Studying anthropology seemed to provide a way to continue to seek answers to those very large questions which had haunted me in childhood, especially if one combined anthropology with history. For anthropology asked very broad questions such as what is the nature of human beings? Why do people believe in magic and religion? Why do people behave so cruelly to each other?

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Yet there was still something missing, some philosophical underpinning, some grand theoretical overviews made by wide and deep minds who were grappling with the 'spirit of the laws' that shape our world. I partly found the door to this new world in the thinking of my friend Ernest Gellner, whose majestic combination of philosophy and anthropology took on the largest issues with wit and insight.

Ernest was not only an anthropologist of Islam and the Soviet Union, but a philosopher whose great love was David Hume. I can't remember if it was through him that at the age of about fifty I decided to educate myself in the foundational thought of the Enlightenment philosophers, particularly the French and Scottish. In any case I started on a project to read as much as I could of the works of a succession of great figures – Montesquieu, Hume, Adam Smith, De Tocqueville. I was bowled over by them, for now I had encountered world theorists grappling with many of my basic questions. To these I added a more superficial study of other figures, Marx, Weber and Durkheim. I also incorporated my work on the great legal historian Sir Henry Maine and a long-abiding interest in the work of the founder of modern economics and demography, T.R.Malthus.

Yet there were still parts of the puzzle of who we are and how we got here which eluded me. So I further added a study of the greatest Japanese social philosopher and modernizer, Fukuzawa Yukichi. I found in his *Autobiography* and books that he was asking many of the questions that I had long asked about the nature of civilizations, what the key to western development is and other grand matters. Alongside these interests was my continuing attraction to the work of the two greatest historians of the twentieth century, Marc Bloch and F.W.Maitland.

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So, for the rest of my life, I have sought to ask these sorts of questions, even though I am not a philosopher or theologian. I try to answer them in a very concrete way by looking at particular people, particular places and periods of history. I pursue the answers through space and time, through reading, talking, lecturing, teaching, travelling, filming. In particular I share the pursuit with my wife Sarah, who has helped me develop so many of my ideas and worked so hard to make many of the explorations possible.

Of course, if we ask these very large questions, we are very unlikely to answer any of them finally. Yet these *Letters to Lily* are an attempt to gather together some of the simple conclusions from the searches.

The search is really concerned with one theme; how did we get to where we are? This can be broken into sub-questions at different levels. Starting personally, how did I become the person I am? How did England become such a curious place? How did western Europe diverge from Asia and Africa? How did humans develop over the last fifty thousand years into such a peculiar species? Yet even if they are somewhat separate, the levels seem to be interconnected.

In searching for answers I have consulted great authors in all fields, from philosophy to poetry, from history to anthropology. I have also tried to study from the microcosm, the life of a particular family in the Himalayas, up to the macrocosm, the whole history of humankind. I have concentrated on three particular places, England, Nepal and Japan, but also spent time working on and thinking about Nagaland (on the borders of Burma), China, Australia and elsewhere. I have also tried to spend a great deal of time thinking about the best practical and theoretical approaches to these problems.

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So here I am, once again, now in my early 60's, trying to understand the world. At last, by combining all my loves, literature, history, anthropology and philosophy, I feel that I have begun to understand the answers to some of the questions concerning how the world works. I want to write to you Lily to share what I have found. I often have the image in my mind of a moment when I gazed down off a bridge in the Lake District and for a moment all the eddies and confusion in the water vanished and every pebble and every fish at the bottom were revealed through the crystal water. Then the eddies swirled back again and 'fled is that vision'.

I feel that things are now at their very clearest. I have a life of experience, of teaching, travelling and studying. To change the metaphor, before the mists begin to settle and the mountains are covered again, I would like to share with you Lily what I have found. I have to believe that it really is possible for one human being to help another in this way, that wisdom not only exists but that it can be shared.

If it does and it can, and if my *Letters* to you give you a moment of pleasure or peace, it will have been worth the work. I write to you to express my love for you and to return to you and the many others who have helped and stimulated me, some of the

privilege and joy I have myself received in a rich and marvellous life. I also write to clear my mind and to put down before I forget what I think I have found in a life of searching.

(Who are you?)

Identity

I started life as an Indian, and am now Chinese, having been British, Nepalese and Japanese on the way. Perhaps I had better explain this strange statement. I was born in India and my passport said I belonged to that dominion. As a little boy I spoke the local Indian language, my best friends and nurses were Indian, and I spent more time than with the few British around me.

Then suddenly I was wrenched away and placed in an English middle class home in Oxford and then Dorset. For the next twenty years my identity was being forcefully shaped by a series of schools, friends and family. I became quintessentially English, though at times on holidays I gained a flavour of my father's Scottish background.

Then for fifteen months I lived in Nepal and tried to learn to be a Gurung – the language, behaviour, way of being. Here it was that I suddenly realized how lonely and individualistic my English upbringing had made me. I suddenly moved from an 'I' to a 'We' society. On numerous further trips I gained further insights into the contrast. But this first visit alone was enough to make me question my individualistic English identity.

So when I came to write my book on English 'peasants' in history, I suddenly found my mind dragged off in an unexpected direction, namely towards an investigation of English identity in the past. When had the English become so individualistic? When had men and women been assumed to be roughly the same? When had the group based peasant civilization been transformed into a modern capitalistic one? When had people started to conceive of themselves as primarily English, rather than by regional or even village identities?

These were all things I explored in my book on *The Origins of English Individualism*, written in 1977. And I have pursued the themes in many later books and articles.

Later, in the 1990s, I began to study and work in Japan and this was another shock. Not only did the Japanese not have a strong sense of individual identity, but they lived in a world where everything was made up of networks of personal links, relationships were the major element in people's lives. There was little developed concept of the soul, or of personal identity. This again set me questioning the curious culture in which I had been rough up in England.

Finally, at the start of the third millenium, I started to explore China, which was very different from all my other experiences, more group conscious than the English, but less relational than the Japanese.

All this searching to understand myself and my country occurred in a context in which England itself was changing very rapidly. Gender identity, race relations, the relation of Britain to Europe and England to Britain all were on the move. Around this the rapid development of what we term in short-hand 'globalization' meant that I suddenly found I had to make rapid adjustments to my identity.

So, like most other people in the world, I was wondering who I was, how I was constituted, how my traditions had been made, what my nation is, where I belong. If I am somewhat confused by all this, I expect you are too, Lily. So I thought it would be good to try to explain how we make and re-shape our various levels of identity.

(Why are families often difficult?)

Families

I never really thought much about the kind of family I was living in when I was at school or whether it was normal or not. Nor did I wonder whether I was a highly desired or unwanted child. Yet there were a number of features of my family background which may have shaped a great interest in the history of the family which developed later in my life.

I was part of the last generation of children of the British Empire whose parents were abroad and who sent their children home very young (in my case aged six) and thereafter hardly saw them again until they were grown up. After a warm and loving five years with my mother in India, I was sent to England to be looked after by my mother's mother. Instead of being the oldest, with two younger sisters, I was now for a while the junior member of a household, for my grandparents' sons, my uncles, were still around, the youngest being only seven years older than me. So I had to fit into a new family structure, and I must have been dimly aware of the difference between the family systems I had been half-absorbed into through my Indian nurse in Assam, and the English system.

Over time I also became conscious of a difference between my father's Scottish family and my father's temperament, with its more emotional, clannish, nature, and my mother's English middle-class family, always more rational, calculating, reserved and individualistic. So I have always felt as if I lived on a divide between family systems, the warmth and emotion and irrationality of India and Scotland, the coolness and calculative efficiency of England. This was re-enforced when I married Sarah Harrison, the quintessence of what was best in English kinship. All this may be part of the reason why I have spent so much of my life investigating the English family and marriage system.

Yet at school we learnt nothing about this in a formal way. Family systems, marriage and even sex were hardly discussed in lessons, though the last of these was obviously at the forefront of my development through puberty. I enjoyed the usual attractions and suffered the usual guilt and repressions, exacerbated by attending two boys-only boarding schools for ten years, and this again, no doubt partly shaped a life-long interest in the sociology of sexual behaviour.

At University likewise, we learnt practically nothing about the history and nature of the family system and marriage in England through formal teaching, though I continued my interest in these themes indirectly through a deep love of romantic poetry (especially Keats, Shelley, Wordsworth, Coleridge) all of whom I had started to enjoy at school.

My first memory of encountering a theoretical discussion of the subject of marriage and sex in history was when I did an essay on the causes of the industrial revolution in my third year at Oxford. Here I began to look at the theories that partly explained the origins of the industrial revolution by a rise in population. That rise in turn was probably partly caused by a rise in the number of children being born and surviving infancy. It was clear that the age at marriage was an important factor in all of this, but at the time I knew little about how marriage systems worked.

When I began to train as an anthropologist in 1967 I was abruptly thrown into the analysis of family systems. Because most of the societies which anthropologists have traditionally studied were organized on the basis of kinship and marriage relations, roughly half of all anthropological work was concerned with this subject at that time. To proceed in this new subject I had to master this field. I wrote about one aspect of it in my long dissertation on sexual controls and particularly incest taboos in history under the supervision of Isaac Schapera, who had written one of the major textbooks on marriage. I was examined on this by Jack Goody, who later became my Professor at Cambridge and a deep influence on my intellectual development. He was a world expert on kinship and marriage and his comparative and historical work influenced me greatly.

The theme of the world population explosion was also at the front of my mind, so fertility and its social setting, that is kinship and marriage relations, continued to be a central interest. In my doctoral research in Nepal much of my work was on fertility and family systems and when I returned to a research fellowship at King's College in Cambridge it was to do research on marriage, the family and sexual behaviour in the English past.

This background must have prompted the Department of Social Anthropology to ask me to follow several distinguished colleagues (e.g. Meyer Fortes) who had given the eight introductory lectures on kinship and marriage to first-year students. I gave this series for over ten years and, with other lecture courses on the history of the family, this indelibly imprinted an interest in how the English system worked on my mind. From my first book, *The Family Life of Ralph Josselin* (1970), which placed the seventeenth century family into anthropological perspective, through *The Origins of English Individualism: The Family, Property and Social Transition* (1978) to *Marriage and Love in England, 1300-1840* (1986), a main part of my work was concerned with trying to understand the way in which the English family system had

evolved and what effects, particularly on fertility, this might have had, a theme I returned to (while adding a Japanese dimension) in the last four chapters of *The Savage Wars of Peace* (1998).

I wanted to see how the English system worked, why romantic love was so important, how the relations between parents and children operated and so on. All of this was set alongside my interest in what encouraged or dissuaded people from having children, as I argued in my Malinowski Memorial Lecture in 1978 on 'Modes of Reproduction' where I specially linked high and low fertility to different family systems.

Working in and on the subject of Japan once again gave me another variation which had strange resemblances to England, but was also very different. And of course, all the time, the personal and the academic were interwoven. A broken marriage, the pleasures and pains of absorbing a new family into my life with a second marriage, all of this both drove me to try to understand how families work and what love is. The wider context of the last third of the twentieth century in the west, with the apparently rapidly disintegrating older system of marriage and the family, also made my search for an understanding of how family systems work all the more urgent. Frequent revisits to Nepal from 1986 have further reminded me of the power of family systems in many countries today and the great difference between a familistic world among my Himalayan friends and adopted second family, and that which I experienced in England.

(What is love?)

Love

There are many forms of love, so I shall stick here to what we call 'romantic love'. My first memory of falling deeply in love was when I must have been about seven or eight. She was a little girl with freckles and I think called Patricia, whom I met briefly on a holiday. I did not ever declare my love, but for some years dreamt of meeting her again. Likewise the girl I saw in a railway carriage on Carlisle station when I was about 15. She smiled and waved and my whole world came alight. I dreamt of that smile for many years.

Among my first loves were, of course, other little boys of my own age, the first deep one I remember was when I must have been about twelve, and there were several more in my boarding schools. We also fell in love with handsome older boys and I remember standing under the stars under the northern fells reciting some boy's name, with 'I love you' appended, many times and my heart singing.

Of course I did not know what love was in any formal, analytic, way, but I knew that feeling of overpowering attraction when everything suddenly seems to come together in an intense flash of lightning. I did have a few very tentative girl friends, but they were all people I met in the holidays as it was a single sex school.

I tell you all this really to try to understand why I should have been so interested in love. I have lectured on the subject in America and Japan as well as many times in Cambridge. I have written a long book on *Marriage and Love in England*. I have spent much of my life looking for love and reading about it.

I don't suppose I am much different from many others, but if there is any difference it may have been partly my separation from my parent's at a very early age, my own mother's search for love through poetry and writing, and partly the search for the perfect companion to share my life with. For whatever reason, trying to obtain and understand love has long pre-occupied me.

When I was at University I spent much time in search of 'perfect love'. I read Shakespeare's love sonnets, John Donne and the metaphysicals, Keats and Shelley and Yeats and other great love poetry. I adored the story of Abelard and Heloise, of the love stories in the Arthurian legends, I swooned over the pre-Raphaelites and Swinburne. I read Llewelyn Powys' *Love and Death* which had a great effect on me. I was a very romantic and moon-struck individual and I had several lovely girl-friends with whom I shared my dreams.

I was also very conscious of the links between love and marriage. I knew that if I found my Heloise I would want to marry her, and that I should not marry anyone but such a person.

My search for love and its mysteries led me to a first marriage which turned out to be wrong for both of us. It ended earlier than it might have because of the strains of anthropological fieldwork together and I suddenly discovered the love of my life elsewhere. Through a rose-filled summer we wandered the hills and dales and I have never experienced such bliss. I found your grandmother, Lily, and she gave me the happiness of sharing a life with your mother and her sister at an early age.

Yet while I took love to be the core of my own life and deeply associated with marriage, as in the Christian tradition, as I began to study anthropology I suddenly realized how peculiar my own views were. I came to learn that western civilization has an 'instituted irrationality' in believing that love and marriage are linked. Most societies, including those I studied like the Gurungs, Nagas and historical Japanese and Chinese, saw childhood love as one thing, marriage entirely another.

So as I lectured year after year to undergraduates on the nature of love and marriage I pondered all these things. My colleagues, Meyer Fortes, Jack Goody, Edmund Leach, and my L.S.E. teachers, Isaac Schapera, Lucy Mair and Robin Fox, had all written famous works on marriage. I learnt from them to analyse this institution and began to wonder when the peculiar English obsession with love, which I so fully shared, had come from and why it was there.

It is a particular pleasure to write a letter to you, Lily, on love, since in a sense you are one of the unexpected side-benefits of my love for your grand-mother. You will also find it a constantly absorbing subject and be tugged this way and that. I hope that understanding a little of why we love and how peculiar it all is will help you keep your balance. It can also be read as an expression of the way your beauty and

innocence have rekindled memories of the wonderful love I have known in the dawn of my life.

Perhaps I can end this little walk, as I do my *Letters* to you, with the last two verses of my mother's poem to my sister, which sums up what I hope for you.

'Give her body's flower grace
Into Galahad's embrace,
That in peace she may discover
Man as friend and friend as lover.

Time be kind, be gentle. Teach her
There are woods where naught can reach her,
There are mornings none can borrow,
Love enough for each tomorrow.'

(Who are our friends?)

Friendship

Friends and friendship are so much part of my life that I have never really been aware of this phenomenon until I decided to write to you Lily about this. No-one ever told me about what friends were, how they were to be made or unmade, or even what friendship really is. I just absorbed all this intuitively in millions of experiences and encounters, like everybody else.

I don't remember my early friends, but my mother tells me that my best friend was a little Indian boy. Then through all my schooling, friends and friendship dominated my social life. Meeting, assessing, incorporating, sharing, quarrelling with, making up with, keeping in touch with, dropping, cultivating friends became a central pre-occupation. I suppose it is with the majority of children in many societies.

So, by the time I left University, I had assumed that friendship was part of nature, that all people in all societies entered into many relations of trust with unrelated people in an open, non-exploitative and equal relationship and called them 'friends'.

It was only when I came to study anthropology and, in particular, when I lived in a Himalayan village and began to feel the weight of other ties (kinship, neighbourhood, village, caste, religion) that I suddenly realized what an extraordinary and unusual system I had grown up in. I began to realize that friendship was not a natural institution, but the cement that held together people in that minority of societies in history where individuals have been set free from the automatic bonds of birth, of caste, tribe and kinship.

Friendship presupposes that an individual can freely choose with whom he or she has their most important relations. It also assumes that a person has the time and energy to invest in such relations. It assumes a great deal of trust, and a relaxed

attitude towards ‘honour’, ‘face’ and reputation, especially in friendship between men and women.

So I realized once again that my own experience of intense or passing friendships that had shaped my life could not be taken for granted. I wondered why friendship had developed and particularly in the context of my academic life. For it was in my daily life in a Cambridge College that the variations of friendship became especially important. What was the difference between a colleague and a friend, a Fellow and a friend, a friendship with one’s peers and with one’s students? Were there any special problems in male-female friendship, for instance, what is the difference between friendship and non-sexual love?

The world of King’s College which I have enjoyed for thirty years is especially fruitful for the study of friendship. Sharing rooms with distinguished academics, being involved in sudden friendships with visitors and students, witnessing the solidarities and sometimes the frictions of friendship in the College of E.M.Forster, John Maynard Keynes and others, with its one time reputation for intense male friendship, is very fruitful.

So I decided to write you a letter, Lily, about friendship. This was partly because a young friend I talked to about the book in its early stages said that what she spent much of her time thinking and worrying about at school was friendship. She thought this something really needing explaining. Watching you and your friends shows she was right, and watching your friendship with your sister adds depth to my observations. So who are our friends, why is friendship so important in our civilization, and, come to that, what is friendship and can a grand-father and grand-daughter be friends?

(Why play games?)

Games

Like you, Lily, my interest in games dates back to my early childhood. As a very small boy in Assam I played with my mother and my father (an enthusiastic games player, including an excellent rugby and polo player and huntsman) and my local ayahs and small Assamese friends.

When I returned to England I was deeply influenced by mother’s younger brother, Robert. He was only seven years my senior and was a passionate games player, despite being blind in one eye and not very strong. He was also an obsessive hobbyist. We spent our holidays together, he aged about 14 and at a games obsessive school (Sedbergh) to which I would later go, and myself six or seven.

Robert taught me most of the common games as well as played imaginary games with soldiers, cars, horses, meccano and many other games playing devices. His mother, my grand-mother, was also a games fanatic, particularly card games and mah-jong, a Chinese game which I early learnt. So I entered with passion into competitive games, and also watched the obsession of those around me. Robert cut out and

collected everything about his favourite football teams, made and played with many kinds of model. So I became imbued with gaming and imaginary worlds from childhood with a rich set of rules and toys.

Looking back from fifty years later it is difficult to understand or remember the reasons for this passion; a mixture of loneliness, competitive spirit, imaginative wonder, joining a wider world, all these things and others no doubt. Each game opened up new worlds, 'subuteo' (football), a game of horse-racing, toy soldiers ball games of many forms. They seemed to give a sudden expansion of the mind as well as the body. Expanding the small models to the large, learning the rules and mastering the skills, it was all exciting. A huge amount of my time and energy was devoted to games, inventing, playing, subverting.

So games shaped the person I am and all of my adult life, both in work and leisure, has been an application of what I learnt in those early hobbies and games. They have clearly been one of the single greatest influences on my personality and hence there is sense in writing a letter to you Lily about games. Understanding games will help me to understand myself, as well as the games-mad British.

My schools added to this, for both my preparatory school (the Dragon) and public school (Sedbergh) set a huge store by games. I soon learnt that games, both individualistic like conkers or marbles, or team, football, cricket, rugby, were as important as work, both in the eyes of the teachers and the pupils. It was quite explicitly stated that they were 'character forming' and it was clear that in order to gain prestige amongst other boys I had to learn to play well.

So I ran and jumped and kicked and batted and threw vigorously for ten years. Fortunately some natural ability, perhaps inherited from my father, plus the early training from my uncle, combined with determination, meant that I was reasonably successful, though not outstanding. As well as all this, I became an obsessive fisherman. I dreamt of huge trout waiting for my bait in overgrown pools and put much of my thought and energy into planning and perfecting my fishing techniques. Holidays in Scotland, two trips to the mahseer rivers of Assam, and moving to the trout filled Lake District at the age of twelve fuelled all this.

All this faded out quite rapidly at University. I continued to play football for my College, but with diminished enthusiasm and likewise fishing was no longer the centre of my life.

This early immersion in games may be behind my realization of the power games have over us. I have been there. But also passing out of this phase left me with a sense of astonishment at myself as well as with the general importance given to games in world culture. Why do humans love to play so much, and not only play but just sit passively and watch others play? What are the functions of all this? Since games and sports now appear to be the new unifying force in the world, a kind of super-religion or language to join nations, it seems important to understand this. If we want to understand 'how the world works' we must certainly pay deep attention to games and sport.

One final thought. It seems to me obvious that much of my passion for games was re-directed into my academic quest. Many of my feelings for games and sport find parallels to the feelings I have in research. The care and detail of planning to find and capture a trout does not seem dissimilar to the process of finding new and exciting 'facts'. The excitement of that 'mad pursuit' of academic life is very close to games and sport – the rules, the teams, the strategies, the tactics, there are very many similarities. The setting up of models, playing thought games of various kinds, all this, which is the essence of games, is also the essence of science. So this is one of the reasons why in my letter on games I talk about the games-like nature of science.

(Is violence necessary?)

Violence

As a little boy I was probably as violent as the rest. I do not remember being cruel to birds and insects, or even particularly horrible to my younger sisters, but I probably was. And I certainly remember acts of violence later on which I now look back on with regret – bullying in a mild way, or at least not stopping others when they bullied. I remember verbal violence, impaling worms on hooks and so on.

I also remember being involved in a good deal of violence at school, though it was mainly channelled into games, or informal rough and tumble. I also played violent games of 'cops and robbers', Robin Hood, cowboys and Indians, and loved mildly violent films and comics and books. Mine was a world of endless minor acts of violence which were taken for granted and hardly noticed.

Although this preoccupied me and my friends, I was not told much about the principles by which I could understand the nature of violence in our world, even though the history of our world, which I began to specialize in from the age of sixteen, was saturated with cruelty and violence. The long catalogue of 'man's inhumanity to man' (and other animals) often sickened me, but I never really understood it, or even tried to do so and no-one explicitly explained it to me.

It was only with the experience of living in other societies, or studying them, that my own violence and that of my civilization came into perspective. When I worked among the Gurungs in Nepal, I was amazed by the calm, non-violent, nature of the people, contrasting with the violence of some of the animal sacrifices. When I studied the, until quite recently, head-hunting Nagas of Assam, I tried to understand that class of forest dwelling war-like tribes that had dominated much of human history and to investigate a quintessentially human form of violence, killing another human being for his or her head.

I was asked to give lectures on war, feud and violence to undergraduates and this took me into reading about organized crime, another form of violence. I studied the mafia and when in Japan compared them to what I could learn there about the yakuza. I also compared these forms of gang violence with the highwaymen and robbers of seventeenth century England, about whom I wrote a book.

Throughout all of this I pondered on what violence really is. Is it a physical, a moral, a symbolic thing – or all of these? And I tried to understand my own violent feelings (on occasions) and the apparently mindless violence I saw all around me on the television and in the newspapers.

Violence is a grim, but central, characteristic of most animal species, humankind included. I agree to a certain extent with Thomas Hobbes, whom I increasingly came to admire, that man in his ‘natural’ state lives a life full of fear or ‘Warre’. Of course such a ‘natural’ state has never existed, and records of some of the very simplest societies show them to be peaceful and largely non-violent. But it is best, I think, not to underestimate human ability to be violent. If we start with the assumption of violence, and then see how it can be channelled or controlled, I think we end up with a more realistic and useful approach than if we start as Godwin, Rousseau, Marx and others do, with the assumption of basic peacefulness.

Much of this will come out in my letter to you Lily. All I want to say here is that violent feelings and acts will follow you through life. Be aware that they are not unnatural, but nevertheless must be controlled. If you understand a little of the springs of violence, both in yourself and in others, and in the State itself, you may be in a better position to exercise this control and know the pleasures of peace and calm.

(What is war and why do we fight?)

War

Like most people in the war-torn twentieth century, I come from a family with many military connections. I was born in 1941 on the edge of the area towards which the Japanese were advancing in the Second World War. My father was then a major in the Assam Rifles. My grand-father was a Lt. Colonel in the Indian Army. Two of my uncles were Gurkha officers fighting the Japanese in Burma. So, from a child onwards, I was surrounded by the trappings of war. Not just the medals and photographs and memories of my own family, but also the spears and axes of the war-like hill-tribes who surrounded the tea gardens where my father worked and with which I played as a child. Yet the nearest I have ever come to fighting myself was in my favourite childhood games, with toy soldiers, with my bow and arrow in Robin Hood games, my six-guns in Cowboys and Indians.

At school we fought and bullied and played further war-like games, but I do not recall much discussion in the lessons at Sedbergh of why people seem to be so endlessly fighting. So by your age, I knew little about the history of war or how it varied across cultures. Nor was I particularly interested in the subject except as a form of game and in the stories of my family.

When I studied history at Oxford, much of what I was reading about concerned the effects of war. Indeed, endless wars, civil wars, revolutions, battles floated before my eyes and there were so many names, dates and campaigns that I became bored with war. Its revolting history, combined with earnest religious convictions, turned me into a pacifist. I do not remember learning about imperialistic wars of aggression, of the

theories and art of war as a science, nor in any detail of the dreadful consequences of war. Just an endless catalogue of campaigns, changes in technology, battles, the doings of Cromwell or Napoleon. It all seemed a long way away.

War continued to hover on the edge of my work on witchcraft and magic and other work I later did on the village records of England, but it was not central at all. I came much closer to the subject when I went to work in the Himalayas among the Gurungs in 1968. To understand Gurung history and culture I had to understand the role of this famous 'martial race' in the Gurkha regiments of the British army. Why had they been recruited, how had they performed, how did they adapt when they returned from service, were they mercenaries? Above all I had to try to resolve my surprise at the difference between the apparently very gentle, humorous, non-aggressive peoples I found in the village, and the accounts of the bravery, daring and martial spirit which had made them amongst the most famous warriors in history.

Another strand in a growing interest in war lay in my work on population questions which developed in the late 1960's. Thomas Malthus had rightly placed war first in his list of checks to human population growth because its effects, particularly its side effects on famine and disease, and the way in which growing population growth often triggered hostilities, made it so important in understanding the catastrophic history of mankind. If I was to try to understand the recent rapid growth of population in many parts of the world, I needed to know about the history and causes of war.

In the middle of the 1980's a further impetus to my interest occurred when a small group of us made an intensive study of the Naga peoples who live on the Assam-Burma border. These famous and artistic peoples had based much of their recent history on the art of war. Their whole culture, economy and political system revolved round raids and feuds and the threat of war. I could certainly not understand their world at all without investigating why people throughout most of history have been so war-like. This interest led me both to study war, and to lecture on war and violence for a number of years to undergraduates at Cambridge in the late 1980's and early 1990's. Feud, war, vendetta, the mafia and all forms of instituted violence became a central pre-occupation in my work.

A further influence was the experience of going to Japan in 1990 and subsequent visits and reading on that ancient and well-documented civilization. There were so many puzzles again in the Japanese attitude to war. On the one hand the Japanese samurai tradition of warfare with its amazing suits of armour and swords and ethics all proclaimed a world of constant war and martial honour, which had later led into the disasters of the Second World War and the horrors of the atomic bombs at Hiroshima and Nagasaki. On the other hand, as I studied Japanese history I discovered that for nearly 250 years, from the early seventeenth century, the Japanese had enjoyed the longest absolute and most complete peace of any civilization in history. This gentle, peaceful, careful world was reflected in its art, culture and society. Like the Gurungs of Nepal, like my gentle poetry-loving grandfather with his DC and Military Cross, there seemed to be a complete contradiction between two sides of human nature.

So I decided to try to sort out a few of my ideas on the nature and history of war within a Malthusian framework in my book on *The Savage Wars of Peace* which I wrote in the mid 1990's. I discovered some of the tendencies and patterns which nearly always lead human beings to fight and kill, but also one or two odd exceptions or escapes from the ravages of a horrific human addiction. As a background to all of this there was evidence on our television screens and newspapers of continued warfare. The horrors of Vietnam and the almost ceaseless succession of minor 'hot wars' which simmered within the Cold War, the periodic slaughters in wars between India and Pakistan, in Rwanda and in many other wars made it impossible not to wonder about the wider issues of what all this fighting and killing is about and what the wider effects of war is on human societies.

(What is witchcraft?)

Witchcraft and Magic

When I was a child, at school, and even when I went to University, I loved books and poems about magic and witchcraft. I read all the books of C.S.Lewis on Narnia. I read Rudyard Kipling's *Puck of Pook's Hill*, I read some of the fairy stories told by Andrew Lang and the Brothers Grimm. At University I read the *Hobbit* and *Lord of the Rings*. I remember deliberately trying to keep alive the enchanted world of 'faery' by reading these and many other works (including King Arthur's magic feats, Kirk's *Kingdom of the Elves* etc.) and many poems by Yeats, Keats, Swinburne, Tennyson and others right up to the time I took my final exams at University. I did not want to leave that enchanted land, which seemed so much richer and more fascinating than the grey world of my Protestant Christianity.

The day after I finished my history exams, I thought I would do what no sane person would do, that is go back into the Bodleian Library and read another history book. But this book would be something entirely different, something I had chosen for myself and of no practical use in exams. I chose a book on the history of witchcraft, as I recall by a man with a strange American name, Preserved Smith.

The book showed me a picture of witchcraft which was very different from the cheerful and, in the end safe, wizards and witches of the Harry Potter variety. This book and several other histories of magic that I then read showed a world where real people were accused of the most horrific crimes, killing their own children and eating them, perverted sexual behaviour with animals, worshipping the Devil and so on. Serious judges and courts examined them, often using torture such as squashing their feet until their bones were crushed to jelly, extracting their finger nails, stretching their bodies on racks until their limbs were torn from each other. Then, if they were found guilty they were often burnt alive in great agony. Much of this was done in the name of the loving Christian God. I wondered how devout and high-minded people came to such a situation.

There were many other puzzling things. Some historians argued that there really had been a huge underground organization, a sort of Satanic Al-Quaida, whose

members met and plotted the downfall of civilization and Christian society. Others found cases where people willingly and freely confessed to the most terrible crimes, often naming their most beloved family and friends as accomplices, yet they were crimes which it was impossible for them to have committed (e.g. flying through the air or going through key-holes). Why would they confess this?

So I began to realize that there was a whole realm of supposed demons, witches, familiars (the little animals they were supposed to keep which sucked on them), witch-hunters, wizards, astrologers, to be understood. It was clear that one could not take either of the easy options. One could not dismiss all of it as madness, irrational, evil beyond comprehension. Yet, at the other extreme, I could not believe in it. It was a mystery that so many intelligent people could believe so much (to us) rubbish with such conviction and in a way which lead to huge cruelty and savagery.

All of these early questions were in the back of my mind when I came to chose a topic which might well be my major life's work, namely the subject for my Oxford D.Phil. in history. Having toyed with the idea of trying to tackle the huge question of the split between mind and body in the seventeenth century, but being told it was far too large, I finally narrowed down to the topic of witchcraft trials and beliefs in sixteenth and seventeenth century England. With the support of my proposed supervisor, a young historian called Keith Thomas, who later became famous, I tried to tackle the questions surrounding apparently irrational beliefs in magic and witchcraft. Why had witchcraft accusations suddenly flourished from about 1560 in England and then, just as rapidly, died away about a century later?

In order to try to understand why people were accused of being witches and even sometimes seemed to believe themselves witches, I decided to look not only at the English evidence, but also at the work of those who had lived in societies where witchcraft beliefs were still a major obsession. These people were called anthropologists. The most famous of them, whose book on witchcraft in a North African society, the Azande, was my major inspiration, was Edward Evans-Pritchard. His idea of why witchcraft is so widely believed in and why, once there is such an idea, it is almost impossible to break out of such a belief, describes a very normal path for human beings.

When I went on to study anthropology properly at the L.S.E. I wrote a long essay on pain, sin, guilt and witchcraft. I read and corrected Lucy Mair's book on witchcraft and attended a memorable conference on witchcraft at King's College, Cambridge where I met all the leading experts on the subject and gave my first academic paper. In a book I was writing on the seventeenth century clergyman Ralph Josselin I tried to understand how he could have believed in witches, and wrote about another Essex clergyman, George Gifford, one of the greatest opponents of witch beliefs in Essex. So witchcraft was still very much on my mind.

When I went to Nepal, the subject was constantly at the forefront of my experience, even if none of this was described in the thesis and book based on the fieldwork. At first I was misled by the otherwise superb book by Bernard Pignède which I was translating. He had been told that the Gurungs did not believe in witches. I accepted his account. Fortunately, the proofs of my *Witchcraft* book arrived in the Himalayas and when I explained what they were about, and that Pignède had said

there were no real witches, my best informant, Prembahadur, explained that of course the Gurungs had witches.

So I spent many days noting down anti-witchcraft rituals. Then, and over the years since, we have attended and filmed a number of long shamanic rituals designed to cure and drive away witches. Unlike most historians, therefore, I have lived in a world of witchcraft beliefs and both felt and seen these beliefs in action and talked to those who believe in magic and witchcraft and try to counter its power. I have even undergone rituals to cure me of witchcraft (a possible cause, the shaman said, of my deafness).

In all this work one puzzle has never really been resolved in my mind. It is clear that witchcraft and magical beliefs are almost universal. They are also self-confirming and there are various ways in which they are protected against doubt. Yet there was indisputably a decline in witchcraft accusations and beliefs, among the intelligentsia at least, at the end of the seventeenth century in England. Why had this happened?

Further thoughts on the subject came from our visits to Japan from 1990. I naturally asked about witchcraft beliefs and was amazed to find an apparently total absence of the concept of witchcraft. As far as I can see there have never been witches or witchcraft beliefs in Japan. This is also the case in China but it is certainly different from almost everywhere else (India, Europe, Africa). The nearest the Japanese have are unlucky animals, such as foxes, and perhaps even 'were' animals, in other words the belief that humans can change into animals. Since the Japanese lived in as insecure a physical world as any other agricultural society in the past, and in terms of fire, earthquakes and hurricanes in many ways worse than most, the idea that witchcraft is an automatic response to suffering was clearly too simple.

Even Keith Thomas in his two great books on *Religion and the Decline of Magic* and *Man and the Natural World*, had not provided a satisfactory explanation for the decline of witchcraft beliefs. Recently I went over his arguments again and in an essay published in a collection for his retirement I tried to suggest a new explanation for the decline of witchcraft based on a life's thought and experience. It suggested that just a slight tipping of the balance between various factors such as insecurity, knowledge, social relations made all the difference. Yet there are still puzzles. Perhaps appropriately, witchcraft and magic are among the most mysterious and inscrutable of all subjects.

(Who are the terrorists?)

Terrorism

During my childhood, at school and University and through most of my years as a University teacher, that is in the half century from 1941, I never heard much of or thought greatly about terrorism. It was only when I was about sixty, that is at the start of this millenium, that people started to talk widely about terrorism or it began directly to interest me. This is perhaps the most important thing to say. Terrorism is a

very recent obsession that has only gripped the world more or less overnight in the twenty-first century.

That is not to say that there were no subversive movements that tried to overthrow rulers and the state before 2000. Throughout history there have been real and imagined enemies of civilizations and I have long been interested in some aspects of these.

In particular I have made some study of three predecessors of 'terrorism'. One was the attack by and upon medieval heretics. In the 1980s I had become interested in the strange ideas of the Albigenian or Manichaean heretics. This movement had drawn ideas from eastern religions which rejected the basic Christian belief that God ruled the world. Instead they believed that this world was ruled by the Devil and God was elsewhere. Along with a less vicious view of Heaven and Hell and a more benign view of human nature, it was in many ways an attractive alternative to Christianity. Its philosophy had attracted large numbers of converts in southern Europe in the thirteenth century.

The response of the Christian church, in an alliance between the Catholic Papacy and the King of France, was a crusade, involving a savage brutality towards the heretics which it is sickening to read about. A massive campaign of terror was launched against them and they were tortured and executed in their thousands. We visited the ruins of their castles in the beautiful mountains of southern France and we saw the extraordinarily grotesque and threatening murals in the churches of the area, particularly Albi, which re-enforced the demonic horror of Hell which would take the souls of the heretics, mutilated and burnt in the crusades.

The next set of 'terrorists' who I looked at in much more detail were the so called 'witches'. This was a really important way in which my thoughts about terrorism have been shaped. Witches were at first rather vague figures of hate, not clearly demarcated off from other evil forces. But soon the Catholic inquisitors wrote text books which explained how to identify them and how to prove their guilt, including that most famous of all, the *Malleus Maleficarum* or 'Hammer of Evil', published in the 1480s.

This put forward the argument that witches were particularly dangerous because they attacked the very foundations of civilization by subverting all morality and worshipping the anti-Christ or Devil. They were also particularly cunning and secret, for they could operate at a distance, fly through the air, poison people through magical potions, even kill and maim just by looking at a person or animal. They were very well organized, into groups or cells called 'covens', linked by a master-strategist, the Evil One or Devil himself. Consequently the normal methods used to investigate and try people should be altered to deal with this threat. The suspects were tortured, held without accusations, the testimony of children used against parents, trapped by leading questions.

With these methods and underpinned by this vision, hundreds of thousands were rounded up over the next two centuries and a vast conspiracy of terror threatening Christian civilization was located. Many ordinary people were terrified and the normal safeguards of law were abandoned.

Then, gradually, the whole basis of the belief in witchcraft was questioned and by the end of the eighteenth century it was widely accepted that there never had been witches, that it was an impossible crime, that it was the methods and the fears which had conjured up these early 'terrorists'.

I had become deeply interested in all of this and wrote my doctorate and my first book on witchcraft. I remember well my disgust and horror at the tale of cruelty and false logic that led to this terrible episode in European history.

Yet it was not the only one. Another crusade was against the Jews, who were likewise looked upon as a secret, threatening, 'terrorist' organization, also posing a fundamental threat to Christian civilization. Throughout the medieval period they periodically suffered pogroms or annihilation, being tortured and burnt alive.

Another threatening wave of 'terrorist' organizations arose to challenge the Catholic orthodoxy. One set consisted of numerous heretical sects, successors to the Albigenians, in particular the Lutherans and Calvinists in northern Europe. Another consisted of mystical or other organizations such as the Rosicrucians and the Masons. Then again there were the people of north African origin in Spain, the Moors, who had co-existed peacefully for a while. The response was the same, torture, the sword and the stake. For all these purposes the medieval inquisition was reinforced and a general 'war against terrorism' was proclaimed, particularly in Spain and Portugal.

I became interested in all this during the late 1970s and for a time co-ran a project on the archives of the Portuguese Inquisition. I worked with Portuguese scholars and made several visits to the archives in Lisbon. I read the inquisitors' manuals and the trial records, and saw the perfection of the techniques of uncovering supposedly secret challenges to the status quo.

The sleep deprivation, the false evidence suggested to the accused, the denunciations of close friends and family, the use of spies, numerous techniques now re-established in the twenty-first century 'war against terrorism' were then developed and used against these threats. In many cases they drove the remnants of the Jews, Moors, Lutherans, Masons and others out of Spain and Portugal and the pure 'Christian Blood' of those countries was re-affirmed in the smoke of burning flesh.

Yet there was a cost. Spain and Portugal without the diversity of cultures quickly lost their intellectual and economic vitality, while the 'heretic' nations of northern Europe where the terrorists (i.e. protestants and others) had become rulers came to rule the world, and were no longer regarded as heretics by their citizens. Holland, North Germany, England, Scotland, North America and Scandinavia gained independence from the Catholic inquisition.

Yet the demons and the fear did not disappear. I never made a study of the twentieth century anti-terrorist purges, Stalin's gulags and exterminations, Hitler's Jewish 'final solution', Chairman Mao's cultural revolution or Senator McCarthy's 'Un-American Activities' persecution of supposed communists. But they all tended to use methods which overlapped with the earlier inquisitions and to create 'enemies of civilization'. In each case, when the purges and anti-terrorist terror ended, their targets were found to be largely invented. In some cases, such as the witches, they were a

total fiction. In others, such as the communists or protestants, they existed but were far less of a threat than the methods to counter them created. Millions had been mistreated and often destroyed on the basis of hugely exaggerated ‘moral panics’.

When the ‘Empire of Evil’ collapsed in 1989 with the break-up of the Soviet Union it looked possible that for the first time in history the world would escape from these nightmares. But hatred and fear seem, like nature, to abhor a vacuum. Very soon a new world conspiracy against our civilization had been identified – radical Islam and a loose confederation of evil terrorists was again threatening our values. The justification for striving against a threatening enemy was again present.

So my interest in terrorism, which has led to the letter to you Lily on this subject, has arisen directly out of a lifetime interest in what Norman Cohn called in one of his books ‘Europe’s Inner Demons’. I felt I needed to understand why we manufacture, or exaggerate grossly, forces which supposedly threaten us and then persecute them. Only to discover again and again that they are either entirely, or largely, our own projected nightmares.

In the midst of these ‘moral panics’ as a French historian called some of the earlier ones, it is very difficult to stand outside the climate of fear. Doubters and critics are at the best accused of complacency, at the worst of complicity in the crimes of the ‘terrorists’ or heretics. Thus recently a Dutch politician who dared to question the Russian brutality against the Chechen ‘terrorists’ was accused of ‘blasphemy’ (a religious offence) by a Russian minister. He had dared to question the religious ideology of the divine Putin and should apologise. There is no middle-ground; in the words of an American President, you are either for us, or against us.

It is this narrow-minded and unhistorical perspective which I hope to expand and question, even while accepting that there are indeed people who feel so deeply that the world is unfair or that those in power have no legitimacy, that they resort to the same weapons as those who invade and attack and suppress them – the gun and the bomb. If they succeed, of course, they are no longer terrorists, but liberation heroes.

(Who is God?)

Religion

I come from quite a religious family and from childhood have been interested in religious questions. My mother has always been a searcher after spiritual truths and for much of her later life has been a sort of Buddhist. One of her brothers has long been an Evangelical Christian and influenced me greatly by arranging for me to go to Christian boy’s camps from the age of about ten to twenty-two. There we were fervently encouraged to ‘Open our hearts to Jesus’ and to study the Bible.

At school I was quite devout and sought spiritual satisfaction through reading and worshipping nature. I remember many intense conversations on the meaning of life, the problem of pain, the ways to overcome the constant assaults of the Devil. I desperately wanted to believe, but found it an effort to do so.

It was when I was about twenty-two and started to read seriously about other societies that the narrowness and proselytising zeal of my Low Church Anglicanism began to irk me so much that I abandoned going to Church and relaxed into the relativistic agnosticism which has sustained me for the rest of my life.

Yet I have retained an interest in the questions which religious people ask and I have gone on asking them. It is just that I have sought the answers across the world, either through reading or travelling. In Nepal I had the privilege of actually experiencing an enchanted world where the Reformation separation out of religion (spiritual power) from ordinary life had not occurred. I learnt that what I had thought of as ritual, sacrifice, taboo, evil and so on in my English up-bringing were but pale shadows of the real thing, as reading anthropology also taught me.

Studying witchcraft and, later, the records of the Portuguese Inquisition brought home to me more strongly the abuses of religion when it became mixed up with politics. All this was a theme which I also pursued in the lives of a number of great thinkers like Montesquieu and Tocqueville, who tried to reconcile their beliefs in God with beliefs in freedom and responsibility among humans.

Later, working in Japan for a long period, I began to see the peculiarity of the joining together of belief, practices and ethics in the monotheistic religions of the west when compared to the mix and match approach of East Asia (and the Gurungs).

This is a short account because there is really too much to say. All of my letters are phrased as 'why', that is quasi-religious, questions and hence are ultimately about religion. Like all those brought up in the way I have been in a western culture, I am deeply enmeshed in religion whether I am a believer or not. It is not just that there is within me, as one writer put it, a 'god-shaped hole'. My whole attitude towards life, and the arrangement of the world around me, is still based on the long Christian tradition, however much that has been made invisible in recent years through the growth of alternative ideas and a superficial secularism.

(Can we control the spiritual world?)

Rituals

Like all of us, I suppose, my life has been rich in small rituals. I collect objects, say words, do action in moments of fear or hope, in the half-belief that they will protect or win the favours of some force I have not clearly specified.

I suppose the desire to see into the future and to control our health and happiness is universal, and that, from the time we speak and probably long before, we try to manipulate the powers in our direction. I have tried prayer, home-spun divination, sacrifice (of the self-sacrificing variety). But almost all of this, from my early life, was set within the rather anti-ritualistic world of late protestant, scientific and technological, England.

It was not until I started to explore other times (as an historian) and other places (as an anthropologist) that I realized how peculiar my attempts were. The form of quite puritanical Anglicanism in which had been raised had more or less eliminated Ritual. There were some formalities, but God seemed either very close (within my heart), or a long way away. He was not in the middle distance, as he seems to be in many religions, including Catholicism with its saints and holy sacraments. When I addressed God in my prayers he seemed at a vast distance, and unable to hear me. Nor were there any meaningful symbols or sacrifices around me.

So it was a great shock to live in a society in Nepal where the world of spirits and the human world were so deeply interfused that people were constantly trying to protect themselves against spirits.

As I participated in shamanic rituals, or watched the elaborate rituals of Brahmin priests, or observed the numerous daily rituals surrounding daily life, I became aware of the extent to which really powerful coercive ritual had been expunged from my daily life in middle-class, protestant, rational, England. I began to appreciate the oddness of my own culture and background. And as I read about the highly ritualistic world of India, China and Japan, I added this knowledge to that world of early Christianity and paganism which had more or less been eradicated by the twentieth century in my part of the world.

Of course there has always been plenty of formal ceremonial behaviour in my life, more than for many. The Oxbridge Colleges in which I have spent a good deal of my life since the age of 18, preserve these ceremonies in an unique way. But all of this seemed much closer to etiquette, polite behaviour – formalized, stylised behaviour which communicated status, identity and helped people negotiate the rites of passage. But little of it had anything to do with the control of the spiritual world.

Reading anthropology gave me a framework of famous theories of how humans have tried to cope with the supernatural. And teaching the subject to generations of intelligent undergraduates has deepened my knowledge. I learnt how ritual was akin to drama, how it compelled and controlled and affected humans through its apparently unavoidable structures. The process which uses symbols, inversions and redundancies, to control both mind and body, became clearer to me.

Having begun to understand parts of this, I wanted to explain it to you Lily. To show you how ritual with a small ‘r’ rules our lives, but in a way that is different to the many worlds which are ruled by Ritual.

(How do we learn?)

Discovery and creativity

It seems extraordinary to me now, but I managed to go through twelve years of school without doing a single lesson, as I recall, on biology, chemistry, physics, zoology or any other science. Nor do I recall a single lesson in which we discussed innovation, technology, manufacture or applied science. So all I ever learnt about these things was from my practical activities using technical skills in games, fishing, constructing models.

During the next six years at Oxford studying history it was really no different. I looked at changing production technologies like the shift from agriculture to industrial methods, but questions of how knowledge advanced and what part technology played in all of this were not really subjects I thought much about.

Working as an anthropologist in Nepal in 1969 brought home to me the vital importance of certain technologies of power, the wheel, animals, electricity. I encountered for the first time a culture which transmitted almost all of its accumulated wisdom, for instance its shamanic traditions, through word of mouth rather than on paper. Yet I thought little more about how human knowledge is altered by technology.

When I started to teach in the Department of Social Anthropology in Cambridge from 1975, the Head of Department was Jack Goody, and over the next ten years he exerted an enormous influence over me, both personally and intellectually. He is one of the most creative and insightful authors on the role of technology in society and has written brilliantly on the role of guns, horses, hoes, ploughs, orality, writing, cooking and many other topics.

Reading Jack's books, talking to him over the years and watching him in action was an enormous intellectual stimulus. His practical interest in photography, film, microfiche, computers and other tools for anthropologists put the Department at the forefront of technological development in anthropology in the world. He also gave enormous support to various projects in these fields which I was beginning to develop.

I have been interested since I was about 16 in how to increase my own mental efficiency through the use of filing systems. In the early 1970's this started to interact with the rapid development of computing as a way of storing and retrieving information. Cambridge University was at the forefront of developments in this field and in King's College I was very fortunate to have the support of the mathematician and computer scientist Ken Moody with whom I have worked for nearly thirty years. Through his help I collaborated over the years with a series of first class computer scientists, Charles Jardine, Tim King, Martin Porter, Tim Mills and Richard Boulton. With Sarah Harrison, and for some time Jessica King, we developed with them new generations of database management systems and retrieval software.

I have spent up to three years of my life trying to understand enough about computers and software to collaborate with the rapid developments which have revolutionized our world, from hierarchical, through relational to probabilistic databases, and now to web-site and internet developments. All this made me vividly aware of how what we can know is deeply shaped by the technology of information storage and dissemination.

In parallel I became interested in another communications technology, namely moving film. I had bought a small 8mm film camera in Nepal for my fieldwork in 1969 and gained a glimpse of how valuable filming could be. In 1984 I set up the Rivers Video Project, one of the first visual anthropology groups in the country to work with my graduate students. We experimented with the cumbersome U-matic

film equipment of the time in close collaboration with Martin Gienke and the Audio-Visual Aids Unit in Cambridge.

Yet it was really only from 1988, when the new lightweight video cameras (video-8, super-8 and then digital) became available that I realized the immense possibilities of filming in fieldwork. Since then I have taken hundreds of hours of film around the world, edited them into teaching films.

I have also been involved in several film and television projects. In particular, the experience of working with David Dugan on six films for Channel 4 on 'The Day the World Took Off', was enormously stimulating. It introduced me to the practical work of television production. It also forced me to think in seminars and interviews about the general history of technologies over the last fifty thousand years.

These experiences converged and I became increasingly interested in the possibility of linking computers and film. With the availability of videodisc technology from the early 1980's, which stored still and moving images and could be controlled by a computer, I began to experiment with multi-media and with a small team of colleagues, Julian Jacobs, Sarah Harrison and Anita Herle we made the first interactive videodisc in anthropology, about the Nagas of Assam.

I was also an advisor to the BBC 'Domesday Project', a pioneer project to explore the use of multimedia. Towards the end of the 1990's I started to look into the potentials of new storage media, in particular DVD, and new ways of disseminating information such as the internet. Mark Turin and I set up the Digital Himalaya Project to store and disseminate anthropological materials. I also set up my own fairly extensive web-site. This has been supplemented recently by collaboration with Xiaoxiao Yan on developing another site, 'digitalorient.org'.

Given all this activity, it is perhaps not surprising that I have had a growing curiosity about information technologies and their wider influence. I have also been increasingly interested in how break-throughs occur in science and technology. This did not become focused into an explicit academic project until 1990 when my long-term practical interest led me to start lectures on technology and anthropology.

I remember realizing how little I knew about technology and science as I started to prepare the lectures and being overwhelmed when I read my first book by Lewis Mumford, *Technics and Civilization*. His general approach, and particularly his observations on the major phases of 'technics' and the influence of clocks, printing and glass opened up a new world for me. I gave lectures on this theme for the next ten years and read more Mumford and many other authors on the borderland between science and technology. I became fascinated by the reasons for the development or non-development of reliable knowledge embedded in artefacts.

It was just at this point, in 1990, that the other major influence which brought together my thoughts occurred by chance. This was meeting and working intensively over the years with Gerry Martin. Gerry had already started something called the 'Achievement Project' to look at the reasons why there were sudden bursts in creative discovery, as in Renaissance Europe or during the scientific revolution of the seventeenth century.

As an engineer, inventor, industrialist and successful company chairman, his perspective was entirely different from mine. So I learnt an enormous amount from an intensive academic collaboration with someone from an entirely different background. Gerry also put me in touch with other people interested in these subjects, including several leading thinkers in the field of the history and philosophy of science, in particular Simon Schaffer and Robert Iliffe, and he financed numerous meetings, seminars and practical forays into further technological gadgetry. Gerry also participated in seminars at King's College in which a small group of scholars from Japan, China and Europe met annually for five years to discuss the comparative growth of civilizations. These were very fruitful as a place to try out and discuss ideas.

Gerry was particularly interested in microscopes and telescopes and hence the general impact of glass on thought. Pursuing this, we co-wrote a book on glass in history. He was also interested in the comparison of technologies and we discussed these concepts as we travelled together through England, Italy, Nepal, Japan and China, and in monthly day-long sessions. There we developed a number of ideas together. These included the concepts of 'bounded but leaky', 'the meccano effect' and 'the triangle', which are primarily his ideas.

Gerry was also interested in the work of people who worked on creativity and inventiveness, including Margaret Boden, David Perkins and John Ziman, and I met these people and discussed their work with him. When I encountered the inspiring ideas on knowledge and technology of great philosophers in the past, in particular Montesquieu, Adam Smith, David Hume, Alexis de Tocqueville and Yukichi Fukuzawa, we discussed them together around draft after draft of the books I was writing.

(Does information destroy knowledge?)

Mental blocks

It now seems odd to me that, although I spent a huge amount of time at school learning facts, learning how to make arguments, learning how to remember important things and to write them down, I do not remember any discussion at all about the nature of knowledge itself. That is to say, we never discussed the mechanisms of thinking, the methods of discovery of new things, or the difficulties inherent in knowledge acquisition. We were never introduced to the science of thinking paths.

Yet this is a subject which has always interested me. When I was about eighteen I realized that there was a great danger of losing as much knowledge as one gained every day, of letting the mind become a glass which, as one poured in new knowledge on one side, the same amount would pour out on the other and be lost. I also became aware that I could not depend on my unaided memory and intelligence to help me make discoveries. So I started to assemble materials, books, notes on books, slips of paper with key quotations and facts. I remember that by the age of seventeen my room

in the house where we lived in the Lake District was filled with tomato boxes of little index cards.

With this background, when I went to University and met Brian Harrison, who had adapted Beatrice and Sidney Webb's famous 'one fact one card' method so that the cards were very small and fitted into a filing cabinet, I was deeply impressed and copied his system. I was also impressed by his thick folders of summaries of books and articles and rather mechanically typed out a copy of all of them. So I began to surround myself with further paper archives, indexed and cross-indexed, in/pending/out trays and so on.

This desire to try to aid my memory and intelligence, neither of which were very good, continued at a more intense level when I came to write my D.Phil. thesis on witchcraft. By then I was explicitly interested in the art of research and memory. I felt like Descartes (who I only read much later) in his *Discourse on Method* where he states that proper methods will allow even a moderately capable intellect of achieving outstanding things. So the tools of the mind and intellect became something I thought about and tried to develop throughout the rest of my life. The topic of how one arranges one's life, including the physical lay-out of archives and notes, has been a central obsession of mine for many years.

It continued when I did my second Ph.D. in anthropology and I gradually built up a database of over 70,000 quotations over the years. In parallel, the development of computers meant that I was deeply involved in thinking about how one arranges and retrieves information by electronic means. This helped in the work with various computer scientists with whom we developed databases and retrieval systems and in the building up my own files within what I began to see as a 'memory barn' or intellectual time machine.

Alongside this, I spent a good deal of thought on how one should best try to think in order to solve intellectual problems. How are important innovations in thought made, what are the tools needed for real breakthroughs in knowledge? What are the best paths to take to discover new worlds and, in reverse, what are the traps and dead-ends of the mind?

I studied all of this somewhat indirectly and in many ways. In work on witchcraft I looked at the ways in which people become trapped in a circular and closed intellectual world. In my work on Nepal and Japan I tried to understand the richness but limitations of other mental systems. When I worked on great thinkers such as Adam Smith or Tocqueville, I studied the way in which they worked and wrote and what enabled them to see more deeply and further than their contemporaries.

Probably the most significant event in my increasing interest in what shapes and inhibits knowledge was meeting and working with Gerry Martin. We met in 1990 and since then we have spent many days and weeks together. He comes to the problem of how we innovate and achieve reliable knowledge from the background of a scientist and engineer. This jolts me out of my rut as a social scientist and forces me into areas where I previously knew nothing. We discussed and read and attended seminars and conferences around the themes of cognition, the history and philosophy of science, the origins and nature of the scientific revolution, the science of how we know

(epistemology) and so on. In England, Nepal, China, Japan we continued these discussions and developed shared ideas both about what releases and what inhibits knowledge.

My half-formed interest and ideas in this field have been enriched and strengthened by this deep conversation and it has led me to work with a number of experts in the history of thought. In particular it led to a book which explores some of the difficulties of acquiring new knowledge and the way in which a particular artefact, glass, made such a difference.

The interest in glass actually stemmed originally from reading Mumford's wonderful passage in *Technics and Civilization*. Glass seemed a perfect example of something which Gerry and I have often discussed. As a retired industrialist and manufacturer, his life has largely been focused on inventing new things by embedding ideas into artefacts. So, far more than myself, he has come to understand how knowledge actually works by externalising itself and changing the arrangement of atoms, which in turn come back to alter what we can think.

Glass is a wonderful example of this process. It started very humbly as a substance of beauty (beads), then of usefulness (vessels, windows). Only very late, as the quality improved, did it suddenly emerge that by affecting our primary sense organ, the eye, glass could change the world of knowledge.

I had been dimly aware that the greatest puzzle behind the history of human knowledge was what one might call the Needham question. Sir Joseph Needham had written and organized a massive study of *Science and Civilization in China* in which he had shown that by about 1300 China was far in advance of all other civilizations in its technology and practical science. Yet, five hundred years later, it had, if anything, lost practical knowledge, while the relatively backward tip of western Europe had undergone a knowledge revolution which set the world on a new course.

From my school days I had studied and written about the Renaissance and why it occurred. Later I had studied the scientific revolution of the early seventeenth century, the world of Bacon, Galileo, Boyle, Newton and others. Yet when I came to consider these questions again in a series of seminars I held with Gerry in the 1990's at King's College, and talked to my friends in the history of art and science, it became obvious that there was no convincing theory of *why* the great break-through of Renaissance and Scientific Revolution had occurred when it did, where it did, or why at all. Why had it not happened in the far more advanced civilizations of China and Islam?

(How well does democracy work?)

Democracy

For many years I never thought much about how the political system into which I was born worked for many years. I suppose I assumed that it was the best in the world, that it had been invented by the British, and that one day it would, because of its obvious merits, spread all over the world.

I do remember the excitement of an election when I was about eleven and my relief as the results came in that the nasty Labour government was losing. I also remember at about 17 giving a speech at a mock election at school as a prospective conservative candidate and sweeping to a dramatic victory. Friends suggested I should go into politics as my speech was so persuasive. But in fact both experiences reflect the conservative nature of the expensive private boarding schools I was attending.

I also remember during my last years at school having terribly boring classes on how the American constitution worked. I also had and rather more exciting ones about how Cromwell and his armies had saved England from a French-style dictatorship.

At University I began to move towards support for labour, which won a victory under Harold Wilson. I also studied a great amount of political history and began to get a slight grasp of how the British political system had emerged. I even read some political philosophy. In my first term I had to study Alexis de Tocqueville and with the help of an excellent tutor, Harry Pitt, began to appreciate one of the greatest of thinkers. Later I read Aristotle, Hobbes and Rousseau, and a little of Marx.

Yet I was still quite complacent. I had no personal experience of anything except British democracy. Nor did I at any time deeply consider what was needed in order to have an effective democracy, or any of the well-known criticisms of the system.

At the London School of Economics in 1967 it was the time of student protests and the anti-Vietnam marches. I did not take part in the former, but I did start to encounter Marxist and other critiques of capitalist society. And I began to be deeply aware of the strange games which were played in the name of democracy.

I found out that Democracy had to be protect by secret wars, the toppling of democratically elected presidents and the installation of dictators like Pinochet who terrorised his people. Democracy should be installed, so it was said, on the point of a gun and saved by the burning of women and children alive with napalm. I learnt, in other words, to distrust power, even in 'democratic' countries, and especially when wielded by the greatest empire on earth, the United States.

When I first went to Nepal it was ruled by an absolute, divine, Hindu, King. There was no hint of democracy except at the village level. Yet there was peace, order and calm. When 'democracy' was brought in during the 1990's there was increasing chaos and since then the country has lurched from crisis to crisis and is now experiencing a bitter three-way war between corrupt politicians, an autocratic King (with the army) and a savage Maoist uprising. Democracy did not seem to work well.

Then when I went to Japan I discovered other strange things about democracy. The attempt to open up Japanese politics after the Meiji restoration in the 1870s led through other crises to the fascist imperialism of the 1930s and the Japanese invasions of its neighbours. After 1945 the Americans tried to establish democracy, but the Japanese never really took to it. Their politicians were really bureaucrats and during the next fifty years one party held power for almost all of the period.

Yet we all continued to hope for democracy and still believed in it. My realization of its thinness even in Britain came out of several conversations with my uncle. He was the author of a standard study of the House of Commons, had been a Clerk of the House for a number of years, and then a Conservative Member of Parliament. He had also written acclaimed biographies of a number of politicians including Lord Rosebery and Winston Churchill. He knew the major ruling politicians in the including Margaret Thatcher.

I was amazed to hear his forebodings about the lurch to the right in British politics and his fears that Thatcher was very close to establishing a kind of elective dictatorship. He thought she was a real danger to democracy and might easily destroy it. I had never realized what a slender thread British democracy hangs upon, a few individuals and some crusty Law Lords lay between us and dictatorship.

During the benign reign of John Major, these fears went and in the early days of Tony Blair all seemed well. It was only with the election of George Bush that the world seemed to change. It was a great shock to realize that the greatest democracy on earth could allow a man who had gained a smaller number of votes than his rival, and whose agents obviously cheated in the registering and counting of votes, to become President.

Yet this was just the beginning. The extraordinary behaviour of Bush and Blair in relation to terrorism and human rights, their disregard for public opinion, their rule in concert with what looked like a few reactionary and neo-conservative friends was scary. Their palpable deception of their people in trying to justify a war against a sovereign state which was obviously not a threat to either country, suddenly made me aware of how 'democracy' was deeply flawed.

So I decided to write you a letter Lily to explain what democracy means, where it comes from, and its strengths and weaknesses. For it is ironic that in the hour of its apparent triumph over its chief rival, communism, it should have become so internally tainted. Whether it can recover, we shall see. But writing this as I sit in a Chinese hotel in Sechuan, I must say I feel that in terms of social justice and human happiness, the strange mix of communism and democracy which has emerged in China is more effective than the much vaunted 'democracy' which rams its message onto unwilling third world peoples.

The hypocrisy of preaching freedom and peace and open politics, while bringing war, weapons, oil companies and the sanctioned use of torture, seems rather obvious. And as if this was not enough, the behaviour of the 'democracies' of Israel and Russia seem to bring the system into further disrepute. No doubt it is better than what happens in some places. But it is hardly the wonderful system which I so innocently and unquestioningly assumed for many years.

(Where does freedom come from?)

Liberty and power

When I was taking my 'O' levels, I found politics an extremely dry and uninteresting topic. I remember lessons on 'civics', in which we learnt a little about how the American constitution worked, what democracy was and so on, yet it was all quite meaningless to me. Furthermore, the heavy political bias to all one learnt about the past, a preoccupation with battles, constitutions, cabinets, cabals, revolutions, all of this meant practically nothing to me. I had never experienced formal, instituted, power and only begun to exercise it a little myself when I became a prefect.

When I studied history at Oxford I felt much the same revulsion from politics. Most of what I was taught seemed to be about politics, King's, battles, struggles, nations. Yet I longed for something which I could really feel in my blood, religion, social history, ideas. In fact, there were stirrings of an interest because towards the end of my three years I particularly enjoyed the paper on political philosophy which involved quite a deep study of certain works by Aristotle, Hobbes, Rousseau and to a certain extent Marx. The effects of having one of the greatest Marx scholars of the twentieth century, David McLellan, trying to get me through my university Latin test, and of being taught by Harry Pitt with his deep interest in Tocqueville and American democracy, may have also had effects. Certainly I did well on the political philosophy paper and enjoyed learning that Hobbes, despite his totalitarian views, was preferable to the even more totalitarian Rousseau.

Yet, on the whole, by the end of the degree I was still keen to find subjects as far away from political history as possible, so chose education, myth, sex and witchcraft as possible topics for my D.Phil. I took little further interest in politics or political theories. When I came to study anthropology I did become quite interested in the comparative history of political systems and how they had developed and, in particular, how people kept order in societies without any State. The rise of centralization and the State began to interest me, and being involved, at a good distance, in the political events of the student uprising and anti-Vietnam movements in the late 1960's must have had some influence.

So I was really quite apolitical, a labour supporter but not very active. I followed C.S.Lewis' advice and never read daily newspapers, on his grounds that if it was important I would hear about it from my friends and it was a terrible waste of time. I remember the exact spot where I was told that Kennedy had been assassinated.

Doing anthropological fieldwork in a Nepalese village did not raise my interest very much. At that time Nepal was even less of a political entity than it is today. The government was weak and far away, the villagers seemed to run their own lives in an informal and harmonious way. Formal politics was largely irrelevant, though it has become increasingly intrusive over the years.

It was only when I returned to study English history again, and in particular to do really microscopic studies of two English villages that I began to notice what an extraordinary political system the English had developed with their delegation of

power and responsibility, their checks and balances. So I described the mechanisms of power, the various micro political organizations, at the village level. But I was still not greatly interested in politics.

It is probable that becoming increasingly involved in minor politics as a Fellow of King's College and as Head of Department and Chairman of the Faculty Board in Cambridge, and on various national and international committees, made me understand in my blood, as well as my mind, what power was about. Exercising power over others provides a good incentive to an interest in the subject. I was also asked to lecture on political subjects in the University and have given many series and run a number of seminar sessions on political anthropology.

Certainly a sign of a growing interest in political matters lay in my rapidly increasing interest in the work of certain political historians, in particular Sir Henry Maine, whose works I devoured, and Maitland and Tocqueville. They were concerned with such questions as how the modern political system of liberty and the balance of political powers had emerged in one part of the world. At around the same time I became friends with, and strongly influenced by the work of Ernest Gellner. He seemed, from his wide background in philosophy, anthropology, communist and Islamic societies, to be asking fundamental questions about *The Conditions of Liberty* and *Nations and Nationalism* (the titles of two of his best books) which I found intriguing.

Visiting and working on Japan from 1990 also further aroused my interest in how political systems evolve. Japan had an extraordinary, long and well documented history, where it seemed to put on and take off different political systems as if it were changing its clothes. From the early Chinese, centralized phase, it went through a form of classic feudalism, then to centralized feudalism, to a sort of democracy, to fascism and back to a sort of democracy. Setting this curious history against the English and American experience was intriguing.

All of these experiences were deep inside me when in 1995 I decided to try to get to grips once again with the big issues in the field of social and political power that lay behind the development of the world we live in. Reading Montesquieu, Adam Smith (including his only recently discovered work on law and politics), De Tocqueville, Hume, Maine, Maitland, Fukuzawa, Weber and Gellner in real depth, and writing and struggling with their work for about six years was deeply revealing.

I now had a broad overview of some of the main developments in European and Japanese civilization, and to a lesser extent in other parts of the world. A recent reading of Guizot's wonderful *History of European Civilization* has added to this. The central questions I now ask myself include the following: what encourages political freedom and responsibility, how have we achieved a sort of democracy in part of the world against all the odds, what is it that holds the modern world together in the absence of face to face kinship ties?

(What is bureaucracy for?)

Bureaucracy

If you had told me when I was sixteen that I would one day be sitting down to write a letter about bureaucracy and the centralization of political power I would have thought you were crazy. I knew little then, and cared less, for how organizations worked or the dangers of managers taking over the world. Obviously I was aware of the effects of accounting, assessments and exams on my everyday life. Yet I never really thought about the wider issues and we never discussed this at school. Apart from the nerve-racking experience of suddenly finding myself at the age of seventeen the editor and financial officer of the house magazine, and various responsibilities as a prefect, I had no experience of bureaucracy.

It was the same at University. Oxford seemed to have a very minimal and relaxed organization and most of it ran on trust and word of mouth. There was little centralization of power or paperwork. I received a certain shock when I went to the London School of Economics because I was now clearly in a much more centralized and top-down organization. I remember the way people called where they worked 'offices' rather than rooms, the imperious attitude of certain administrators, and the general business-like, nine to five, feeling of the place after my Oxford experience. Yet I did not really think in a more general way about what effects the organization of work and power has on human lives.

Nor did anthropological fieldwork in Nepal change this lack of interest. When I encountered the local bureaucracy it had many of the features of a debased version of an Anglo-Indian imperial system. There were many delays, orders to 'come back tomorrow', deference and wasting of time was expected, some meaningless paperwork. Yet Nepal was a tiny and hardly governed country so I did not really experience a strong bureaucracy. In the village there was an oral culture and scarcely any bureaucratic structure.

When I returned to England and Cambridge there was at first very little bureaucracy. I think it is the rapid change which has occurred in the last twenty years that has been one of the major reasons for my growing awareness of the importance of a subject I had hitherto neglected. It is only when we lose something that we realize that we had it at all. So it is worth briefly noting the outlines of the change.

When I came to teach in Cambridge University in the mid 1970s I was instructed that all important decisions in the University started off from the bottom, at the level of the Department or College Committees. If they were found good and generalizable, they would move up through the system until they became something which applied throughout the University. When I asked where 'the University' was and what it did, people looked confused. It was just a loose amalgam of Colleges, Faculties, Centres and so on. Of course, this situation is intolerable to those seeking central power and a 'rational' ordering of the world. Consequently there are currently large efforts to move to an 'American' model of centralized government. This will reverse 500 years of history and destroy many delegated powers, while increasing certain delegated responsibilities (such as accounting). It will also professionalize the administration.

Until recently, the University has been run by its citizens, everyone played a part in the administration and largely ran their own lives. The move to centralization is sweetened by the promise of relief from administrative burdens. In fact, the experience is that the appointment of professional, full-time, administrators whose job is to create meetings and paper, increases the levels of administrative work for everybody. Every meeting now has large agendas and numerous papers. The full-time administrators soon out-wit or exhaust their opponents since they are playing the game full-time. Academics lose their self-government and become, as in Japan, civil servants, producers of measured and goal-oriented goods for ‘consumers’ (once known as students). The university becomes a knowledge factory, degrees rather than cans or cars, being the product.

I think it was partly this experience of feeling, at the periphery, some of the shocks of the management revolution pushed ahead by Margaret Thatcher and now given extra force by the integration with the highly bureaucratic systems of continental Europe, which raised my interest in the topic.

My interest was also increased by the experience of working in Japan from 1990. Here was a really heavily bureaucratized nation, where endless form-filling, stamping of documents, refusal to take decisions, everything flowing up and down chains of command, was manifest. I only touched on the edge of this, for instance when I found that it would be a mortal offence to bring anything (even a small kettle) into my room in the University where I was teaching because all academics were civil servants and this was government property. I saw many of my Japanese friends entangled in these mazes, half-destroyed by the paperwork mountain.

I also became more interested through reading some of my favourite authors. In particular, the greatest sociologist, Max Weber, seemed to identify bureaucratic rationalism as the central ‘iron cage’ into which modern civilizations were moving. Likewise, Tocqueville devoted much attention to warning the world against bureaucratic centralization on the French model.

(How do we get justice?)

Law, justice and inquisition.

I don’t think I knew anything about legal systems when I was at school. Though I began to have classes on ‘citizenship’ or ‘civics’, as I think it was called, we learnt practically nothing about how the legal system of England or any other country worked. I never visited a court of law and knew little and cared less about different legal systems and their effects.

As far as I remember, almost all aspects of law, the inquisition and such matters were also more or less absent during my three-year degree in history at Oxford, and again I never had any real contact with the law in practice. Looking through the essays I wrote over those three years, I cannot find any that really take legal processes as a central theme, though there was some attention to medieval law making by powerful kings.

It was really only when I started my D.Phil. on witchcraft that I had to learn how the English court system had worked. I found it all very confusing and remember my shame when it emerged that I did not even know how to pronounce 'indictment'. Slowly, however, it became clear to me that in order to understand the world of past witchcraft accusations, it would be necessary to understand the legal processes for trying witches. So I began to collect manuals on English and Continental legal systems and began to investigate how the whole complex set of courts were inter-related. I also began to look at the very different legal systems of the Continent and Scotland (with use of torture and direct inquisitions by judges) which seemed to lie behind many of the differences between English and Continental witchcraft beliefs.

The differences were immense and chilling. I remember following through the logic of the inquisitor's thought and finding myself, as it were, standing over the rack on which a person was being tortured, myself in the position of administering horrific cruelty to the suspected witch.

What was clear was that in order to understand historical worlds, I had to master the nature of the record-making institutions, which were very often legal. This was not only true for witchcraft in general, but for case studies. Early in my D.Phil. I decided to examine the context of the trials in three Essex villages where there was a clumping of witchcraft accusations. So I combed through the local records at the Essex Record Office. The documents were often in Latin, and written in an obscure and abbreviated form. This was also true of many of the other series of records in which accusations of witchcraft were to be found.

When Sarah Harrison and I started to analyse the records of two English parishes, Kirkby Lonsdale in Westmoreland and Earls Colne in Essex, it again became necessary to understand in depth how the records emerged from the judicial process. In particular, we had to puzzle out how all the courts inter-connected and what was truth and what was fiction in the records. How to do this was not properly explained in any single book that we could find, so we decided to write about it to help ourselves and others. We published two books, *Reconstructing Historical Communities* (1977) and *A Guide to English Historical Records* (1983) explaining the basic nature of the English legal machinery.

As I became more engrossed in the legal records I became ever more convinced that one of the most important keys with which to unlock the past was through the investigation of how people organized their legal system. This was re-enforced in the investigations which led to *The Origins of English Individualism* (1978). Here the central thesis, namely that the English had never developed a true peasant society, was primarily based on an investigation of law. In this case the central theme revolved around property law, the respective rights of parents and children in property. The immense richness of English property law led me into many areas, and among the most fruitful was my first encounter with the greatest of English legal historians, F.W.Maitland.

After this my interest moved from land law to criminal law. With Sarah Harrison, I investigated the workings of the English criminal system through the examination of a set of legal documents and magistrate's papers from northern England in the later seventeenth century. These described the activities and capture of a criminal gang

who robbed and clipped money and terrorized their neighbours. The result was *The Justice and the Mare's Ale* (1981).

In the 1980's, various further things occurred which increased my interest in law and legal history. Sarah became a Justice of the Peace or magistrate, continuing this work for many years and hence weekly involved in legal cases which we would from time to time discuss. She also decided to set up a book-shop. It was named after the famous thirteenth century English lawyer, Sir Henry de Bracton (Bracton Books) and for a while specialized in books on legal history. Thirdly, with my growing interest in the subject I was asked to give a series of lectures on law in comparative perspective to anthropologists. So for some years I compared British not only with Continental but legal systems around the world.

Around the same time I took part in a large project in Portugal to study and make accessible the records of the Portuguese Inquisition. Sarah and I made several visits to the Lisbon archives and I studied a number of inquisitor's manuals and compared notes on legal processes with the Portuguese team. Although I have not published anything of this research, it enriched my understanding of how the continental inquisitorial legal process worked.

Another dimension was added by the long period of fieldwork in a Himalayan village. The contrast with the English village (or Portuguese records) could not be more extreme. Here a small community seemed to organize itself on the basis of custom and consensus with hardly any legal apparatus at all. The police were far-off and feared, legal documents and the State interference were kept to a minimum. Consequently the written records available for a future historian would be almost non-existent. I was reminded of what an amazingly rich and complex system had existed for many centuries in England.

Another contrast emerged when I began to visit Japan from 1990 onwards and to study Japanese history. I paid particular attention to what I could learn about Japanese law in the past and present. We visited a court of law, talked to Judges, discussed with Professors of Law. I presented an overview of what I found in an article which compared the similarities and differences between English and Japanese law. It was a particularly fascinating experience because in some ways, the Japanese legal system was more similar to the English one than could be found anywhere else in the world. Yet, at other times and in other ways, it could not have been more different. England's confrontational, all-absorbing, law-soaked, situation was in many ways the complete antithesis of the consensual, minimalist, Japanese approach. Japan again set the English system into context.

What was quite clear was that to understand my own world I had to understand the changing role of law both within England and abroad. So when I turned to the serious study of political and social philosophy in the 1990's I was both surprised and delighted to find that almost all the major writers whose works I studied were trained in law and placed law at the heart of their ideas. I started with Montesquieu's aptly named *Spirit of the Laws* which set the tone for my investigations. Montesquieu provided a magnificent, mid eighteenth century, overview of legal systems around the world. Then Adam Smith, whose wonderful *Lectures on Jurisprudence* have only recently been published, was another. De Tocqueville, again a lawyer by training,

dissected contemporary societies such as France, England and America with a lawyer's eye.

I had for long been interested in English legal historians, and in particular the great Sir Henry Maine and his many works on comparative law and institutions. I had written and lectured on him. Also, since 1977 I had been fascinated by his successor, F.W.Maitland, whose work I came to study in the 1990's. Reading all of his work in detail, and writing half a book about him and his contemporaries, tied all the parts of thirty years of interest in law together and enabled me to fit the jigsaw into one.

(Why is there inequality?)

Equality and inequality.

I don't remember being explicitly interested in the question of why some people seemed superior or inferior to others when I was at school, except in two respects. When I re-visited India at the age of about 15 I was appalled and overwhelmed by the poverty and the obvious inequalities I saw in Calcutta on my journey. Why were there so many beggars, why were so many children and women so ill and badly clothed and hungry? Of course I did not know anything about the caste system, or the effects of the British Empire, or discrimination against women. Yet I did want to know what had caused such a huge difference between my leisured life and luxury, staying in the Grand Hotel, and the crowds of destitute, desperate human beings jostling outside for a few rupees.

I had hardly noticed other forms of inequality, for instance the huge difference between my father and mother's life as Manager and Memsahib on the tea garden in Assam where they lived, and the impoverished tea labourers. Back in England the huge gap between my privileged middle class life, with servants, deference, mild affluence, snobbery, exclusive boarding schools, and the condition of most of the English population in the 1950's passed me by. Nor did I question the arrogant attitude to women, the status hierarchies of a boarding school, the exploitation of immigrants and so many other things. Consciousness of caste, class and gender differences, in fact, was hardly present, though the signs were all around me.

Only towards the end of my school days did I explicitly start to analyse class when I studied the so-called 'rise of the gentry' in the seventeenth century. It was then that I first encountered a watered-down Marxist interpretation of the English Civil War. At University the analysis of caste and class became much more extensive. In my first term I studied one of the very greatest thinkers on these issues, Tocqueville, whose *L'Ancien Regime* and other works were to inspire me again and again over the years. In his work I was presented with an anatomy of how hierarchy had built up and then temporarily collapsed at the French Revolution.

I also studied political philosophy and encountered the work of thinkers from Aristotle, through Rousseau, to Marx, which gave me a background in some of the classical theories of rank. In my study of specific periods of history I again encountered the question of inequality, for instance reading the classic work of

Edward Thompson on *The Making of the Working Class*. All these were bits and pieces of explicit knowledge, but they did not form a coherent whole, nor were they really based on personal experience.

It was only when I went to work as an anthropologist in Nepal that I began to feel some of the weight of inequalities. I began to experience daily the unfairness of the struggle of poor peoples in the Third World, but also the internal differences they created in their own world. The Gurungs with whom I lived were cross-comparatively extremely egalitarian in their social, gender and age relations. Yet even in a Gurung village there were two 'strata' who were placed, at least by some, as unequal. On the fringes of the village there were also 'out-castes', Blacksmiths, Tailors, Leather Workers. To see people who were believed to be ritually unclean, who could not come into one's house, cook one a meal, touch one, brought the curious human desire to place people on different points of a scale of status and ritual cleanness into context.

The contrasts between the Gurung village, and even more so the major Indian world of castes, and the world that I began to understand through the intensive study of the historical documents on English history became even more intriguing. How was I to make sense of the contrasts and patterns?

Another broadening of the questions and the material I was having to absorb occurred when we visited Japan from 1990 onwards and began to look at another social system which was neither based on castes nor on classes, yet was clearly not based on equality either. The 'vertical society' of Japan was one where no two people could ever be equal. It was different again from anything I had heard about. How and why had it arisen, I wondered.

So by 1993 there were masses of ideas bobbing about, derived from reading, experience and trying to teach anthropology with its interest in social stratification. Yet there was nothing to hold them together except for bits and pieces of Marxism. So I then made a really intense study of the theories of those from the early eighteenth century who had tried to understand the movement from a basically unequal world, towards what they thought was a more equal one. These writers lived through one of the great transitions of history, from a world where inequality was almost everywhere accepted as 'natural', to one where it was questioned, regarded as man-made and sometimes challenged, as in the French and American Revolutions.

I also analysed the moving experiences of people like Tocqueville in the West and Fukuzawa in Japan whose families had been born into an unequal world, but who themselves lived much of their lives in a new world based on the explicit premise of equality. They dedicated huge energy to try to understand, and in Fukuzawa's case, to promote, this change.

(What makes us individuals?)

Individualism

My grand-father was a keen gardener and sometimes I would help him plant, prune and harvest in the large garden in Dorset where I grew up soon after I returned to England from India. At preparatory school we were given small plots of land and grew a few lettuces and radishes. On holidays in Scotland we would spend time on a farm and watch the harvesting and milking. As an adult I have often lived in the countryside alongside farmers. Whether my grand-father had turned into a peasant after his retirement from army life in India, or what these country people were doing, how their economy and society worked, whether they were peasants stranded in an increasingly industrial civilization was not something I thought about.

In my last years at school I must have learnt a little about how England had once been filled with peasants who lived as serfs on manors throughout the medieval period. Then I learnt that the country dwellers through some mysterious process became something different so that by the eighteenth century there were a few larger farmers and many landless labourers.

This idea of the English past was not substantially altered by three years at University studying English history from the Anglo-Saxon period to the nineteenth century. I absorbed an even stronger picture of England going through a revolution from peasantry to individualism in the period between about 1450 and 1700. There was nothing different about the English case except that peasants disappeared earlier than elsewhere.

So when I wrote my doctoral thesis on witchcraft in sixteenth and seventeenth century England it was set within this framework. The guilt which lay behind the accusations of witchcraft came out of a conflict between the old sharing, community-based, peasant morality and a new, individualistic, capitalist, reality.

Perhaps the first shock to all this came when I went to work among the Gurungs in the central Himalayas. Although there were strong traditions of commercial wage labour in the army, and links to an earlier pastoral way of life, the Gurungs living in the villages were basically 'peasants'. That is to say, the unit that produced the wealth was the family, consisting not just of the parents, but also children, brothers and other family members. What they produced was largely consumed within the household. Only a small part was sold in order to buy other things. So, basically, the family group produced and consumed most of what it produced. All children had a share in the family land at birth and they could not be disinherited.

When I returned to England I read further about peasant societies in some of the classic books on China, India, South America, Eastern Europe and western Europe before the middle of the nineteenth century. I began to see that the deep patterns of peasantry were almost universal. The peasant path was an effective way to organize production and consumption with an agricultural way of life and it had come to be the form which existed in all settled agricultural systems in the world by the fifteenth century.

Meanwhile, however, I was also becoming immersed in the detailed study of how English villages worked from the fourteenth century onwards. Sarah Harrison and I, with the help of others, were collecting and indexing all the surviving records of two parishes at opposite ends of England, Earls Colne in the South East, an early enclosed, grain-growing, parish, and Kirkby Lonsdale in the North West, a pastoral, upland parish. As we studied the legal and other records the picture of the revolutionary change from medieval peasantry to modern capitalism farming started to become less satisfactory.

I was not really aware of what was happening until 1977 when I started to write an article on peasants, which turned into the book on *The Origins of English Individualism* (1978). In that book I recounted my search for peasants in English historical records. I went back to about 1250 and was unable to find peasants who bore any resemblance to the people with whom I had lived in the Himalayas or read about in almost all other parts of the world. I was as astonished by this absence of real peasants as anyone. It seemed that the English had taken a different path and I guessed that this path had always been different from that on the Continent of Europe.

In the 1980's I wrote about the absence of the peasantry and its impact on many areas of English life in the past, the patterns of violence, attitudes to money and evil, the marriage system, attitudes to nature. Some of these findings were published in *The Culture of Capitalism* (1987). All that I was finding seemed to fit with an interpretation which showed England to have been much more individualistic and money conscious than the majority of agricultural societies. Yet I still did not understand how the English had moved along such a different path.

The work in Japan from the 1990's gave me further thoughts since the Japanese over the last thousand years bore some remarkable similarities to the English. They also had experienced a strong feudal phase, a highly developed and money based market economy and a legal and social system which allowed people to disinherit any or all of their children. In the Japanese case they had the added flexibility that they could adopt non-kin as their heirs. The Japanese seemed to be the one other civilization which had not gone through an explicitly 'peasant' phase. Like England, this had prepared them for a very early and swift transition into industrial capitalism, though, unlike England, there had been no long-term build up to industrialism before it was suddenly introduced in the late nineteenth century.

So I now had two examples of an unusual deviation from the almost universal tendency towards peasantry. Yet I did not have a wider framework within which I could set this knowledge. The pattern laid down in the wake of Marx, Weber and other great social theorists of the later nineteenth century was unsatisfactory in these two cases. Yet I was unaware that any other grand scheme existed.

Towards the end of writing *Individualism* I had discovered the value of the work of the French social theorists and historians, Montesquieu, Tocqueville, Marc Bloch, who had all hinted at the peculiarity of England and the deep roots of its strangeness. So I decided to make a thorough analysis of their work, and that of several other earlier analysts of the European past. I wrote and published *The Riddle of the Modern World* (2000), which presented the alternative theory which I had stumbled on but

now expanded into the much wider insights of Montesquieu, Adam Smith and Tocqueville.

The book was written as an answer to the friendly criticism of my ideas by Ernest Gellner, a philosopher-anthropologist who had become a close friend and my Head of Department. He had half believed my theories on *Individualism*, but could not see how the English could always have been so different. In *Riddle*, I tried to revise my theory by showing that rather than the paths of England and the Continent always being radically different, they diverged over time, particularly after the thirteenth century.

Yet even after all of this, how and why the paths had increasingly diverged still eluded me. So I worked on the one man who seemed qualified to give an answer to this question, the legal historian F.W.Maitland. His writings, I found, did indeed provide a satisfying overview of the reasons for the absence of a peasant social structure in England. I published the results as the first half of *The Making of the Modern World* (2002).

So, after almost half a century, I feel I have sorted out something about the tendency of almost all societies to develop a large family based rural population whom we call peasants. I also began to understand the exceptional path which England (and Japan) had trodden.

(Why do many work so hard?)

Work

It was when I was about sixteen, as I recall, that I became a 'workaholic'. As a child at preparatory school I worked reasonably hard, but was not obsessed. I was just as interested and obsessive about sports and games and hobbies. But at around fifteen or sixteen I decided that if I were to achieve anything really worthwhile I must work very hard and be very organized. Whether it was guilt, anxiety, loneliness, a sense of inferiority or whatever, certainly the effect was to turn me into someone who is constantly struggling to 'work' hard.

At University I set myself work quotas (between 6-8 hours a day, five and a half days a week), which meant that I neither worked too little (guilt), nor too much (exhaustion). Since then I have worked hard. Indeed work has become such a part of my life that it is no longer work. The boundary between work and non-work has really disappeared. I can now 'work' while on a walk, or relax while reading a book.

Whether any of this has any real bearing on my thinking on work I am not sure. Yet I have certainly become increasingly aware of the importance to human civilizations of the ways in which they use their bodies and minds in order to obtain a living.

At school I knew little about the practicalities of making a living. Adults went off to the office and brought back money. None of my close family were very directly involved in making things except my father who was a tea plantation manager and

who consequently ‘made’ tea (with a little help from others!). Of course I had seen farmers at work, and had once, when at the Dragon School, visited a conveyer belt line in a chocolate factory. But the world of back-breaking labour in factory and farm, whether in Britain or abroad, was a distant and hardly travelled land. So I did not think about it and I do not remember at school learning about how people work, the role of human labour or machines or similar subjects. It was a blank in my mind.

At University I read the usual historical accounts of England, and gained the usual picture of a more or less inefficient medieval farming world with ‘peasants’ working from dawn to dusk. Next there was the growth of sheep farming and animal husbandry and the ‘agricultural revolution’. Then there were mills and finally the industrial revolution which for a time drove people into factory and mines, but finally led to an escape for many millions from the drudgery of manual work. It all seemed a natural progression and relatively easy to achieve. Glimpses of peasants in the fields on a tour of Europe when I was about 17 did not shake these simple assumptions, nor did I really question these ideas when I did my doctoral thesis.

It was only when I did anthropological fieldwork in Nepal, when my own body was stretched to its limits in walking and carrying, and I lived with people who were ground down by an unequal battle with a deeply inhospitable environment (steep mountains, no roads, poor soil, receding forest supplies) that I became really interested in toilsome work. I made very detailed time and motion studies of how people worked. As I did these, the contrast between this world of grinding labour, with periods of complete leisure, and the relatively leisurely agriculture and crafts of the English over the centuries began to strike me. I often wondered why the technologies to assist the human body were so under-developed in Nepal.

As I learnt more, I began to discover that Nepal was not exceptional. Most of the world still lived in grinding work and only small parts enjoyed something different. It became even more amazing that an industrial revolution had occurred in England. And even more curious that once it had occurred, not everyone had immediately copied it.

Many of these questions were thrown in a new light by the experience of visiting and studying Japan. The Japanese had the most extraordinary work patterns. They had developed an amazingly productive food system based almost entirely on human labour. They had become more and more industrious, hard-working, organized. Then, suddenly, and before anywhere else in Asia, they had industrialized. What was behind all these developments? I wrote about the problems in *The Savage Wars of Peace* and then in the study of great thinkers, particularly Adam Smith. I tried to understand the diverging paths towards an industrious and an industrial civilization, using the useful dichotomy which the Japanese economic historian Akira Hayami had developed (though his meaning was a little different). What were the patterns and tendencies which so often led to slavery, serfdom and serf-like peasant labour, but very occasionally branched off to produce worlds which were so affluent, leisure-filled, almost indolent?

(What made our digital world?)

Digital World

My first memory of communications technology is one of a great embarrassment. I was twelve and it was the coronation of Queen Elizabeth II in 1953. An older boy at my boarding school asked to borrow my box brownie camera as he was going to attend the procession. When he returned me the camera the photographs were developed: they were all blank or terrible. He kept asking me if he could see them, but I somehow felt it was my own fault that the photos were so bad and tried to put him off through a whole term with excuses.

About six years later I had my first tape recorder and slide projector. I became very excited by the idea of making an audio-visual presentation about medieval illuminated manuscripts. I would show slides of the famous 'Douce Apocalypse' which I had bought from the Bodleian Library at Oxford, where I was studying, and they would be accompanied by appropriate music and readings from the Book of Revelation. It was not very effective, just as the showing of slides was not very useful when I did some extra-mural teaching in the first year of my D.Phil. in 1964. But I could glimpse the potential.

There were not, of course, any personal computers available at this time, but as the effects of my compulsive collecting and keeping of paper became apparent, I realized that I needed to improve methods of storage and retrieval of information.

I remember my pride when I bought my first filing cabinet and a three level filing tray system with 'in', 'pending' and 'out' trays. I hung around office suppliers, though was amused to find that they could often not find the brochures I asked for. I was not, however, at all interested in filming, photography or other audio-visual machinery.

When I started my D.Phil. and realized I would have some hundreds of cases of witchcraft to analyse I consulted the people in the computing laboratory at Oxford about whether it would be useful to use a computer to help sort the cards and investigate patterns. At that time computers were too underdeveloped to deal with texts and were really just large mathematical (calculating), machines. So I was told that the sample was too small to need a computer, so I bought some edge-punched, 'Cope-Chat', cards and a needle and tried these out. I can't remember that they helped, though they certainly covered the floor with tiny bits of card. So that by the age of twenty-six my contacts with information technologies was very limited.

I then went to do anthropological fieldwork. I may have been encouraged to broaden out by my supervisor, a great photographer and film-maker, Professor Haimendorf, as well as by the London-Cornell Project (who partly funded my fieldwork) who provided a tape-recorder and good still camera. Anyway, I began to embark on a more serious use of data gathering technologies, and I added an 8mm film camera bought in Kathmandu. Yet the film, photographs and sound tapes in the end played little part in the analysis and writing up of my thesis on Nepal.

My serious interest in digital media began in about 1973 when I was a Senior Research Fellow in History at King's College, Cambridge. There was an important research project on Information Retrieval in the Research Centre at King's. This was contributing to some of the major advances in computer science at the period, including the invention of a new kind of database system based on probabilistic mathematics. Meanwhile, with the help of my future wife, Sarah, I was accumulating the records of an English village. It was suggested by Dr. Ken Moody that the material was sufficiently massive but messy that it would be useful to think of computerizing it.

At that time computers still only accepted input by punched cards or paper tape, generated by an incredibly heavy and noisy 'flexowriter'. There were no proper word-processing, or even text-producing, programs. Even the largest computer in Cambridge could not for a while hold the 30 megabytes of data which we were generating about the history of an English village.

We entered this world with trepidation and I remember the difficulty we had with the idea of a computer programme and with the simple idea of Boolean mathematics ('and', 'or', 'not' intersections). Nevertheless we were able to work closely with two expert programmers, Charles Jardine and Tim King, from 1973 to 1983 and we began to appreciate the growing power of computers.

We also started to plan our work for a world where it would be possible to network computers between different institutions – the ancestor of the internet. Yet by 1983, the formal end of the historical project, such linkage was still impossible, or very difficult indeed. No did we ever really find ways of making the computer useful in answering questions, though it helped when we decided to distribute all the materials in a microfiche edition published by Chadwyck-Healey.

Despite the work of historians and anthropologists like Roderick Floud and Michael Anderson, it was still not clear how computers could be used effectively to improve research or the dissemination of information. What discovered was that the greatest advantage of the computer was that it was so stupid. Everything (in those early days) had to be explained to it. So knowledge had to be made explicit and externalized. By the time all the data was in the machine, most of the questions had already been resolved by the far quicker intuitive and lateral thinking capacity of the human brain.

Until 1983, I was learning about how computers worked with texts. This involved working with Jardine and King who wrote an early database management system called CODD, the first effective relational database system in Cambridge. About then it suddenly became possible to store large numbers of pictures on a device which could be controlled by a computer, a 'videodisc'. A videodisc had 37 minutes playing time per side. It stored images at 25 per second, which gave each side the potential to store 54,000 images, alongside two sound tracks. Suddenly, multi-media was born.

So we made the first anthropological videodisc, on the Nagas of the Assam-Burma border, in the years between 1986 and 1991. At the same time being a member of the BBC Domesday Disc editorial board, 'in charge' of both 'Culture' and to a

certain extent 'Society', I caught a further glimpse of the new potentials of digital media and multi-media.

The potentials of storing huge numbers of images only raised again the questions of retrieval. How were we to find the photograph we wanted? The adequacy of relational databases was apparent, because they only found what one already knew was there. There was no surprise.

At this point the early research in probabilistic retrieval in King's bounced back in a collaboration we developed with Martin Porter, who had implemented this search strategy in the Museum Cataloguing system or MUSCAT. So we worked with Martin to design a system for the Nagas, and I worked with a friend (Michael Bryant) to develop an easier input and database constructing technology called the Cambridge Database System Interactive (CDSi).

I spent much of my intellectual energy between 1986 and about 1990 trying to understand the probabilistic system well enough to write simple manuals, and trying to make the system useful for us. It was both exciting and frustrating and one of the most difficult intellectual tasks in my life. I had visions of producing something we could sell and re-invest the profits in further research, and of making a useful tool not only for myself but other academics as well.

Yet once again there were limitations. There was no 'web', the computers we used continued to be very slow, broke down very often, were expensive, operated in the old command-line way on which DOS (Disc Operating System) depended. There was no friendly front end. This began to change in the late 1980s when we got our first Amiga computer with a windows, icons, mouse and pull-down menu (WIMP) system. But things were still very slow and videodisc quickly faded out.

Yet my interest in digital media had been aroused and other developments of these times were pushing me further in that direction. One was in the potentials of film in anthropology. Again in the mid-1980's there was a revolution in the possibilities of anthropological filming. Portable, cheap, video technology suddenly arrived on the market. Although it produced analogue, not digital, film, it was potentially controllable by a computer.

So I formed the 'Rivers Video Project' with several of my anthropology Ph.D. students and we experimented with making short films on historical figures such as T.R.Malthus and the great expert on Nepal, Brian Hodgson.

Meanwhile Professor Jack Goody in 1982 arranged for the Audio Visual Aids Unit in Cambridge to make recordings of talks by three famous anthropologists, Meyer Fortes, M.N.Srinivas and Audrey Richards. In fact, video technology of a static and expensive kind had been around for some time. In 1976 I had convened four seminars of distinguished anthropologists and historians and we arranged with the Audio Visual Aids Unit to film three of these. Using several large cameras we made about 10 hours of film, which were shown once or twice.

Computers and video were converging and becoming more versatile. When I returned to fieldwork in Nepal in 1986 I took back the small and far from satisfactory

8mm camera I had used in 1969. It had no sound recording ability, no zoom, took only a few minutes of very expensive film at a time. I used this again in 1987, but in 1988 for the first time we took a portable video camera. From then on, almost every year until 2001, we visited Nepal and on each occasion took a great deal of film. Over time the technology improved further. It moved from lowish quality, analogue (Video 8), to higher quality analogue (Hi-8), to digital cameras by the end of the 1990's. I bought what I was told was the first Sony mini-DV digital video camera sold in England.

Each year on our visits to Nepal we accumulated between 6 and 20 hours of film, each hour with dozens of sequences. This again posed the problem of information retrieval – for how were we to find the bit we wanted as the tapes accumulated? The answer again seemed to be to index the films with a computer and to use the 'Muscat' system, which worked very well.

In parallel I was building on the early interviews by Jack Goody and each year, and especially when I did about 12 interviews at a conference in 1983, I accumulated short and long interviews with distinguished anthropologists and others. But apart from using short extracts in lectures, what could I do with these?

Another development relates to a very early interest. From about the age of 18, and seriously from about the age of 20 at University, I started to collect 'facts', that is quotations, summaries, statistics, on small cards. I then sorted these under topics and sub-topics for use in research.

This was developed for particular uses, as in my witchcraft D.Phil. , my anthropology doctorate, and for writing various books, including that on *Marriage and Love*. But I also started a general 'Topics' collection which by about 1986 had reached about 30,000 cards.

There are severe limits to such paper indexes, however, as I began to realize. When one exceeds about 20 or 30 thousand cards, it becomes impossible to use or continue the system. Among the difficulties is the fact that one's categories shift, so things are not in the place where one would now put them; it is difficult to store away new cards, or to find them again.

In this predicament I again found that 'Muscat' provided an excellent solution. With funding from the Renaissance Trust (Gerry Martin) and the help of Penny Lang, I had all the cards typed into a 'Topics' database and added more so that now there are about 60,000 'records'. No decision had to be made about where to store them, and they could usually be found pretty easily.

Soon it will be possible to access this store from anywhere in the world via the internet, and it may be possible to make the database into a 'wikitopia', or collaborative quotations database along the lines of the 'wikiquote' or collaborative quotations database which has recently started as an off-shoot of the 'wikipedia'.

The 'wikiquote' database is currently arranged under a number of headings: people, themes, categories etc. In other words, it is a conventional hierarchical system. If it was made accessible by a probabilistic system such as 'Bamboo', its usefulness would be greatly increased.

So by 1998 I was fully aware of the potentials of video and computers. I had a digital camera, a reasonable succession of laptop computers, a database system. 'Windows' style technologies were making the early breakthrough of 'WordStar' word-processing systems and file handling ever easier. I was also exploring the theories of all this, teaching courses on the history of technology and on visual anthropology on a regular basis.

In 1998 a new development occurred when I became involved in a large television project for the Channel 4 millenium project. The aim was to make six programs on the history of the world. Not only did I learn a great deal about the whole process of film making, but was also generously allowed to have copies of the 300 or so hours of original films ('rushes') for the series for use in teaching.

It is a characteristic of computer technologies, according to Moore's law, that they double in power (or halve in price) every eighteen months. This is also true of other information technologies, including video. So the period of 1998 to 2004, although it is only a short period of 6 years, seems like a vast revolution.

Among the developments were the flourishing of the internet – servers, codecs, e-mail, wireless communications, broadband, html and a host of related technologies, has now opened up a vast new digital universe. It is likely that the next six years will be even more dramatic. It is an immense gap for the time when, fifty years ago, I lent my 'box Brownie' camera to a friend, or even 30 years ago when I started to computer scientists.

The possibilities opened up by the internet began to dawn on me on a visit to Australia in about 2000. I learnt how to set up a web-site with 'Dreamweaver' and made up a modest set of materials. Helped and encouraged by my friend Mark Turin, I subsequently set up www.alanmacfarlane.com, which contains a great variety of texts, photos and films and which I am finding very useful for teaching. My wife Sarah is the expert web-mistress and designer for the site.

In parallel to this, Mark Turin and Sara Shneiderman set up another site called 'digitalhimalaya', which was an early attempt to use the web to store and make available important archival film and texts about the Himalayan region. Later I extended this, in association with my student Xiaoxiao Yan, to Eastern Asia in another web-site, 'digitalorient', which is again experimenting with collaborative web-site development.

The advent of the web added the final blow to many of our earlier Dos-based database projects. Having worked for seven years with Dr Tim Mills to convert the Earls Colne project into a form where it could be stored for ever on the University server, we now needed to think of how to have the 'Muscat' system re-written for a web and 'windows' age. In collaboration with a small Cambridge computer company, Lemur consulting, and particularly Richard Boulton, we set up a project to do this and after two and a half years are very close to obtaining a working system ('Bamboo') for advanced information retrieval on the web. Linked with this is software so that we may at last have that powerful tool which I dreamt about in the 197's, tried to build in the 1980s, and rounded off in an earlier form in the 19990's. We will then have made some serious contribution to our digital age.

In trying to understand how we came to our digital world, I am obviously trying to understand my own whirlwind life. The longer term history of technology over the last ten thousand years which I have tried to explain to you Lily, may help you to understand the even more dramatic changes which will have occurred by the time you reach the age of 18 in 2015. It helps me to understand the world-shaking effects of communications technologies and the increasing wave or wave of innovations which is occurring each month and adding to the power of others.

What lessons can we learn from all of this?

One is that technologies are invented to solve one problem, but usually that problem is forgotten and they open up new possibilities that were never dreamt of. Another is that the best way really to understand the course of technologies and to control them, is to experiment with them. An enormous amount of time can be ‘wasted’, but there is no alternative to first-hand experience.

Another thing we learn is that there is no better way to build an exciting and interesting project than to make something – a database, a film, a videodisc. Writing books, articles and lecturing is best done by one person. But the pooling of skills needed to make complex new technological products requires small teams. So it is both rewarding and fun.

I shall end by mentioning that a major influence in pushing me towards an interest in, and an ability to contribute to, the digital world, is Sarah. All my projects have seen her at the centre of the work. Without her immense, careful and intelligent work on the various databases, collecting, indexing, inputting, working with computer programmes and others, none of my projects would have been feasible.

This has been a different, rather technical, kind of ‘walk’. I don’t really know why I’ve been attracted to digital technologies. It is no doubt part personality (a collector and obsessive worker); part circumstance (being in King’s and Cambridge); part the times – the very exciting and first take-off of the 1970-2000 period; part the right people around, Sarah, Jack Goody, Ken Moody at King’s, Martin Porter, Gerry Martin, Mark Turin and others.

It is possible that just this one walk would fully occupy an academic life. Thanks to Sarah it has been possible to combine with many others. For it seems essential not to get trapped into merely gathering data, or merely developing technologies. They need to be set within a theoretical framework and through looking at other technologies. To understand technologies and make them useful requires all the skills of history and anthropology, as well as some understanding of visual media and computers. It has been a fascinating walk, and one where we have moved from a slow amble to a rapid run.

(What are the limits to growth?)

Population

I don't think that I learnt anything about population or the threats to resources or the ecology when I was at school. So that while the population of the world grew inexorably my teachers and I did not feel that this was a subject that needed to be discussed. The destruction of forests and seas, the extinction of plants and animals, the massive growth of city slums, these were not things we learnt about at school. I never heard about the famous Thomas Malthus or wondered about what caused death and birth rates to go up or down. I could see that boarding school life was partly a competition which tended to lead to the survival of the fittest. But I did not know that this famous idea of Charles Darwin had sprung into his mind through reading a book by Malthus.

As far as I can remember, my first encounter with the problems of population and ecology was largely accidental. About half-way through my undergraduate history degree at Oxford I wrote an essay on the causes of the British industrial revolution and focused in particular on the arguments as to whether a rise in the British population in the middle of the eighteenth century was a result of increased fertility or lowered mortality, and what effects this rise had. Then, during my D.Phil. on witchcraft, like many young people in the later 1960's I became increasingly aware of the importance of world population history.

Intellectually I was influenced by French and British historical demographers who were pioneering new methods to examine past patterns of population based on linking together baptisms, marriages and burials. Emotionally I was influenced by ecologists and demographers who were predicting doom as the effects of the medical revolution on third world countries became apparent. Books with titles such as 'The Population Bomb' or 'Famine 1984', or 'The Silent Spring' (predicting ecological disaster) were a haunting background to my work, though I continued with my study of witches.

It was at this time that I first read the clearest and most influential thinker ever to have considered these problems, the Reverend Thomas Malthus in his *Principles of Population*. Malthus's work was deeply influential in many ways and I found it a great inspiration as I tried to sort out the history of populations in the past and present.

My interest in population as a topic grew during my two years on an M.Phil. in anthropology at the L.S.E. and I attended demography lectures, wrote my first published article on the subject, and felt desperately worried at what was happening in the world of ecology and population, as many of my generation did. So when I came to choose a subject for my anthropological fieldwork in the Nepal Himalayas in 1968, it was not surprising that I chose the Malthusian theme of 'Resources and Population', the title of my thesis and book on the work.

When I visited Nepal for fifteen months of fieldwork I saw Malthus' world at first hand, although war was not then present. Food scarcities, widespread disease, and the incessant, back-breaking labour of mountain agriculture in a Himalayan village were

the theme of the research. In the thesis and book I fleshed out the Malthusian arguments and considered the critics. But I found myself unable to proceed much further than Malthus himself.

When I returned from Nepal I turned to studying the problem in two other ways, to approach it from other angles. The first was to improve the data on the English case by developing the method of 'total reconstitution' to enrich the method of 'family reconstitution' pioneered by Louis Henry and the Cambridge Group. Sarah Harrison and I began an intensive study on two communities in England, Kirby Lonsdale in Cumbria and Earls Colne in Essex. By looking at all the records, not just the baptisms, marriages and burials as in the classic method, we hoped to be able to examine micro-demographic processes and to see the social and other context which influenced demography.

When I obtained a Research Fellowship at King's College, Cambridge in 1971 I began to approach another aspect of the problem, namely what were the exact mechanisms by which the 'preventive check' relating to fertility in England work? I worked on this problem through the 1970's and 1980's and finally came up with my conclusions in relation to England in *Marriage and Love in England* (1986). Later I pursued the subject again by comparing England to the Japanese case, where the main mechanism used to control population was not marriage, but infanticide and abortion. This was described in the last section of *The Savage Wars of Peace* (1998). Throughout these years I was also teaching classes and lecturing on population problems within the courses for anthropologists. Furthermore, I was in close contact with some of the leading experts on the history of population who were working in Cambridge, in particular Peter Laslett, Tony Wrigley, Roger Schofield and Richard Smith.

It was only in the 1990's that I became really interested in the other half of the Malthusian trap, namely the death rate. It began to become obvious that there was something odd about the level of deaths in England and Japan in the past and that the conventional explanations for the lowering of mortality were not satisfactory. So I looked at this side of the equation in considerable depth in the main sections of *The Savage Wars of Peace*. Again important clues were provided by Thomas Malthus who had noticed significant changes in death rates in the century before he wrote which have never been explained.

(Why do so many starve?)

Famine

When I was at school I don't think I was even dimly aware that famine was still a serious problem in the world. I was certainly not aware when I was in my last year at boarding school and first year in University that over twenty million people were dying of starvation in China. Nor do I recall that we ever read about or even thought about the widespread hunger still found in much of the world at that time. Only when

we refused to eat our food were we reminded of the 'starving peoples' who would so much appreciate what we left on our plate.

One important exception to this cosy ignorance may have been my trip to India at the age of about fifteen. The sight of really hungry peoples in Calcutta shook me. I remember vowing that I would return one day to help Mother Theresa run soup kitchens and feed the poor. So I must have been aware that people were hungry and no doubt I wanted to know *why* they were so poor and what could be done about it.

It was in the very area where I was travelling, Bengal and Assam, that a few years later during 1974-5 nearly two million people were to die in the last great south Asian famine. From this and earlier famines India had become impressed on our minds as the land of famine.

During the mid 1960's at University I became more interested in famine because of a general growing awareness of population growth in the world and the effects it was having on the ecology. There was in particular a resurgence of interest in the ideas of Malthus. It was argued that famine would return to cut back over-rapid population growth. Books with titles such as *Famine 1984* were published, and the work of population ecologists such as Paul Ehrlich and others, mixed up with my memories of India, led me to write my first published article on the theme of the population explosion and growing food shortages.

Indeed I was so worried that I decided to make the interrelation between growing population and food supplies the centre of my doctoral research as an anthropologist when I went in 1968 to work in central Nepal. So I studied in meticulous detail the production and consumption of food from the steep hillsides and the way in which rising population was pressing on increasingly scarce resources. At the end of the study I published the book *Resources and Population* which predicted that famine would soon stalk the central Himalayas.

When I returned and got a job in Cambridge in 1975 I lectured on population for a number of years and always the threat of famine was one of the themes. By this time there were new famines in the world, in Bihar and Ethiopia. With the development of television, as had been predicted by earlier writers, we watched, in the comfort of our homes, people dying in their hundreds of thousands. Emaciated bodies, distended stomachs and piles of bones filled our nightmares. All of us wondered, why did people have to starve like this in a world of plenty?

In 1993 I decided to investigate the subject a little more closely by looking at the theories of what caused famine and the history of famine in different countries. I discovered that famine were usually man-made, that they were worse in certain areas of the world than in others (India, China and recently Africa) and that one or two fortunate societies and civilizations had escaped from the threat of famine much earlier than others. Visits to Japan, and reading the history of that civilization, showed it to be a place with very few natural resources, yet one which had kept famine at bay for most of its history. Likewise, study of English historical records showed a relatively famine free country.

(Why are we diseased?)

Disease

When I was at school I don't remember thinking much about disease and I hardly knew anything about its causes or the distribution of sickness in the world. Of course I suppose I must have known the words, malaria, tuberculosis, smallpox, measles. Certainly my mother tells me I was a sickly little boy in India and when I came back to England there were constant minor epidemics in the boarding schools I attended. We all got chicken pox, mumps, measles. Many minor irritations which English people do not suffer from much now were then very widespread, impetigo, boils, chaps and chilblains.

I assumed all these diseases were 'natural' and nothing could be done about them except for undergoing period mysterious and painful injections and vaccinations. I also accepted the pretty painful and barbaric dentist's treatment of those days and the torture of having my ears cleaned by an incompetent specialist.

So pain and disease was a part of my life, but not something I thought about specially or knew anything about in terms of its history or the burden of the immense, unnecessary, suffering which afflicted most people in the world. Nor did I learn any basic biology or anything about how the body worked. Illness and pain were inevitable. One became ill. I knew nothing of bacteria or viruses or amoeba. So, in blissful ignorance, I went up to University.

A degree in history hardly expanded my knowledge. I must have made some study of the impact of one disease, the Black Death or bubonic plague. Also I do recall studying various articles on disease in eighteenth century England in an attempt to understand whether it was a decline in mortality or a rise in fertility which had been behind the rise of population which occurred in the later eighteenth century. I must also have been aware of the diseases, cholera, tuberculosis and others, which afflicted nineteenth century industrial British cities. Yet both the questions I asked and the knowledge I had were superficial.

An interest in disease grew as I did my doctoral research on witchcraft beliefs. Many witchcraft accusations were made by people whose children, animals and so on had become mysteriously ill. It seemed that high levels of sickness in what anthropologists called 'disease-logged' societies, were an important condition for the widespread belief in witchcraft. When the levels of sickness were high and knowledge of the causes and cures for disease were minimal, then magical remedies were all one had and to believe in witchcraft was quite reasonable.

Yet I was still not particularly interested in wider questions of medical history, even though a book I wrote about the seventeenth century Essex clergyman, Ralph Josselin, based on his detailed diary, showed that he lived with constant anxiety about disease and death. This was a natural and reasonable anxiety since he lost several of his children to painful diseases and he himself was afflicted by constant pain from diseases, such as a suppurating navel, which could easily be dealt with nowadays.

The next and much more indelible experience which made me interested in disease arose from fieldwork in the Himalayas. There I lived with a group who had until recently suffered from major epidemics and who faced illness and pain almost every day of their lives. I made a detailed health survey with a doctor which showed the universal incidence of minor painful and debilitating conditions such as goitres, sores, coughs, scabies, worms, all of them easily preventable except that people did not have any money or medicines.

I also noted the many infant deaths from diarrhoea, as well as the numerous adults who suffered from amoebic or bacillary dysentery almost all the time. Comparing my village to other parts of Asia I became aware of the vast incidence of tropical diseases such as malaria and cholera. My thesis and book included an extensive study of mortality from various diseases and I tried to compare them to the patterns in the English parishes which I was increasingly working on.

Another dimension was added by my work on Japan from 1990. As I worked further on what had caused the unusually low death rate of the Japanese population even before modern medicines, I noted some very odd patterns in the history of disease. As part of the study of how civilizations avoided the trap which Malthus had predicted, I decided to make a proper study of the comparative history of disease. It was when I came to do this that I realized how little I really understood about how disease worked.

So I began to write the equivalent of a medium-length book on the history and anthropology of disease. I began to see the normal patterns and tendencies and some of the reasons why a few societies deviated from these. Later, with my mother, I developed one aspect of this story in relation to one of the central findings, namely the importance of tea as a medical substance.

(Why have children?)

Fertility

The question of people's attitude to having many or few children and its effects on civilization did not occur to me until my second year at University. Then I wrote an essay on the causes of the industrial revolution and found myself in the middle of an academic debate about whether it was higher fertility (the number of children people have) or lower mortality (declining death rates) which caused the upsurge in population from about 1750 and which fuelled the industrial revolution. I found that experts were divided and it seemed likely that it was a bit of each. But what was conspicuous by its absence was any discussion of why people might have wanted or had more children, apart from some arguments that marriage age might have dropped because of rising work opportunities.

During the late 1960s I became more interested in this. The techniques for the study of the number of births and the age at marriage in the European past suddenly improved greatly with the introduction of the method of 'family reconstitution'. This linked baptisms, marriages and burials recorded in parish register to establish birth

rates, death rates and age at marriage. Among other things this established some curious features of European demography which intrigued a number of scholars. There seemed to be far fewer children born per woman in many past European societies and a higher age at marriage than is common. I spent much time over the next twenty years trying to find answers to these puzzles.

Then in the years I was at the L.S.E. I became very interested in the world population explosion. To many of us then, in the early days of the ecological movement, it seemed that over-population was the most serious problem facing mankind. I wrote about this in my first published article and read and re-read the classic works of Malthus and his critics to try to understand what might be done.

Malthus was clearly right that humans could increase their population at a very rapid rate, doubling each generation, but he had also found interesting exceptions to his 'law' in a few countries, including England. Why was this so, and what, exactly, was the relationship between population (especially having children) and resources?

I became so intrigued with this that I decided to make it the central focus of my Ph.D. research in Nepal. I carried out all sorts of work on people's attitudes to, and need for, children. And I wrote a book on *Resources and Population*, analysing this case study in the context of world history and more general theories.

Over the next years my interest in the inter-section between the desire for children and marriage persisted. I ran courses on demography where I discussed the latest theories with my students. I gave my Malinowski lecture on this theme. I continued to work on the history and anthropology of the subject and much of my book on *Marriage and Love in England* was devoted to this Malthusian debate.

Then I worked in Japan and found some fascinating similarities. Like the English, the Japanese showed an unusual desire to limit the number of children, but achieved this through a different mechanism; abortion and infanticide rather than age at marriage. I synthesized these findings into the last third of my book on *The Savage Wars of Peace*. In my most recent work in China I have also discussed Chinese demographic history quite seriously and went on a fieldwork trip with one of the leading demographers of China, James Lee. Again I found that China exhibited different patterns, again controlling the number of children but with other methods.

I cannot see how this can be explained psychologically or from my childhood or adolescent experience. It seems to have been an almost purely intellectual interest. But for you, Lily, as a potential mother, it all has very practical implications.

(What makes us feel good?)

Beauty and the senses

During my last years at school I experienced many of the sensory delights. This was despite my quite ascetic public school experience and reserved middle class upbringing. I was sensing the pleasures of taste, especially through my grandmother's delight in cooking. I was aware of the pleasures of touch, from the feel of

water in the warm pools of the Lune River on June days, the occasional erotic brushing of flesh and in many other ways. I was aware of the delights of smell, the rich spices and aromas of India which I visited as a teen-ager, or the fruits and roses of many childhood gardens. I was just starting to enjoy sounds, discovering jazz, the pleasures of playing a guitar, my first encounters with classical music. I was becoming aware of visual beauty as I walked and fished through the Lake District and the Yorkshire Dales. I was starting my passion for poetry, especially Wordsworth and the Romantics.

Yet all of this was more or less at the animal level. As far as I recall, apart from some music and art lessons where we were taught practical techniques, there was little discussions of the nature of beauty, the power of the senses. The one exception was when we analysed poetry and I learnt about the meaning of beauty and the nature of literature in Shakespeare, Keats, Milton and Gerard Manley Hopkins. So I continued to divide my life into 'work', which was strenuous, intellectual, abstract, and 'pleasure' or 'leisure', which largely arose from the bodily senses, music, poetry, food, sexual desire, natural beauty, all of them desirable but vaguely sinful in excess. It is only over the years, and particularly as the strains of middle life gave way to the relative calm of grand-parenthood, that I have begun to see how the body and mind are interconnected. At last I have understood why the head and heart lines on my hands are combined.

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It is difficult to say which of the senses has given me the greatest pleasure; but the two which seem to affect me most powerfully are sound and sight. Growing up through the era of Elvis, the Beatles and Dire Straits, I have enjoyed pop music immensely. Often, as you know, the rhythm, harmonies and tunes seem to carry us out of our bodies. We are, in the phrase we used to use, 'sent', carried away.

It was when I was about sixteen that music other than pop and jazz began to 'send' me. I first discovered classical music through the usual composers, Mozart, Beethoven, Schubert and others. Then in my thirties I discovered J.S. Bach and found that listening to his music inspired me to write. In my forties I returned to Mozart. Then in my fifties I discovered my greatest and enduring love, Handel.

I cannot really express what Handel has meant to me since then. As with poetry, melodies from Handel haunt me in joy and sadness and I listen to him for a few minutes almost every day. Fortunately, he composed more music than Bach and Mozart combined, so there is plenty to explore. I agree with Beethoven that Handel is the greatest of musicians and his music seems to take me out of this mundane world. As one of his contemporaries put it, 'What passions cannot music raise or quell?' So if there is ecstasy on earth for me, it is certain that Handel arias are one source of this.

Then again it may be vision which, being our most powerful sense, has given me the most pleasure. I have always loved landscapes, but the learned pleasures of enjoying paintings and other artistic creations have developed much more slowly.

Until my thirties I felt somehow visually deprived or inept in relation to painting. I was never much good at, nor did I enjoy painting or drawing, while visits to art

galleries left me bored and confused. Gradually over the years I did begin to find that certain artists and periods affected me and helped me to see the world afresh. One was Goya, in particular his dark paintings of cruelty and superstition contrasted to those of lightness and brilliant colours. A second was Leonardo, whose painting, particularly some of his famous drawings and paintings of faces, struck me like a rapier into the mind. A third was Dürer with his etchings as well as his paintings. A fourth was Rembrandt, particularly his use of darkness and the extraordinary series of self-portraits. Yet above all I delighted in the Netherlands painters, particularly the Breughels and the later Dutch landscape painters.

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Yet it is when all these senses come together that I find the greatest delight. Almost everywhere in my life I have lived in a house with a garden and I have always enjoyed flowers, vegetables, fruit bushes and trees, their colours, smell, feel and sounds. The mixture of nature and culture which is the essence of a garden has always attracted me. Yet what was always a strong pleasure has now turned into something deeper. We now have a very large garden of our own in the rich black soils of Cambridge. Watching this develop to my rough plan over nearly thirty years has given me enormous delight.

It started as quite bare, a field in which we cultivate a vegetable patch and started to plant trees. Now there are mature fruit trees of many varieties; pears, peaches, figs, cherries, plums, damsons, bullaces, greengages, quince, medlars, figs, vines and above all about thirty apple trees. Towering over them are the silver birch, walnuts, field maple, ash, lime, horse chestnut and oak which we have planted, often as nuts.

To walk through this garden at all seasons of the year, to feed the goldfish in the lily dappled pond where the dragon flies draw flame, to watch out for hedge-hogs, to note the numerous birds, from green woodpeckers to fluttering swifts, is an unending delight. To pick the thyme and rosemary and lemon balm, the raspberries and strawberries and blackberries of autumn, to plan treasure hunts and walk the curving paths, all enriches my life enormously. For it is a memory garden. Almost every tree and bush tells a story, of grand-parents, parents, friends, colleagues, poets, scientists, countries we have visited.

As I walk through the dazzling greens and feel the soft breezes on the cheek wafting melodies by Handel, poems by Marvell, paintings of Tuscany into my mind, the garden plays a fundamental part in stimulating my thought and imagination. The garden extends from a book-crowded barn where I research and write, and alongside an elegant replica of a Japanese tea house where I think. Thought and feeling, mind and body, sense and sensibility become fused.

The thinking paths of the mind run from my desk out through the wood, past a pottery, to gaze into the pond and walk beneath the apple blossoms. Sand garden, rock garden, thyme path, the smell of black currant bushes and the memory of children in the raspberries their mouths stained and their eyes full of delight. It is impossible to overstress the restorative and remembered pleasures. No wonder that the Zen monks considered walking through a garden one of the four great forms of meditation.

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The other great pleasure is in the presence of children. As an anthropologist in Nepal, as I became close to my adopted niece Premkumari from the age of two, and filmed her growing up to be a young lady, I experienced for the first time the engulfing pleasure of watching and inter-acting with a child. Over a number of years I developed a relationship which had few of the responsibilities of fatherhood or power. I begun to relish in small children their innocence, enthusiasm, playfulness, trustingness, physical snuggling, high expectations, loyalty, ingenuity and sudden moments of sudden beauty in a gesture or look. It is a kind of love which complements, but is different from that which has enveloped my life with Sarah.

This experience has been repeated in an even more intense way as I watched my grand-daughter Lily having her umbilical cord cut, and danced with her when she was only a day old. Since then I have watched her grow, filming, interviewing, playing with her. Being with her, hunting treasures, reading stories as she and her sister Rosa snuggle up, showing them new flowers or insects, sharing my childhood toys with them, each is an extraordinary pleasure. If we want to understand the sources of wonder, surprise and admiration which the philosopher Adam Smith thought lay behind artistic and scientific creativity, there is no better way than to observe and participate in the world of children and to revive our own sense of those emotions when the world was young.

(What is sex?)

Sex

As I explain in my letter, Lily, I had not intended to write a letter to you on sex. This was not because of disinterest in the subject, but because I had a certain reluctance (due to the incest taboo I suppose). Yet I am glad that I did so in the end since the topic of sexual behaviour has been a central one in my academic career.

I do not remember much interest in my own sexual desires until I was about thirteen. From then onwards I endured the usual clash between sexual desire and moral rules inculcated by Christianity. I quickly learnt that sexual relations of any kind outside marriage were considered sinful by the religion in my society. Straying from the path into what were darkly referred to as 'unnatural acts' was said to lead to Hell and damnation.

I never felt more than passing attraction towards other boys, and I saw very little of other girls apart from my sisters. Nor was there any access to any kind of sexual literature or pictures beyond things like *Lady Chatterley's Lover*. This and a few other similar books, being banned in the house library, were conveniently stored away in the house sick room so that on those occasions when we were ill we could read them.

At University there was more freedom and though I kept my virginity for another three or four years, it was easier to discuss sex and to read more widely. Yet little was explained to us about the subject at any stage in our education, certainly in a broader and more philosophical way. My first serious study of the subject was an accident.

When I came to choose a subject for my D.Phil I explained to my appointed supervisor, the historian Christopher Hill, that I would like to study witchcraft, sex or myth. He referred me to his pupil Keith Thomas, whom he claimed knew more about these subjects in history than he did. Keith suggested I chose witchcraft, but of course sex was never far away from my subject since the witches were supposed to practice devious sexual rituals.

When I did my next research for a Master's dissertation at the London School of Economics, my supervisor Isaac Schapera suggested a historical study of attitudes to incest in England in the past in a comparative framework. So I started to delve into one of anthropology's favourite topics, even before Malinowski wrote his famous *Sex and Repression in Savage Society*. I also made further use of the very full records of sexual misbehaviour in the church courts, which I had first come across in my work on the history of witchcraft.

Then I went to Nepal and found that the Gurungs had a relaxed attitude to sex. They had traditionally had the custom of 'youth dormitories' where teenage boys and girls were allowed to sleep together. There was no connection made between sex and sin. There was absolutely no pornography and, as far as we could ascertain, no idea of sexual abuse.

Reading other anthropologists' work, especially detailed studies by people who had worked in other tribal areas in India and Nepal such as Verrier Elwin and my supervisor Christoph von Furer-Haimendorf, made me increasingly aware of how repressive and peculiar my own Christian upbringing had been.

This was further brought home when I came to work in Japan. There the odd contrast between the demure and apparently almost sexless ladies we saw in the streets and shops, and the extreme pornography to be seen in magazines and videos and parts of the big cities, was very puzzling. After many discussions I finally realized that the Japanese regarded sex as a bodily function, like eating or sleeping, no more or less significant. They did not endow sexual activity with a spiritual dimension.

At the other extreme, I also read about other societies where sex was even more highly charged than in England. In these, the breaking of a taboo could lead to the maiming or killing of those involved in the breach of the norms. So I continued to collect materials, gave a rather unsuccessful lecture series on the subject, and wrote a great deal, only a little of which has ever been published.

Sex seems to be the perfect case of a central tension in the human species. It is highly irrational, yet lies behind much art and rational activity. It reminds us that we are just animals, yet inspires many of our most uniquely human activities. As with our religious world, we cannot do without it, yet with it we are constantly diverted and distracted.

Sex is a dangerous spark or fire, but without it our lives would be colder and drabber. I have never really found anything profoundly original to say about the subject, so have not published much on it. And after a while it lost its theoretical interest since it does not seem to be rich in philosophical potential. Yet it is very

important in all our lives and certainly worth a rather schoolmasterly, or mistressy, letter.

(What controls our minds?)

Mind

That our minds are invisibly constrained by many forces beyond our control is obvious. Yet it is difficult to appreciate how much this is the case because part of the very invisibility consists in the illusion of freedom. Certainly for most of the first half of my life I believed that I could think what I liked. There might be limits to my knowledge, but these were only the result of my age and immaturity, combined with there being so many things out there which I did not yet know about. Yet I did not feel constrained or blinkered.

I do not think it was until I read anthropology and practised as an anthropologist that I began to learn how trapped we are. As I compared the cosmologies of different civilizations, their languages and cultures, I became aware of how far each member of each culture was limited in what they could think. Their mental categories were given to them at their birth, as much as their genes, and it was almost impossible to go outside these.

I learnt about this in many ways. For example, I discovered how impossible it was to challenge witchcraft beliefs once a system of witchcraft has been set up. It is almost impossible to escape from a closed system, in the same way as it is very difficult to challenge any set of religious beliefs from within it. Almost all world religions are closed systems.

Or again I learnt how we are deeply influenced by our unexamined concepts of space and time. In general it has been said that Americans look to the future, Chinese to the past. Many people place everything within a circular time framework, others look at time as never returning. So I came to read about time systems and how we symbolically order space, giving special values to the right and the left, the below and above. We do all these things without thinking about them, it is part of our culture or customs.

Likewise we operate a complex set of ideas about value, exchange and money without examining it much. This is particularly the case if we live in a capitalist society, for we tend to turn money into a god, be constantly obsessed with getting and spending, coming to believe in the intrinsic value of an exchange medium that has no intrinsic value.

Above all we are trapped by our language. Again I only gained a first glimpse of this when I stepped outside my European heritage. I learnt a little about the Tibeto-Burman language spoken by my Gurung friends in Nepal and the strange linguistic systems in Japan. I began to realize through experience what many linguists and philosophers had often stated, that what we can think and the way we think is deeply embedded in our linguistic categories and structures.

All of this interested me at a theoretical level. But it also interested me practically. If it is true that we are very circumscribed in what we can think by the tools of thought available to us as well as the inherited assumptions of our society, what would we do to help us break a little free and to discover genuinely new things and think original thoughts?

In terms of our inherited categories, the obvious strategy is to read about and, if possible, become absorbed into mental worlds very different from our own. To do this is not easy, but if we are fortunate and find great translators of cultures, or read the classics of other civilizations, or spend time trying to communicate with people from other cultures, something can be achieved. This can be cumulative, for once we have cracked two or three cultural codes in a rough way, it becomes easier to gain at least a rough comprehension of the next.

This procedure helps to ‘unglue’ us a little from some of our inherited prejudices and assumptions. It opens our minds to new ideas and connections and turns much of what we have been brought up to believe as ‘natural’ into something cultural. This allows us to question, examine, doubt and often to re-affirm even more strongly what we had unquestioningly assumed. So this allows some theoretical innovation and originality.

A second strand that has long interested me is more practical. If what we think is conditioned by such things as inherited attitudes to space, time, money and language, then if we are to allow our minds some creative space, we need to re-arrange these things in a way which helps rather than hinders creativity.

I have long been interested in the way in which people whose thoughts I admire actually worked. I have interviewed dozens of important scholars (who now appear on my website). I have written accounts of the way in which great thinkers like Montesquieu, Adam Smith, Tocqueville, Charles Darwin and others actually work. That is to say how they lay out their houses and gardens and libraries, how they store and index their materials, how they actually write. I have made other studies of books on creativity and discovery.

Out of all this I have tried to establish a style of life which at least gives the maximum opportunity for creative thought. I have arranged space so that I can follow up intellectual clues, have enough but not too much data at hand, enjoy peace and stimulus in the right proportions. Be what my friend Gerry Martin described as ‘bounded but leaky’.

I have been obsessive about the use of time, balancing work with leisure, saving good times for working, timing all my activities so that I do neither too much nor too little, pacing myself like a long-distance runner.

Thanks to my careful and clever wife, your grandmother, I have not had to worry about money, its getting and spending. For a long time I have escaped from the tyranny of money. This is a great luxury over the last thirty years, and one which most artists and writers have not shared.

The end result is that I have spent much of my life trying to plan the ideal location for worthwhile ideas. If 'nature favours the prepared mind', I have tried to prepare for those moments when we escape out of ourselves and seem, as if by some outside force, to be catapulted into new realms.

Of course, this is also largely an illusion. Too often we think we are doing something new, but are still only following in the footsteps of others. But very occasionally a connection occurs which could not have been made without all these preparations. And again it is cumulative. As with all craftsmen, I learn by my successes and failures. Tricks that work are tried again and the correct arrangement of the tools for the job takes on an almost magical significance.

In the end an academic is perhaps endeavouring to do the most difficult of all tasks. He or she is using the most powerful human instrument (the brain) in its purest form (abstract thought). It is exhausting, at other times frustrating. But when the mind moves out seemingly effortlessly, after a period of steady preparation, it is the most wonderful of sensations.

(Why are we here?)

Why

The question of why it all happened as it did and how we got to this point is an area where religion, philosophy, history, biology and many other disciplines overlap. The question is one which I, like many people, ask from time to time from childhood onwards. I probably would not have put it like this, but I was always searching for some way of explaining the patterns which I saw unfolding around me.

I think that at first I vaguely saw the answers as lying in religion. In my teens I was at my most religious and if questioned would probably have said that things are as they are because God has created them in that way. If asked about the future I would have given some vague answer about everything moving towards the final end of the world and the return of Christ.

In my late teens I found such beliefs more and more difficult to sustain. I became more aware of 'world sorrow'. Gerard Manley Hopkins, whose agonized writings on the problem of pain I studied at school, especially in his 'The Wreck of the Deutschland', struck a deep chord. But unlike Hopkins, my faith snapped and I was cast loose in a world without the great Designer.

Thereafter I searched for what Karl Jaspers in the title of his brilliant book calls 'The Origin and Goal of History'. How can we find a way of understanding history without a God?

For a time I retreated to a position that while we can understand parts according to political, economic, social or other laws, the totality is beyond comprehension. We can describe what has happened, but this does not give us any power of prediction or wider understanding.

My interest in the formal subject of the philosophy of history developed at Oxford when I read some of the classical attacks on grand theory by Isaiah Berlin (whose lectures I attended), Pieter Geyl, W.G. Collingwood, Karl Popper, Hugh Trevor-Roper and others. I also studied De Tocqueville for the first time and encountered Marc Bloch. It was an immensely stimulating time, but by the end of three years as an undergraduate I knew more about what I was against – all grand theorizing (including Marx) – than what I was for.

My subsequent immersion in anthropology tended to flatten my interest. I found a new way of explaining how things were as they were; the functional approach (they were there because they served a purpose), the structural-functional approach (the parts are linked together into a social system which integrates them) and the French structural approach of Levi-Strauss (deep structures of the mind determine how we are).

Yet none of this really dealt with the problem of change. While historians had shown the value of long-term narratives, and anthropologists had shown the importance of inter-relations, I was still very unclear about what kind of explanation we are to give for why things change in the way they do.

I then immersed myself in many projects concerned with gathering historical and anthropological data, developing computer systems, learning to film. I left large questions of how all of this fitted together unanswered. It was a bit like Darwin diverting himself from the grand scheme of the ‘Origin of Species’ to spend a number of years in a minute examination of beetles.

It was in the 1990s that I returned to these large questions of ‘why we are here’. One influence was meeting Gerry Martin and becoming involved in many of his projects. Gerry was a convinced atheist and had arrived at several preliminary conclusions about the processes of history. One was that a Darwinian explanation was helpful. History was the working out of the principle of ‘random variation and selective retention’. It was a combination of accidents, alongside human realization that certain things were worth keeping. I attended seminars with leading Darwinian biologists and others. It seemed a helpful, if not complete, explanation, leaving too little to human planning and experimentation.

This was part of a whole series of seminars, workshops and meetings which took place between 1992-2002, financed by the Renaissance Trust and exploring the methodology of history. At many of these I gave seminars (on Fernand Braudel, on ‘the riddle of the modern world’, on technology and history, and many other topics). I also ran other workshops, made a film on the history of the world, and gave lectures at Cambridge on theories of time, history and social change.

In particular, in about 1993 I decided to write a book, which expanded into a set of four books, to look at various philosophical ideas about how our modern world emerged. The first volume, *The Savage Wars of Peace*, concentrated on material and economic forces in history, especially on Malthus’ theories of demography and economics.

The second, *The Riddle of the Modern World*, allowed me to consider some of the loftiest attempts to understand how and why we are as we are, the majestic theories of Montesquieu, David Hume, Adam Smith, De Tocqueville and Ernest Gellner. These looked mainly at the legal and social forces. Then, through an examination of F.W.Maitland and Fukuzawa Yukichi in *The Making of the Modern World*, I completed the survey of the problem in constitutional and legal history and from a Japanese perspective. Finally in *The Glass Bathyscaphe, How Glass Changed the World*, with Gerry Martin, we looked at the role of science and technology in the shaping of our world.

This intense work at all levels, seminars with people from many disciplines, constant reading, writing and conversations with Gerry, finally sorted out more or less a middle position on the nature of history. The final synthesis came when I wrote the whole of *Letters to Lily*, which is a survey of all my explorations.

There I found a theory which underpins the *Letters*. If I had remained with my post-Oxford position of being able to destroy all laws of history, then there would not be much to tell you, Lily. I could only have only recounted 'sad stories of the death of Kings', all history being a tale told by an idiot, full of sound and fury, signifying little.

Yet when I followed the great thinkers, not just those mentioned above but others like Ibn Khaldun, John Stuart Mill, Lord Acton, Sir Henry Maine, Max Weber, Karl Jaspers and others, I found that they all agreed that there were patterns in history. There were no immutable laws, but there were tendencies, likelihoods, probabilities, repeated patterns which could be discerned. In other words, we could learn something from history and use it to guide action, just as we have to learn from our personal experiences and past how to act and re-act.

So my last letter to you, Lily, on 'Why we are here', is a succinct summary of many chapters, many discussions and much reading. It may fill you with hope or despair, or more probably a mixture. It reveals a world in which the vicious and the benign, the selfish and the co-operative, the lofty and the base are more or less mixed in equal proportions.

It does not really leave us in a position to say why we are here, but it does explain some of the constraints under which humans work, some of the rules of the game whose outcome could have been very different, but has turned out with the present score.

So it hopefully leaves us with a balance between free will and choice. As Marx rightly noted, men make their own history, but not under conditions of their own choosing. What I have tried to show you here is that you can make your history, and other's history, but since they are not under conditions of your own choosing, you need to understand those conditions.

I have tried to summarize the pressures which history and human nature have created. If you understand the tides and currents that have swept the world, you will find it easier to navigate in the direction you want to go. I have tried to give you a map of some of the rocks, harbours, winds and waters. The voyage will be yours, but my report from further along the adventure may be useful. As Handel in his

wonderful music to 'Sweet Rose and Lily' puts, all I ask is to try to shelter you a little from the storms. 'A smile be my reward'.