





# *Part Four*

*a history of the third  
millennium*



## Chapter 31 - The coming dark age

### Phases of cultural change

The history of dark ages has been reviewed, a theory has been derived, and it has been argued that there are clear signs of a coming catastrophe. It is time to turn to the future. When will the dark age occur? By what stages will it arrive? How long will it last? What will it be like? What will come afterwards?

To deal with questions like these it will be helpful to introduce the model of cultural change shown in Figure 31-1. This suggests that there are essentially four phases of cultural change, which apply whether one is talking about the history of a musical genre or the life story of an entire civilisation.

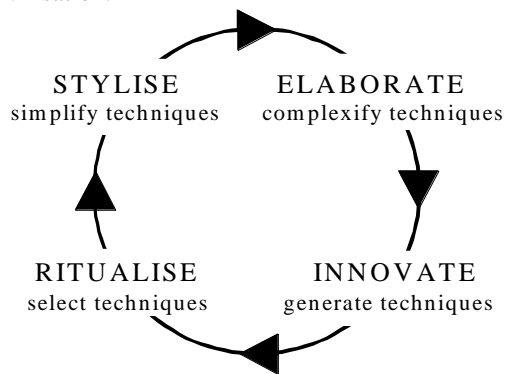


Figure 31-1: Phases of cultural change.

In the phase of *ritualisation*, certain techniques, practices or attitudes are selected from a multitude of possibilities. The selection is essentially arbitrary but the more that certain techniques are repeated, the more they are likely to be repeated. These techniques are passed on from person to person and from generation to generation. They serve as ready-made solutions to whatever issues arise in the relevant sphere of cultural activity (e.g. musical genre or entire civilisation). They acquire a self-justifying validity, to be performed or believed in because that is the way things have always been done. They become characteristic of the cultural activity and inform all of its subsequent history.

The next phase, *stylisation*, involves refinement of these ritualised beliefs and procedures, through elimination of extraneous details and focusing on core principles. By the end of this phase, the sphere of cultural activity is at its most sublime realisation. Simplicity is combined with proficiency. Form and function are in perfect harmony.

The process of social change moves inexorably onwards to the next phase, that of *elaboration*. This involves growing complexity and ambition. Attempts to improve on the existing techniques do not challenge the fundamental principles, which are taken for granted, but they embellish and enhance

them, bolting on extra detail. At the same time, self-doubt creeps in and, though people may do more, they do it less efficiently.

Eventually, the thing collapses under its own weight. The old rituals, first stylised, then elaborated, are now abandoned and swept away. This yields the phase of *innovation*, in which true novelty emerges to fill the vacuum. There is terrific freedom to explore the universe of ideas again and to re-consider things from first principles. The sphere of cultural activity is in disorder, as many things are tried, and there is no commonality or permanence in procedure or belief. After some time, ritualisation begins to occur again, and the cultural activity is re-born on a sounder footing and ready for a new era. The whole process starts over.

This model serves as a guide to the great patterns of history and the future. Global civilisation is presently in the phase of elaboration. As this continues, the world may get richer but also more bloated, more burdened, and more troubled. On the surface, things will seem to be getting better but, underneath, there will remain intractable problems, choking off further progress. This may be referred to as 'the descent'. It will culminate in a crisis of confidence, followed by the rapid destruction of the present order.

During the time that follows, everything that people have for centuries taken for granted, every basic precept, will be denied or will no longer apply. The old certainties will go for nought. This will be the phase of innovation. For those who desire orderliness, it will be a time of disorientation and dislocation. For those who relish novelty, it will be a time of opportunity and one that rewards the taking of risk. This is the dark age, or simply 'the darkness'.

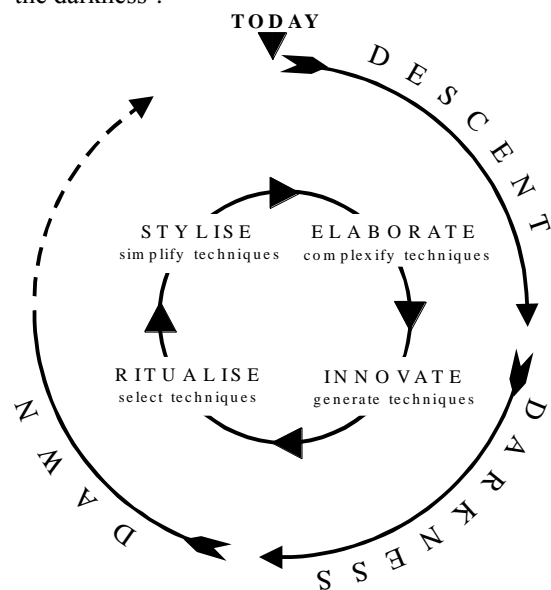


Figure 31-2: Changing world order.

Finally, the chaos will begin to resolve itself into a new order, though tentatively at first. This may be called 'the dawn', when the foundations are laid for a new era of human endeavour. (The term 'dawn' will be used to refer to the entire time after the coming dark age, including both the beginnings of the future civilisation and its heyday.)

#### ***Holding back the tide***

During the period leading up to the crash of 1929, the US stock market repeatedly bounced back from precipitous falls. In mid-1928, the newspapers reported that 'yesterday the bull market finally ended' but it went on to pick up again. Another bad break occurred in December of that year, again followed by a recovery. In the crash itself, there were sudden falls and recoveries over the course of a fortnight.<sup>1</sup> The market did not give up without a fight. This is a microcosm of the advent of the coming dark age. It will not come down smoothly and unequivocally. Crisis will often seem to have been averted, and gloomy predictions will regularly be denied.

Humans and their societies are extraordinarily resilient. When it seems that it is all over with them, they have a tremendous capacity to pull back from the brink and side-step what looked like inevitable disaster. Forecasts of doom often fail because they underestimate human ingenuity and overlook people's ability to recognise and overcome their problems. Today many attempts are being made to reform the follies and incentive traps that are responsible for the world's disintegrative, disorganising and dis cohesive trends. Some of these attempts will surely succeed and societies will generate solutions that cannot yet be conceived of. History is a ferment, and progress towards the dark age will not be a monotonic decline of steadily worsening conditions. The descent will be characterised by frequent reversals, with rallies within slides and slides within rallies. There will be times, even extended periods, when things seem to be getting better rather than worse.

However, one should not be fooled by these optimistic outbreaks. Tackling and solving specific problems is not the same as turning back the tide of history. It is within nobody's power to remove, just like that, the deep contradictions that thread through today's national and international institutions. No one can permanently defy the abstract and fundamental logic of the phoenix principle, whereby destruction is an inseparable element of creativity and progress. Large retrenchments are inherent to complex systems, of which societies are just one example.

Many solutions to civilisation's problems may simply involve buying time, making the situation worse in one obscure area in order to patch things up somewhere else. The world has recently seen widely hailed rapprochements, in places like Northern Ireland and the West Bank, that soon

enough degenerated into further bloodshed. Such a course of events has been quite predictable, for no memories were erased and no tensions relieved.

In the early days of the Kosovo conflict, an Albanian refugee made a videotape of his friends and neighbours lying murdered in the field near their village. He said that he intended to show to his children and his grandchildren 'what the Serbs have done to our people'. Clearly, the Kosovo conflict is by no means over, whatever temporary peace deals may be negotiated. This man's grandchildren are already involved. There is no peaceful, rational, gradualist solution to the problems of Kosovo. Only the coming dark age can finally resolve such fundamental contradictions. Most videotapes will then be destroyed, there will be no electricity to work the video recorders anyway, and the VHS format will be forgotten like the Egyptian hieroglyphs. Future archaeologists may painstakingly reconstruct a fragmentary understanding of events, but by then the ethnic hatreds involved will be dead and their bitterness dried up. They will be suitable only for the museum, well beyond doing anybody any harm.

One might contrast the situation of Kosovo with that of East Timor. In this case, the society has now passed through the bloodbath and been utterly destroyed. It has the chance to re-build itself in peace. On the basis of the phoenix principle, one would predict that a generation from now the seemingly unfortunate East Timor will be the most peaceful and most prosperous part of the Indonesian archipelago.

In general, the bumpy ride to the dark age will see crisis followed by resolution, followed by fresh crisis. There may even be large shocks that seem to abolish some of the impasses in today's world order. A nuclear world war, for example, might give way to a dramatic peace, with people speaking of the war to end wars as they did in 1918. Alternatively, some draconian government might slash welfare entitlements and harden its heart against those journalists who report the misery and starvation that results. Yet in the absence of a general collapse, these resolutions would prove a mirage. Enmity or compassion would soon return, and probably with a vengeance. To assess each solution for its ability to postpone the inevitable reckoning one should ask certain basic questions. In what way does it leave unsatisfied aspirations? To what extent does it attack selfish and parasitic motivations? One may then recognise passing shocks for what they are – the first lightning strikes of the coming storm.

#### ***Duration and nature***

The duration of the descent depends upon how long the processes of disintegration, disorganisation and dis cohesion can continue before the contradictions become too obvious and there is a catastrophic breakdown. Depressing

though they may seem, these processes probably have some way to run. For a while yet, people will be able to enjoy the fruits of a thousand years of democratisation, wealth accumulation and cultural tolerance. Robert Bork recalls being so shocked by the farcical hearings relating to the appointment of Clarence Thomas as a supreme court judge that he remarked to a friend 'television is showing the end of western civilisation in living colour'. The friend replied 'of course it is coming to an end but don't worry; it takes a long time and in the meantime it is possible to live well'.<sup>ii</sup>

The processes of disintegration, disorganisation and dis cohesion, which have been in operation for centuries, are beginning to reveal their limitations. The welfare system is under pressure. Subordinate countries are beginning to challenge the western hegemony. The decline may indeed take some time and, as it proceeds, the more fortunate people, perhaps even the majority, may live better than they have ever lived before. Yet it will come to an end one day, and there will be a definite reckoning – a rapid and calamitous unravelling.

To estimate the timing of this calamity, one may consider the welfare system. Here there could be a crunch in no more than a generation or two. Today's work force is composed of the baby boomers, who were raised in the relatively sober times of the 1940s to the 1970s. Fifty years from now, this population bulge will have moved into the retirement bracket, when it will be demanding pensions and medical services. The work force will then consist of people raised between the 1980s to the 2020s – a time of widespread single parenthood and high welfare dependency, when traditional institutions have been chronically under attack and heavily de-legitimised. In Britain, by 2010, there will be four times as many people coming of working age who have been born to unwed mothers as there were in 1990. A full third of these will have been born to teenagers. Meanwhile, in most developed countries, ethnic minorities will be a far larger proportion of the population. The commitment of this future work force, both to the work ethic per se and to the traditional structures of western society, is very much in doubt. A period roughly equivalent to one working lifetime will see a marked downward shift in the reliability of the productive element of the population coinciding with an increase in the burden placed upon it.

An alternative estimate of the duration of the descent may be obtained by considering the chances of war erupting in the international system. NATO has already rejected the notion that it will supply a hegemonic peace to the world. It has stated that the Kosovo intervention was to protect its interests in its own near abroad, and should not be taken to imply that it will intervene in third party conflicts in regions such as east Asia, the middle

east, or Africa.<sup>iii</sup> This is a signal to China and Japan that their geopolitical ambitions may grow unchecked for the time being, eroding the west's advantage. Several observers believe that the chances of war are likely to start rising most rapidly after 2020, when the United States will have lost power to China, and China itself may be less centralised and autocratic.<sup>iv</sup> Again, this suggests a timescale of the order of fifty years within which a breakdown could occur.

These calculations ignore the issue of human adaptation and creativity. A more realistic estimate should take into account the fact that people may be able to reverse some of the negative trends. There is a limit to this. Adaptability can postpone collapse for a while, but not forever. To return wholeheartedly to a social order in which, say, single motherhood is not a viable life style would require the overturning of so many gains in freedom and welfare that it would very likely initiate the catastrophe it is intended to avoid. Perhaps it would be possible to wind back these trends, at the extreme, by a century or so. This would mean essentially wiping out the changes of the twentieth century. It would mean restoring the unchallenged supremacy of the west, while dismantling the welfare state down to the barebones provisions of the old Poor Laws. It would mean, among other things, being prepared to shoot people at dawn rather than compensate them for post-traumatic stress disorder. The figure of a century as the greatest amount it would be possible to stave off the inevitable is a guess, but it is an educated one. The Poor Law Commission of the nineteenth century succeeded in reversing welfare history by some thirty years. Rome lumbered on for something over a hundred years after the crises of the fourth century, when some historians believe it came close to collapse.

In round numbers, the descent might last somewhere between fifty and two hundred years. It is unlikely to be sooner, it could well be later, but the dark age is most likely to arrive within this time bracket. The collapse itself will be brief, taking a decade at most and possibly much less. Past instances of collapse have seemed to happen almost overnight. Once confidence goes out of the system it unravels very quickly. When perceptions return to reality, they do so abruptly.

Turning to the duration of the darkness that will follow collapse, past dark ages can serve as a guide. Typically, the period of utter obscurity and turmoil lasts between fifty and two hundred years, which may therefore be posited as the likely duration of the coming dark age. A duration nearer the upper limit of this range is probably more likely, since the most severe dark ages tend to follow from the first time that humans achieve a particular level of social complexity. The present era is the first time that humanity has achieved so

thoroughly connected a global civilisation, and some extreme contradictions have been accumulated. It seems that it will take not one but several human lifetimes to erase from memory the hatreds and conceits that ultimately pitch the present world order into the abyss.

Unlike the transition from descent to darkness, the transition from darkness to dawn will be relatively gradual. As J M Keynes observed, the substitution of a downward for an upward tendency often takes place suddenly and violently, whereas there is usually no such sharp turning point when an upward tendency is substituted for a downward one.<sup>v</sup> The dawn will therefore not represent instantaneous restoration of a highly ordered society. Rather it will represent the beginning of a slow process of recovery. In some respects, especially technological ones, the post-dark age world could quickly surpass what has gone before. However, in many other respects, it might take a long time indeed before the world again reaches the complexity and material well-being of the early twenty first century. It took a thousand years, for instance, before Britons began building paved roads to rival those that the Romans left behind. It may take a similar time before the post dark agers rebuild the internet on its existing scale. One can expect a millennium or two in which history is again characterised by generally upward progress. Beyond this lies the dark age after next. However, it would be rather ambitious to say anything very much about that.

As for the nature of these eras, the descent, firstly, will see more of the same. More people will opt out of productive activity. Challenges to the legitimacy of social institutions will intensify. Self-sacrifice and suppression of individual desire will be further disparaged and discarded. The emphasis will shift further in favour of the individual's entitlement to a comfortable life without effort. Dissatisfaction will increase, since it will be impossible to meet expectations. Impatient and selfish people will produce more crime and corrupt behaviour. Political authorities will find it harder to impose their will. Wealth differentials will grow. The world will become increasingly conflictual, with a growing tempo of military activity in conjunction with trade disputes and protectionism. International forums, such as the United Nations, will be riven by bitter argument and will become incapable of collective action. Nevertheless, some observers will be able to view all such developments in an optimistic light. The decline will be a wealthy one, with the diffusion of high technology increasing the availability of material goods.<sup>vi</sup> Ever more extensive health care and welfare systems will make societies seem unprecedentedly gentle and responsible. Optimistic commentators will point to the potential for further

breakthroughs, though they will not realise that the breakthroughs require first a breakdown.

If the descent is a time of private selfishness behind public generosity, the darkness will be a time of private selfishness without public generosity. There will be no welfare system. People will be thrown back on their own devices and life will suddenly become much simpler. On the bright side, this will be a time of extreme personal freedom, given that freedom 'is just another word for nothing left to lose'.<sup>vii</sup> It will also be a time of rapid change with no constraints on creativity. There will be a far-reaching failure to transmit the knowledge, attitudes and certainties of the pre-dark age society, providing fertile ground for new ideas. Yet people will be too busy struggling for survival to record what is happening to them. The burst of creativity will take place behind a thick screen, its details never to be revealed. To future historians looking back on the dark age, these fifty to two hundred years will be another chapter missing from the human story.

Finally, the dawn will see the world as if re-born and made innocent again. It will be a far more moral world, in which individual desire is subordinated to higher things and to the will of the community. Political authority will be jealous and ruthless. There will be few dependants, and almost everyone will be engaged in productive activity. The world will be at first highly fragmented but political, economic and social units will steadily grow by accretion. Although the world will be beginning again, some things will survive from before the dark age. New technologies, including ones that contemporary societies have failed to exploit, will soon create material possibilities in excess of anything known today. Things that people now take for granted, such as coal mining, will come to seem unbelievably uncivilised, like slavery.<sup>viii</sup> In the long term, one can expect a far more enlightened civilisation – a civilisation perhaps that does not allow millions of people to starve in full view of the world's television cameras. However, one should not be too utopian. Human frailties will never be eliminated, at least not in the time scales one is dealing with here, and the world of a thousand years from now will have deficiencies of its own. These are likely to be deficiencies not so different from those that are apparent today, though they will certainly be transformed and re-interpreted.

### ***Taken by surprise***

It may seem to be taking an easy way out to predict a coming dark age with a fifty to two hundred year lead-time. There is apparently half a century's grace before this thesis can be called to account. It could be seen as hedging one's bets still further to note that progress towards the dark age will be uneven, with periodic reversals. Even if things get better in the near term, that does not

**Table 31-1:** *The next one thousand years – an overview.*

Phase	Duration	Nature
Descent	50 – 200 years	Growing wealth and welfare combined with increased selfishness, decreased entrepreneurship and de-legitimisation of traditional institutions.
Collapse	10 years or less	A crisis of confidence, leading to catastrophic unravelling of existing political, economic and social structures, on the national and international level.
Darkness	50 – 200 years	A highly creative but obscure time; extreme personal freedom combined with subsistence lifestyles; people will be self-sufficient and self-reliant.
Dawn	1000+ years	Re-emergence of highly moral, productive and disciplined societies; there will be a slow recovery, with the gradual extension of integration, organisation and cohesion; eventually, there will emerge a more civilised and enlightened world order, though this will become corrupt in its turn.

conclusively deny the predictions of long term decay and eventual collapse.

To be fair, it is not quite as simple as that. In what follows, there are specific predictions about events to look out for on the way down to a dark age. These forecasts can be tested well before the collapse itself. Furthermore, the book does not really aim to make detailed predictions about the next few years. Its true purpose is to present a theory of society and of long term historical phenomena. This theory can be evaluated immediately, in terms of how well it accounts for the historical events that are already known about, just as a new astronomical theory may be evaluated in terms of how well it accounts for what astronomers already know about stars and galaxies. Of course, the best test of the theory, in either case, will be against new data. In the present instance, because one is dealing with long term phenomena, it will inevitably take some time before conclusive results can be obtained.

Predictions of social phenomena almost invariably turn out to be wrong because they are based on simple extrapolation of current trends, often combined with a dose of wishful thinking. In 1900, for example, the analysis of a British victory in the Boer war led one newspaper to conclude that ‘the armies of the future will contain a vastly greater proportion of men with horses’.<sup>ix</sup> Technological forecasts, in particular, emerge as comically fanciful even for a short time ahead. In 1980, commentators were predicting that the turn of the millennium would see people swallowing pills for breakfast, jetpacking to work, and tracking down criminals in space.<sup>x</sup> Such prediction of novelty is almost impossible to get right. The present project, however, is concerned not with novelty but with eternally recurrent themes. Its predictions are a by-product of statements about patterns in historical phenomena, with the presumption that these are as relevant to the future as to the past.

Of course, anything could actually happen in the future.<sup>xi</sup> Quite unexpected things may change the world’s circumstances in ways not yet thought of. Barring invasion by extraterrestrials, though, it is implausible that anything could permanently eliminate the prospect of a future catastrophe. History has been punctuated for thousands of years by the saga of decline, dark age and renewal, despite all the unexpected things that have happened in it. Unforeseen events may affect the timing of the dark age, either as last straws that precipitate the crisis or as lucky breaks that somehow stave it off, but they will not affect the essential logic carrying the world to such a denouement. That logic depends wholly on human relationships, whose nature is fixed and impervious to external, random events.

The likelihood is that when the dark age comes it will seem to be quite unexpected. Even those who have predicted it may find themselves surprised at the moment when collapse actually occurs. Humans are accustomed to thinking in terms of gradual change. It is difficult to believe or detect that sufficient strain has accumulated for a transition to an abrupt and catastrophic breakdown – even if one suspects that that is on the cards. In the year before communism triumphed in Russia, Lenin said that he did not expect to see it in his lifetime. In the year before communism collapsed again, the historian Paul Kennedy said that he did not expect to see it go. Throughout the twentieth century, people have been taken unawares by events. The outbreak of the first world war, the 1973 oil crisis, and the fall of the shah of Iran all seemed to contemporaries to come out of the blue.<sup>xii</sup>

The main reason why people are surprised by events is simply that they are usually ill-informed about what is going on in the world. They remain unaware of the trouble that is brewing until it erupts so dramatically as to make the nightly news. Then it seems to ordinary people as though it has all come from nowhere, though if they had been

reading the small print in obscure academic journals they might have been warned of its advent long before. Norman Myers has observed that people may have missed the build-up to seismic events in eastern Europe in 1989 because they were stuck with traditional views of geography and history, in which these countries seemed marginal to the main action. Writing just *before* Iraq's invasion of Kuwait, he asked whether people could similarly be missing hot spots in the Arabian peninsula, as well as in the Himalayas and the Caribbean basin. He also asked how many people in the west can name all the states of central Asia, let alone draw a map of the region or summarise its recent history.<sup>xiii</sup> Yet events are unfolding in these countries, where tensions similar to those of Yugoslavia are being played out. It is only their ignorance that will cause people to be surprised when some atrocity or armed clash in those places is a sufficient threat to western interests that it hits the headlines.

The fact is that expert analysts, with an in-depth understanding of their subject matter, have often given quite good accounts of future geopolitical events. In 1918, General Douglas Haig expressed concern about the exaction of humiliating terms from Germany, fearing that it would merely lay up trouble for the future. The Nazis subsequently proved him right. Similarly, though many contemporaries were misled by the switchback progress of the United States stock market in the late 1920s, those who had a correct model, and who kept their eyes wide open, could see what was coming. In March 1929, a Federal Reserve official pointed to certain structural features in the US economy as being 'always a precursor of a general decline',<sup>xiv</sup> whatever stock prices might be doing from one day to the next. As long ago as 1980, Kenneth Boulding was predicting (correctly) that the Soviet Union would eventually break up and that its constituent states would emerge intact from the experience of being submerged within it. He based his prediction on insights gained from a lifetime's study of how human institutions work. Another group of forecasters predicted Yugoslavia's civil wars a year before they actually erupted.<sup>xv</sup> There is much value to be gained from considered evaluation of the facts, supported by a long historical perspective.

Another reason why people are often surprised by events is that they are unwilling to entertain unpalatable thoughts. The Australian academic Angus Martin has discussed this in the context of the Aberfan disaster of October 1966, in which more than a hundred children were buried beneath the waste material from a coal mine. According to typical accounts of the incident, 'the slag heap suddenly and without warning poured down upon Pantglas Junior School'. Without warning, Martin asks? Slag heaps had been sliding into Welsh

valleys for years. It was widely known that provision had to be made for drainage of such heaps – the Aberfan one was undrained. It was strictly recommended that slag heaps should not exceed 20 feet in height – the one at Aberfan towered more than 100 feet before its collapse. As Martin says, humans are incurable optimists whose default assumption is that 'it cannot happen here'.<sup>xvi</sup> There is hardly any major disaster in which it does not emerge that someone who understood the issues had been warning of the danger long before. In the case of the Three Mile Island incident, in which a US nuclear reactor came close to meltdown, two senior engineers had warned two and a half years earlier of precisely the scenario that came to pass. When their initial warnings failed to produce any response from the management, they issued further strongly worded memoranda. Though it was agreed to take the steps they recommended, nothing was done and the message never got out. Further warnings in a report for the Nuclear Regulatory Commission and from one of the shift supervisors were similarly ignored and forgotten.<sup>xvii</sup>

This same incurable optimism influenced various authors who argued that world peace had become permanent, just before the outbreak of the first world war, the bloodiest and most destructive conflict hitherto. One said that war between civilised nations had become 'as antiquated as the duel'.<sup>xviii</sup> Yet historians now recognise that the evidence of gathering war clouds in Europe was there from at least the Bosnian crisis of 1908, had contemporaries chosen to see it. In December 1928, President Coolidge declared that Americans 'might regard the present with satisfaction and the future with optimism',<sup>xix</sup> just a year before the United States was plunged into the decade-long misery of the great depression. One could fill a whole book with such examples. There is an endless supply of people who are prepared to ignore five thousand years of history, supposing that people have at last made a clean break with it and that the traditional laws of socio-economic gravity have somehow been suspended.

Humankind cannot bear very much reality, as T S Eliot put it. In the words of Francis Bacon, people most readily believe what they would like to believe. Angus Martin suggests an eleventh commandment: thou shalt not face reality nor ask others to face it. When a former British cabinet minister recently warned of the dangers of encouraging different groups to develop separately and of actively opposing efforts to forge a common culture, he was shouted down. Yet his message was not some hate-filled diatribe but a sober and realistic assessment of the situation, whose validity is evidenced by the numerous instances of ethnic conflict around the world. Nevertheless, received opinion chooses to believe that the modern world

can ignore the evidence of history because it is now immune from the problems that have plagued many historical and contemporary societies. It misconstrues and then rejects any conflicting observation. That is why, when reality catches up with them, to reveal the contradictions at the heart of a multicultural society, most people will feel that the disaster has arrived without warning. Only future historians will be surprised that people could have been so blithe.

One might ask whether people will ever actually know that they are in a dark age. Certainly, the poverty and turmoil of the dark age will be unmistakable. If people who are alive today were to be catapulted forward a century or so, they would no doubt recognise the dark age for what it was. However, those who are born into such a world may not think of it in the same way. Discontinuities in the transmission of knowledge may make the past seem like a fabled golden age. It is not clear for instance that the Anglo-Saxon invaders who settled Britain in sub-Roman times thought that they were in a dark age.<sup>xx</sup> That is only the modern view of it, with the perspective of centuries-long hindsight. Even those who live through the transition to a dark age may not realise what is happening to them. The Romanized citizens of Britain and Gaul, who saw civilisation collapsing, tended to cling on to the notion that it was only a transient thing.

Although the final demise of the contemporary world order may take place in the space of a decade, that is still quite a long time in human terms. The collapse will happen quickly but not all at once. People will not go to sleep one night in a state of high civilisation, then wake up the next morning to find themselves in a full-blown dark age. The darkness will fall first over vulnerable areas and spread from there. It will not necessarily reach everything even at its nadir.<sup>xxi</sup> Pockets of order and civilisation may persist in isolated areas. Furthermore, during the descent there will be rallies and bright spots. It will be possible to believe that a more sustained recovery is just around the corner. The erratic nature of decline may make it hard for people to accept that all is lost and that the catastrophe really is upon them.

Ordinary citizens may therefore pass into the dark age without knowing it, just as Columbus discovered America but never realised what he had done. What seems to future historians like a turning point – the event which showed that all was lost – may well go unnoticed by contemporaries. Looking back at the end of 1929, the *New York Times* identified its biggest story that year as Admiral Byrd's trip to the south pole. The editors did not see the importance of the stock market crash.<sup>xxii</sup>

Thus, the dark age will arrive unexpectedly. Even the most obvious symptoms may not alert people to the significance of their plight. However,

this will not be because it has not been foretold, for it has been foretold, by many authors in many ways.<sup>xxiii</sup> It will rather be because of the human inclination to downgrade unwanted information, and to suppose that tomorrow will always be as good as or even better than today.

### **The livable future**

In a discussion of possible world futures, one group of commentators asks whether a desirable future is in sight.<sup>xxiv</sup> This encapsulates the perennial fallacy in human orientations towards the future. The present has never been wholly 'desirable'. Why should the future be? The truth is rather that they are both 'livable', because of human adaptability.

One forecasting service has painted a rosy view of life in 2020. It predicts that a new age of altruism will dawn and people will spend one day a week working in the community. Growing numbers of people will choose to live alongside those with shared interests, for example in golf villages. Life expectancy will be in the mid-80s and the working week will shrink to 25 hours because of 'technology inspired productivity gains'.<sup>xxv</sup> The report might as well have added that, due to global warming, the weather will always be sunny. This vision of the future is pure fantasy, out of touch with the huge and growing discrepancies between people's expectations and what society can deliver. In fact, the forecast exhibits a distinctly schizophrenic character. It asserts, for instance, that most of the advances will be enjoyed by at least half of all British households. In other words, up to half of households are missing out. Similarly, one is to expect gated communities – symptoms of a breakdown in law and order – as well as the attractive-sounding golf villages. The 50 percent of the population who are the losers in this scenario cannot really be ignored. These sans-culottes are likely to bring down the whole dreamy project.

Such forecasts are typical of what most people idly suppose the future to be about, i.e. one step closer to paradise. In *The time machine*, H G Wells depicts a golden age of universal youth, beauty and leisure at the end of time (though, to be fair, he also draws attention to the downside of such a condition). The notion that life span will increase is readily believed in, despite the fact that (adult) life expectancy has not increased since pharaonic times. To be sure, the material conditions of life have more or less improved consistently over time. However, the age-old dreams of peace, riches without effort, and a universal brotherhood of man have remained forever elusive.

This book's vision of the future is not a rosy or romantic one. It is a realistic one, based on the uniformitarian assumption that people will behave in the next millennium as they have behaved during the last five millennia. The long term outlook for humanity is as good as ever. The short term is

indifferent. The medium term is distinctly bad. However, this need not be a depressing prospect. Those who live through the coming dark age and the times leading up to it will not necessarily experience only hardship and despair, any more than during other periods. It is not the times that people live in that determine how happy they

should be, but rather what they as individuals make of them. Insofar as the coming upheaval will create vast expanses of opportunity, one may look to it with some hopeful expectancy. That is to say, one can step into the future with informed, not naïve, optimism.

## Descent

### Chapter 32 - The disintegration process

#### ***Weakening domestic authority***

One historian has predicted that there will be a Windsor on the throne in 2020, and that it will be either Charles III or William V.<sup>xxvi</sup> In fact, barring disasters, it could equally be Elizabeth II. She will be 94, an age that her mother sailed past. Nevertheless, there must eventually be a change of reign, and that could be a dangerous time for the House of Windsor, whose authority and mystique are continually being eroded. The ejection of hereditary peers from the House of Lords has removed an important buffer zone around the royal family. Its privileges seem more exposed and anomalous. Australia's conversion to a republic will be another important milestone, which is bound to occur at some stage and will encourage further challenges to royal legitimacy. If Charles III or William V ever makes it to the throne, it is likely to be on reduced terms, with a role even more decorative and less relevant than it is today. The royal family is still popular, and dissolution of the monarchy seems a long way off, but its days are certainly numbered.

While the British monarchy has little to lose and may simply wither away quietly, in the Arab world, kings still have real power and to dispossess them may involve some fraught confrontations. Kuwait shows signs of liberalising peacefully, awarding votes to women and evolving in the direction of Europe's constitutional monarchies. Its suffering in the Gulf war may have provided an impetus for such change. However, in Saudi Arabia, the king still rules very directly. The mechanisms for a parliament exist but the king does not call it. Here, change could well be violent.

The declining authority of monarchy is part of a broader process in which traditional political structures are due to be broken down everywhere. Political parties are likely to proliferate as people are less prepared to work within the existing frameworks. In Britain, reforms such as proportional representation and state funding for political campaigns may boost the influence of minority parties and ensure weak governments. Western countries may move towards community-based politics reminiscent of the former Yugoslavia, with ethnic parties forming and being granted special rights of representation.

A source of contention in Yugoslavia in the late 1980s was the seeming injustice whereby the semi-autonomous provinces of Kosovo and Vojvodina had a say in the running of Serbia as a whole, but Serbia was unable to interfere in the internal affairs of these provinces. Exactly the same issue is now being raised in Britain. Scottish MPs at Westminster can vote on matters exclusively affecting England, but exclusively Scottish matters are dealt with in Scotland's own parliament, where English MPs do not have a voice. It has been

pointed out that this is unfair. If the rights of Scottish MPs to vote on English matters are removed, it could be only a few years before there are calls to apply the same model say to Muslim interests and to those of other groups. The result will be power becoming less concentrated and more fractured. The nominal leaders in each country will find it increasingly difficult to push through their agendas.

Future debates about equality and fairness will further constrain the freedom of action of all forms of authority. Not only governments but also police, employers and teachers will be held in increasing contempt in the law courts, in the media, and in popular discourse. As ordinary people recognise the shrinking of their entitlements regarding pensions, health care, and education for their children, their discontent and defiance will become more vocal. They are likely to call explicitly for constraints on the power of central authorities, which they will perceive to be failing to deliver expected benefits.<sup>xxvii</sup> Weak governments will cave in to popular complaints and the demands of special interest groups.

During the descent, politicians will discredit themselves by wielding power incompetently. Charismatic leaders will be few and far between. The whole political process will become more brazenly corrupt and ineffectual. At best, governments will seem farcical and irrelevant. At worst, they may be pushed aside altogether and a series of tainted usurpers will rule. Ordinary citizens will be more ready to engage in minor forms of subversion, such as tax evasion and drug abuse. General crime and disorder will grow from an irritant to an ever present fact of life. In Europe, handguns will come into vogue and these societies will begin to emulate American attitudes towards their use and availability. Soon enough, one may expect Europe to witness the phenomenon of mass shootings by school students and disgruntled employees.

The criminal courts and prisons will become steadily busier, while new laws will flow out of Westminster and Brussels at a phenomenal rate. Such activity will be like Canute ordering back the tide. The jails may become more crowded than ever, but the number of miscreants waiting to be dealt with or evading justice altogether will rise even faster. More people will be in trouble, but the chances of an individual law-breaker being detected and punished will steadily diminish. Governments may attempt increasingly extreme measures, such as compulsory DNA databanks, but these will fail through being ignored and abused.

The denizens of the underclass, with a depressed standard of living and time on their hands, will become more obviously frustrated and angry. They will blame the elites for their hopeless

situation. Most of these losers will be restless young men, and they will be ready to support every kind of agitation and mischief-making. Riots, which are by no means rare in history, will be more serious and more frequent. The problem is likely to become acute first in the low and medium income countries, where the promise of development seems increasingly like a mirage. Here reactionary revolts may reverse the spread of western-style liberal democracy.<sup>xxviii</sup> In Egypt, Islamic militants will re-emerge as a major problem, as that country's economy continues to drag along the bottom. In the Caribbean, where the pillars of society are crumbling fast,<sup>xxix</sup> democratic government will succumb to a tide of violent criminality. That region will be left in the hands of feuding gangsters. The latter will then be able to mount an attack, with near impunity, on law and order in the rich countries.

China is likely to be the scene of major upheaval over the coming decades. There will be renewed pro-democracy protests, like those of 1989 – which were themselves not the first to threaten the communist regime. China's leaders have spoken of moving towards general elections within fifty years, but the issue will probably be forced long before they expect it. The outcome of any rebellion is unlikely to be a stable and libertarian republic. Even if something is established along those lines it will soon mutate into new forms of authoritarianism, and the country as a whole may disintegrate into large fragments.<sup>xxx</sup>

Even in the west, democracy cannot be assumed to be safe for the duration of the descent. As Mark Mazower points out, the roots of democracy in Europe are not that deep. A dozen new democracies were formed after the first world war, but almost all had fallen to authoritarian rule by 1940. With changing circumstances in future, today's democracies could similarly disappear.<sup>xxxi</sup> Europe very probably faces many troubles ahead. In Northern Ireland, where Roman Catholics are likely to be in the majority by 2020, the logic for unity with the Republic of Ireland will become irresistible.<sup>xxxii</sup> Those who favour continued union with Britain will take up arms against the transfer of sovereignty just as they did when it was mooted in the 1920s. Abandoned by both major powers, the province will likely dissolve into anarchy and become the first part of Europe to be touched by the dark age proper.

William Playfair, a largely forgotten social scientist of the nineteenth century, made a special study of social upheaval and found that disputes over taxation often precipitate disaster. 'Sometimes it is the manner of laying on the tax that gives offence, sometimes its nature, and sometimes its amount'.<sup>xxxiii</sup> Playfair cited the American revolution and other examples. His rule continues to hold true. The misjudged community charge was

a factor in Mrs Thatcher's fall from grace at the start of the 1990s. In 1999, British lorry drivers were disrupting traffic in protest against an increase in fuel taxes and in 2000 they effected a highly successful blockade of oil refineries, shutting down most garages for days. Similar protests occurred around the world. In Jamaica, several people were killed during days of rioting after fuel taxes there were subject to a 30 percent hike.

Growing tax burdens in conjunction with worsening social services are likely to make political crises become more common and graduate into full-blown insurrections. In Saudi Arabia, a rather familiar scenario could evolve. As the oil income becomes less reliable, the king might finally call a session of parliament to help him raise taxes. This might then backfire as parliament demands greater popular sovereignty and, with passions rising, eventually topples the monarchy altogether. This was the sequence of events that led to the downfalls of Charles I and Louis XVI. Both those kings were beheaded, and that is also still a practice in Saudi Arabia. The Saudi monarchy would be advised to consider its actions very carefully over the coming decades. The same applies to all governments as they push their extractive demands in a strongly disintegrating world.

### **Weakening hegemony**

Disintegration in the international system will mean continuing erosion of the western hegemony. Today western militaries have superior technology and are well trained and organised, but their nations will display a growing weakness in the crucial moral dimension of military power, i.e. the ability and willingness to apply force.<sup>xxxiv</sup> During the twenty first century, the west will pull back when in the past it might have interfered with gusto. It may engage in low-risk actions that involve launching cruise missiles and air strikes against relatively puny opponents. However, when it comes to hard fighting on the ground, where there is a real danger of people being killed, the west's nerve will prove to be lacking.

Western citizens will be increasingly reluctant to see tax receipts being spent on maintaining their countries' influence in distant and chronically troubled parts of the world.<sup>xxxv</sup> The Pentagon has already blamed a drop in income for problems with spare parts, modernisation programmes falling behind schedule, and personnel shortfalls. In the coming decades, the United States will repatriate its troops, cut back its support for NATO, and downsize its forces, in response to a federal defence budget that continues to be squeezed between burgeoning social security programmes and a public uncommitted to funding American power projection.<sup>xxxvi</sup> One of the consequences of this declining hegemony will be the reversal of

globalisation and greater regionalism in world trade.<sup>xxxvii</sup> Political authority guarantees a market, and when the authority disappears, the market will be shut down.

NATO will be forced to withdraw from Kosovo in failure, though it will be dressed up not to look like that. Quite simply, it will never resolve the ethnic disputes at issue here, nor finally crush the spirit of Serbia, whose people have been fighting for their territory almost for as long as historians can remember. Like the interventions in Somalia and Rwanda, this will finally be seen to have made essentially no difference either to the progress of the local war or to the suffering of the people caught up in it.

The Kosovo action was NATO's first war in its fifty year history. It could well be its last. During the conflict, splits emerged between the different members and there were security leaks to Serbia. The United States was angered at Europe's apparent unreliability.<sup>xxxviii</sup> Withdrawal in failure may be too much for the alliance, whose role is already blurred since the end of the cold war. NATO is certainly destined to break up within a decade or two, as European countries concentrate on their own security arrangements and the United States withdraws from its role as international hegemon. That will mean a further downward ratcheting of world political integration, and more trouble and turmoil to come.

The possibility of joining NATO has had a beneficial effect on the behaviour of aspirant countries like Poland, Hungary, Slovakia and the Czech Republic.<sup>xxxix</sup> However, no future scenario regarding their membership is truly happy. If they do get in, it will only hasten the break up. Turkey, a NATO member, is opposed to enlargement and has threatened to veto new admissions if it is itself kept out of the European Union.<sup>xl</sup> There is also the danger of confrontation with Russia. Boris Yeltsin said that the eastward expansion of NATO would plunge Europe into the flames of war.<sup>xli</sup> He knew what he was talking about. More likely is that east European hopes will be disappointed, and this will encourage a more belligerent attitude amongst themselves and towards their European neighbours.

Given the reluctance to expose its troops to danger, the west is settling on the same solution as the Greeks, Romans and other descendant civilisations – reliance on mercenaries. In places like Sierra Leone, Bosnia and Kosovo, peacekeeping forces are largely made up of Nigerians, Malaysians, Jordanians, Bangladeshis and other such nationalities – but no Americans. One might wonder why these poorer nations are so keen to take on the cost and danger of such operations, when western countries do not. The answer is that their troops are well paid for it by the United Nations. The rich countries, including Japan, are effectively funding them as mercenaries

to do the dirty work of policing the world. In the future, as conflict becomes more prevalent, western governments may openly give arms to irregular fighters like the KLA, who are more motivated and less inhibited about taking casualties, and may rely on them to fight western wars.

Such policies will prove short-sighted as other regions increasingly reject western perceptions of human rights and inter-state etiquette, and come to realise that the west is unable to enforce them. The likelihood of violent disorder by a minority group increases with the proportion of youths in its population, and when this proportion reaches about 20 percent, a struggle for autonomy almost invariably ensues.<sup>xlii</sup> This is the situation that is emerging in the world as a whole. The most backward countries are the ones with the youngest and fastest growing populations. Over the next few decades, the world will come to encompass a billion disadvantaged youths. Recent improvements have raised their expectations higher than can possibly be fulfilled. They also have increasingly ready access to the means of causing havoc and devastation. Some kind of global uprising against western authority seems highly likely to occur.

What the west sees as troublesome states will become less constrained by the fear of American opinion, and will get away with successive acts of defiance. The tactic of imposing sanctions against impertinent governments will unravel, as is already occurring with Iraq. China particularly will become fed up with observing these international sanctions regimes as its relative power grows, and will flout them with growing openness. Third world countries will be increasingly forthright in their demands for a global redistribution of wealth.<sup>xliii</sup> They will not get their wish, but the west will be unable to prevent them from stoking up tension. These countries may also be more ready to complain about perceived ill-treatment of their nationals who have migrated northwards, while the latter will carry agitation about global injustices to the heart of the developed world.<sup>xliiv</sup>

Although the west will still be far more powerful than any individual third world state and should be able to prevail in any single showdown, the danger is that it will start being challenged on several fronts. In the summer of 1999, NATO's simultaneous commitments in Iraq and Kosovo stretched the alliance thin enough to leave no American aircraft carriers available to cover the Pacific. If a third trouble spot had opened up, it could have overwhelmed the west's ability to supply order. Some such scenario will inevitably emerge sooner or later and it will then lead to a runaway loss of credibility for the western hegemony.

The structure of the United Nations is likely to change significantly. The current arrangements

certainly represent a considerable anachronism. Japan contributes a large fraction of the UN budget yet has relatively few of its nationals on the UN staff. Its claim to permanent membership of the Security Council has considerable force. There is also much logic in favour of a more far-reaching shake-up. Samuel Huntington suggests that the French and British Security Council seats might be amalgamated into a general European seat, while new seats might be provided for India, the Muslim world, Latin America, and Africa.<sup>xlv</sup> Such changes will lead to a corresponding shift in the institution's priorities, reinforcing the other processes of disintegration. A more factionalised UN will probably become simply an irrelevancy in the international system.

Whatever the situation with the Security Council, Japan and Germany are likely to take increased responsibility for the protection of their overseas interests.<sup>xlvi</sup> Japan in particular controls an enormous overseas financial empire yet has little or no political control over the places where its savings are invested. The decline of western hegemony and the resulting global disorder constitute a significant threat to Japan, which the country will have to deal with somehow. However, Japan cannot reasonably conquer and pacify the western countries where much of its money is invested. As civil order disintegrates, Japan may limit outflows of capital and indeed start repatriating it. This will be a shock to the west, especially the US, which has become accustomed to living beyond its means on the strength of Japanese generosity. The situation is gravid with potential for much bitterness and frustration on all sides.

Today, Japan and Germany still have significant internal opposition to the development of offensive military capabilities. However, attitudes are likely to change following some form of major disagreement between either of these countries and the US. The relevant populations and their leaders will feel slighted and frustrated, and they will be motivated to re-arm in a serious manner. Certainly, the inhibitions that stem from their defeats in 1945 will fade dramatically over the next few years. Ishihara Shintaro, co-author of *The Japan That Can Say No*, has said that Japan may not always have behaved admirably in the second world war, but it should at least be credited with ending western imperialism in Asia. He was recently elected governor of Tokyo.

The whole of east Asia can be expected to become much more assertive as its economic recovery takes off. People in the region may be more likely to favour extreme politics and to embrace the risks of direct confrontation with the United States. This is also the region with the greatest resources to mount a serious challenge. It would be premature to write off its potential on the

basis of recent difficulties. East Asia's previous economic growth was real, and so is its challenge to western power.<sup>xlvii</sup> One consequence of this is likely to be felt in Hong Kong. The Sino-British agreements that supposedly guaranteed its freedoms for fifty years will be repudiated. Beijing is already undermining them,<sup>xlviii</sup> and has read the signals that the west is not really bothered about its behaviour.<sup>xlix</sup>

At the same time, there will be a steady elevation of tensions within east Asia, especially focused around the contest between China and Japan.<sup>1</sup> Japan's Ishihara has offended the Chinese by inviting the Taiwanese premier to visit Tokyo and by claiming that the so-called Rape of Nanking – a dreadful massacre according to conventional history – has been much exaggerated. Another source of potential trouble will be reunification of the two Koreas. This will seem to threaten the Japanese and could be another stimulus for them to intensify their war potential. Some observers see in east Asia an emerging balance of power game reminiscent of the one that eventually brought Europe to its confrontation in the fields of Flanders.

When one hegemon declines, another can take its place. The United States could therefore pass on its baton to some other power. One may count out Russia and Europe,<sup>li</sup> but there is the possibility that Japan or China could take on the world leadership some time in the twenty first century. In previous transfers of hegemony, the hegemon has typically fallen to a challenger who has not in the end been the actual beneficiary. For example, the French bid for supremacy in the Napoleonic wars actually left Britain as the hegemon and a German challenge in the mid-twentieth century cleared the way for dominance by the United States. If something similar happens in future, it is most likely that China will be the challenger and Japan will be the beneficiary. A new pax Iaponica might postpone the dark age. However, over the last five hundred years, the baton of ascendancy has always moved around within western civilisation. Hegemony for east Asia, although arguably a case of returning the baton to its former owners,<sup>lii</sup> would be a more painful and far-reaching change. In a world that is plagued by contradictions, it is likely to be one step too far. The global disintegration due to western decline is therefore most likely to be terminal. The American mantle will not be taken over by Japan, by China or by any other power. The pax occidentalis will give way to anarchy and the dark age.

### **Warfighting**

After the collapse of communist regimes in eastern Europe and the Soviet Union, people spoke optimistically of a new era of world peace. The fact that commerce has made countries heavily dependent on each other is said to provide a

mechanism for maintaining this peace. However, similar arguments about the peace-inducing effects of global commerce were being made before the first world war.<sup>liii</sup> Indeed, a hundred years before that it was being suggested that 'commercial treaties between England and France ... show that mankind begin to be sensible of the folly of war and promise a new and important era in the state of the world'.<sup>liv</sup> This was shortly before the highly destructive Napoleonic wars, which tore Europe apart. Peace did come after the battle of Waterloo, and lasted for a hundred years, but this was due to Britain's military supremacy rather than to any commercial treaties.

Whatever peace exists in the world today is not due to the growth of trade, and still less to the fact that humans have somehow grown out of warfare. It is due to the projection of western political authority. As this authority crumbles during the descent, the peace will crumble with it. Not for a long time will the world be as peaceful as has been the experience of Europeans and Americans over the last fifty years. The descent will be characterised by a punctuated crescendo of violence. After the most dangerous century yet experienced, this planet is going to become more dangerous still.

As one author puts it, the five thousand years that have elapsed since the founding of the first civilisations in the middle east have been five thousand years of bloody hell.<sup>lv</sup> During that time, scarcely one year in ten was free even of major war. As far as long term trends are concerned, the consensus seems to be that wars have diminished in frequency but increased in severity. War is by no means outmoded. The west still has a massive arms industry, and the vested interests that this involves are always on the lookout to persuade governments of new threats that must be guarded against. Apart from anything else, they will ensure a continuing need for their ordnance around the world.<sup>lvi</sup>

Field Marshal Moltke, chief of the German general staff during the Franco-Prussian war of 1870, said that 'eternal peace is a dream, and not even a pleasant one'.<sup>lvii</sup> Though it is respectable to deplore war, many people secretly long for its excitement and catharsis. After the start of the first world war, ordinary citizens enthused about the outbreak of hostilities war. One prominent academic spoke thankfully of being released from a world of 'bovine contentment'.<sup>lviii</sup> Apparently sane and civilised people can easily be persuaded to take up their guns and machetes, and start killing. During the Kosovo crisis, radio phone-in programmes in Britain heard from plenty of normal men and women who not only endorsed the bombing but wished to see the tanks going in sooner rather than later. The media had aroused their passions and these people, who were not even directly involved and probably considered themselves quite rational

and caring, saw no other way forward than to escalate the slaughter.

The time when an existing hegemon is struggling to hold on to the number one position against a number of ambitious rivals is always dangerous, whether one is talking about chimpanzee bands or the system of international diplomacy. This is the situation today as western and especially American power declines. United States foreign policy is motivated primarily to ensure that no rival for world leadership should emerge.<sup>lix</sup> It tries to keep Japan and Germany in a subordinate position, while also using Germany to oppose Russia, and Japan to play off China. This is a hazardous game. Frustrated ambitions are an important source of conflict, and the American policies are already leading to friction. France, for example, has expelled American diplomats. The US relationships with Europe and east Asia are going to change enormously over the coming decades. If history is any guide, this will not be achieved without a major fight.<sup>lx</sup>

As disintegration proceeds, the outbreak of serious wars is a certainty. What countries will actually find to quarrel about, and then fight about, is somewhat unpredictable. There are many contentious issues emerging in the world, usually based around jockeying for relative power and influence, protection of commercial interests, or concern over the maltreatment of overseas kinsfolk.<sup>lxi</sup> Only a few of these disputes will degenerate into military clashes. Nevertheless, countries will quarrel more violently and fight more readily with every passing decade. Given that war preparedness is closely related to war proneness, and that economic stresses are a classic stimulus of hostilities, eastern Europe, the far east and the middle east are likely to be the hottest areas. A serious war starting in one of these regions could drag the whole world, more or less, into the proceedings.<sup>lxii</sup>

A problem for western armies is that they may prove maladapted to the asymmetric conflicts of the twenty first century. Their structure and doctrine still resemble those of the nineteenth. The hierarchy of divisions, brigades, and battalions renders them relatively unresponsive and could leave them looking like a dinosaur on a battlefield with no clear front line, and where information flows freely in all directions. In a disintegrating world, the west may be confronted by well organised criminal gangs and by politically motivated guerrillas, as well as by conventional armies. Russian gangsters will become ever more obvious, while Japanese yakuza are also likely to spill out and cause trouble in the international system. One can therefore expect to see western militaries in action against such growing nuisances. Yet recent experience has shown how difficult it is

to impose a comprehensive defeat on these kinds of slippery, irregular militia.

The high-technology weapons that won the Gulf war will be effectively useless against small-scale, fluid, intangible groups. Hence, the military equipment and infrastructure that NATO purchased with trillions of dollars for the situation of the cold war may prove distinctly unsuited to combating the threats of the third millennium. In Kosovo, NATO's onslaught left the Serbian army largely intact. Tomorrow's generals could be in for a sharp lesson similar to that of their predecessors, whose cavalry charges were mown down by the newly invented machine gun. Western armies appreciate this fact, but they possess huge inertia and, for all the brave thinking that is going on in some quarters, it is doubtful that they will be any more prepared for the conditions of future conflict than armies have ever been.

Some writers have argued that future wars will exclusively involve non-traditional warfighting between mismatched opponents. This is wishful thinking and is unlikely to be the case. International disintegration will also see the return of total wars similar to those of the twentieth century. A number of future wars may resemble nothing so much as past wars, being fought by much the same actors over much the same issues. The Iran-Iraq war was a variation on a theme that goes back to Babylonian times. Iraq's attitude towards Kuwait has not changed since 1991 and it has already threatened to re-invade. Kuwait's days may yet prove to be numbered as American power crumbles. Iran is also a threat to the Gulf Arab states, while its twenty year opposition to the west may hot up considerably at some point in the early twenty first century. Iran is implacably opposed to Israel and has strong capabilities in biological, chemical, and probably nuclear, warfare.<sup>lxiii</sup> The west should expect attacks against its interests from this source. Nevertheless, it will probably fear to confront such a dangerous enemy. It has a history of preferring to pick on scapegoats and whipping boys such as Colonel Gaddafi or the terrorist leader Osama bin Laden.

Other familiar conflicts include that between Pakistan and India, who are bound to be at each other's throats in due course.<sup>lxiv</sup> The Arab-Israeli conflict is also destined to degenerate into a bloodbath. There have been repeated wars in the middle east since 1945, each more violent than the last.<sup>lxv</sup> Russia will continue to be embroiled in the Caucasus, as it was in the nineteenth century, dealing with recurrent uprisings among the ninety religious and ethnic units of the region.<sup>lxvi</sup> Russia may also be fighting again for its window on the Baltic,<sup>lxvii</sup> a foreign policy issue familiar to Peter the Great. The loss of the Baltic states has reduced it to a narrow beachhead in the far north and to the Kaliningrad naval base in the south, though the

latter is cut off from the rest of Russia by newly independent Lithuania. Meanwhile, Britain could find itself back at war with Germany during the next half century as tensions mount over resurgent German ambitions. A war between England and France might also seem attractive to people on both sides. To future historians, the last half century of peace in Europe may seem to be only a lull during which the fundamental issues did not go away.

Japan entered the second world war in response to western, primarily American, opposition to its imperialist activity in east Asia. It will be seen in the coming decades that this war was again far from the last word on the matter. Japanese aspirations will re-surface as the second world war victors weaken. If Japan acquires an independent nuclear deterrent and America's fears lead it to respond with trade sanctions, one will have the ingredients for the same kind of escalation as took place in the 1930s. The involvement of Chinese and European interests will add further layers of complication, making it possible for these countries to slide into war.

China lies at the centre of many potential *casus belli*. The Taiwan problem is not going to go away. The next source of tension in this dispute may involve Taiwan renewing its campaign to rejoin the United Nations. One American study suggests that Taiwan will retain sufficiently military advantage to deter China for as much as a decade.<sup>lxviii</sup> Nevertheless, a war over this issue will eventually occur. The US has committed itself to help Japan in such a conflict – a commitment to which China has violently objected. The US commitment is real. American troops fought in this region three times in the last half century, each time to suppress the ambitions of an unfriendly power.<sup>lxix</sup>

China is an awakening industrial giant that contains over 20 percent of the world's population and has a growing hunger for fresh water, agricultural land and all kinds of natural resources. Across its northern border lies the Russian far east, where Russian control is weak and there is open space, mineral wealth, and a large Chinese minority. China regards the region of Vladivostok as having been stolen by Russia in the last century, thereby cutting off two of its provinces from the sea.<sup>lxx</sup> There are also ethnic tensions between the impoverished Russians and the more enterprising Chinese immigrants.<sup>lxxi</sup> These are all precisely the kinds of issue that once led Hitler to seek *lebensraum* for the Germans. They have echoes on some of China's other frontiers. To the west lie the developing oilfields of central Asia, where China recently purchased 60 percent of Kazakhstan's leading oil company,<sup>lxxii</sup> and where any major war of the future is certainly likely to see campaigning. To the south-west lies India, which may be almost as populous as China by 2025, and continues to be in dispute with it over certain territory in the

Himalayas.<sup>lxxiii</sup> To the south-east lie Malaysia and Indonesia, where overseas Chinese are targets of resentment and sometimes violence, and their plight may draw China to their defence. It seems only a matter of time before the borders rupture and the Chinese military spills out over land and sea to secure China's future prosperity and seize what it considers its due.

### **Nuclear war**

Russia has recently been announcing dramatic cuts in its nuclear arsenal.<sup>lxxiv</sup> This is motivated by the need to reduce maintenance and servicing costs, while some of the missiles to be scrapped are probably unreliable anyway. These cuts do not make the world any safer, but they do give Russia a more focused nuclear capability. The general disarmament process, which saw modest successes in the 1970s and 1980s, is not going to proceed any further now that the Indians and Pakistanis have nuclear weapons, and others might be acquiring them. There are too many players and too many mutual suspicions. Even potential opponents like the Somalis will be capable of acquiring some of the cut-down nuclear weapons currently being devised, and will be willing to use them. In this situation, the United States may actually start encouraging nuclear proliferation to some of its allies, notably Israel and Germany. Fifty to a hundred years hence the world will be awash with nuclear weapons.

Recognising the reality of the nuclear threat, the west is shifting its focus from countering the spread of nuclear weaponry towards constructing a shield against it. The United States has agreed to co-operate with Japan on research and development of missile defence systems for a five-year period.<sup>lxxv</sup> Some technologists suggest that this effort is doomed to failure. Early experiments have not proved them wrong. Certainly, missile defence will never be perfectly effective and, if it is possessed on both sides, its promise of partial protection may only make nuclear war more conceivable. The main consequence of American work on missile defence, which seems to contravene international treaties, will probably be to raise tension, with non-western nuclear powers complaining about the reduced effectiveness of their deterrent and simultaneously seeking solutions.

The fact that nuclear weapons are available does not necessarily mean that people would be so lunatic as to use them. The fear of nuclear war seems to have kept peace between the west and Russia for some fifty years. Some analysts also point to the way that Hitler desisted from using powerful nerve agents, ostensibly because of his (erroneous) assumption that the allies had the same technology. On the other hand, people have often thought that the latest too-destructive weapons would keep the peace once and for all, and they

have been proved wrong. Alfred Nobel thought that dynamite would make war unthinkable.<sup>lxxvi</sup> Similar claims have been made for machine guns, poison gas and bomber aircraft. There is no reason to suppose that nuclear weapons are anything other than the latest technology to make war deadlier while failing to put an end to it.<sup>lxxvii</sup>

The most impressive reason for thinking that nuclear weapons are likely to be used is that they already have been. Japan's experience in 1945 demonstrates unequivocally that human beings are prepared to visit nuclear violence on one another. The effects of the bomb were quite well understood at the time. Yet the allies decided to drop it on two city centres – meaning that the casualties would inevitably be thousands of non-combatant men, women and children – at a time when the war was already going their way. This was not the desperate act of an evil dictator for whom all other options were closing. It was done ruthlessly, rationally and in cold blood. Furthermore, it was done by the representatives of a democratic, civilised and supposedly responsible country.

The west has threatened the use of nuclear weapons against non-nuclear opponents on numerous occasions since 1945. These include the Korean war, the Suez crisis, the Iranian hostage crisis of 1980 and the Gulf war.<sup>lxxviii</sup> It was made clear that the allies would resort to nukes if Saddam used biological or chemical weapons.<sup>lxxix</sup> Even without going nuclear, the allies proved willing to use many other unpleasant forms of ordnance in the Gulf, including napalm, cluster bombs, fuel-air explosives and possibly even chemical weapons.<sup>lxxx</sup>

A highly conflictual, disintegrated world, in which nuclear technology has reached most belligerents, will be a very dangerous world indeed. Some countries could stumble with little forethought into nuclear war. Even the most responsible members of the international system may have leaders who crack under the stress of the moment.<sup>lxxxi</sup> Russia is arguably half way to a dark age already, and its people are running out of hope and patience. Yet the west adopts an often arrogant and confrontational stance that can only encourage the Russian desire for spectacular vindication. Chinese reactions when their embassy was hit during the bombing of Belgrade in 1999 revealed an explosive combination of resentment, hatred and suspicion behind the placid veneer. Some quite trivial dispute might in future release all that hidden hostility in a thermonuclear blood-lust. The discovery of oil in the Pacific, for example, would be enough to set China, Russia and the United States at each other's throats.<sup>lxxxii</sup>

During the Cuban missile crisis of 1962, the world came within a few hairs' breadth of a nuclear exchange. Leaders on both sides actually believed that a nuclear war was about to take place. They

were clearly reconciled to their role in initiating it. Despite the nuclear risk, they engaged in the crudest saloon-bar-style showdown. Furthermore, it was democratic America and not autocratic Russia that arguably initiated the crisis and did most to turn it into a dangerous confrontation.<sup>lxxxiii</sup> If the United States and Soviet Union were able to get themselves into this situation, one can have little confidence in the conduct of more volatile nations, such as India and Pakistan, or indeed in the conduct of other emerging nuclear powers whose reputation for responsible government is even less reliable.

A major war between nuclear powers could begin in a modest way over a side issue. Any initial reluctance to use nuclear forces will then undoubtedly diminish as either of the combatants comes to feel that its national survival is at stake. In fact, NATO's explicit doctrine is to fight with nuclear weapons rather than accept defeat.<sup>lxxxiv</sup> The closing gap between conventional and nuclear weapons also means that one type of war may elide more readily into the other.<sup>lxxxv</sup> Military analysts have determined that, with suitable dispersion of the force, fighting with tactical nuclear weapons is realistically possible.<sup>lxxxvi</sup> This would be just the latest development in military art, which has always involved reconciling structure and doctrine with changing firepower, so that casualty rates are kept within reasonable limits.

Hamish McRae concludes that the chance of some modest nuclear offensive occurring by 2020 is high.<sup>lxxxvii</sup> The main lesson to be learnt from it will be that nuclear war is not the ultimate calamity it has often been painted. The biggest problem will be the destructive explosion and not the feared radiation. Cancer rates may certainly be elevated by a nuclear war, even greatly so, but this will fall far short of wiping out all humanity. Studies of the Bikini atoll show that, in spite of continuing radioactivity, the bomb tests conducted there in the 1950s scarcely affected its normal ecology, except in places where the initial blast blew away the top-soil.<sup>lxxxviii</sup>

Although a nuclear war might make some localities uninhabitable for generations, this would mainly be due to the difficulty of clearing rubble and the danger of disease from tens of thousands of unburied bodies. A 1975 study by the US National Academy of Sciences suggested that if half of the world's nuclear arsenal were used in a nuclear war the effects on most ecosystems would be small at first and would become negligible within thirty years. Conversely, some scientists caused alarm by arguing that there might occur a nuclear winter, in which dust thrown into the atmosphere would block sunlight, but their reasoning has subsequently been questioned.<sup>lxxxix</sup> It seems that even a few hundred nuclear explosions would throw up less dust than a major volcanic eruption.

The death tolls at Hiroshima and Nagasaki were less than those of some conventional bombing raids.<sup>xc</sup> The numbers that die in nuclear explosions, though fantastically high, will hardly dent the world population. Humanity has sustained similar casualties in natural disasters. Millions of people have been wiped out at a stroke by certain floods and famines. Yet societies have recovered with sometimes extraordinary speed. After an earthquake hit Tokyo in 1923, the subsequent fires killed half as many people again as died in the atom bombing of Hiroshima.<sup>xc1</sup> Nevertheless, Tokyo soon rebuilt itself in an orderly fashion, despite such problems as the destruction of whole districts, molten roads, and rivers choked with bodies. Similarly, in the summer of 1943, allied bombing killed a quarter of a million people in the city of Hamburg out of a population of one and a half million. Yet within a few weeks factory production in Hamburg was back to normal. This was not a unique occurrence.<sup>xc2</sup>

Nuclear war, even in the worst case scenario, does not threaten to destroy the biosphere – that is impossible – and humanity as a whole will also weather this catastrophe.<sup>xc3</sup> Once people have come through such a war, the dread of it will have been greatly reduced. Nuclear weapons will then become more usable than ever and the chances of further nuclear conflicts will increase. In the long run history of the human race, nuclear war is likely to become a commonplace. That may not be so disastrous, though, when humans are spread across the solar system and perhaps eventually beyond that.

A nuclear war that takes place in the next few decades will probably be relatively controlled. It is not clear how useful nuclear weapons will be in the types of conflict likely to be encountered.<sup>xc4</sup> States do not usually go on fighting when they are convinced that it will bring them little advantage. During the descent, limited nuclear exchanges could soon lead to negotiations.

When the descent finally culminates in collapse, disintegration will be extreme. One can expect uncontrolled fighting and extreme irresponsibility on behalf of the belligerents. This period may be marked by a prolonged and massive thermonuclear orgy, in which virtually every remaining warhead will eventually be exploded. In this case, the whole fabric of society may unravel. With famine, disease and civil disorder, population numbers are likely to fall precipitously over the following decade. This could subsequently be seen as the trigger for the dark age, confirming the traditional vision of thermonuclear doomsday. In reality, of course, it will have been the deep historical trends that will have brought humanity to this pass.

During the dark age itself, people will continue to be very ready to use the nuclear option.

However, large warheads will be inappropriate for the small-scale fighting of a thoroughly disintegrated world, and people will probably not have the expertise to make them anyway. They may find other uses for nuclear materials. Plutonium, for instance, is a deadly poison as well as a nuclear fuel and explosive. A few kilograms could wipe out the entire human race, if suitably distributed. There are now tons of it on the earth, and this supply will be around for a long time – plutonium has a half life of 24,400 years. Such a potent material could be a popular weapon in the disordered and unstable conditions of the dark age.<sup>xv</sup>

Terrible wars lie ahead. Just as the sailor-suited boys of the Edwardian era were unwittingly

destined for the carnage of the battles at Ypres, so today's young children are fated to shed their blood on the battlefields of the future. Only it will probably be far worse. Nuclear wars could easily kill many hundreds of millions. Nevertheless, after the mushroom clouds have dissipated, the incredibly resilient human race, which will still number in the billions, will pick up the pieces and carry on. People will have discovered that nuclear war is survivable. They will then be ready for another one. The dark age, in which no one has either the knowledge or the resources to build a nuclear arsenal, will be a merciful release.

## Descent

### Chapter 33 - The disorganisation process

#### ***Boom and bust***

At the start of the twenty first century, western economies are booming. It does not look as though global civilisation is in terminal decline. People feel more prosperous than ever, and all the expectations are that things will get better still. The catastrophic economic unravelling of a dark age seems very unlikely and very far away.

Some calculate that the next two or three decades will see an expansionary phase of the world economy.<sup>xcvi</sup> George Soros, on the other hand, believes that east Asia's crisis may have been the classic foreshock preceding a much wider crash.<sup>xcvii</sup> There have been many periods of strong economic growth in the past, and none has ever been permanent. Clearly, the present boom will not last forever or even for more than a few years. By the same token, the next economic downturn may be equally transient and not necessarily the immediate prelude to collapse. The descent has some way to run, and world economies could go through several more cycles of boom and bust before the dark age arrives.

The worse the busts are, the longer the descent is likely to take. A bust acts like a miniature dark age, forcing people to take a more realistic view of things, and to work harder while expecting less. South Korea built up a series of white elephant industries in shipbuilding, petrochemicals and heavy manufacturing in the late twentieth century,<sup>xcviii</sup> and it has now paid dearly for its centralisation and inflexibility. However, it will come out of the experience wiser and in better shape.<sup>xcix</sup> As east Asian entrepreneurship is unleashed again, it will re-invigorate the entire world economy, with America and Europe being among the beneficiaries. That may make predictions of a coming dark age look less warranted than ever. Nevertheless, the west's burst of growth that came after the second world war faltered within a few decades. Similarly, even the most spectacular Asian recovery will not touch the deep historical currents that are carrying the world towards catastrophe.

The descent will be characterised by economic false dawns. The United States budget and trade deficits, for example, may occasionally improve, but they will soon worsen again. These deficits are intimately connected with other features of the current order, such as drugs trafficking, welfare dependency, and the costly protection of American interests world wide. No one, however determined, can rationally sort out these problems, whose interactions are far from fully understood. The deficits must remain a chronic problem.

The booms that take place during the descent will be based on much less substance than were former periods of great growth in the world economy. The mobile phone, the internet and

computer games will not create eddies upon eddies of economic organisation in the way that the steam engine did, or the aeroplane. Economic growth may occur on paper but there will be fewer real differences to people's material standard of living. It will not deliver tangible utilities like cars, televisions and foreign holidays. Instead, one of the big growth industries today is gambling, and it is questionable how far that can be said to make people feel better and live better. Similarly, the internet is certainly a boon, but its overall contribution to human welfare is mediocre. Giving people ready access to vast amounts of pornography hardly compares with the drama of the industrial revolution.

In future, therefore, to gauge how the descent is going, one should not be taken in by statistics. The crucial measure of economic health will be the evidence of genuine innovation that people experience in their everyday lives. If some major new item appears in one's home, comparable to the vacuum cleaner, the video recorder, or the microwave oven, one can assume that the dark age is getting further away, perhaps by a quarter of a century or more. On the other hand, one may find it difficult to identify what is driving the stock market. One's own consumption may be of mostly transient pleasures, and one may worry whether one's work is really making a positive contribution to the commonweal. In that case, the economic descent will be proceeding unchecked.

#### ***Changing fortunes***

The economic and monetary unification of the European Union was intended to be highly beneficial for trade, organisation and wealth. Its architects hoped that the newly unified Euroland, with its market of 270 million people, would shoot in at number one on the chart of economic superpowers. That has not happened. Of course, one should not judge the situation too soon. In the next few years, Europe might show strong and obvious signs of being economically transformed, and in that case one may assume that the descent has been delayed.

However, in practice, monetary union will probably not cure the underlying rottenness of the economic order, and European economies will continue to stagnate over the long run. Given ongoing failures of entrepreneurship, the economic unification of Euroland is likely to accelerate the impoverishment of some regions, as workers, companies and capital move more easily to where the pickings are richest. The EU proposes to counter this by channelling money into the depressed regions via various grants and loans, but this is sure to fail as much of the money will be wasted and misappropriated.<sup>c</sup> The proposed harmonisation of tax regimes will also damage Europe's economic vitality. In the past, tax

competition has encouraged governments to keep their spending in check. If this discipline is removed, their take of the continent's wealth will drift more quickly upwards.<sup>ci</sup>

Conventional wisdom has suggested for some time that the future world economy will be focused around Asia-Pacific, rather than America-Europe. The Asian depression has made that view rather less widely heard, though arguably and by the logic of the phoenix principle it has actually made such a prospect more likely.<sup>cii</sup> It was clearly wrong to assume that the region's high growth could continue indefinitely and that it would shoot past the west at the same terrific rate. Similar optimistic predictions were made about the Soviet economy during the 1950s and 1960s, but by the Brezhnev era they looked decidedly mistaken. All economies have grown rapidly during their initial phase of industrialisation, slowing to a more manageable pace as they mature. Arguably, the high growth of the tiger economies only showed how far they had to catch up.<sup>ciii</sup>

The entry of the former communist states into the global free market might have been expected to produce a stimulating effect on it, rather like the opening up of the new world. In eastern Europe, 120 million new producers and consumers were suddenly added to the international economy.<sup>civ</sup> However, though the individual countries have mostly seen progress, the wider benefits are so far quite modest.

In 1996, two authors were predicting a coming Russian boom.<sup>cv</sup> By 2020, they expected Russia to have outstripped much of eastern Europe and South America, and to have left China far behind. These predictions were based on insights into the Russian people's huge potential, given that they are well educated, ambitious, and constitute a vast, uniform market. Furthermore, if their human resources are good, their natural resources are stupendous. However, Russia's boom has yet to materialise. Instead, the country has slipped back into harsher financial difficulties. Among its problems is a large and growing incidence of fatal alcohol poisoning.<sup>cvi</sup> Russia appears to be on a self-reinforcing trajectory towards chaos that no politician or entrepreneur is likely to reverse.

The Russian, east European and east Asian cases suggest that the world economic order will probably not be transformed in a major way this side of the coming dark age. One can gauge the progress of the descent by looking for such major changes. If Russia is indeed making robust economic headway by 2020, then the estimated time to the dark age must be put back. If, on the other hand, Russia has slipped into the third world, with no meaningful government and a population for whom day to day survival is a perpetual struggle, then a more general collapse is likely to follow.

Similarly, it will be significant whether Asia-Pacific really is uncontested leader of the world economy by 2020. By this is meant more than just east Asian companies being lauded in the business pages. Instead, New York, London and Frankfurt will have become second-rate cities of faded glory. Every enterprise will be relocating its offices, its people and its money out of these cities, in search of the new opportunities in the Pacific basin. Europeans and east coast Americans will look poorer and live worse than their counterparts in Japan, Korea and Singapore. Their cars will be older, their mobile phones bulkier, and their whole experience and appearance more provincial and desperate.

If such a radical shift in world economic leadership really does occur, then the coming dark age may not be a global one after all. Only some regions, like Africa, will be sunk into true, ahistorical darkness. Over other regions, such as Europe and the Americas, a partial though deep shadow may be cast. These continents will experience immense poverty, ignorance and general warfare, but a weak historical thread will nevertheless be kept alive through their contact with the still civilised east. Finally, Asia-Pacific will continue to shine bright, if somewhat lonely and not as bright as before, and it will preserve the flame of civilisation until it can be reignited in the rest of the world.

That scenario, however, probably will not materialise. It is more likely that in 2020 the world economic order will not be so different from where it is today. In this case, there will be no beacon shining through the darkness. The dark age will be global.

### **Trade disputes**

During the twenty first century, a growing number of difficulties and obstructions will face international trade. As global economic confidence wanes, protectionist attitudes will come to the fore. For the last few decades, the importance of free trade has been an article of faith with the governments of most developed countries, though many of them have undermined free trade in practice. In the future, this orthodoxy may lose its hold over the political imagination altogether. Public hostility towards the activities of the WTO and IMF is likely to strengthen. Fringe politicians will seriously question the benefits of free trade. The arguments will then be taken up in the media, where they will mature, and eventually mainstream politicians will be presenting themselves as the champions of autarky.

Disputes over trade are likely to become a considerable source of tension from time to time, though they may take many different forms. In the recent banana row, the United States required sureties from European exporters against its future imposition of a retrospective tariff. It thus

lumbered them with a financial penalty without breaking the letter of WTO rules. Another tactic might be to freeze the assets of foreign companies. That would be potentially much more provocative. If tempers really flared, a country could actually confiscate the assets of its trading partners.<sup>cvii</sup> Japan, which has very large overseas investments, is particularly exposed to this kind of action. Thus, arguments regarding ownership and control of foreign investments will certainly be something to watch out for during the descent, and Japan may be a primary danger zone.

Deteriorating diplomatic relations between the west, Russia, east Asia and other regions will also make it harder for international business. Economic frictions and political disagreements will intensify each other. As the original head of the WTO frequently stated, when trade cannot cross borders soldiers will.<sup>cviii</sup> The obstruction of global commerce may therefore be linked to the passage to general war that characterises the collapse.

### **Wealth differentials**

As economic disorganisation increases, the gap between rich and poor will continue to grow. This applies on both the international and domestic scales.

In western countries, boom conditions are not being felt everywhere by any means. Even in provincial towns, one encounters squalidly dressed beggars who are not welcome in the shops and restaurants, and whose bed is a flattened cardboard box in some shop doorway. These people are not participating in the boom. They are but the visible flotsam of a vast submerged wreck of human destitution. There are millions of people in Britain whose desperation is unimaginable by those leading middle class lives. These are the unemployment statistics, the feckless parents whom the newspapers deplore, the burglars, joyriders, and frustrated, aggressive patients in casualty. That they are slipping further behind is additional evidence of the artificial nature of contemporary economic growth. An economy that provides no place for these least capable individuals is surely hollow and incomplete.

Over the coming decades, one should look behind the economic statistics to see what is happening to the losers in the booming or busting economy. Their fate will give the best indication of the status of the descent. With ongoing disorganisation, their welfare-derived incomes will become ever more meagre, and their housing and general environment ever more depressing. Many will be left with no support at all, thanks to new laws that attempt to reduce the burden of social security. The sight of these failures will become more familiar and the fear of joining them more real. The way these people live will represent a foretaste of what is waiting for everybody in the dark age to come. They will lack skills, produce

nothing, and fend for themselves in the decaying infrastructure of a civilisation that they know nothing of and whose achievements they could not even conceive of reproducing.

On the international scale, the world's poorest nations will continue to lose out. As the descent proceeds, trade between the developed and developing world will dwindle to nothing. Languishing at the foot of the UN's table of human development, there will be a residue of basket cases that have fallen through the bottom of the world economy. Their life expectancy will be falling as sanitation and basic medicine become unaffordable. Eventually, they will run out of money to import even the bullets for their rusting rifles, and they will resort to the sword to continue their chronic civil wars. Meanwhile, countries like India, Mexico, Brazil, Indonesia and Turkey are likely to start repudiating their international debts. Once one or two have done so, there will be a general default. The World Bank, which once kept failed countries afloat, will then disappear, not with a bang but with a whimper.

### **Dependency**

There will be further growth in the number of dependants in relation to workers. This will fluctuate to some extent, partly in relation to the economic cycle. However, on the scale of decades, the movement will be inexorably upwards.

Almost all of the rich countries, and even some of the not so rich, are experiencing an ageing population.<sup>cxix</sup> This is producing a significant growth of dependency, which will peak in about thirty years time. In Germany, France and Italy, by 2020, there will be more than one elderly person for every two people in employment instead of three as at present. In Japan, where eight people in work now support each pensioner, it is expected to be only three by 2020.<sup>cx</sup> At the same time, there is a growing trend towards early retirement, which creates a largely hidden burden of dependency. Fewer than half of men aged between 55 and 64 are still in employment in many European countries. Elderly people also have the most health problems and incur medical costs at some five times the rate of other groups.<sup>cxii</sup>

Thus, pensioners are likely to swamp the welfare systems of the developed world and will place a severe strain on the system of transfer payments. Inevitably, there must be a large increase in the burden of taxes or a large decrease in the living conditions of pensioners – and in all probability both.

Having said this, the problem of ageing populations is a relatively transient one. Even if birth rates just remain stable from now on, societies will eventually pass into a new regime with the balance restored. If they actually rise again, the problem will be reversed. People learn and adjust. Even in so predictable an area as demography,

things can turn around within a generation or two. Wars or other major social events of the twenty first century are especially likely to have that effect. Nevertheless, over the next fifty years, the ageing of the industrial countries will certainly aggravate other problems and speed the descent.

Governments will intensify their efforts to turn back the tide of dependency. They will try means testing, medical checks, workfare schemes, abolition of certain benefits, and anything else they can dream up to prevent frivolous claims. Official retirement ages may also have to be raised.<sup>cxii</sup> However, these policies will invariably fail in the long run. People will always manage to re-define themselves according to the new rules so that they appear as legitimate claimants.

In Europe, the actual amounts available for governments to disburse will probably not increase very much, for they are entering a region of diminishing marginal returns. Heavier demands will fall on fewer heads because they make people give up economic activity altogether. A larger number of dependants will therefore have to share a largely static pot of money. Paradoxically, as the official economy labours under a growing weight of dependency, people may find themselves starting to work harder again, in the informal economy. Dependants' incomes will shrink as their numbers increase, and they will need to supplement them in other ways.

In east Asia, welfare systems will expand from their present slim proportions, and they will move towards the European model of reduced work effort and extensive income redistribution.<sup>cxiii</sup> The United States will similarly tolerate substantial growth of its welfare system, and, shortly before the final collapse, it will become the most bloated on the planet.

Dependency in the form of pensioners and welfare claimants will be compounded by continued growth of the parasitic occupations – the lawyers, bureaucrats and consultants. In effect, people will find ways to occupy themselves, even though there is nothing constructive for them to do. However, the returns to these parasitic occupations will come under pressure. The average lawyer or accountant of thirty years hence will not be as well rewarded as those of today. Nevertheless, there will be many more of them.

### ***Innovation failure***

Today, the areas which seem to have most potential for radical inventiveness include exploration of space and exploitation of the oceans. Therefore, one might watch the technology news for progress in these areas. The extent to which innovation succeeds or fails will be a barometer of decline.

In spaceflight, there are some apparently optimistic signs, such as construction of the International Space Station (ISS) and the

emergence of commercial space launch companies. However, one can expect these efforts to come to nothing, and to appear as the late flowerings of a doomed project. In principle, the ISS could stimulate whole new industries in space, with thousands then millions of people coming to work off-planet. However, it is more likely that it turns out to be a white elephant concerned primarily with the usual microgravity experiments, such as how spiders spin their webs, producing minuscule additions to human knowledge and essentially leading nowhere.

On earth, people will probably fail to realise the potential of the oceans. Under the UN Convention on the Law of the Sea (UNCLOS), an International Seabed Authority has been established to oversee the exploitation of marine resources by private and state ventures. Yet predictions that sea-bed mining would soon be well under way have failed to materialise. The cost-benefit equation currently comes down against it. Also it is unclear who will protect expensive floating refineries in international waters, which is an important issue at a time when ocean piracy is rising around the world. If anyone does take the risk and start mining, there will inevitably be environmentalist opposition. The more people find out about plans to scrape the seabed with a fifty foot vacuum cleaner, destroying million year old ecosystems in the process, the less they are going to like it.<sup>cxiv</sup>

It now seems unlikely that exploitation of the oceans will take place on any scale during the descent. The amounts at stake are considerable, and there is considerable potential for rancour.<sup>cxv</sup> To the third world it seems unfair that the west should get all the benefits from this planetary resource, just because it has the necessary capital and expertise. To the west it seems unreasonable that it should pay royalties to third world governments for doing nothing at all. These differences have been buried, but if western companies start hauling away large quantities of metals from the Pacific and Indian Oceans, then they may resurface and the UNCLOS agreement will probably unravel. Today demand can be satisfactorily met from land-based operations, and uncertainty over the operation of UNCLOS is reducing the incentive for prospectors. However, the oceans represent a long term contentious issue, towards which the world is moving slowly and for the most part unknowingly.

The inability to innovate will be partly due to a failure of energy and imagination on the part of inventors, but also partly due to a failure of the wider society to accept innovation. It will become harder to introduce new kinds of technology. Those that are not strangled at birth by media hysteria will be done in later by the costs of relentless litigation. Over the coming decades, technological progress will actually be reversed, with mobile phones, for

example, being blamed for all kinds of health problem, to the extent that their manufacture is no longer viable and public opposition prevents extension of the relevant infrastructures. The pharmaceutical and biotechnology companies will also suffer. It costs very large sums to develop a new drug, and the costs are rising as regulations become ever more stringent. If all that investment is rewarded only with bans, moratoria and boycotts, of the kind now facing genetically modified crops, as well as with hefty compensation claims, it rapidly ceases to be worthwhile. In ten or twenty years time, the whole pharmaceutical industry is likely to be bankrupted by litigation, and it will collapse in the face of insurmountable societal opposition to its innovation programme.

The internet, the current darling of public and politicians, could also be denounced and outlawed later on in the descent. The entertainment industry is finding itself successfully sued for influencing anti-social people, such as murderers who emulate film plots. The internet is an even more obvious source of incitement to such behaviour, given that it offers sites covering everything from bomb making to sexual torture. So far, legal attempts to close down or block access to such material have been unsuccessful. The principal architects of the internet remain ever vigilant and vocal in their opposition to censorship. However, the present extreme tolerance will surely create a future backlash. When the culture of complaint and culpability finally catches up with the internet, the impact could very well be fatal. There is little doubt that the providers of internet services face the eventual nemesis of litigation over their 'negligence' in failing to block access to unsavoury material.

During the next ten years, one may expect scientists to discover that global warming has given way to global cooling. However, environmentalists will not say that this shows climate change to be a product of normal variation and that the furore over global warming was a piece of nonsense after all. On the contrary, it will be stated that the world has overshot in its efforts to prevent warming, or there will be some other explanation, and the result will be a new round of self-flagellation and even more extreme onslaughts on economic activity.

A form of innovation failure will also be found in pure science. The nineteenth and early twentieth centuries saw mind-expanding advances in physics, with the theories of electromagnetism, relativity and quantum mechanics. The mid-twentieth century saw the discovery of DNA's double helix and the sudden opening up of huge possibilities in biochemistry. During the descent, one should not expect any further epochal discoveries of this kind. This is not because most things about the natural world have already been discovered (though many people believe that), any more than that the decline

of Greek science was because Aristotle had described everything there was to know (though that is what medieval professors supposed). It is because the imagination is failing and scientists cannot think outside the narrow orthodoxies they have now constructed.<sup>cxvi</sup>

### **Criminal economy**

Since the ending of communism, there has been an explosion of entrepreneurial activity in Russia. However, the political weakness of the post-Soviet state means that it has been allowed to take on a criminal form. The Russian mafias have built up impressive empires based on such lucrative lines of business as extortion, drug running, art theft, and forcing women into prostitution. In this respect, Russia's experience is a foretaste of the future for western countries. As they continue to develop in the context of ongoing political disintegration, their economies will also become increasingly illegitimate and out of control.

Mafias emerge as a natural consequence of political disintegration. When the state is weak, some individuals will be tempted to conduct economic transactions outside of its regulation, ignoring the laws and not paying business taxes. In this case, the most profitable opportunities will be in areas like drugs and the sex industry, where supply has previously been restricted by regulation. Those who run these illegitimate businesses obviously cannot rely on the police to protect their assets or on the courts to help enforce their contracts. They must be their own protectors and enforcers, and so they are invariably well armed and prone to violence.

As the descent continues, the mafias will expand, and ordinary people will be drawn into their ambit. The only way to beat the gangsters will be to join them. It will therefore become increasingly common to work for organisations with underworld affiliations and credentials. In a few decades time, one can expect one's firm to be routinely handling stolen goods and practising fiscal fraud. Key figures in the office of the future, besides the receptionist and the mail clerk, will be the heavily built thugs who guard its premises and who occasionally go off to deal with errant clients or suppliers.

Meanwhile, the bosses of the criminal gangs, the delinquent captains of industry in future western economies, will probably be mostly migrants from places like eastern Europe and north Africa, which are already far ahead of the west in criminal sophistication. These gangsters will flood into the disintegrating west as air into a vacuum. Africa could gain a new economic lease of life from moving into the cultivation of narcotics, for which it has much suitable land.<sup>cxvii</sup> However, it will be necessary for some warlords there first to win their wars and impose a reasonable peace.

The criminal economy may serve to prop up the legitimate economy beyond the point at which the latter might have been expected to collapse under the weight of dependency, litigation, and innovation failure. On the other hand, part of the cost of living in future will be payments to ensure that windows are not broken and loved ones are left unharmed. This kind of arbitrary taxation never has good results. The more the polity disintegrates, the more the underworld will boom. Yet universal criminality is self-defeating, and it will destroy the economy on which it preys.

### **III education**

As the descent proceeds, academic success will become something to be ashamed of. Those who study too hard or who hold obvious ambitions of excellence will be thoroughly derided. Of course, swots have always been somewhat socially unacceptable. However, this attitude will become increasingly institutionalised, spreading beyond teenage culture to society as a whole. Intellectuals, who were admired 50 or 100 years ago, will be despised and discredited, and it will become increasingly modish to profess distaste for learning, for books, and for contemplation. Educationalists will actually declare that knowledge is the least important product of an education. The system of public examinations will be discontinued.

Far from preparing the next generation for productive economic activity, the school curriculum will concentrate on degrading the entire status of productive effort. One school inspector has described with dismay hearing teachers state that industry exploits the environment and poor people, without any reference to its role in producing the books and pens that the students use to document its deficiencies.<sup>cxviii</sup> In future, youngsters will emerge from school and university, not only without an understanding of how western nations became strong and wealthy, but also with the utmost contempt for the values that brought that situation into existence. Clearly, those who have been taught that the manufacture of books and writing implements visits only evil upon humanity will not be the most reliable people to be entrusted with the scholarship and enterprise that western societies have built up over the last thousand years.

The increasingly commercially driven institutes of higher education will churn out students in parasitic or get-rich-quick disciplines like law or business studies. They will produce few graduates in innovation-rich areas such as science and engineering. Given the association between biology and genetic engineering or between physics and rape (viz. the characterisation of Newton's *Principia* as a 'rape manual'), such subjects may end up being forcibly closed down. Innovation failure will extend to the point of nipping potential innovators in the bud, before they even have the

chance to gain an unwelcome understanding of the natural world.

### **Things falling apart**

The decline of education means that future generations will not have the basic knowledge to maintain, let alone develop, the technological infrastructure that they receive as a legacy. Towards the end of the descent, it will become difficult to find people who are both willing and sufficiently skilled to perform involved technical tasks. Airlines, for instance, will face problems with servicing their aircraft, as qualified technicians become rarer. If one's central heating system goes wrong or one's piano needs to be tuned, it will take a long time to track down people to do the work and an even longer time for them to come and do it.

The existing technological infrastructure will fall apart, bit by bit. People will eventually be forced to abandon advanced technology that has become impossible to maintain. When the computerised engine management system of one's car breaks down, that will be it. If one knows the right people, one may be able to rip out the microchips and rig up a basic version of the internal combustion engine that with care and attention will last twenty years longer. Otherwise, one will have to walk or get a bicycle.

The failure of high technology transport and telecommunications will mean a shrinking of scale. People will cease trading with others far away. Japanese electronics will disappear from the high street, and Kenyan mangetout will disappear from the supermarket. Everywhere the range of goods on offer will be less diverse and more expensive. These processes will reinforce each other. Transport difficulties will make spare parts harder to track down, and the lack of spare parts will create transport difficulties. Eventually, this technological regression will run away with itself, reducing people to their own devices.

Over the coming decades one should look for signs of things falling apart. The average age of equipment will increase. Newspaper articles and private conversations will lament the difficulties of getting things repaired. The gains in order and cleanliness of the last few centuries will be reversed. The built environment will look seedier and more patched up. Weeds will grow on city streets. The drains will become less reliable, as will the supplies of water, gas and electricity. In due course, every modern convenience will become a thing of the past.

### **Squatting**

The twilight of most historical civilisations has been characterised by the emergence of a squatter mentality. New houses cannot match the magnificent buildings of the ascendant era. People start dividing up the spacious old buildings, erecting flimsy partitions within the rooms.

Sometimes, they repair the fabric in a desultory fashion, but otherwise they let the old buildings fall apart and board up the rooms where the ceilings have fallen in. Already, western countries are beginning to repeat this pattern. Future archaeologists will dig up the remnants of today's bedsit-lands and remark how people turned handsome Victorian town houses into a warren of squats.

The new houses that people are constructing today, and those of the descent, will also earn the contempt of these future archaeologists. They will not survive so well as houses a hundred years older. The archaeologists will comment on their cheap construction, their smallness, their closeness together. They will trace in the soil how new structures become both rarer and ruder towards the end of the descent, until building stops altogether.

One should therefore keep a close eye on building activity, for it will be a sensitive barometer of the status of the descent. When the builders start dividing up the factories of the 1950s and 1960s into meagre apartments, it will be clear that the squatter mentality is well entrenched. The collapse will not be far away.

The decline and cessation of building activity will be the result of several factors. For one thing, fewer people will have the economic potential to commission structures that require costly materials and the efforts of many labourers. At the same time, there will be no one with the skills or the motivation to do the work. Finally, there will be concerted opposition to new construction anyway. In Britain, regulations have been introduced in favour of building on 'brown fields' sites, which implies that squatting within the walls established by previous generations is now a matter of government policy. It is fortunate that the inhabitants of, say, early Rome or medieval London neither inhibited building on green fields nor complained that their settlements were already too populous. However, they were living in ascendant times when people build all over the place with scarcely a thought.

Construction failure will be particularly evident in public architecture. There will be no grand monuments or illustrious public buildings erected this side of the coming dark age. The pyramids, the colosseum, and St Paul's cathedral could never get planning permission today. Instead, public bodies and large companies will continue to

sell off what decent buildings they have, in favour of a quick profit, while moving to more paltry accommodation. Their remaining workers will be packed into smaller, meaner offices, and the buildings themselves will be allowed to fall into disrepair.

### **Business failure**

Small businesses come and go all the time, and they will continue to do so. However, one can also expect to see the eventual failure even of giant firms that supply momentum to the whole economy. During the descent, such really big names as General Motors, Nestlé and IBM will begin to fall, and at an accelerating rate.

People are likely to take up hoarding, as the economy of the high street becomes less reliable.<sup>cxix</sup> Barter may emerge as a more common feature of everyday life. This will be partly to avoid taxes, and partly because money becomes less useful when the economy is falling apart. People may participate in two economies. One will be the official money-based economy, in which dependency is rife and goods and services are difficult to obtain. The other will be an informal economy, in which the official currency is just one of several media of exchange. Here goods that are virtually unobtainable by other means may still be available. However, to operate successfully in this economy, one will need the right set of contacts as well as the right means of exchange.

The relation between different economic actors is like the relation between the keystone and the columns of an arch. If the keystone gives way, the columns will fall in. On the other hand, if the columns crumble, the keystone will drop. Either way, the keystone and the other bricks will end up in a heap of rubble, all reduced to the same level.

The collapse may therefore begin in the poor, peripheral countries, where institutions are weakest, but it will inevitably spread inwards to reach Japan, America and Europe. In the western Roman collapse, such an inrush of darkness took more than half a century. The future collapse, however, is likely to occur in a much shorter time, owing to the speed of contemporary communications. When south Asia or Africa experience such anarchy and comprehensive business failure that urban life is abandoned there, a similar fate for the west may be only a decade away.

### Chapter 34 - The discohension process

#### ***Less sociability***

The futurologist John Naisbitt suggests that teleworking, i.e. working from home via computer links, is unlikely to be taken up on a large scale. He says that people will continue going to the office because they like being with other people.<sup>cxv</sup> In coming to this viewpoint, he seems to be thinking primarily of high achievers with interesting jobs. Most ordinary workers are only too glad to give up office politics and the stresses of rush hour travel. Teleworking may not take off, but it will mainly be for the practical reason of access to equipment, and because employers wish to monitor what their workers are doing.

The societies of the descent will be characterised by growing loneliness and isolation. Naisbitt is correct that humans are sociable creatures and that they will always desire to mingle and interact. Therefore, discohension will not imply the disappearance of social relationships as such. Instead, it will involve the disappearance of *networks* of *interlocking* relationships. There will be a continuing breakdown of *communities*, the milieux that shape behaviour.

In cohesive societies, people's work is a significant and permanent aspect of their lives. In Japan, for instance, employees have traditionally had an almost family-like orientation to the company and supervisors have tended to look after their staff even in matters not necessarily connected with work.<sup>cxvi</sup> This kind of employment culture is able to locate people within a broader community and can inculcate standardised values, attitudes and beliefs. By contrast, in the future, individual careers will be highly volatile and egocentric. People will move easily from job to job, pursuing their own interests. Those that can do so certainly will work from home. More people will choose to go freelance, using internet brokering services to put them in touch with work opportunities. Notions of loyalty between a company and its employees will become wholly outmoded.

The growth of the team-building and motivational industry, which lays on corporate events ranging from casino evenings to abseiling from cliffs, reflects companies' rearguard effort to retrieve their lost cohesion. These artificial initiatives, however, cannot compare with the cohesive effects of working for the same company for decades, living side by side with one's colleagues in the same small town, sending one's children to the same local school, and meeting regularly for leisure activities. Yet western societies moved away from such a situation long ago, and even in Japan that era is fast disappearing.

Young people, raised on internet culture and computer games, are increasingly used to spending large amounts of time alone, and unused to suppressing their desires for the overall benefit of a

co-operative group. They will take readily to a highly individualised employment culture centred on electronic media. Some commentators have even predicted that the whole notion of a permanent job may disappear. People will assemble for particular tasks and then disperse again.

The changing nature of employment will be just part of a wider syndrome of declining sociability during the descent. It will become increasingly common, for example, for people to pursue friendships and romance by e-mail. Traditional contexts such as school, university and work are increasingly fraught as occasions for the formation of relationships, given the possibility of being accused of harassment. The dating agency and the on-line chat room will be much more attractive as venues in which people may meet.

While such electronic encounters certainly constitute social relationships, they are established outside any broader social context. The lovers who meet on the internet may come from different sides of the planet. In general, they will have no mutual associates, nor any previous shared experience. An encounter between such perfect strangers is rootless and therefore all the more likely to be transient. The partners have no one to please or to disappoint but themselves. This is an essentially selfish approach to sociality, devoid of obligations to a community of relatives and friends. It means that people's social lives will be fragmented and individualistic, and society itself will become a porous tracery of bonds, easily broken apart.

#### ***Rampant de-legitimisation***

Discohension means de-legitimisation. It means that fewer people will uphold familiar values, and more people will be ready to denounce these values as oppressive and unpleasant. Everything that serves to propagate a shared culture will have its faults systematically exposed and criticised. For example, the de-legitimised royal family may be excluded from public life and eventually removed from Buckingham Palace. Other traditional institutions will be attacked as incorrigibly racist and sexist.

Anything that suggests advocacy for characteristically British values and conduct will be excised from the school curriculum. It will be thought deplorable to suggest that western civilisation has anything positive to offer or deserves to be emulated by natives, let alone by recent immigrants and their children. The lessons of the future will be quite unfamiliar to anyone educated in the twentieth century. Children will not study French or German, say, but will be given a generalised course in the languages of the world, and they will be taught the importance of preserving traditional tongues in the face of western cultural imperialism.

Everyone who has been thought worthy of admiration will be revealed as unworthy. Alfred the Great, Florence Nightingale, Winston Churchill, and all such historical figures will be debunked and downgraded. Their names will become associated with ineffable turpitude. People will become embarrassed to speak them, and eventually they will be heard of no more.

Religious festivals like Christmas or Easter will come to seem shameful, and their original significance will be suppressed. The church is going to have an especially difficult time of it. It will be discovered that Judas has been much maligned and deserves admiration, while Jesus was deeply flawed and not a role model after all. Jesus's claim to be the initiator of the Christian message will be profoundly challenged and mainstream Christians may eventually disavow him. Deeply de-legitimised, the church will attempt to re-define itself as non-Christian Christianity, but that will hasten its passage to oblivion.

Churches will start disappearing from rural communities in the same way that banks and post offices have. One can expect the disestablishment of the Church of England, possibly within the reign of the present monarch. The Act of Settlement will be repealed. Other religious leaders will be given the same right as Anglican bishops to sit in the House of Lords. Britain will actually have more Muslims than Anglicans by 2005, so this will seem only fair. There will eventually be Muslim prime ministers and perhaps a Muslim monarch. They may well be honourable people in their own right, but their election will be devastating for Britain's traditional identity.

As part of the de-legitimation of their own culture, people will adopt the habits of other cultures. White people will adopt Asian dress and other customs. The current trend for nose jewellery, for example, can be understood in this light (it may be a mark of rebellion among western girls but is quite conventional for middle-aged Asian women). Anything associated with the underclass will also become immediately fashionable. There will be ever more tolerance of minority viewpoints and aspirations. This is in accordance with the erroneous view that behaviour which does not tangibly injure another is harmless to the social fabric and that permissiveness towards the behaviour is therefore more moral than forbidding it. The reality is that even what people do in private – if it is advertised and celebrated – will be corrosive of the moral order, since morality requires people to suppress their impulses and to recognise absolute standards.

Some have suggested that the twenty first century will actually see a reaction against sexual openness, just as the nineteenth century fin-de-siècle supposedly gave way to more sober times in the 1900s. There have already been

movements among American college students in favour of celibacy and self-restraint. However, this return swing of the pendulum will not amount to much. Taken as a whole, the twentieth century was far more permissive than the nineteenth. The twenty first century will be more permissive still. There will also be a hypocritical puritanism in some contexts. It will be unacceptable to make overtures to a work colleague, for instance, but quite acceptable to go on television or the internet and trawl for sexual liaisons in the most blatant way.

Sexual morals are only one area in which existing social codes will lose their force. Dishonesty of all kinds will increase and be thought barely reprehensible. Corruption will become an increasingly normal part of life. People will get used to the fact that government ministers grow rich by abusing the powers of their office, and that bribes are the best way to get things done. Narcotics will be decriminalised. The current generation of politicians and opinion-formers is already half-hearted in its condemnation of this supposed terror. One police organisation has suggested relaxing the penalties for possession of cannabis and ecstasy. The public largely shares that view.<sup>cxxii</sup> Recently a headmaster could not get excited about his pupils being caught with cannabis. He said it is now commonplace among young people.<sup>cxxiii</sup> There is no chance that such drugs will remain illegal as these youngsters grow up and become voters, journalists and legislators.

Having said this, dis cohesion means not the uniform deterioration of standards of behaviour but rather the proliferation of standards of behaviour. Not everyone will behave corruptly or promiscuously, but those who wish to do so will be quite obvious about it and oblivious to the disturbing effect it might have on others. Inevitably, some people will react against increasing licence. On the streets of the future one can expect to see people in Mennonite or Islamic dress, flaunting their purity of heart as ostentatiously as others flaunt their sexual assets. The streets of the future will be a riot of styles and demeanours. One will walk past a woman in scant clothing that boggles the eye, and immediately afterwards past one who is covered head to toe in black. People in business suits will jostle past naked ascetics proclaiming complete indifference to the material world.

### **Art in decline**

In the world of creative activity, two trends will intensify as the descent proceeds. Firstly, styles will become increasingly diverse and fragmented. Secondly, the output will be increasingly unappealing, reflecting the unappealing values of the declining society, such as idleness, licentiousness and lack of respect for

authority. On the whole, this is not prediction but actuality. Nevertheless, it will go further if it can.

Art will become not shocking but simply bad, which is to say, crude, unskilled, and cheaply executed from cheap materials. The cognoscenti will see it differently. They will find poetry and meaning in scribbles and piles of junk. However, future archaeologists will not share their view. They will regard this stuff, insofar as any of it survives, as the vulgar effluence of a descendant civilisation. Their feeling will not be admiration and is more likely to be one of repulsion. Meanwhile, art whose mission has become to insult the values of its social milieu will not be indefinitely supported by that milieu. Substantial works will no longer be commissioned. The fine art industry will disappear.

The same syndrome will apply to music, drama, literature and philosophy, as well as to popular culture, including fashion, television, popular fiction and popular music. Whatever is ugly and base will be extolled, not for any obvious purpose, but just for its own sake. Clothing will be designed not to improve people's appearance, but rather to assault the eye, being inherently hideous and accentuating the body's least attractive aspects. There will be an emphasis on the ordinarily unpleasant behaviour of ordinarily unpleasant people, rather than on the finer achievements and emotions of the human spirit. Writers, singers, dramatists and film-makers will be interested not in love but in deviant sex, not in the triumph of good over evil but in bad breath, defecation and self-destruction.

By proceeding down this route, cultural enterprises will run out of credibility. Before the descent is over, the fabulously rich fashion industry will lose its flamboyance. The popular music industry will go into decline, as it struggles to promote artists whose musical productions lack both form and substance. People will reject the mainstream and pursue their tastes in music or clothing within their own minute sub-cultures. Anything that attempts to appeal on a wide scale, to society as a whole, will find no audience.

There are likely to be revivals of classical styles, in an attempt to restore some semblance of skill, effort and high aspiration to creative activity. However, such revivals will have strictly limited appeal, given the general fragmentation of culture. They will also fall short of the standards that they intend to emulate. The skills have been lost and will not be revived this side of a dark age.

The classical canon will be rampantly de-legitimised. Given their role in perpetuating imperialist, misogynist, heterosexist western civilisation, the great painters and composers will be found completely inappropriate for recognition in polite company. One can expect to hear about the attrition of the west's cultural heritage through

lack of care. Great paintings will be ruined when floods invade the basements of poverty-stricken museums, or they will be damaged by the bombs of animal rights activists. Stealing from churches has become a major problem in Britain since the 1980s, and their great inheritance of antique chairs, chalices and lecterns is already being dissipated as up to ten churches a day are burgled, vandalised or subjected to arson. The missing items are usually replaced with cheap modern copies.<sup>cxxiv</sup> If these treasures are lost or buried, at least they may be protected from the destructive convulsion of the subsequent dark age.

### **International estrangement**

The descent will see a breakdown in the concept of an international community that took shape during the nineteenth and twentieth centuries. The Islamic and Sinic worlds seem recently to have reached an accommodation with the west, but this is only a lull in their drive for self-realisation. Those countries with a large proportion of young people are especially likely to be affected by protest and revolution, and to intensify their rejection of western influence. In the coming decade, this applies to Egypt, Iran and Saudi Arabia, and in the decade after that to Malaysia, Pakistan and the Arabian Gulf states.<sup>cxxv</sup>

In future, the west's agenda will be increasingly unwelcome everywhere, leading to a transformation of global priorities. Western expectations concerning human rights or the status of women will be openly challenged and repudiated. In some countries, including perhaps Japan, traditional costume may come back into favour as a way of reaffirming cultural independence.<sup>cxxvi</sup> International boundaries that are the legacy of western imperialism will be re-drawn and a growing number of countries will become off-limits for western tourists, politicians and business executives.

The United Nations celebrated its fiftieth birthday in 1995, but it is most unlikely to reach its centenary. In the past, its role has been guaranteed by the prestige of the United States. As that prestige is eroded, the UN's own legitimacy as a force for social cohesion will vanish, and international treaties that it has brokered will be increasingly contested and ignored. While the UN repeated and improved upon the earlier experiment of the League of Nations, when it disappears with the outbreak of general war in the next decade or two, it will probably not be re-established. Future wars will lead to no settled peace or clear victor, and, like blood feuds, will accentuate rather than resolve their participants' hatred.

The European Union is similarly threatened by discohesion. Three hundred years after the original Act of Union between England and Scotland, Scotland's Parliament is being revived. A simple union between just two adjoining countries, with

strong elements of shared culture, can fail despite three centuries of trying. In this light, and in the current condition of the world, there can be little hope for the European Union, whose diverse countries have so much more to fall out about. Two German journalists argue that the whole project is fundamentally flawed. It will collapse eventually, they say, and no oracle is required to see that.<sup>cxxvii</sup>

If the European Union starts to enlarge itself in the meantime, that will only make the collapse come more quickly. Neither Russia nor Turkey is likely to get in, as the one falls further into chaos and the other relinquishes secular values, but new members may be acquired in eastern Europe. Enlargement will force Germany to stop subsidising the EU, and Germans will probably be more interested in helping the development of new eastern members than in helping say Spain or Portugal. The resulting changes and re-negotiations will push tensions to the limit.<sup>cxxviii</sup>

There will be a growing gap between governments, who accelerate European integration, and their populations, who are ever more opposed. Ordinary people will exhibit considerable bitterness about Europe and their place in it. Nationalistically inspired parties will achieve greater representation, both domestically and in the European parliament. Popular rhetoric and mood will reveal fundamental flaws beneath the perception of European unity, and will foreshadow the time when Europeans are again slaughtering each other as they have done since time immemorial.

Before the twenty first century is too old, one can expect to see the first secessions from the European Union. Sweden is a prime candidate for withdrawal, followed perhaps by Austria and Denmark. Such withdrawals will then make it harder for France, Germany and Britain to reconcile their differences, as each country reconsiders its own future. The arguments could become very bitter. The spectre of a politically resurgent Germany building an empire in eastern Europe and losing patience with its vexatious partners to the west is not a happy one. The break up of the EU may also be too much for Spain, Italy and perhaps the United Kingdom, and those countries will break up in its wake.<sup>cxxix</sup>

A similar situation applies to all other associations between nations. NAFTA, consisting of Mexico, Canada and the United States, could be one of the first trading blocs to break apart. In Mexico City, large numbers of people depend for their living on what they can glean from the city's rubbish dumps. Behind a veneer of modernity, Mexico is in a desperate situation and cannot be expected to maintain the fiction of equal economic partnership with the US for long. Tensions are also likely to rise along the multi-thousand-mile border between the US and Canada. One day, perhaps, tanks will be rolling across that border. It seems

scarcely conceivable today, but it will become conceivable.

An important force for global cohesion over the last century has been international sport. The Olympic games have fostered common understanding among the countries of the world, just as they did among the Greek city states in classical times. Attendance at Olympic games has been almost universal and competition to stage future games remains strong. However, ongoing challenges to western ideals will corrode the legitimacy of the Olympic movement, especially given the revelations of widespread corruption in its ranks. Countries will cease wishing to stage the games or even to turn up. The most blighted African countries are likely to be among the first no-shows, alongside countries with strong non-western cultures. The Iranian team at recent Olympic games consisted exclusively of men and almost entirely of wrestlers. No Islamic country has ever hosted an Olympic games and, given the very scanty gear worn by modern female athletes, it is difficult to imagine that one would ever do so. As these countries grow more assertive, the Olympic games will shrink in significance and eventually be abandoned once again.

#### **Nationalism and devolution**

Discohesion makes people desire separateness, while disintegration means that it cannot be prevented. Over the coming decades, secessionist movements will multiply apace. Every successful independence movement has given encouragement to emulators. Before long, the twentieth century atlas of the world will be a collector's item.

The increasingly disunited United Kingdom is a case in point. When the central government gave Scotland and Wales their own parliaments it apparently hoped that this would assuage those regions' nationalist appetites. One commentator argued that the Scottish parliament made up for a kind of democratic deficit,<sup>cxxx</sup> whereby Scottish interests could always be outvoted at Westminster by the numerically stronger English. He suggested that the Scottish parliament is about restoring a fair balance and does not mean that Scotland is on an unstoppable trajectory towards full independence. This argument is logical, but nationalism has little to do with logic. Parties whose primary *raison d'être* is the pursuit of autonomy ought to fade away now that the democratic deficit has been resolved, but this is not happening. On the contrary, Scottish and Welsh nationalist parties remain popular, showing that devolutionist sentiment has been not placated but rather whipped up. In the future, the most likely thing is that Wales will be pushing for the same amount of self-determination as has been granted to Scotland, and Scotland will want to see its powers extended.<sup>cxxxi</sup>

The process is now being fuelled by a growing English reaction. In the past, English people had little sense of a separate identity distinct from that of Britain, and they generally opposed devolution. That is now changing. Around 1996, English football supporters stopped waving the Union Jack and started waving the Cross of St George instead.<sup>cxxxii</sup> This English flag is seen more frequently everywhere. In the last five years, St George's day, previously a non-event, has become a conspicuous occasion for the celebration of Englishness. Its importance will increase with every year and it may eventually become an official holiday. Some people have pointed out that, divested of their subsidies to Scotland and Wales, the English would pay significantly less income tax. Hence English nationalism will continue to grow, with the result that, while Wales and Scotland are keen to break away, England becomes increasingly keen to see them go. Eventually and inevitably, the United Kingdom will split apart.

Even Englishness may prove too large a concept for the increasingly discohesive world of the descent. Regions like Yorkshire, Kent, and Cornwall have long had a better sense of their identity than England as a whole. As the Welsh and Scottish parliaments were being elected, the most vociferous cries in England were not for an English parliament, but for a Yorkshire parliament. One may also see further fragmentation elsewhere. The highland regions, for instance, are likely to become disgruntled with what is seen as the remote Edinburgh parliament, and north and south Wales will be at each other's throat.

The United Kingdom's experience will be reproduced in many other countries, most of which have not been united for nearly as long. In Africa, which is leading the world into the dark age, the tribal map bears no relation whatsoever to international boundaries.<sup>cxxxiii</sup> It is amazing that African nations have retained their identities as well as they have. However, as memories of colonialism fade, and leaders emerge who were not even born at independence, a discohesive avalanche is likely to be unleashed. Many of the countries have already broken up in a de facto manner, although the rebel provinces will probably never be stable enough to be recognised by the United Nations. Nigeria is likely to come into the news at some stage, with a resurgent struggle for autonomy by the Ibo.<sup>cxxxiv</sup> South Africa is also destined to erupt in a dramatic conflagration as its various peoples seek to carve out their own homelands, including a Boer homeland, and the country finally caves in to the intolerable illogic on which it is founded.<sup>cxxxv</sup>

People everywhere are likely to hear growing claims about the advantage of independence for their particular country, region or province. In Germany, for example, one can expect the Länder

to demonstrate greater independence from the Berlin government and there will be murmurings in favour of autonomy, probably beginning in Bavaria but spreading elsewhere. Russia is bound to fall apart. It consists of a hundred different units spread across eleven time zones, with major cultural and economic differentials between them.<sup>cxxxvi</sup> Its situation is untenable. Ukraine is highly polarised, with its eastern half being friendly to Russia and its western half being hostile. Romania faces the danger of civil war in Transylvania. This region was formerly part of Hungary and has a large Hungarian minority whose aspirations are being suppressed by local leaders.<sup>cxxxvii</sup> India is another early candidate for break up, under the aspirations of Sikh and Muslim separatists, while the Muslims of China's western provinces will also break away. These are only some of the more obvious examples.

Perhaps the most surprising break-up will be in the United States. Here, a long-standing suspicion of federalism has been suppressed by economic success and the enjoyment of international superpower status. As the US withdraws into itself, its internal enmities will grow in significance. Power is already shifting back from the federal government to the individual states. One can expect them to start adopting their own foreign policies, involving independent negotiations with external powers, even though this is supposedly forbidden by the constitution.<sup>cxxxviii</sup> The melting pot has cooled, and ethnic minorities are re-discovering and reinforcing their sense of separate identity.<sup>cxxxix</sup> Over the coming decades, American cohesion will come under further attack, with controversies over social transfers in the federal budget, for example, and attempts to limit migration into the most favoured states. Americans may also start preferring more narrow definitions of themselves, perhaps as Ohians and Pacific Rimmers, or as Mexicans and Africans (while remaining US citizens).

The Stars and Stripes will lose its grip on the American imagination. The federal government is already having to legislate against burning of the flag. This shows that something is terribly wrong for such legislation would hardly have been thought necessary fifty years ago. The old Confederate flag is reappearing in the southern states, and state flags will gain popularity. Media articles exploring what it means to be a New Englander or a Californian will constitute a growth industry, and some states will eventually start agitating to secede. The most avid clamouring will probably come from the poorer states, which are frustrated at the existing order, and from regions with emerging non-English-speaking majorities. In these regions, the commitment of Hispanics to the wider nation is very weak, as illustrated by their recent habit of waving Mexican flags during public

demonstrations.<sup>cxl</sup> When one hears about the rise of the Midwest Independence Party, or some such, it will be clear that the United States will not be united for very much longer.

### **The culture of rights**

The descent will see whole nations dissolve into collections of interest groups, each selfishly seeking its own advantage, and oblivious to the effect of its demands on people in general. The ideology of rights, disadvantage and compensation, which will intensify, will give encouragement to these groups and validate their demands for special consideration. One will hear more about disabled rights, for example, and about the need to overcome racism, sexism, ageism and homophobia. Yet the perception of disadvantage will persist, in spite of all efforts to eliminate it. Forms of discrimination that have not yet been dreamed of are likely to be discovered, and new groups will emerge whose goals are held to be at odds with those of everyone else. In England, regional peoples, such as Geordies or Scousers, may start to complain about being victims of discrimination.

Attempts to conciliate minority groups will de-legitimise some of the crucial mechanisms holding society together. Institutions like the police will be subject to denunciation and interdiction to the point that they can no longer function. It may well be true that the police are racist and that there are significant injustices against ethnic and other minorities. However, efforts to right these injustices will not create a sense of shared participation in a common culture but will rather increase mutual suspicions and resentment. They will actually disrupt the understanding between people.

The fragmentation of western societies will be exacerbated by some areas falling under the control of immigrant peoples. In France, Genoa and Grasse could soon have Muslim majorities.<sup>cxli</sup> In Britain, Leicester is expected to have a predominantly non-white population by 2010,<sup>cxlii</sup> while Bradford already does so.<sup>cxliii</sup> These cities will have a strong justification for rejecting wholesale the prevailing French or British civic cultures.

The relations between ethnic groups will become particularly fraught. To be sure, the majority of people, having lost their sense of moral absolutism, will get along quite happily and unselfconsciously with their neighbours of whatever race or culture. Nevertheless, they will be subject to a continual barrage of public commentary suggesting that relations between groups are intolerably poisonous and need to be improved. In reaction to all this, a few chauvinistic individuals will be stirred into campaigns of hate-driven opposition. One should expect to hear that the membership of right-wing organisations is growing and see attacks on minority communities

become a chronic, background problem. This violence is likely to be viciously reciprocated.

France is an ethnic time bomb in which the far right has a strength and credibility that British fascists can only dream of. In Germany, neo-Nazis have torched immigrant hostels, and the movement is, if anything, growing. As the most economically successful country in Europe, Germany has had a particular attraction for immigrants, whom it largely welcomed when economic growth was creating a demand for labour. Recently, it has received large numbers of refugees from eastern Europe and Yugoslavia, including many Albanians. This is emerging as a very dangerous situation. Ethnic tensions in Germany may not produce another Nazi-style holocaust, but there will still be some considerable unpleasantness and ugly scenes.

In poorer parts of the world, with weak governments, inter-ethnic hostility will foment armed conflict. Much of sub-Saharan Africa is already afflicted. In South Africa, the whites are in a very precarious position, and are obvious scapegoats should better conditions go on failing to materialise. Indonesia, encompassing some 250 ethnic groups, is veering rapidly towards self-destruction, and will certainly not exist for much longer.

As hostility towards outsiders becomes more open, people will be forced to take sides whether they like it or not. Those who attempt to build bridges will be rebuffed, and their tolerant sensibilities will be increasingly challenged by outrages inflicted on their own communities. Previously moderate people will find themselves attracted into their respective camps and will feel steadily less sympathetic to those whose values blatantly contradict their own. Rising ethnic tensions will influence public policy to the extent that governments redouble their efforts to eliminate prejudice and disadvantage. This will involve significant intrusions into the way that people live and think, with a proliferation of new laws and offences. Again, instead of achieving interethnic peace and harmony, it will be more likely to foster rancour and belligerence. Overall, society will become increasingly polarised. People will be divided from each other and social relations will seem to be inevitably conflictual and competitive.

### **Women**

Discohesion will reach right into the basic structures of society, i.e. into the family itself. Primarily, this means a division of interests between men and women, and a growing perception that their goals within a marriage and family are no longer shared. Within a decade there will be more unmarried adults than married ones.

Given its emphasis on self-realisation, the descent will seem to be a time of tremendous liberation for women. In this regard, Japan has much ground to make up. Here the pill was only

legalised in 1996 and male responsibility to women is still recognised as an ideal.<sup>cxliiv</sup> In the west too, there are still many ingrained differences in attitudes towards men and women that have yet to be recognised and overcome. The distinction between 'Miss' and 'Mrs', for example, must eventually disappear as the institution of marriage decays.

The media tycoon Rupert Murdoch is outwardly an extremely powerful man. Yet at the instigation of his wife he agreed to remove page 3 girls from his tabloid newspapers in New York, because she did not want their daughters to be exposed to such salacious material. This was a family-oriented matter, on which he allowed himself to be ruled by her. This illustrates the traditional distinction between male and female roles. Men have influence over the public side of life, whereas women have influence over its private side. If a woman's life brings satisfaction, it is a quiet, personal, unacknowledged satisfaction, but if a man's life brings satisfaction, it is a dramatic and obvious satisfaction, involving visible success against visible challenges. Although most men do not actually achieve prominence in traditional male roles, the few who do tend to enjoy great prestige. In the future, self-realisation will be available to men too. They will be freed from their traditional obligations towards women, and will be able to take on women's roles. However, this will not be seen as a great breakthrough, since women's roles have not generally been regarded as prestigious.

In books with titles like *The Coming Matriarchy*, feminists have depicted women re-shaping the future world in their own image. According to Warren Wagar, some of these visions involve 'aggressive goal-oriented women ... apparently behaving much like their male counterparts'. Others assert that 'women are more nurturing, more intuitive and spiritually aware, more attuned to other people's needs and feelings, and more protective of life and the environment' and will create a 'harmonious future' for humanity 'grounded...in women's values'.<sup>cxliv</sup> It might be wondered, if women have so much to offer, why it is that they have kept silent for so long, or why they should be any more likely to impose their values on society from now on. The reality is that it is not a question of men having prevailed in the past and women prevailing in the future. The society of the past was created by both men and women, with their different capacities and aspirations, and the society of the future will also be created by both men and women.

It is true that women will increasingly realise prestigious public roles in the time to come. They will deal with the world on their own terms. They will have independent incomes. They will arrange their relationships with men to suit themselves. However, this will not in any way represent a

triumph of desirable feminine values over undesirable masculine ones. The notion that women are all superior human beings, nurturing, supportive and so forth, is absurd and has been exploded in numerous studies. Margaret Thatcher, for instance, was hardly noted for her nurturing leadership style. Of course, Mrs Thatcher is not a typical woman, but then becoming prime minister is not a typical experience for men either. There is no reason to suppose that the qualities of female leaders and business tycoons will be any different from those of male ones. Quite simply, some leaders are supportive while some are not, and this applies to men and women equally.<sup>cxlvi</sup>

Women are also perfectly capable of anger, hatred and violence. The last time that one MP physically assaulted another in the House of Commons, the assailant was a woman (Bernadette Devlin struck the home secretary Reginal Maudling over the Bloody Sunday shootings).<sup>cxlvii</sup> There have been many women terrorists. More than half the original founders of the Baader-Meinhof gang were women, as were a third of the Japanese Red Army.<sup>cxlviii</sup> Female members of Hezbollah have recently campaigned for the right to serve as suicide bombers (several did so before it was banned by the party's leader).<sup>cxlix</sup> When Hungary was invaded in 1849, women clamoured alongside men to come to their country's defence.<sup>cl</sup> During the British conquest of India, one young princess fought at the head of 2500 men to retain her property, when many male counterparts were ready to reach a peaceful accommodation with the invaders.<sup>cli</sup> Of course, not all women relish fighting and bloodshed, but then neither do all men. During the second world war some American GIs bitterly resented it when women replaced them in easy stateside jobs so that they could go into combat. Recruiting posters urged women to 'release a man to fight'.<sup>clii</sup> The men were as much victims of stereotyping as the women – perhaps more so, given that their lives were on the line.

The expansion of women's horizons in the coming decades, if that is what it should be called, is a triumph only of the selfishness that comes with discohesion. It will not make women any happier, as the feminists suppose. Most women, like most men, will not reach the pinnacle of great success. To be at an employer's premises day after day for forty years, performing tasks assigned by someone else, is no less drudgery than keeping house. Various surveys suggest that most women would happily give up work if they could and that they actually resent the apparent devaluing of motherhood.<sup>cliii</sup> An officer of the Institute of Directors notes that many women eventually decide not to go back to full time work after having children. She says she has been attacked, though, for suggesting that this is exasperating for employers when maternity legislation has forced

them to keep a job open for months, disrupting other staff.<sup>cliv</sup>

Discohesion brings the advantage of self-determination, but lacks the advantages of a moral community. There is not much self-determination in a cohesive community like an Amish town, but neither is there any unemployment or sleeping rough under cardboard boxes. Neither cohesion nor discohesion can be said to satisfy human needs. Neither feminism nor its antithesis can be said to ensure women's fulfilment. While a minority of talented women will benefit from the opportunities provided by the discohesive times ahead, the majority will find that their notional liberation fails to live up to its promise. Indeed, as women succeed in ousting men from the work-place, they will only end up supporting the now jobless males out of their income taxes. Similarly, as they gain further access to traditional male roles, women troops will be deployed on the front line. In other words, among the people being killed and mutilated on the battlefields of the twenty first century there will be contingents of teenage girls. This is at best an equivocal sort of emancipation.

Since discohesion involves the proliferation of all possible moral ways, there will be significant numbers of women who react against the deconfinement of female roles. Free to choose any career, some women will choose domesticity, motherhood and a relationship with a man that is one of essentially mutual dependency. Free to behave brazenly, some women will choose reserve and modesty. This accounts for the high proportion of women among converts to Islam and the fact that an increasing number of Muslim women are voluntarily taking up wearing their traditional veils.<sup>clv</sup> In explaining their decision to convert, some young women speak of the triviality and aimlessness of their previous life, with its emphasis on fashion, boyfriends and pop music. They contrast it with their pride and satisfaction at finding a place and purpose in life as a Muslim woman. 'I know who I am,' said one, 'and where I am going.'

As the descent proceeds, one will see women making good in the public arena. There will be more women politicians, more women entrepreneurs, and more women criminals. However, one should not expect to see a new golden age of mythical feminine values – just an ever more selfish world, in which, male or female, the individual always comes first.

### **Cults**

One young Muslim convert described asking her father what the Church of England was about. 'King Arthur,' he replied. This young woman had a need for belief and meaning, which her upbringing had evidently not supplied. When she went looking for them, her father's understanding of his own

cultural heritage was so inadequate that it is almost unspeakable. Eventually, she found Islam and with that people who knew what they believed, had confidence in it, and could give her the certainty she craved.

This illustrates the paradox of cohesion. Humans yearn to be free, but that leaves them insecure and yearning to be told 'who they are' and 'where they are going'. Society may have become secular but people in general have not. The demise of traditional religion has left a gap in their lives, though many may be unaware of it. Finding themselves alone in confronting the mysteries of life, people feel unaccountably dissatisfied. This results in social pathologies like drug addiction, which only leave people more desperate than before. With nothing to push against, people's pleasures come to seem transient and valueless.

Hence, there is a huge innate need for spiritual sustenance. As discohesion continues and the spiritual and moral foundations of society become increasingly fluid, this need will swell to huge proportions. In the coming decades, spiritual issues will loom much larger in people's lives. However, the spirituality of the descent will be immensely diversified. Some of it will be an attempt to recapture old legitimacies and the traditional religion. Many people, though, having thoroughly accepted the de-legitimation of their own traditions, will embrace alternative ones wholesale. At the same time, there will be a mass of people who continue to follow the secular life, self-indulgent, heedless of spiritual questions, sated in all material wants, but by no means contented.

The Roman Catholic church might meet a spectacular downfall, perhaps even confirming the twelfth century prophecy of St Malachy who foresaw only two more popes after the present one. However, though Christianity perishes, new sects will grow like grass on its grave. These will reinvent the Christian message, transforming it into something almost unrecognisable, but possessing new vigour. The old faiths will fade away, but some new cults will mature into stable traditions and may eventually spawn genuine religions.

The fragmented spirituality of the descent will not be successful in satisfying people's desire for moral certainty, for they will be surrounded by a jumble of alternative belief systems, all of which challenge their own. It may be some comfort to share values, attitudes and beliefs with the members of a local cult, but it is far better when one is in the company of millions – how proud and how certain one can be then. A meeting of the local Conservative party is not a Nuremberg rally. The touch-line of a Sunday football match is not Wembley stadium. In the same way, cult membership is not the same as belonging to a universal church. For all the religious revival of the coming decades, therefore, people will be left

wanting. Spiritual experience will ring hollow. No moral way will be restored. Troubled by an ache they barely understand, these people will readily rejoice as their godless and goal-less civilisation is finally consumed by the flames.

## Darkness

### Chapter 35 - The disintegrated world

#### *All against all*

When fuel shortages occurred in America in 1973, slogans such as 'more gas now' were daubed on walls, and angry rioters burned petrol stations and cars. During the French revolution, peasants stormed the Bastille and the royal palace, though shortly before they had been meekly tending their fields and for all the world seemed as harmless as can be. It is extraordinary how easily violence can break out when problems arise and threaten people's normal conditions of existence. Frustrations are vented by mindless destructiveness. If there is no effective authority to restore order, things can soon get out of hand and people simply go on the rampage.<sup>clvi</sup>

During the final stages of the descent, police will be losing the battle against criminality and civil revolt. People will have to start taking the initiative to protect themselves, their families, and their belongings. Properties will be more heavily fortified and there will be a proliferation of gated communities patrolled by private security guards. Whole towns and villages may start to defend their borders, perhaps with manned checkpoints across the roads leading in and out. In the cities, vigilantism is likely to emerge.<sup>clvii</sup> People will acquire arms and take it on themselves to administer the roughest forms of justice. They will put barricades across the streets controlling entry and exit to particular neighbourhoods. Boundaries will begin to emerge everywhere and people will become increasingly aware of their no-go areas.

As the dark age begins, all overarching governmental structures will be swept away. The world and every part of it will no longer be under anyone's control. In principle, this implies terrific freedom. No one will be collecting any taxes, for example. There will be no driving tests, no double yellow lines, no speed cameras. Nor will there be any licensing hours or drink-drive limits. No one will be required to attend school or do jury service. It will not be necessary to get planning permission to knock the walls around in listed buildings, nor to build a new home on the greenest of green fields. People will be able to buy and sell whatever drugs that they please.

Unfortunately, most of these new freedoms will be purely theoretical. Lawlessness will also mean a free hand for everybody who wants to rob or assault others. The fact that there are no licensing hours will not be much to celebrate when the pub has no beer because all its supplies have been hijacked en route. The non-availability of petrol for similar reasons may make it difficult to take advantage of the freedom to speed and park where one likes. During the dark age any kind of complex activity will become effectively impossible. Even the drugs trade, ironically, may

be difficult to conduct in the absence of law and order.

Given such anarchy, it may be possible to conduct a limited form of barter with one's neighbours, assuming that they are not violent bullies who just take what they want without asking. However, money will no longer be usable. Its acceptability depends upon the guarantee of a political authority and there will not be any. Gold and silver coins may be exchangeable, for their intrinsic value, but no one will want to accumulate too much of these. They will only make one a target for bandits. In any case, one cannot wear, eat or shelter under coins – and those will be people's main concerns. They will be likely to hide or bury their hoards of valuables, preferring to live simply and to keep themselves to themselves.

During the dark age, people will be able to go wherever they like within the country, or indeed within the world. They will be able to take what they like, and behave however they like. Nevertheless, they will need to be able to stand up for themselves as they do so. Every kind of bandit and ruffian will be ready to prey upon them or push them about. This will be a dangerous time to be alive. One can expect frequent disturbances and vicious squabbles. Today, when neighbours argue about the height of a hedge, they take each other to court. In the dark age, the aggrieved party may burn the hedge down. People may return to the institution of the feud. There will be no sanctions against murderers. For the victim's family, the only redress and the only deterrence will be killing in retaliation.

In general, the dark age will mean a state of chronic and general war. This will not be war between massed armies. It will be micro war, fought over local issues by tiny groups, using individual weapons. In the parts of the world where disintegration is proceeding fastest, traditional armies are already encountering such renegade, slippery opponents. The Pentagon is revising its military modus operandi to cope with more small-scale struggles as malcontents of all kinds take advantage of the vulnerabilities of technological civilisation.<sup>clviii</sup>

The disputes of the dark age will be highly convoluted and changeable. People will not recognise the principle of a fair fight. Their war-making will be vicious and unrestrained. Every available weapon will be used, for it will be a desperate matter of kill or be killed. The Geneva conventions will be quite irrelevant in a world in which all political structures have disappeared. The future lies with guerrillas, i.e. with anonymous part-time warriors, whose scruples are few and whose tactics are fluid. This type of warfare makes it easy for anyone to participate, and it rewards the inventive.<sup>clix</sup>

On the other hand, these warriors will still need to eat, and that will be difficult in a highly disorganised world. They might prey on more peaceable people, but there will be little surplus for them to seize. They will also have to fight for whatever they take, and if they meet any resistance it may not be worth the effort. Hence, warfare during the dark age is likely to be intermittent, the warriors having to tend their farms or their fishing nets between military expeditions. Conversely, farmers and fishermen will have to take up arms to defend themselves, with offence sometimes being the best form of defence. In effect, everyone will be a warrior.

A relative few will take it upon themselves to harry the rest. Most will want to hide themselves away, mind their own business and stay out of trouble. Furthermore, the bandits will be used to a hostile reception, as well as poor returns from an impoverished population, and that is likely to reduce their enthusiasm. If one is discreet and alert, it should be possible to see out a quiet existence, punctuated at irregular intervals perhaps by some more unpleasant episodes. One will be free, but fearful. Those people who prefer a predictable, risk-free existence, in return for giving up their self-respect and subordinating themselves to others, will find the dark age difficult. Those who are naturally proud, confident, and insubordinate may find that dark age conditions offer more than they take away.

Overall, the dark age will be a time of freedom but it will be a rather drastic kind of freedom. The opportunities will be totally equal for everyone, meaning that what one makes out of life will be entirely dependent on one's own aptitudes and abilities. The outcomes will be extremely unequal, but not necessarily unfair, insofar as birth and privilege will count for nothing.

#### ***New dynasties***

In those places where the dark age is deepest, and disintegration proceeds to the family level, individual households will fight each other. More generally, groups of families will probably join together. Insofar as these bands reflect the prevailing disintegration, their decision making structures will be democratic. Democracy is normal for societies functioning at the band level. One or more individuals may emerge as leaders on account of recognised qualities such as intelligence, emotional maturity and decisiveness. However, their leadership will be situational rather than absolute. During peaceful interludes, the band will typically govern itself through a council rather than submit to the will of a ruler. The council will provide a forum for the resolution of disputes by negotiation, but it will not coerce its members.

The dark age world will be dissolved into a multitude of such little local bands, each with its own rules and procedures. However, this condition

will not last for long in its original form. There will inevitably arise adventurers who are keen to go out and knit all the bands back together into an integrated polity. Some types of personality are driven to manipulate and dominate others. They have a superior understanding of other people's thoughts but a poor understanding of their feelings. They can control people effectively and are not inhibited by fears of hurting them emotionally. Studies show that such people tend to be bullies at school, but can go on to achieve powerful positions in adult life.<sup>clx</sup> In more settled times, they might become successful politicians or industrialists. In the dark age, they will take charge of their local communities to pursue whatever prestige is then available.

At first such adventurers will find the going difficult, for obvious reasons – the lack of a surplus, and the heavy resistance from other bands. However, over time, particularly forceful individuals are likely to achieve some success in leading their groups to plunder those who surround them. They will help their band to prosperity while enjoying permanently elevated prestige within it. By attaching oneself to one of these war lords and bandit companies, one will share in its combined strength and enjoy its protection in return for submitting oneself to its discipline. Successful warlords will therefore attract followers. If they manage to stay on top of what will continue to be a very dangerous world, their bands will grow in size and along with it their bands' and their own reputations.

The dark age will therefore present the domineering type of personality with considerable opportunity. It will see the founding of great new dynasties. In today's relatively integrated world order, the top strata of society, the royals and aristocrats, are quite secure in the hands of certain ancient families who laid the ground work for this position long ago in obscure times close to the last dark age. No matter how bullying and manipulative a person might be, it is very difficult to breach these patrician ranks – though some dynasties manage it. In the political meltdown of the dark age, everyone will start from the same level. This will be the chance for those who want their descendants to be the royal families of five hundred years hence.

As assertive personalities contend for ascendancy in what is essentially a free for all, the resulting power structures will be very realistic. There will be no illusions, and no scope for perception to deviate from reality. Today, rulers can be out of touch, slow to change their opinions, and responsible for poor decisions.<sup>clxi</sup> During the dark age, only the most forceful individuals with consummate judgement will prevail. Therefore, the peace and order that eventually emerge from the chaos will be unusually sound and stable. For one

thing, this means that parts of the world that are today plagued by chronic conflict will, when left to their own devices, be finally able to sort themselves out. This has already been observed, for example, in the guerrilla wars of Nicaragua, Guatemala and El Salvador, all of which began to move towards resolution after the Soviet Union withdrew from the scene.<sup>clxii</sup> The referee-less struggles of the dark age will see this happen more thoroughly and on a much wider scale.

It will not be clear during the dark age that new dynasties are emerging. There will be many contenders. Countless individuals who have extremely powerful personalities and achieve greatness in their own time will leave no impact on subsequent history simply because their successors fail to capitalise on their achievements. Their names and their deeds will be forgotten in the obscurity and tumult of the dark age – or at least the memories of them will be so distorted and fanciful that, as far as future historians are concerned, they might as well be fairy stories.

Nevertheless, slowly but surely, some lineages will achieve a kind of momentum. They will displace their rivals, spreading their authority over ever wider areas. It will be a confused process, with waxing and waning, advances and setbacks. The long run trend will see integration increasing again, and order being made anew. As the mists of the dark age dissipate, it will be seen with increasing clarity that a number of families have established themselves and entrenched their power. They will still be only petty chiefs, and personal qualities will be as important as family position in deciding how the leadership is handed down. Yet it will be mostly these lineages that provide the barons, dukes and kings of the new era. As the discontinuity of the dark age recedes into history, social status will rapidly become once again a matter of ascription more than achievement. Those who have failed to seize the chances afforded by the dark age will have forfeited the opportunity for another millennium or so, until the darkness comes again. That may be thought a long time to wait, a long time to be an underling.

#### **De-urbanisation**

Virtually everything that a modern city needs to survive must be imported by train, truck and ship or brought in by pipe and cable.<sup>clxiii</sup> The city depends on the constant arrival of trucks and ships bringing in food and the equally constant departure of trucks and ships carrying away the rubbish. All this relies on political order, guaranteeing safe conduct and regulating people so that they take care of their shared environment. When the political order has broken down, cities will be in trouble. Brigands will make the roads unsafe, choking off the city's lifeline. Municipal refuse collection and street lighting will disappear, to leave the city dirty and dangerous. Who will pay the bills for these

services when all forms of government have been swept away in the collapse? With its inflows and outflows interrupted, the city may become non-viable almost overnight.

Cities also have the highest concentrations of the underclass. Consequently, they contain the mechanism of their own disruption, in the form of a huge reservoir of potential violence and criminality. Already, in some areas, shops must be protected with thick metal shutters, and it is sensible to have alarms on one's house and one's car. When government is a thing of the past, and the police have disappeared from the street, nowhere in the city will be safe from the unchecked wants of the dispossessed. The city will be a magnet for all the wandering criminal bands and plunderers who will be given carte blanche by the total disintegration of the early dark age. They will converge on urban concentrations to seize and fight over whatever remaining luxuries the corpse of the old civilisation still has to offer up.

A neighbourhood in which the electricity has been cut off, the sewers are no longer maintained, the hospitals are closed, the shops are bare and looters roam the streets will eventually not be a neighbourhood that is worth staying in or defending. Clearly, there is going to be a huge efflux from the cities around the time of the collapse. The richest people are likely to go first, for they will have the resources to do so. They will retreat into country residences, which they may start to fortify.<sup>clxiv</sup> Even those who are not rich would be well advised to join this exodus at the earliest opportunity. As one detects that the collapse is close at hand, one should look for the remotest and quietest place to live in that one can find. Somewhere mountainous and inaccessible will be ideal, although one must be prepared for self-sufficiency. Any retreat cannot be too barren.

The poor, who have neither the resources nor perhaps the initiative to flee the city, will face a desperate time. Eventually they will have to get out, but only when conditions have become wholly intolerable. Unable to anticipate the appalling consequences of political collapse, they will be forced to experience them at first hand. In the first few decades of the dark age, some dreadful scenes will be enacted in the richest countries and especially in their rich urban centres. In many past instances of collapse, there is evidence of burning and of bodies left unburied in the streets where they have fallen. One cannot be optimistic about the level of violence with which today's cities will be evacuated. Apart from anything else, their gas and electricity mains and the contents of petrol stations will make possible a huge conflagration.

When the dark age reaches its nadir, it will not be good even for those who have earlier ensconced themselves in their rural estates. Out of the cities there will come a monstrous tide of brutalised

humanity with no apparent means of feeding itself or clothing its children. Places like London and Birmingham are likely to be abandoned first, but in time every remaining pocket of order and civilisation will be threatened. Only the most remote safe havens have any chance of escaping unscathed (though their very remoteness will ensure a rude existence). As they flee from each other, people will spread across the globe to form an almost uniform layer.

### **Ruins**

All over the world, there are the ruins of ancient buildings, the debris of once glorious civilisations. During the coming dark age, the infrastructure of today's technological civilisation will be reduced to ruins in its turn. Only fragments of it will survive to remind the people of the dawn what their ancestors achieved.

The collapse of the built environment is already well under way in some parts of the world. In Russia, the ugly, utilitarian buildings that were shoddily thrown up during the soviet era are now falling down with a vengeance.<sup>clxv</sup> All across the country, urban areas are crumbling to oblivion, as Russia accelerates headlong into the dark age. In western countries, modern buildings may not be as badly constructed, but they are not particularly durable. It will take only decades for the buildings to become uninhabitable and possibly to be reduced to piles of rubble.

Roads and bridges, which are public goods, are largely provided and maintained by a political authority. In Europe, it was only as societies became more ordered from the seventeenth century onward that roads began to be built again on any scale. With political disintegration, the situation will go backward, and roads will fall into disrepair, perhaps lasting less well than those of the Romans. In the United States, nearly half of all highway bridges are noticeably ailing. Every year, one or two hundred spans suffer partial or complete collapse, sometimes with disastrous consequences. The most dangerous are not necessarily the oldest, or even the most heavily used. Almost always, the culprit is deferred inspection and maintenance, which is in turn attributable to lack of funds.<sup>clxvi</sup> Already, the US government cannot afford to keep up the legacy of more confident times. When it has disappeared altogether, America's bridges will fall down and stay fallen.

The main reason why future archaeologists will find contemporary civilisation in ruins is because of the orgy of devastation that will follow the collapse of the political order. Today's motorways will end up looking ravaged, not because of their exposure to the elements, but because people rip up the barriers and the cat's eyes for use in building or in jewellery, or to sell off to people in other places. Some of the destruction will be quite mindless. The

disadvantaged majority will work out its resentment by smashing and burning the symbols of ancient privilege. How satisfying it will be to rampage through Buckingham Palace say, breaking glass, soiling the carpets and chopping up priceless antique furniture to use as firewood. Insofar as any structures survive the mob, during a dark age that could last two centuries or more, it will be because to break them up requires too much effort.

The latest buildings, which have been and will continue to be constructed cheaply, are the most likely to be destroyed. Only the most durable artefacts, and even relatively few of those, will survive beyond the horizon of the dark age. St Paul's cathedral might be known to tourists a thousand years from now, as a jumble of stone blocks, but Coventry's concrete will have crumbled into formless oblivion. The Louvre may continue to exist, as a shell, but the glass pyramid that now sits in its courtyard certainly will not. Future historians will therefore picture contemporary civilisation not by its high-rise blocks and housing estates, but by the cathedrals and castles that were constructed hundreds of years ago.

Humanity's latest achievements, the technologies of the information age, will be particularly vulnerable to the disorder that accompanies the collapse and dark age. The infrastructure that supports today's railways, banks, power stations and air traffic control systems will be increasingly abused as disorder grows. Some British banks are already believed to have handed over millions of pounds to various electronic extortionists. Mere malice will eventually turn into real damage. Hackers and computer virus creators may rampage through this electronic infrastructure just as ruinously as the Visigoths once rampaged through Rome.<sup>clxvii</sup> Electromagnetic pulse weapons may also be used by gangsters to wipe out each other's computer chips.

After the collapse, it will be pointless getting involved in any undertaking that depends upon high technology. One will simply be too vulnerable. People could conceivably be reduced to iron age levels. There will be no internet, no telephones, nothing of this kind whatsoever. All these so characteristic products of contemporary civilisation will either be deliberately attacked and ruined or they will be scrapped and abandoned as being too much trouble. Just as previous civilisations have left behind shattered pottery, so contemporary civilisation will leave behind broken computer equipment. Future historians will have only the haziest understanding of what people actually achieved during the twentieth and twenty first centuries. Their best insights are likely to be found not on earth but in orbit around it. Geostationary satellites at least will reveal that before the dark age people once enjoyed rich and comfortable lifestyles. For the most part, though,

today's technical accomplishments will be ruined and forgotten

The destruction of today's infrastructure will continue even as the world emerges the other side of the dark age. In a similar way, great Roman buildings were converted into Christian churches or treated like quarries.<sup>clxviii</sup> Many ancient roads and even Stonehenge would be in better condition today if bits of them had not been dragged away to build farmhouses. As the dark age dissipates, people will know very little of what has gone before, and given their more pressing concerns they will have little desire to preserve its legacy. That will be something for historians and archaeologists to reconstruct, when, centuries later, some people have leisure again. Being a newly vigorous society, the post-dark age people will be more interested in fashioning the future than in safeguarding the past. Today, England's Saxon churches are few and far between because people tended to knock them down in order to build something bigger and better. Those parishes that now boast very early churches are drawing attention not to their conservation-mindedness but rather to their chronic poverty through the ages. Similarly, the people of the dawn will with equanimity break up their ancestors' buildings, melt down their cars, and cast their computers into the lake, so that they may more easily plough the fields. Long after the world has recovered from the dark age, latter day archaeologists will deplore such vandalism.

#### **Barbarian invasion**

Rome's collapse is popularly attributed to the invasion of German barbarians. Although this is only a shorthand for something much more complex, it remains a compelling vision – the uncivilised hordes sweeping down, to rape, pillage and lay waste the civilised but effete urbanites. Rude poverty meets cultured wealth and overcomes it. Ignorance meets learning and burns its books. Violence meets peace and order, and destroys them. One might ask whether the collapse that ends the current descent could similarly see barbarian hordes overrunning western cities, murdering their inhabitants and leaving everything in ruins. The answer is surely yes. Some kind of barbarian invasion is almost certain to occur.

The west faces a growing demographic challenge from the rest of the world, just as the population of the Roman empire declined while that of the Asian and Germanic tribes underwent a surge. The poorer nations have time on their side. In most parts of the developed world, total fertility is now below the replacement level.<sup>clxix</sup> The west no longer has the vigour to be expansionist and offensively oriented. By contrast, Africa, South America, and the middle and far east are teeming with eager youths. In 1989, nearly half of Mozambique's population was under 15, when in Germany it was less than a sixth. These young

people are crowding into a world of space age communications, far more aware than their ancestors were of the planet and its possibilities. They have dreams and expectations, and they do not see the world through western eyes.

While the ingress of Odoacer's army in 476 put the final punctuation mark to the western Roman empire, the invasion really began centuries before, when people from barbarian nations began infiltrating the imperial demesne. They came to trade and to work. The citizens of the empire even welcomed them in, for they were prepared to do the things that the original Romans were too idle or conceited to do for themselves. Western countries have been experiencing exactly this kind of silent invasion for some decades. Like Rome, they have a huge draw for people from poor, turbulent parts of the world. No one should be fooled by the menial jobs that immigrants take on. These are the go-getters who make their way to the west. They are more intelligent and enterprising, on average, than the people among whom they sojourn, and they have ambitions. They do not intend to prop up pampered western lifestyles for ever. Growing numbers of foreign workers are moving into the professional occupations.

As western political disintegration continues, immigrants will arrive in increasing numbers, and will exploit very well the opportunities that are on offer. The ageing of western populations creates a continuing need for new arrivals to support the growing number of pensioners. While indigenous populations waste their lives on the dole, these latter-day barbarians (a term that should not be regarded as pejorative) will be building their power and influence as they infiltrate every corner of the west's civic life. The latest arrivals will be the least easily assimilated and the most cynical in their exploitation of what the west has to offer.

Today's peaceful invasion of economic migrants will prepare the ground for their kinfolk back in the homeland. When the west has become terminally feeble and defenceless, the only citizens who retain any vigour and sense of purpose will be those who have no allegiance to anything it stands for. Yet the western countries will still be laden with riches. This combination seems bound to be irresistible. The final days of the present world order are very likely to be marked by mass movements of people out of the impoverished lands. They will come from Africa to Spain, Italy and Greece, thence northward; from the middle east, across eastern Europe and perhaps Russia, to Germany; from Mexico and across the Caribbean from Brazil into North America. Moreover, these people will not come peacefully. They will have consulted no immigration official. They will bring no passports. They will not be coming to work. They will be seeking booty, and revenge for half a millennium of humiliation.

The western nations have spread an enormous amount of bad blood around the world in the present era, interfering everywhere and imposing their values with a degree of insensitivity that future historians will truly wonder at. The dark age may see the opportunity for old scores to be settled and to be paid back not once but three times over, as centuries of resentment are relieved in a few intense years. When the plunderers arrive, they will head first for the big cities, where the pickings are richest and thickest on the ground. They will be looking for everything from petrol to slaves and precious metals.

Unplanned migration is already a problem in the west. The number of people seeking political asylum has increased dramatically in the last few years. Between a third and a half have their applications refused, but in Britain that still means thousands being admitted every year.<sup>clxx</sup> In an increasingly disordered world, one might expect that the proportion of admissions should rise, since claims of fleeing oppression will seem increasingly just. Besides which, large numbers of asylum seekers lose patience with the bureaucratic process and go underground as illegal immigrants. In Britain, at least 60,000 have thus evaded the authorities in the past decade. Smuggling third worlders into the rich countries is now a multi-billion dollar criminal business.<sup>clxxi</sup> Fishing vessels carry them across the Mediterranean and truckers speed them overland.<sup>clxxii</sup> Bangladeshis, Iraqis and Indians were recently found to be riding in to Britain on freight trains going through the Channel tunnel.<sup>clxxiii</sup> New laws, tougher rules and more vigilant border controls may slow this tide, but they will not halt it. The would-be immigrants are extraordinarily determined. Five Ukrainian men were recently intercepted trying to row across the English Channel in a child's inflatable dinghy.<sup>clxxiv</sup>

Today, third worlders come surreptitiously rather than bearing down on the rich countries in their hordes because they perceive that the latter, who not so long ago directly ruled the third world, are well able to defend themselves. Today, they are probably correct. However, with every decade, the reality is changing and so eventually will the perception. In Sierra Leone's recent civil war, teenage soldiers, both girls and boys, were required to eat the organs and drink the blood of their victims as a military initiation rite.<sup>clxxv</sup> By contrast, trainees at Britain's school of naval gunnery were being asked to shout 'bang' rather than fire real

ammunition, in a bid to contain costs.<sup>clxxvi</sup> It is increasingly doubtful whether these western youths, whose only taste of violence is in computer games, will really be any match for the blood-drinking, machete-wielding Africans in a serious, face-to-face fight.

The Sierra Leone teenagers conduct military actions that they call Operation No Living Thing and Operation Pay Yourself (i.e. looting). How long can it be before they start bringing these 'operations' to feeble and far more lucrative Europe? Although they are seldom in western thoughts, today's underprivileged peoples are well-informed of the richness of northern lands, of the vulnerabilities of those lands, and of the existence of others dissatisfied like themselves. They are fully engaged in the world and they show an astute understanding of how to operate within it. Ugandan comen posing as underprivileged schoolchildren were recently found to be raking it in with begging letters sent to prominent Britons.<sup>clxxvii</sup> Other scams have originated in Nigeria. In 1999, refugees in Tanzania were rioting because fleeing Kosovans seemed to be receiving better rations than they were.<sup>clxxviii</sup> Clearly these people know exactly what is going on elsewhere – and they are not happy about it.

In August 1998, Moroccan and Tunisian asylum seekers who were being held on the Italian island of Lampedusa destroyed their detention centre in a night-long orgy of violence. For fifteen days they had watched through barbed wire fencing as western tourists sunned themselves on a nearby beach, laughing and joking, enjoying good food and copious quantities of wine and beer. Eventually they could take no more and, with temperatures touching 40 degrees, erupted in a spasm of riot and arson.<sup>clxxix</sup> This is a microcosm and a warning of what the future holds in a world where large numbers of hungry, brutalised, third world youths are daily being televised the image of fat, spoilt white people living it up at a party from which they have been thoroughly excluded. The west's present insouciance may be thought breathtaking.

The neo-barbarian invaders of 2050 will leave little clear record of their activity, for they will destroy as they go. Future archaeologists will have to guess at the horrors that might have occurred. They will have to judge from the rubble, the signs of burning, the apparent changes in racial mix of local populations, and the abrupt silencing of a once articulate and exuberant civilisation.

### Chapter 36 - The disorganised world

#### *Impoverishment*

People's lifestyles have become highly dependent on goods they can only obtain from abroad. No country produces all the metals and minerals used by its industry. Europe and Japan rely critically upon overseas oil. As trade is cut back during the collapse, it will not just mean a few exotic items disappearing from the shops. The industrial world's whole way of life will fall apart. Today, ordinary people rely on extensive and unbelievably convoluted exchange networks in order to have things like refrigerators and washing machines, which they could never manufacture for themselves. These devices are now usually classed as necessities.<sup>clxxx</sup> Yet they will suddenly become unavailable and that will cause much pain.

Lawlessness and an absolute loss of confidence will ensure that all types of commercial activity come to a grinding halt. There will be no such thing as a job or a shop. People will withdraw from the whole pass-the-parcel activity of the economy and will be forced to return to a simpler, cruder lifestyle. They will eat and wear only what they can produce for themselves. As tools left over from the time before the collapse become broken and worn out, people will have to replace them with home-made equivalents – or go without. For the most part, this is likely to mean going without. In contrast to the situation a century ago, many everyday appliances are quite beyond the capacity of ordinary people to fix. Few people could repair a microwave oven or even an electric razor.<sup>clxxxii</sup>

People may be able to barter some goods and services directly amongst themselves. However, it is impossible to run, say, an electricity grid or an airline by simple barter. These require the flexibility of credit. They will be completely non-viable in the disorganised dark age. Many other things depend upon these services and will also have to be given up. Even if one keeps one's old refrigerator or washing machine, there will be nothing to power it, unless one has the skills to put up and maintain a generator (wind-driven, given the lack of petrol).

In response to the neglect of the dark age, let alone deliberate vandalism, the world's technological infrastructure will fall apart at a rapid rate. The numerous services on which contemporary lifestyles depend will certainly not keep working by themselves. A nuclear power station or a telephone network requires continual monitoring and maintenance in order to avert its potential for catastrophic failure.<sup>clxxxiii</sup> These services are also characterised by intricate and massive interdependencies, so that problems in one area can have drastic consequences elsewhere. In 1998, the failure of a single geostationary satellite meant that across America forty million pagers were disabled, self-service petrol pumps would not

take credit cards, and hundreds of radio and television stations were knocked off the air.<sup>clxxxiii</sup> Collapse is therefore likely to be very comprehensive, and it will be difficult for people even to cobble together local solutions.

In short, the self-sufficiency of the dark age means that things people take for granted as the background to their lives – telephones, motor vehicles, recorded sound, television – will fall out of use. Instead, people will be making and mending only the simplest utensils with whatever is to hand for raw materials. John Pilger has described how people in the town of Butterworth in South Africa are so poor that they recycle scrap metal from wrecked cars into a variety of implements on hundreds of tiny braziers. This might stand as a vision for the kind of industry that will typify the dark age. At dusk, Pilger says, it looks like a scene from Dante's inferno.<sup>clxxxiv</sup>

With brigandage and violence making urban life unbearable, people will be decanting from the cities at a prodigious rate. Before long, the countryside will re-invade and cover everything in greenery, just as wild flowers rapidly colonised areas cleared by bombing in the second world war.<sup>clxxxv</sup> After today's urban centres have been abandoned for a century or more, they may become engulfed by trees, as at Angkor or Chichen Itza.

Today, people only put up with the city's noise, haste and frantic activity because it offers economic opportunities.<sup>clxxxvi</sup> There is a trade-off between the forces of attraction and repulsion. A healthy economy therefore encourages people to congregate in one place, so that they come to be distributed in a very patchy manner across the landscape. With the economy's collapse, by contrast, they will spread out again. Apart perhaps from the intrinsic fertility of some areas, there will be no reason to be in one place rather than another.

In Britain, the dark age will see the end of the north-south divide. London and its environs will have nothing more to offer than any other part of the country. Elsewhere, similar forms of regional preference will disappear and, in the world as a whole, the self-reinforcing advantages of the developed countries will be eradicated. When the world emerges from the dark age, people will be free to devise some entirely new pattern of urbanism.

Having said this, the positions of towns and cities are often dictated by the distribution of topographic features like rivers and hills. Therefore, when people start coalescing again during the dawn, some towns may move slightly, others may disappear, and some new ones may be created. However, in many cases, the urban landscape will probably fall into the same general form as today. There will almost certainly be a new London, Birmingham and Liverpool in the next

era, although their names are likely to change, and the old buildings will be buried as people clear away the trees.

During the dark age, the problems of highway robbery and uncertain fuel supplies will mean that people do not travel around in cars, boats and aeroplanes. Movement will be very difficult. The skies, sea-lanes and roads will be all but empty of traffic, and people's horizons will narrow drastically. One will no longer drive fifty miles merely to go shopping. It will be a day's expedition just to go five miles. Given the demise of the world's media industry, people will also lose touch with what is going on in the rest of the country, let alone on other continents. Clearly, life in general will be very impoverished. This is going to be a world of meagre existence, low expectations, and considerable ignorance. It will be a very dark world.

### **Uncomfortable times**

There will be no welfare state during the dark age. Nor will there be a legal system awarding compensation for personal injury. If people trip over the pavement or drop scalding coffee on their laps, that will be hard luck. They will have to live with the consequences of their own lack of care. Other than their own close relatives, no one is going to have any sympathy. Still less is anyone going to go out of the way to provide for them, even if their injuries are genuine and prevent them from providing for themselves. This is going to be a very tough and uncomfortable world indeed.

Those people who are today supported by social security payments will find themselves thrown on their own devices. A cold wind is going to blow through their lives. They will discover that the income that has always seemed to come like manna from heaven, meagre though it is, no longer arrives. Perhaps for the first time in their lives, they are going to have to feed and clothe themselves by their own efforts – either that or starve and go naked.

This is going to inject an unfamiliar shot of harsh reality into millions of people's existences. Those who 'cannot find a job' or are 'suffering from stress', will discover that such concepts have lost all meaning. No one will be able to find a job in the dark age. Everyone will be suffering from stress. Yet one way or another, everyone will have to procure the essentials of existence. All excuses and special pleading will be pointless, for there will be no welfare benefits officer to hear them. People may cry out in anger and frustration, but their anguished complaints will disappear into the void and will leave them behind to get on with it as best they can.

It is not only certain malingerers who are going to lose out. Almost everyone derives some benefit from the system of social security, and almost everyone will therefore be a loser. How are people

going to educate their children when there are no state schools? What are they going to do when the pensions that they have been looking forward to fail to materialise? Having a private pension is not an alternative. In the totally disorganised world of the dark age, the logic on which such pensions are based will break down altogether. Any funds one may have accumulated will be quite worthless. If one's retirement date lies on the other side of the coming collapse, then it will never come at all. No one retires in a dark age. People will have to go on procuring food and patching up their shelter as long as they are able. They may be fortunate and have caring children to help them, but they will never experience the carefree and affluent leisure that once was promised them in retirement.

Those young women who allow themselves to become pregnant by a man who shows no interest in subsequently providing for the child will be on their own. There will be no free housing or living expenses. There will be no government agency to enforce the father's responsibilities. If a woman really cannot look after herself and her child, she will face starvation in the gutter. Evidently, this prospect is likely to make young women somewhat unwilling to engage in casual sex. There will be a rapid return to the idea that sex is something women make available to men only after the latter have made a substantive commitment to stay around and help deal with the consequences. Similarly, a young woman's relatives, insofar as they care for her, will be keen to steer her away from yielding to her sexual desires, and they will wish to punish or pin down any man who breaches these defences. Men may also have good reason to be watchful of their partners. Today, it is estimated that up to 5 percent of children are not the offspring of the man who believes himself to be their father.<sup>clxxxvii</sup> From a genetic point of view, these cuckolds have been tricked into expending their economic resources for the benefit of another man. This is presumably the logic behind male jealousy. When times are hard it will make even more sense than it does today.

In this way, the disorganised state of the dark age will sharply point people's values in a more sober and responsible direction. The excesses of the descent will be extinguished in the face of such new realities. This does not just apply to sexual mores. In every area, people will need to become more responsible and hard working, if they are to survive. This will soon be reflected in their outlook on the world. Disorganisation will bolster the re-emergence of a strong moral way, emphasising such qualities as sexual continence and self-reliance.

Many people who today seem unemployable and destined for chronic dependency, such as drug addicts, may turn out to be capable of using their time far more productively when the dark age

forces them to do so. However, certain people really cannot help themselves. They may be too stupid or too disturbed to fend for themselves in a newly unforgiving world. In that case, they are likely to die and rather quickly. They may starve, die of exposure, be poisoned by bad drugs, or be murdered by those from whom they unwisely attempt to steal.

The hardest time in the dark age will be for those who are physically incompetent. Paralysed armed robbers will not survive beyond the collapse. In a world without even electricity, let alone round-the-clock nursing care, those who cannot breathe or eat for themselves will not last long. In the case of those whose disabilities stem from their criminal exploits, few tears may be shed. However, the same applies to many others, who have simply been unfortunate – premature babies, those with congenital defects, people who suffer accidents, and so on. Anyone whose life is today being saved or at least prolonged by heroic medical interventions, will not be so fortunate in the dark age. Highly developed medical systems, which use sophisticated technology and employ many specialists, rely on a complex economy, just like an electricity company or an airline.

Doctors and nurses may continue trying to treat the sick as the world disorganises around them, but they will eventually be forced to abandon their patients, however great their altruism, just to concentrate on the difficult business of feeding their families. Following the collapse, people will be in a world without hospitals or drugs, and in which it will be extremely dangerous to become seriously sick. Some doctors may be able to go on bartering their medical knowledge in return for the means of subsistence, but on the whole specialised health care will be non-existent.

Having said this, even the earliest humans looked after some members of their bands who were unable to fend for themselves. Stone age skeletons have been discovered which show that the owner suffered from severe disability, through trauma or disease, but still lived for many years. Similarly, the dark age may force people to be very realistic, but it will not necessarily make them heartless and uncaring. It is just that all succour will have to come from within the small family group rather than from the community at large. It will therefore be necessarily restricted in comparison to that of today, and the sickest people will be unlikely to do well on it.

#### ***Back to the land***

The self-sufficient people of the dark age will have to fend for themselves by living off the land. At first, it will be a particularly rude form of existence. Most people do not have the skills even to build a decent barn or construct a horse-drawn wagon. Nor, in most cases, do they have the faintest idea how to grow crops or hunt game.

People have lost elementary agricultural knowledge, and their farming efforts will be inefficient and likely to damage the soil. If anything, they will be worse off than their medieval forebears. Some painful lessons are on the cards.

Eventually, however, people will attain some sort of equilibrium as subsistence farmers. They will tend their crops during the day, and whittle wood or perform other crafts in their spare time. In the evening, they will eat home grown produce around the log fire, and tell stories to their children to while away the hours until bed time. When they retire, they will go to sleep knowing that they have done an honest day's work.

Such a return to a rude and rustic lifestyle may seem almost appealing. People will soon discover that the reality falls short of the romantic idyll. It will involve back-breaking work and perennial uncertainty about the future. In many regions, it will also become clear that there simply is not enough space for everyone to live a life of back-to-the-land subsistence.<sup>clxxxviii</sup> Contemporary farming can support so many people in the developed countries only because it is mechanised and energy intensive. Centuries ago, when agricultural methods were simpler, the population was much lower. The population has grown because of the gains of the industrial revolution. When those gains are reversed, human numbers will turn out to be far in excess of what the land alone has the capacity to support.

Today, more than a quarter of the world's countries are in an extremely marginal situation as far as their agricultural self-sufficiency is concerned. Some of these, like Kuwait, Singapore and Egypt, are simply incapable.<sup>clxxxix</sup> Only North America and Australasia currently produce all the grain that they need. Everywhere else – western and eastern Europe, Russia, Africa, Asia – is an importer to some extent.<sup>cx</sup> The dependency on imported grain has been growing world-wide for decades. Even with an all out food-producing effort, the present population of Britain could not be fed at its current standards purely from domestic resources. Simple calculations of plant metabolism reveal that Britons are living at a level beyond what their own countryside can sustain. The amount of phosphate alone going in to the nation's food exceeds what Britain can supply, and so the loss of imported fertiliser will inevitably be devastating.

On the other hand, not all the logic is unfavourable. Small farms are more efficient in their use of land than huge agribusinesses, often by a wide margin.<sup>cxci</sup> Intelligent human care is more important than fertiliser and farm machinery. Chemical weed-killer is a mediocre substitute for nimble fingers. In the United States, 75 percent of the population is currently crowded into 3 percent of the land.<sup>cxcii</sup> There is a lot of space out there and

people will be able to migrate towards the emptier lands. In Europe and Japan, the situation is not so favourable but it is still far from the case that every last acre of the countryside is today being put to productive use.

Agriculture in the developed world is much more profligate in its use of the land than it need be. Five acres can only support one person for a year if it is used as beef pasture, but it can support a dozen people if it is used for wheat, and thirty five if it is used for soya beans.<sup>cxci</sup> Pressure on land during the dark age will therefore force people to switch from their current diet, high in animal products, to one based more on grains and pulses. One consequence of this switch is likely to be a less robust population. This will imply the reverse of trends that have seen gains in stature and body weight with every generation in those countries, like Japan, that have recently adopted more western-style diets. The effects may not be wholly negative, however. High meat diets are believed to be associated with various health problems, including cancer and heart disease, which are among the west's biggest killers.

Keeping well on an everyday basis does not require doctors and advanced drugs.<sup>cxci</sup> The two biggest factors behind the dramatic gains in health and life expectancy that western countries have seen over the last few centuries were a regular supply of nutritious, uncontaminated food and better sanitation and water facilities. These reduced people's exposure to disease-causing agents and simultaneously improved their ability to fight infection. In the case of almost every disease, including malaria, tuberculosis, typhoid, and pneumonia, mortality rates were declining strongly before any medical therapies or drugs came along. For example, deaths from measles fell by a factor of more than forty over the first half of the twentieth century, before the measles vaccine was even licensed.<sup>cxv</sup>

It follows that, despite the collapse of the health care system, it will be possible to remain well in the dark age so long as one eats sensibly and drinks only water that is free from excess pathogens. It will also be necessary to maintain good psychological health – a positive attitude – for that is linked to immunological fitness. However, there is the problem. After the collapse, the entire disorganised world will come to resemble the worst kind of refugee camp. Public goods like sanitation systems and clean water will quickly deteriorate in the face of neglect. A demoralised population, using unpractised farming methods, will not only be unable to ensure for itself a balanced and consistent diet, but will also have a reduced will to live. Even today, even in the developed world, poverty is invariably associated with higher rates of ill health.<sup>cxvi</sup>

There is also a link to the loss of knowledge that will take place in the dark age. Improvements in sanitation have arisen partly from gains in scientific knowledge that were made during the nineteenth and early twentieth century. These brought to people's attention the importance of maintaining an unpolluted environment. This knowledge is apt to be forgotten in the difficult circumstances ahead. People's dark age descendants will live in squalor because, among other reasons, they do not know any better.

General health, then, is likely to be substantially worse. The medical problems of the dark age will be infections rather than heart disease and cancer. Ailments that seem to have been conquered, like measles, will become significant again, while new ones could arise and sweep like wildfire through a virgin population. Diseases will fall most heavily on children. Infant mortality in the west is likely to rise by a factor of ten or more, to reach third world levels. Those that survive birth and its immediate aftermath will be further whittled down by disease, famine and war. At the nadir of the dark age, the chances of surviving to adulthood might fall to as low as 1 in 2 – compared to near certainty as they are in the west today. To the dark ages, death will be an ever present reality.

In principle, Britain and Europe could perhaps just about survive at present population levels, though practically every man, woman and child would need to work on the land, and they would be reduced to a very simple lifestyle and a simple diet. In practice, however, the ideal conditions which that implies will not arise. There will be an over-correction and crash, as world population – especially the western population, which has benefited most from peace and industrialisation – plummets well below the theoretically achievable level. Before people learn to look after themselves again many will have died from starvation, disease and armed conflict.

The landscape of the developed regions, which has been almost totally designed by humans and is carefully managed by them, will go to ruin. As people stream out of the cities to descend in desperation on the countryside, the broad, even checkerboard of today's agricultural lands will be transformed into a mess of allotments with declining fertility. The forests and the moorlands will be allowed to run wild. Large tracts of fertile land may be abandoned, the fields going through an ecological succession, reverting first to weeds then to woodland. Even the plants themselves may become degraded when today's careful husbandry disappears. Wheat, for instance, reverts to a wild plant within four years, when left to seed itself.<sup>cxvii</sup>

### **Loss of knowledge**

The dark age will be a time of forgetting. This is a good thing. The problems that take the world into a dark age in the first place comprise a series

of impasses involving existing institutions. In the dark age, people will lose not only those institutions, but also the memory of them. There will be no schools or universities. The teachers will be too busy struggling to survive like everyone else. The chain by which knowledge has been accumulated and handed down over the centuries will be broken. Doctors will fail to pass on their craft. The demise of every form of economic specialisation will mean that there is no point in training new generations of specialists. Within decades, knowledge will have been lost wholesale. The entire population will be reduced to the same crude survival skills of obtaining food and shelter and defending what they have.

Academic knowledge will fare worse than practical knowledge. Scholarship is a pure luxury that will be quite unaffordable. History, chemistry and similar subjects will be irrelevant to the basic and immediate problems of day-to-day survival. When Rome fell, a thousand years of medical knowledge was largely wiped out and it took another thousand years for it to be recovered.<sup>cxviii</sup> The people of the post-dark age world will similarly experience a legacy of ignorance in every area. They will need to re-build a complex economy from the bottom up. That will be a slow business.

The world may even forget its own writing, as has happened so many times before. Certainly, illiteracy and innumeracy will be the norm. Literacy survived the sub-Roman dark age, somewhat against the odds, because of the efforts of a tenuous community of churchmen who hid away in obscure places far from the barbarian horde. Something similar may happen in the coming dark age, though one cannot count on it. In any case, it is not only ordinary writing that may be lost. Information is now recorded on videotape and computer disk. People are almost certain to forget how to decode these messages.

Once they have attained some leisure again, those who come after the dark age may crack today's codes as people once cracked the hieroglyphs. (Though that is not a foregone conclusion. Many ancient scripts remain undeciphered.) However, that will not be enough. Today's knowledge will not just be forgotten in the dark age. Even the physical records will be irretrievably lost. The British Library already has a significant problem with disintegrating books and is desperately short of the money needed to preserve them.<sup>cxix</sup> Its collections will not survive the dark age intact. Much knowledge will simply be destroyed by vandals, in the same way that the Library at Alexandria went up in flames, and the learning of the classical world was dissipated in smoke. Recently, one has seen Sinhalese security forces burning the Jaffna public library, and destroying 'irreplaceable literary and historical

documents' related to the Tamil culture.<sup>cc</sup> In Kosovo, Serbian security forces destroyed the documents of ethnic Albanians, in what a NATO spokesman described as an Orwellian attempt to eradicate the historical record of an entire people. This is not to mention the bomb damage inflicted by NATO on Serbia's museums and art treasures. As Samuel Huntington puts it, in wars between cultures, culture loses. In the dark age, this kind of thing will become commonplace.

Many people imagine that another dark age is impossible because everything is being recorded on videotape for the nightly news. They could not be more mistaken. Sumerian clay tablets and medieval vellum manuscripts may be as readable as the day they were written, but remarkably little of what was produced in more recent centuries has the durability to escape history's dustbin. Photographs taken as recently as thirty years ago are already starting to degrade. They are faring less well than the black and white photographs of the nineteenth century, with the colours changing to yield purple lawns and red skies. Eventually the image is just going to fade away. Hollywood films are suffering the same colour shift, while earlier movies are spontaneously combusting as chemical changes in the film make them explosively unstable.

Vinyl records have a life expectancy of about fifty years before the material begins to break down. Acetate recordings, made before the invention of magnetic tape, have already passed their play-by date. Thermal fax paper lasts barely six months before the image is lost. Books printed as recently as the 1980s are turning brown and shedding pages. All this is only what one expects from a descendant society: a passion for cheapness, convenience, disposability, and an obsession with the quotidian articles of the common person. Only ascendant societies are concerned with monumental expressions of the community spirit and create things to last throughout the existence of an entire people rather than for the lifetime of an individual owner.

The arrival of the electronic camera and the videotape makes matters no better. The electronic snap, taken casually (the cost of film is not an issue) and left to languish on the computer hard disk, is likely to prove even more ephemeral than the colour print, which was at least lovingly pasted into a photograph album. Magnetic recordings on audio and video cassettes are relatively stable but can wear out quickly when they are played. A computer floppy disk in constant use may last as little as a year. Disks that are more than five years old are likely to be already corrupted, and the data or programs on them will be impossible to extract without specialist equipment. Even CDs will eventually delaminate after a few decades, destroying the information they contain.<sup>cci</sup>

Physical durability is not the only issue. Possibly even more serious is the obsolescence of recording formats for digital media. Computer punch cards and data tapes, for example, are long out of fashion. Floppy disks, CD-ROMs and other digital media will not be the best ways to record information for posterity. Changes in hardware and software technology may make digital documents unreadable within less than a decade, even before the physical media wear out.<sup>ccii</sup> It is possible that one's descendants, fifty or a hundred years from now, may turn up a stack of one's floppy disks in the attic, and it may well be that the magnetic signal is largely intact. However, the chance that they have access to the computer programs needed to make sense of the files is non-existent. Furthermore, in comparison to interpreting ancient texts, decoding digitally recorded information will prove to be on a higher plane of difficulty. Interpreting a bit stream correctly is impossible without contextual information. Does a byte represent an integer, a real number, part of an image, a logical bit map, a musical note, or a character? The answer is almost impossible to deduce.<sup>cciii</sup>

A number of specialised museums and retro-computing clubs are attempting to maintain computers in working condition after they become obsolete. However, the cost of repairing or replacing worn out components will eventually be prohibitive. In any case, if preserving digital documents is already a problem today, when the incentives for preserving digital documents are high and the skills are readily available, the prospects of anything surviving the ignorance and violence of the benighted times ahead are slim indeed.

To be set against the unlikelihood of survival is the sheer quantity of electronic data generated by today's information civilisation. The tiny chance of preservation multiplied by the vast amount there is to be preserved means that some sort of legacy will remain for the people of the dawn, just as there are many fossils even though fossilisation is an extremely rare occurrence. Those people that come after the dark age will certainly know much of present times. However, it will only be a minuscule portion of all there is to know.

In the final days of the Roman empire, a Suffolk family buried its valuables to keep them from Saxon barbarians and pirates. Presumably, the owners hoped to recover their property when peace was restored, but that did not happen. Britain descended into a long dark age, and the Mildenhall treasure was left to be discovered 1500 years later. It is by such flukes that the history of the present era will also be preserved. Some people have buried time capsules in order to give their descendants an insight into today's world. However, for the most part, the memories of

contemporary world civilisation will be selected capriciously. Some of the names, events and ideas that now seem extremely important may fail to make it through the choke-point of the dark age. Others that are quite insignificant may by chance be remembered. For sure, people would scarcely recognise the notions that future generations will entertain with respect to the way they live today. If one could only know it, one would be amazed at the future's condescending view of today's social arrangements and scientific achievements. One would be amazed at how easily a proud and magnificent civilisation can be enveloped by the once-descending-never-shifting mists of time.

### ***Inventiveness***

A dark age is a highly creative period. When all the old certainties have been swept away, new forms can emerge, like green shoots poking through the ash after the forest fire has passed. The coming dark age will see many fundamental innovations – not with the kind of big science that exists today, but in a highly individualised manner. Across the planet there will be tens or hundreds of millions of tiny communities, isolated from each other, but all deeply concerned with the business of survival through difficult times. These are ideal conditions for the generation of novelty and diversity. Human beings are always more prepared to take risks when the status quo is uncomfortable and undesirable. In the dark age, people will be very open to new ideas.

Today, scientific papers are peer-reviewed before they can appear in the prestigious journals where they have some chance of influencing other people. The refereeing process ensures that the dross is sifted out and saves the scientific community from having to read theories that are ill-conceived and perhaps repetitious of or contradicted by other work. The result, however, is that minute additions to knowledge are made relatively easily, but truly fresh ideas have a very difficult time getting an audience. The whole industry of contemporary science, in which scientists are carving out careers as much as seeking objectively after truth, favours attempts to proceed further down the well-trodden path instead of branching out in new directions. Yet in some disciplines, as one author has put it, it is increasingly less clear precisely what one is trying to find out.<sup>cciv</sup> The dark age will allow people to rediscover their ignorance. They will forget things that everyone now takes for granted. They will be able to look anew at the world and conceive of it in novel ways.

Science and technology will not be the only beneficiaries. During the dark age, one can expect the emergence of new languages, new philosophies, and new literatures. There will not be the homogeneous, globalised culture of today. With the chain of cultural transmission abruptly broken

by the collapse, people will have to elaborate their own forms. In this highly fragmented world, the results will be extraordinarily varied. For as long as the world remains in the grip of the darkness, this creative ferment will continue, each region developing independently.

Many of the innovations of the dark age will no doubt turn out to be duds. The revolutionary

implications of others will not be noticed at the time. None will have any particular impact during the dark age itself. However, when more settled times return, the novel ideas will have a chance to spread. They will compete with each other or combine to produce improved syntheses. Eventually, the best of the best will come to characterise the new age.

### Chapter 37 - The dis cohesive world

#### *Privacy and obscurity*

The dark age will make all forms of association defunct, ranging from the United Nations to the boy scouts and girl guides. Everything that has traditionally brought people together and given them a reason to co-operate will be no more. The opportunities simply will not arise in a world plagued by bandits, whose economy has collapsed. People will not socialise at school or at work. There will be no occasions for people to meet others outside their immediate circle, and no clubs, societies, political parties, or anything else to promote a sense of common interest. There will not even be any television to act as a locus of shared experience.

Today, organised sport is a significant force for social cohesion. Football, for instance, gives large numbers of people in many countries a sense of shared enjoyment that binds them together in fellowship with other fans. They may support rival teams, but they have something to talk about and they enjoy a common understanding of what is important in at least this one area of life. This applies on a global scale, insofar as teams participate in international competitions. It also applies on a local scale, as people participate in amateur sport. Those who play in Sunday leagues are bound in social relationships to their team mates and to people across the region, perhaps even across the country, who share their enthusiasm. They perceive themselves to be part of a wider community, which deserves their loyalty and is worth defending.

In the dark age, however, both professional sport and organised amateur sport will degenerate rapidly. If games are held at all they will be a sorry affair – impoverished, poorly attended, marred by violence, and apt to break up before the appointed time. Before long, they will have become entirely inconceivable. Attending sporting competitions will simply be too dangerous in a disintegrated world, where today's friendly rivalry will have become distinctly less friendly. The same will apply to every other institution through which people and nations socialise with each other. Indiscipline and lack of funds will have rendered them non-viable. People will avoid large gatherings out of necessity, and they will keep themselves to themselves.

The result is that everyone outside a person's immediate circle will become an absolute stranger. People will mistrust each other by default. There will be no way to know what other people think or whether they share values with oneself. Everyone's life will be intensely private and isolated.

One of the casualties of this situation will be the concept of the millions-strong nation. All the things that reinforce a nation's awareness of itself will have passed into oblivion, including

international sport, wars, national holidays, passports, and school history lessons. Even a shared language may disappear as poor communications allow local dialects to diverge. Without such reminders and reinforcers, the idea of nationhood will lose meaning. The very failure of today's nations will positively discourage people from continuing to identify with them. No one will be proud to be English, for example, when England's government and economy have collapsed in chaos.

With the demise of all forms of associative behaviour beyond the level of the family, human social productions will be on a uniformly petty scale. The dark agers will certainly raise no cathedrals and found no great institutions. Even on the negative side of life, people will not achieve anything noteworthy. There will be no epic battles in this highly fragmented world. Anything that requires more than a few individuals to co-operate with a shared purpose will be out of the question. From the perspective of future historians, the dark age will seem like a century or two of non-achievement. It will contain no history, insofar as history consists of events whose significance extends beyond the family circle. History remembers who won the tennis final at Wimbledon, since that event is legitimised and given significance by the participation of millions. However, history does not remember the result when private individuals play a match for their own pleasure. That has no import for anyone other than the individuals concerned. Given that the dark age will provide no mechanisms to legitimise activity through mass participation, it will be a period of private obscurity, composed entirely of events that are unmemorable and unremembered.

The demise of social institutions will also remove the mechanisms that promulgate standardised attitudes and thereby distinguish between valid and invalid behaviour. Today, support for a particular football club or citizenship of a particular nation anchors people to their existence. It gives them a sense of who they are and how they should behave. In the dis cohesive world of the dark age, people will be left adrift, with nothing to satisfy their search for significance or to constrain their behaviour. In every area of activity, there will be no notion of conventionality, whether to follow or to react against. People will be free to define their own standards of conduct. There may come out of the dark age radically new styles of dress for men and women, for example, or new forms of sport and entertainment.

The feverish social innovation of this period will all go unnoticed. The exploits of the dark agers will be like seeds scattered in the woods, unremarked as they fall. One day, as the dark age is at last being dissipated, some new trees will be

seen to be on their way to the skies. By then, any inquiry into their origins will be too late. Those who live in the dark age must give up any hope of leaving their names to posterity. They may found a new royal line, or invent a musical genre that gives pleasure for a thousand years, but their accomplishments will be anonymous. With no public to approve their efforts, such creative individuals may never themselves appreciate what they have done.

### **Narrow horizons**

The sundering of social relationships means that people's horizons will narrow dramatically. They will only be sure that they share values and concerns with their families and perhaps with their near neighbours, engaged alongside them in the daily work of subsistence. In England, say, it will not matter that people a hundred miles away share features of what used to be English culture. The old cultural institutions will have been thoroughly de-legitimised in the collapse, and they will no longer be able to excite feelings of loyalty and fellowship. The legitimacies that matter in the dark age will be private, local legitimacies. The dark ages will be quite sanguine about famine, armed struggle or disaster in communities just a short distance away – assuming they even hear about it.

Beyond this, people will exhibit an extreme lack of altruism and a strong instinct for self-preservation. It will seem quite rational and acceptable to go out and plunder from other people, if necessary slaughtering them in the process. The lives of strangers will be essentially valueless in comparison to one's own desperate needs. Life will be a competitive struggle for survival. Later, when people again begin to perceive that by co-operating and exchanging they can produce something that is more than the sum of its parts, the dark age will be giving way to the dawn.

Humans will, of course, never become lone wolves. However, in this world of everyone for him or herself, the social circle will be drawn very tight. The family or perhaps the tiny local community will be the largest social unit in existence. In some cases, such communities might be derived from associations existing before the dark age. As civilisation collapses around them, the members of a local rugby team, say, might choose to co-operate away from the pitch in the general struggle for subsistence. In an increasingly violent world, they might band together to defend themselves and their families. The group's original nature could then be forgotten within a generation. In such a manner the tribes of the tribal dark age might arise.

Within the narrow compass of the local community, social relationships will typically be far stronger than they are today. Shared experience creates emotional bonds, and the more intense the experience, the stronger the resulting bonds. The travails of the dark age will engender deep mutual

understanding in those who face danger together. Today, families may dwell in the same house but barely know each other. Television and computer games, or external clubs and social activities, allow them to live on top of each other without ever making contact. In the unforgiving times ahead, families will interact far more intensely. They will be raised to a life of co-operation, and a brother or sister, say, will be a lifelong companion to be cherished and protected.

Whereas today cohesion is diffuse but extends far and wide, in the dark age it will be intense and highly focused. The solidarity of the local group – the extended family or perhaps a handful of families – will be immense. Its strong social bonds will compensate for the surrounding darkness. There will be no public welfare system, but people will be able to rely on their circle of intimates to help them through any difficulties. The key social institutions will be those of the foraging band, with their emphasis on egalitarianism and mutual aid.

Some larger associations might also be able to maintain a precarious existence during the dark age, just as the Christian church survived after the Roman collapse. Not only religions but also international charities or trans-national companies could provide a continuing focus for their members or employees during the dark age. If the leaders are sufficiently resourceful and charismatic, they could keep these associations alive through the darkness. However, they will need to broaden their scope to encompass co-operation in every aspect of life's struggle.

### **Bloodbaths**

During their years of ascendancy, the rich countries have attracted migrants from all over the world. Their populations are quite ethnically diverse and will become more so as the descent continues. At the same time, a growing ideological emphasis on toleration is encouraging minority groups to preserve their distinctive identities and to gain in self-assertion. While this approach may seem only humane and civilised during a time of strong government, it will be increasingly revealed as disastrous the more that political authority diminishes.

In 1968, Enoch Powell said controversially that Britain must be mad to encourage immigration, and he foresaw 'the River Tiber foaming with much blood'.<sup>ccv</sup> Since he spoke, there has been little sign of the predicted river of blood, and it may be thought that Powell was mistaken and being too dramatic. However, these things take time. According to social psychologists, it is only when the proportion of strangers in the population goes above 20 percent that fear and aggression really begin to break out. Britain and other European countries are barely half way there. The ethnic balance continues to shift, however, and one can expect that Powell will be vindicated. He was,

after all, a classical scholar who well understood the forces that pitched the Greek and Roman civilisations into the abyss.

Jared Diamond, in discussing his fears about humanity's future genocidal acts, has mentioned some optimistic signs, including the fact that people are living peacefully together in the United States and that television fosters empathy for people a long way away.<sup>ccvi</sup> These grounds for optimism are rather tenuous. Racial tensions remain problematic in the United States, and there is little evidence that people in general are much moved by the unreal images of suffering they see on their television screens. In any case, feeling sorry for a pot-bellied child in an African refugee camp is not the same as learning to love one's ethnically different neighbours with their strange customs and language. If ethnic diversity is not currently a significant cause of conflict in the rich countries, it is also because these societies continue to be held together by reasonably strong political and economic bonds. Most people are adequately provided for and have a substantial interest in maintaining the peace and the status quo. As the high tide of integration and organisation recedes, underlying cleavages of interest will be revealed, and the frictions between different groups will become more obvious and more explosive.

The consequences of this have recently been demonstrated in the Balkans (not for the first time). Following the collapse of communism, combined economic and political difficulties led the Yugoslav federation to break apart in a welter of ethnic hostility. This is an exemplar of what will happen in every part of the world where communities are intermingled and disintegration is taking place. At the final collapse, every nation will dissolve into incomprehensible feuding between different groups. The groups will be attempting to create areas of territory entirely clear of each other, around which a border can be drawn. The worst clashes will occur when the distinct communities have equal claims to be natives. These are conflicts of right against right, in which every side is prepared to fight to the death. In the United States, for example, the black population is no more an immigrant community than is the white population. However, white militias there are on the increase and openly declare their readiness for the wars that are to come. This will not be a matter of expelling the latecomer, or of driving people back towards their heartland. It will necessarily involve a total strife of neighbour against neighbour.

In the dark age, nothing will keep in check feelings of ethnic hatred. There are likely to be some terrific massacres, even in places where ethnic groups seem to be co-existing today in a state of mutual respect. This will be a bloody period as well as a dark one. One result will be significant population movements, as people drive

away minorities by means of repeated atrocities. When the refugees arrive elsewhere, they are likely to cause trouble for the people already living there, since they will have no means of subsistence and few supplies. They will be hungry and angry. Either the inhabitants must successfully defend themselves, forcing the refugees to move on, or they are likely to be killed or driven out in their turn.

Ethnic cleansing, which might less provocatively be called population displacement, will be a solution to ethnic conflict. Of course it is vile to drive people from their homes over cultural differences, but it does have the effect of eliminating the source of tension. While achieving universal tolerance and love might be another solution, in five thousand years of history there has been little evidence of that.

A compensating feature of the dark age will be that ethnic conflict proves largely uncoordinated and unsystematic. It will be just one more poisonous element in the war of all against all. If disintegration is very rapid, ethnic cleansing may never have a chance to get off the ground. People may be reduced to self defence at the household level before their tribal allegiances can produce much of an effect. Rather than a clear demarcation between ethnically similar and ethnically divergent people, there will more likely be degrees of enmity. White family may butcher black family and vice versa, but whites or blacks will not come together in large numbers explicitly to destroy the other.

During more ordered times, the victims of ethnic outrages preserve the account of where they have come from and of the wrongs that have been done to them. Feuds smoulder and the desire for revenge is handed down through the generations, until eventually conflict flares up again. The dark age, by contrast, has the capacity to obliterate social memory and therefore to dull the aching for revenge. What happens in the dark age will happen, in effect, under the cover of night, to a world that is sleeping. When the dawn comes, and people wake to some new identity, they will accept their situation as the simple reality. In the absence of a sense of history, there will be no status quo ante to which they long to return. It is the literate and educated who usually do most to foster ethnic resentment, and the dark agers will be illiterate, ignorant people, concerned with practical matters of everyday survival rather than abstract issues of ancient injustice. If the people of the dawn remember anything of their origins, it will be as legends that do not rouse them to murderous fury.

In this respect, the dark age may resolve ethnic hostility by actually erasing the awareness of inter-ethnic difference. A dark age is a melting pot, and today's divergent cultures will be thrown into it, allowing a new, homogeneous culture to be forged from their various elements. In effect,

fighting might become so general and so desperate that no coherent sense of ethnic identity is able to survive. Afterwards, the exhausted population might come together to build a new identity because every former identity will have been drowned in blood.

Having said this, the physiological differences between human populations could hinder the obliteration of ethnic consciousness and may continue to be taken as a marker for cultural difference, which then becomes a self-fulfilling prophecy. However, in many cases, such as the republican-unionist conflict in Northern Ireland, the physical differences are actually slight or non-existent. One may reasonably hope that those hatreds will be eradicated during the dark age (though the intervening process will be far from benign). On an optimistic view, even where obvious differences do exist, these could be rendered immaterial by people's returning desire to escape from universal savagery. After all a Swede does not look like an Italian, yet the two are relatively unaware of their physiological differences as they participate in a shared western Christian civilisation. In a similar way, the dark age may allow new cultural realities to emerge and to transcend much grosser differences of appearance.

#### **The consolation of faith**

Religion, as everyone knows, has been responsible for a veritable flood of blood over the ages. Clearly, people's creeds are at least as powerful as racial differences in governing their loyalties and enmities. This supports the notion that, after the dark age, a newly forged culture might overcome and subdue ethnic consciousness. In effect, religion could overcome race.

During the dark age itself, there will be no shared religion. Yet religious sensibility is an essential component of human sociality. Many people desire the consolations of conventional thinking. They seek authoritative answers to the mysteries and difficulties of existence. The failure to supply such answers leaves people unfulfilled and adrift. According to the philosopher José Ortega y Gasset, the problem of today's youth with no religion is that having become free it feels itself empty. Before long, he predicted, there will be heard throughout the planet a formidable cry, rising like the howling of innumerable dogs to the stars, asking for someone to take command, and to impose an occupation or duty.<sup>ccvii</sup>

This howling will be heard throughout the collapse, and it will stimulate a new enthusiasm for explicit religious faith. The people of the dark age will be uneducated. Most of them will know nothing of the scientific advances of the last century or so. The natural world will be enigmatic and its ways unintelligible. These people will know little of history and geography, other than some rumours and tall tales. At the same time, they will

experience much suffering. Their children will die before them. Their property will be plundered. Their spouses will be murdered in some senseless attack. They will be ready for the solace of religion and its offer of certainty in an extremely uncertain world.

The resurgent religion will be highly fragmented among numerous, localised communities. Each group will have its own particular interpretation binding it together as a cohesive unit. Nevertheless, within this motley picture, a selection process will be taking place that will eventually establish the great religion or religions of the subsequent era. The dark age will present a particularly stringent proving ground. Only those faiths that successfully inspire their adherents to prevail over natural and social adversity will thrive and spread. With the arrival of the dawn, a widely shared religion, at society's heart, will once again become a common part of experience. In the same way, Christianity emerged from the Roman collapse as the victor of a competition between many quite similar mystery religions, some of them having once been serious rivals.<sup>ccviii</sup>

One of the religions coming through the dark age may be a derivative of Christianity. It will not be mainstream Christianity, for that is associated with the old civilisation, which will have long been de-legitimised, and will be to all intents and purposes defunct by the time of the collapse. However, some version of the Orthodox church may survive in Russia, where it is associated with a counter-movement reacting against that country's twentieth century experience. In the western countries and in Africa, the most likely thing is that some form of Islam will replace Christianity. Islam may also prevail in east Asia, but Christianity perhaps has an equal chance, given its growing popularity there, especially among overseas Chinese. Alternatively, new cults like Aum Shinrikyo or Falun Gong could flourish through the dark age and eventually become the orthodox faiths of Japan and China.

Islam is a prime candidate to be the religion that emerges from the dark age because it presents the most vocal challenge to the values of western civilisation, which are in effect the values of the present world order. Islam is not tainted by association with the corrupt and failed institutions that will be swept away in the collapse. On the contrary, it has tremendous credibility because of its sustained critique of those institutions. Radical Muslim leaders are the first to point out the depravity of western countries.

In its present incarnation, Islam is also an ideal religion for appealing to the oppressed and those who are experiencing hardship, just as Christianity once was. It demands self-discipline and sobriety. It is egalitarian. It is forceful in its beliefs. It

provides its adherents with a sense of rightness and dignity, whatever the troubles and insults that come their way. Furthermore, Islam explicitly promotes social cohesion. It is uncompromising in its treatment of apostates and criminals. It emphasises alms-giving and hence Muslims' obligations towards their co-religionists. Islam also continues to be a martial religion, and one that still believes in making conversions at the point of a sword. This tradition will be of obvious value in the violent world of the future. Thus, Islam has significant assets when it comes to finding a religion that can overcome the social atomisation of the dark age. Its self-assured followers will certainly pass through these difficult times more easily and more intact than self-de-legitimised Christians.

In consequence, the achievements of the next era are likely to be Islamic achievements. The next people to set foot on the moon, say, or the first explorers on Mars are very likely to be Muslims. Yet during the dark age, the Muslim faith will experience its own fragmentation, and there will be experimentation with new ideas and interpretations as in every other area of cultural activity. Islam will be imbued with the potential for continued evolution during the dawn. Thus, Islam will gain as the world cries out for cohesion, following the bitter experiences of the darkness. However, as the pendulum swings back again towards discohesion, after one or two thousand years of the new era, it too will eventually become secular and latitudinarian.

### **Moral restoral**

The harsh realities of the dark age are bound to re-orient values, attitudes and beliefs in the direction of sobriety and prudence. People usually make a virtue out of necessity. Flamboyance will be replaced with asceticism, for flamboyance is nonsensical when one has nothing. Similarly, the dependent grab-it mentality will give way to stoicism and self-restraint, for there will be no one to grab from. Cheating the community will now imply cheating one's own family and close friends. Freeloaders will stand out and will be unlikely to get away with it. Their associates will soon put them right. Standards of behaviour will be actively imposed, although beyond the tightly cohesive, local community there will be complete amorality. Rape, murder and theft will hardly even seem reprehensible so long as they are practised against strangers.

Since dark age communities will be small, the pressures they put on their recalcitrant members will be relatively limited. Those who are prepared to put up with continual harassment as black sheep can probably behave much as they like. People will also have the option of getting out altogether, since each community will be a tiny island of cohesion in a discohesive sea. The more adventurous and free-spirited will be able to leave their families and

try their luck, albeit in a world of considerable danger. In this respect, the dark agers will be more fortunate than those who come afterwards. The societies of the dawn will retain the same sober values but will have effective political structures to reinforce moral suasion. Reprobates are then likely to get more than just their neighbour's sharp tongue.

Sexual mores in the dark age will tend to re-emphasise female chastity and men's obligation to women, primarily for the latter's benefit even though it may not always seem like that. In many ways, women may find themselves particularly free during the dark age. In tiny, private communities with no formal politics to speak of, their roles will loom large. They will certainly have no difficulty asserting themselves. To the dark agers, any notion of women as an inferior or weaker sex may be quite alien. However, this will not necessarily be an advantage. In Africa, as it veers towards the dark age, women play a vital role in keeping the economy going while their men are off fighting.<sup>ccix</sup> They are responsible for their own lives, but in an environment where suffering and hardship are the norm. In a similar way, the women of the dark age may bear the brunt of sustaining their families through difficult times. They will be tough and their status will be high, but they are still likely to feel themselves put upon and disadvantaged.

Though women will have every freedom and opportunity in principle, in practice their options will be severely limited. Most people in the dark age will probably prefer the security of their local group to the dangers beyond it, albeit that that means subjugating their will to the community. Both men and women are likely to fall back on a stereotypical division of labour. Women, whose lower reproductive potential makes them more precious than men, will generally stay within the settlement taking the lead in childcare and home making. Men will venture beyond it to take part in dangerous activities like plundering and feuding with other groups. While women will be free to join the raiding parties, few will choose to do so. The dark age will be an uncomfortable time for everyone, and a time when people curtail their own desires for the greater benefit of the group. Relative to the women of the descent, those of the dark age will probably enjoy fewer choices, work far harder and settle for more traditional roles.

Moral renewal will also be reflected in art and philosophy. Very little will actually be produced during the dark age itself, since people will have more pressing concerns. However, the dark age will set the scene for what comes after. It will establish a new simplicity and directness that replaces the self-regarding cleverness of the descent.

During the dark age, artists will not be specialists but ordinary people with some spare

moments and a creative urge. There will be no critics and no public market for whatever they produce. Art will be created purely for personal satisfaction, and not to impress others. Today, artists strive for dazzling metaphors, for originality, and for fame. Such striving will be pointless in a world of ignorance and chaos. The dark age will wipe away the notion of signature, i.e. the attribution of artwork so that its creator can receive appropriate plaudits. The artists of the dark age will be untrained and lacking in leisure, so their artistic productions are also bound to be crude and ephemeral. They will gain satisfaction simply from releasing their pent-up creativity and not from cherishing the result. This kind of art will not leave much impact in the archaeological record.

When the dawn arrives, and people have more leisure, artists will begin to refine and eventually take to heights of extreme virtuosity the styles pioneered by the dark agers. The dark agers may themselves leave nothing to posterity, but theirs will be the time of greatest creativity when, having broken with the past, people take the first steps to produce radically new styles. Those first steps are the hardest and, for all their skill, the artists of the new era will really only be building on the invisible achievements of their predecessors.

While philosophy is perhaps too grand a word for the dark age, there will certainly come into existence new ways of looking at the universe. People will return strongly to the notion of life as a struggle against an implacable natural world. Conquering and subduing that world will seem to be a right if not a duty. Making things better for oneself and one's close associates will be thought entirely proper, regardless of any effects there might be on people far away or on the environment in general. All kinds of sentimentality that have accumulated during the descent will be swept away. There will be a new receptivity to technologies that are today objects of fear and

suspicion. In a time when death from disease and general savagery is an everyday reality, the remote risks posed by nuclear radiation and genetic engineering will be thought quite irrelevant. Anything that offers relief from the daily hand-to-mouth struggle of the subsistence farmer will seem worth a try.

These ideas will really come to fruition during the dawn, when humans go out to build a new world rather than conserve the old one, with renewed confidence in the legitimacy of their activities. The dark age will introduce the framework of ideas that allows people to build nuclear power plants in their backyard, or to tinker extensively with the genes of their crops. Things that seem unacceptable to today's societies will be rendered acceptable due to the dark age's legacy of realism and boldness. Humans will then be able to realise long term benefits despite any short term difficulties that may stand in the way. They will, for example, be able to explore space aggressively despite the inevitable accidents, in which large numbers of people are bound to die, and despite the fact that the pristine moon will necessarily be polluted with human waste.

Overall, the dark age will eliminate the bloatedness and self-centred vanity of the descent. People will have learned to bear hardship and to delay gratification. They will also have become somewhat indifferent to the hardships borne by others and will be prepared to sacrifice the individual for the benefit of the greater whole. These are precisely the qualities needed to achieve great things. The dark age itself will be an inglorious time, but within its shadowy horizon the seeds of glory will be sown. Just as today's moon-conquering civilisation has exceeded in brilliance all those that have gone before, so it will be eclipsed in turn by that marvellous civilisation which begins to unfold with the coming dawn.

### Chapter 38 - The political recovery

#### ***Re-urbanisation***

Even historians, who traditionally think in terms of events and turning points, will find it impossible to pinpoint the moment at which the dark age ends and recovery begins. The mists will lift only gradually, no doubt with frequent reversals and not everywhere simultaneously. There will be no specific point at which opacity becomes transparency. There will merely be strengthening trends and a growing sense of continuity in the historical record.

One clear sign that the world is moving from darkness towards light will be the return of urbanism. This will be on a small scale at first, with settlements of between a few hundred and a few thousand people. They will be heavily defended, and with good reason – fighting will still be endemic. This fighting of the early dawn will distinguish itself from that of the dark age by being better co-ordinated. It will deserve to be called warfare as opposed to sporadic skirmishing. Its practitioners will be armies, albeit small ones, rather than mere raiding parties.

Some of the earliest technological activity of the new era will involve re-inventing and elaborating the most vicious of today's armaments, especially nuclear weapons. Under the extreme competitive pressures of that time, people will probably soon surpass today's military know-how. One of the areas where competition will be fiercest will be in developing defences against nuclear weapons. Town walls will obviously not be enough. The development of anti-nuclear technologies or missile shields may be regarded as a *sine qua non* of the world's emergence from the dark age.

The shift from darkness to dawn will mean a shift from private feuding to the carving out of new nations. The warriors of the dawn will not just rob, kill, burn and then return to camp. They will seek to subdue the settlements they attack and secure regular tribute from them. There will be a great contest for territory played out over centuries. In due course, often with leaps forward as some grand figure charges through history, the world's future boundaries will be laid down. These boundaries will be just ones, defined in a fair fight by the peoples they separate. It will only be by chance or topographic necessity that they resemble the boundaries of the present era. This need to redraw the map of the world is a factor affecting the length of the dark age. The world will only begin to recover once the contradictions and injustices inherent in today's geography have been thoroughly forgotten and resolved.

The return of urbanism will also mean the return of electricity, of the internal combustion engine, and of other technologies that prove impossible in the tiny self-sufficient communities

of the dark age. The political and economic recoveries will go hand in hand. Money will be reintroduced under the patronage of the new authorities. As the town walls come down and ever larger areas are pacified, trade will accelerate. During the dark age, all humans will have been equally abject. As the dawn proceeds, they will soon be differentiating themselves again into rich and poor, powerful and weak.

#### ***Autocracy and achievement***

The military leaders who restore political integration during the dawn will not be democrats. When they take power, it will be for themselves and to exercise it for their own advantage. The dawn will see the return of executive kingship throughout the world. Beneath these kings and queens will be their former henchmen, who will become counts and barons. The latter will have their own arbitrary power over people living on the lands that have been given to them.

The political leaders of the dawn will be charismatic and ruthless. Some may be kind to those that they rule. Others may be cruel. As decades turn to centuries and supreme power passes to the children, grandchildren and great-grandchildren of the dynasty's original founder, political authority will become institutionalised and bound around by convention. Tempering it in this way will also serve to legitimise and hence perpetuate absolutist power. It could be a thousand years before the people succeed again in governing themselves.

For much of the new era, there will be no such thing as the universal franchise. The world will be the better for that. Democracy shoulders much of the blame for the overheads that are conveying western countries towards the dark age, as people vote themselves ever larger subsidies and ever less work. When these plebeian interests are disempowered, societies will recover a sense of sublime purpose, and wonderful things might be accomplished.

The time of greatest ascendancy will be perhaps some five hundred to a thousand years into the dawn, when law and order have been re-instituted over most of the globe but governments are still in the hands of a relatively few people. The political authorities will command tremendous resources, which they will be able to exercise without opposition. This will result in an age of monumental achievements reflecting the huge ambition and vision of those authorities. They will be able to pursue grand projects, such as launching human civilisation onto the moon and Mars, unperturbed by the tribulations and sacrifice of the ordinary people who bring these projects to fruition. Later generations, when the new era is itself becoming old, will take those projects forward but in a degraded manner. As life becomes

precious again and the commoner calls the tune, it will be impossible to reproduce the vaulting grandeur of those few exceptional centuries.

For ordinary people, the dawn means a kind of slavery. They will be subjected involuntarily to the rule of another. They will be subordinate to a government in which they have no representation. There may be a return to essentially feudal institutions, i.e. the manors and latifundia. The commoners will experience the personal control of a local authority. Their work will be in large part dictated to them. They will be forbidden to travel at will. Yet there will be compensations for their relative lack of liberty. There will be no unemployment. Everyone will be given a role and a place in the community. Inadequate people will not be allowed to fall through the cracks into utter desolation as they are today. They will not be given the dole and allowed to fritter it away on lottery tickets. Those who cannot govern and discipline themselves will benefit from the government and discipline of some local lord.

Even in this less free society, there will still be openings for those with talent and ambition, just as there have been in every period of history. An expanding, dynamic and vigorous world will continually be throwing up opportunities. Talent must always contend with prejudice and ignorance. In one era, it is the prejudice and ignorance of the enfranchised masses, in another, that of an entrenched nobility. In neither case, is such opposition insuperable. Every era has its special difficulties and its peculiar rewards.

The winners under today's order may look with distaste on the prospect of a world with much less equality and freedom than they have now. However, today's losers, for whom that freedom and equality are purely nominal, may think that the authoritarian societies of the dawn offer things that are even more important – certainty, harmony, justice.

#### **A new world order**

The Great Seal of the United States promises in its inscription a 'new order of the ages'. In fact, the founding of the United States and its rise to superpower status did not usher in a new order of the ages. Rather it perpetuated the ascendancy of western civilisation, which has continued to shape the world for its own benefit. Today, the west's dominance in every sphere is so ingrained that westerners can hardly conceive of the injustices that it represents. It seems only natural that they should be well fed while millions are starving and have only filthy water to drink. After all, it cannot be the west's fault – can it? Similarly, though it may be saddening, westerners find it quite usual that many backward countries are embroiled in frequent conflict. Again, it cannot be the west's fault – can it?

In fact, there are good grounds for thinking that the west is indeed culpable to a considerable degree for the problems of the more disadvantaged nations. To establish this does not even require going back fifty or a hundred years, to the time when western countries quite unjustifiably made large numbers of people around the world second class citizens in their own countries. Even today, right now, western businesses and intelligence agencies are deliberately or incidentally undermining third world governments and economies, in pursuit of strategic goals.

Over the last decade, for instance, Iraq has been under siege by an American-led coalition. At some periods, scarcely a day has gone by in which Iraqi citizens were not killed by allied bombing. Sanctions imposed by the western-dominated United Nations have denied Iraq all sorts of medicines and other supplies, resulting in a shocking mortality rate especially among children. The west argues that the true blame for this situation lies with the Iraqi regime. It accuses the regime of maldistributing the resources available. Yet this is disingenuous, since if the sanctions did not inherently cause hardship there would be no point in them. The west also notes that the regime could lift the sanctions at any time merely by complying with allied demands. However, this is effectively admitting a preparedness to cause the deaths of many innocent Iraqis (children are certainly innocent), in order to undermine the lawful ruler of their country.

The west presents its conflict with Iraq as one of good against evil. To be sure, Iraq violated the sovereignty of its southern neighbour Kuwait and behaved brutally while it was in charge there. However, the west came to Kuwait's aid not for moral reasons but because a non-compliant state like Iraq could not be allowed to be in charge of so much of the world's most precious commodity. Until oil was discovered there, British foreign policy was to regard Kuwait as disposable and not worth fighting over. The west still turns a blind eye in parts of the world, notably Tibet, where the same scenario is being played out but the strategic issues are unimportant. Furthermore, Kuwait was itself an arbitrary creation of western imperialism, and contradicted a centuries-long tradition of Iraqi influence over what might be called Greater Basra.

The west disciplines Iraq, in a fashion that one author has termed genocidal, because Iraq's attempts to shape the world for its own convenience are unacceptable in a western-dominated world. The west cannot allow Iraq to acquire the weapons of mass destruction that it has itself introduced to humankind. It deplores the invasion of Kuwait, even though the west has itself engaged in this kind of behaviour. The heyday of western imperialism may be one or two centuries ago, but that is not so long in the eyes

of the people who were on the receiving end. It is all very well to say that it is all in the past and other countries should grow up and forget about it, but as the winners the west would say that. Understandably, the losers take a different view. Westerners may think that they have now seen the light and are therefore justified in preventing others from repeating their former wicked mistakes, but that is pure effrontery. A century ago westerners believed it to be justifiable to slaughter the un-Christian and benighted American Indians on a massive scale. Now, one hopes, people think differently. Perhaps a hundred years from now it will be discovered that the west's current behaviour is also not as enlightened as people presently think and that contributing to the deaths of half a million Iraqi children was not so morally auspicious after all.

Iraq is just one example of many. The west continues to punish Libya in much the same way. The United States has maintained sanctions against Cuba for forty years, essentially because it disapproves of the ideology of Cuba's leaders. In 1999, the US fined two British models tens of thousands of dollars just for meeting with Fidel Castro. In these disputes between the west and so-called rogue states, it is largely a matter of western might being right. For half a millennium the west has acquitted itself around the world in a frequently corrupt and always arrogant manner. It has never stood for the world interest, but only for its own interest. As hegemon, the west has supplied the public good of peace and order and, from that perspective, can be said to have benefited the world as a whole. However, to many people in other countries, such dominance is hateful and its end is to be hastened as far as possible.

The point is that there is nothing especially good or especially necessary about the present world order, in which the west holds all the advantages. There is no reason why it should be re-established after the dark age. On the contrary, when the political recovery takes place, there is likely to be a genuinely new order of the ages. This may mean that the west is not only unable to prevent Iraq invading Kuwait (or their future equivalents) but also cannot avoid being invaded itself and perhaps incorporated into some empire or other. The world recently celebrated the end of the second millennium, which was essentially a western milestone. It did not know to celebrate the first. It is extremely unlikely that the world will ever celebrate the third millennium. By then some other kind of dating system, belonging to a quite different civilisation, will probably have taken over.

Until the late 1990s, Japan appeared to be the world's hegemon-elect. East Asia's fin-de-siècle economic woes have taken some of the shine off that apparent promise, but the descent could still

see some significant shifts in world power, to Japan or elsewhere. However, the dark age will wipe the slate truly clean. Japan could emerge as world leader in the new era, but so could any other region. Even a resurgence of the west is possible. In the long run, the dawn will see several power centres vying for supremacy, just as in every other era.

Colonel Gaddafi, apparently, notes that the world was dominated first by the yellow races and then by the white races. On this basis, he believes that the black races will be next.<sup>ccx</sup> Nevertheless, few commentators today are hopeful about the prospects for peaceful improvement in sub-Saharan Africa.<sup>ccxi</sup> They are surely right. Africa is not going to turn around quickly. This side of a dark age, its situation is hopeless and will become more hopeless. The coming catastrophe, however, will yield the things that Africa now so desperately lacks – just borders and strong governments. During the dawn, Africa will be starting from scratch like everywhere else around the world. It will be a fair competition.

To many people, sub-Saharan Africa seems a place of utter despair. Yet it is not intrinsically backward. That is just a recent western assumption.<sup>ccxii</sup> The view that Africa's present prostration is an inevitable consequence of poor climates or insufficient resources does not stand up to examination. Still less convincing is the idea that black people are condemned to an inferior position because of some intellectual deficiency. Even if the researches that show racial variations in intelligence are assumed to be valid and meaningful, these refer only to marginal differences in average scores. There are still many highly intelligent black people. It is also not clear that performance on intelligence tests has anything to do with a people's achievements. Otherwise, why would white races now dominate the world, rather than Asians who consistently do better on these very same tests?

Africa's problems are not intellectual or geographical. They are historical and sociological. Angola, for instance, has oil and is relatively wealthy by African standards, but it has long been deeply divided by civil war. That is what holds back the country's development. Angola has not really been at peace since rebel activity encouraged the Portuguese to withdraw in the 1970s. Since then Cubans and South Africans have fought each other on Angolan territory, favouring different factions in pursuit of geopolitical or ideological interests. The United States has also interfered, as have Russia and China, often without clear or consistent aims.<sup>ccxiii</sup> In these circumstances, Angola has never really stood a chance of achieving stability. Similar stories can be told for most of its neighbours.

The longer and deeper the dark age, the greater the chances of resolving Africa's horrendous predicament. It could therefore be considered fortunate that the continent is in the vanguard of the world's current movement towards chaos. Africa may well have the time that it needs. Once its many contradictions have been resolved, it will then contain the promise of great things. Its people are certainly no less competent than any other. When the dawn arrives, the world may at last see what Africans are capable of.

In fact, the Africans are likely to have made the world their own during the dark age, for they will have swarmed all over the rich lands as the new barbarians. When the smoke of the dark age lifts, they may well be found to be in control of key parts of the planet. They will be the new aristocracy in regions far from their (now forgotten) homelands. The formerly ascendant Europeans will cringe before these haughty paragons. A bold but reasonable prediction is that the next era will be the African era. That will be sweet revenge. The most despised basket cases of the present day, the people that the world writes off, will soon lord it over the planet. It could be only a dark age away.

China, in contrast with Africa, is one of the longest civilised areas on earth. It surpasses even pharaonic Egypt in continuity. This might make it seem an unlikely candidate for dominance in the next era. However, China retains a robust sense of its fundamental superiority. Its failings in the present world order have been due not so much to a lack of talent as to a lack of challenge. It has reaped a bitter harvest because of its complacency of four or five hundred years ago. In the twentieth century, the Chinese people were still thrashing around as though looking for the quick fix that would propel them to their proper position.

The Chinese may have learned their lesson from these experiences. A dark age could provide them with the breakthrough that they have recently been denied. They will certainly be formidable opponents when the dark age has equalised advantages somewhat. The formerly ascendant west is likely to emerge into the new era in a state of shock, but China could prove more resilient thanks to its twentieth century anguish and privations. Chinese people certainly have a more realistic view of the world than cosseted westerners and this will be to their advantage when it comes to exploiting opportunities in the turbulent times to come. The worse the predicament that China gets into before the dark age, the better its chances on the other side. If the country gets involved in devastating nuclear wars with its neighbours, while cracking up internally, then the next era could well be a Chinese era. If, on the other hand, China undergoes a late flowering while much of the rest of the globe is slipping into darkness, then

somewhere else will probably be seizing the initiative thereafter.

Russia resembles China in these respects. It is making less of a success of things today, but Russia will not necessarily continue to collapse the way it has been doing. It may actually turn itself around in the near term, and begin to realise some of its huge latent potential.<sup>ccxiv</sup> However, the most probable thing is that Russia's progress will be generally downwards in the short to medium term. That will mean it enters the dark age sooner and emerges better refreshed than most places. It must then be considered a prime candidate for greatness in the time that comes afterwards.

Other possible candidates for world hegemony during the dawn include Oceania, Latin America and the middle east. These regions are more or less culturally homogeneous while being politically divided. General fighting during the dark age might perpetuate this condition. At the dawn, they may find themselves with the strengths of unity in diversity,<sup>ccxv</sup> i.e. purpose, vigour and inventiveness – the qualities that supposedly allowed Europe to flourish over the last few centuries. Typically, these regions are likely to find themselves engaged in chronic internecine conflict as new nations are created during the dawn. Subsequently, as their regional polities mature, they may burst forth into an unsuspecting world – if, that is, the Africans, Chinese or Russians have not beaten them to it.

Europe is unlikely to be in the ascendant again during the political recovery. Nevertheless, Europeans have shown themselves to be extremely energetic and resourceful for a thousand years. They should not be written off. A short sharp shock of a dark age would provide the best chances of Europe reprising its hegemonic achievements in the next era. This might wipe away the bloated welfare states and big government, while leaving intact the continent's advantages in capital and know-how. European civilisation would be renewed and still in front of its competitors as the race for political recovery begins. A dark age lasting no more than twenty five years (like Egypt's intermediate periods) would be good news for Germany and Switzerland, say, and bad news for Thailand and Somalia.

The journalist David Smith has explored five possible scenarios for Europe's future.<sup>ccxvi</sup> 'The renaissance' would see Europe becoming peaceful, politically integrated and economically vibrant in a world where predictions of Asian dominance have proved fundamentally misplaced. 'Plus ça change' would see continued economic growth but no political union, and a gradual loss of market share to Asia. 'Les étrangers' would mean a core of states becoming united in economic union while the outsiders, including Britain, drift to the fringes and even leave the union. 'The dark ages' would involve economic decline and high unemployment

with Europe failing even to survive as a free trade area. Finally, ‘the apocalypse’ would see Europe dissolve into tribalism and economic devastation, coming eventually to a major war. (What Smith calls ‘the apocalypse’ is in fact closer to the notion of a dark age as defined in this book.) Smith regards ‘plus ça change’ as the most likely scenario, at 35 percent, but he also considers ‘the dark ages’ and ‘the apocalypse’ to have probabilities of 20 percent and 10 percent respectively.

Smith is really talking about fluctuations taking place over the next few decades, i.e. the period of the descent. However, these scenarios could also be regarded as possibilities for Europe’s recovery from the dark age. The more optimistic scenarios would follow on from a violent but abbreviated episode, the more pessimistic ones from a protracted dark age of deep forgetting and institutional destruction. The latter are surely the most likely, given that the coming dark age follows an unprecedented elaboration of human society, and will probably be the biggest retrenchment the world has ever seen. In all likelihood, as the dawn unfolds, Europe will increasingly be seen to be the new third world.

One might make the same comments for North America as for Europe. However, there are differences. The United States has climbed the highest of all, and the catastrophe that is brewing there puts Europe’s problems in the shade. It is ethnically more heterogeneous, and there is more stored up resentment. There are also fifty states that the dark age will release from their federal bondage. A divided United States may emerge from this catastrophe far weaker than it is today. On the other hand, its success in this era has not been uniform, and its failure in the next era may not be uniform either. Some parts of the United States could emerge with a new vitality. After the upside down experiences to come, those regions that have been falling behind, and those groups within the American population that have failed and are already in darkness, may return a reinvigorated country to the forefront of world affairs.

Eventually, the dawn might yield some more just and equitable way of conducting international relations, as an alternative to conquest and imperialism. After all, not everything is forgotten in dark ages and people do learn from their predecessors, primarily in technology, but to some extent in human institutions as well. The United Nations was a terrific innovation of the twentieth century. Though the idea had been around for a long time, it first came to fruition then. The UN (and associated international institutions) will be exterminated in the dark age, and will play no role during the early part of the dawn, but some such world forum may be reconstituted quite soon

during the political recovery. The first truly powerful political authorities of the next era may seek to wrap themselves in the legitimacy of the old UN, just as Frankish kings of the early middle ages declared their territories to represent a revived Roman empire. The new UN will not be anything like the old UN, but it will have considerable evolutionary potential. The human race learns slowly, with much backsliding, but the world will surely be more civilised a thousand years hence, and a world forum with legislative powers and effective mechanisms of conflict resolution may play an important part in this.

### **World integration**

H G Wells, as one futurist notes, predicted many things quite accurately. In 1901, he foresaw that the twentieth century would produce urban sprawl and roads full of trucks and cars, that air travel would be a commonplace, and that chemicals and labour saving devices would remove the need for servants. He also predicted that wars in the twentieth century would be total wars, including the use of atomic bombs, long before the latter had been invented. Other predictions included spaceflight in 1898, worldwide television broadcasting and x-rated video cassettes in 1899, lunar landings and moon-earth radio communications in 1901, atomic energy in 1913, a postwar ‘peace league’ in 1914, the failure of the League of Nations in 1921, the downfall of Italian fascism in 1927, a new world order run by transnational corporations in 1928, and intercontinental ballistic missiles in 1932. In his book *The Shape of Things to Come*, published six years before the second world war, Wells wrote presciently of the outbreak of a war in 1940, beginning as a conflict between Nazi Germany and Poland and then spreading to the whole world. When Hitler later invaded the Soviet Union in 1941, Wells realised immediately that the eventual defeat of the Nazis had become inevitable.<sup>ccxvii</sup>

This is an impressive record. Nevertheless, the prophecy that Wells made most often and most consistently remains unfulfilled. This is that a world government will be established in the aftermath of a system-wide catastrophe. To be sure, he made other forecasts that proved unreliable, and this could be one of them. However, Wells was obviously possessed of rare insight, and no one should write him off yet. A system-wide catastrophe is certainly the natural outcome of the present phase of the human story. Perhaps Wells is right, and the political recovery that follows the catastrophe will see world-wide integration – a planetary government.

One of the contradictions leading towards the coming dark age is a mismatch between the world’s scale and its characteristic level of political integration. People can now communicate almost as effectively with someone half way round the

planet as with someone in the next village, but they are still subject to quite localised jurisdictions. One consequence of this mismatch is the undermining of political authorities' ability to sponsor economic activity, i.e. ensure that trading is fair, enforce contracts, and prevent various kinds of exploitation. Another consequence is that the global promotion of human welfare is making respect for national sovereignty seem increasingly obsolete, as Kofi Annan and Javier Perez de Cuellar have both pointed out.<sup>ccxviii</sup>

There is therefore an underlying logic in favour of a world government. This would restore political control over the market and might also enjoy legitimacy in the eyes of the world's people if it were to impose a just peace everywhere. The fact that institutions regulating the inter-state system have grown dramatically over the last hundred years certainly seems to indicate a felt need in this direction. However, the United Nations has so far failed as a world integrator because it is configured as a voluntary association of equals, and its law is not genuinely universal or compulsory. If a successful world government is to be set up, it cannot be by peaceful and consensual means. It will need to be imposed by force.

It is inconceivable that the existing United Nations could evolve smoothly into a world government based on reasoned consent and voluntary submission. If it applied the principle of one person, one vote, it would be dominated by Chinese and Indians. If it applied one state, one vote, it would be dominated by Latin America, Asia and Africa.<sup>ccxix</sup> The west, as the world's most powerful bloc, is not going to find either of these acceptable. Yet something satisfying the west would seem to other nations to be quite distorted, and to perpetuate the very injustices which it is supposed to be eliminating. A formula satisfying everyone seems to be impossible. The squabbles involved in setting up a world government by negotiation would be more likely to start wars than end them.

On the other hand, after the world has passed through the crucible of a dark age, society will need to rebuild itself from scratch. In those realistic times, a would-be world authority will have no compunction about vanquishing and subordinating the entire planet, using whatever brutal means are necessary and sustaining as well as inflicting many casualties. There will be no existing internationally recognised borders to deal with. The old political structures will have been broken into fragments, and that will make it possible to reassemble them into a larger whole. Undoubtedly, the wars that are fought on the way to world integration will be hard won. Yet the existence of a strong logic in its favour makes it likely that some ambitious conqueror will eventually succeed.

Humans, who are already living at a world-scale, will certainly do so in the new era. Global political union, or something approaching it, is therefore a distinct possibility. Wells's projection of a world government will make sense as the latest twist in the long term development of human sociality. Yet as Wells appreciated, it requires a general cataclysm before the required metamorphosis can occur. Arguably, it is the very straining of this 'new world waiting to be born' that will pitch today's civilisation into the dark age.

### **Enlightened coercion**

Imposing political order has some unpleasant characteristics. Even the long civilised western countries use quite blunt instruments to maintain discipline. Prison is a crudely degrading treatment for miscreants. It serves some purpose as a deterrent, but as a correction to those who are not deterred to begin with it is probably worse than useless and may reinforce criminal behaviour. It certainly does not change anyone very much. A significant proportion of the prison population is there because of involvement in drugs. These people are likely to continue taking drugs when they are in prison, let alone when they get out again. Across the world, there is little correlation between the crime rate and the number of people in prison. Texas, for example, with its draconian criminal justice system, which includes the death penalty, experiences more murder, rape and robbery than Holland, with its relaxed prison regimes and toleration of soft drugs.<sup>ccxx</sup>

The Archbishop of Canterbury said in 1986 that the state takes crime both too seriously (with tough sentences) and not seriously enough (by not really tackling the problem)<sup>ccxxi</sup> – an anomaly that was also noted in the latter days of ancient Rome. The people of the future will surely look back on today's clumsy and ineffective forms of punishment and wonder how people could have been so brutish and ignorant – exactly as people today look back and wonder at the brutishness of their ancestors.

The political integrators of the dawn are likely to achieve a greater degree of law and order than today, and to do so by more civilised means. This is not merely a matter of ameliorating prison conditions. Nor is it a matter of making them far worse. Instead, a critical factor will be greater probability of detection, so that crime is more obviously not worthwhile. Increasing the chance of getting caught is generally a far better means of inhibiting criminality than is tinkering with the mechanisms of punishment. Technologies like DNA fingerprinting and video surveillance are therefore likely to be widespread in the new era. The restrictions that are currently placed on their use, in the name of preserving civil liberties, will be entirely disregarded. As for those who do still offend, future authorities may make a more

positive effort to change their behaviour than they do at present.

Future criminal justice may mean treating people more rationally when they fall into the system of correction, and preventing them from ending up there in the first place. Such a world of comprehensive surveillance and who-knows-what mind-altering techniques of correction may have a nightmarish or Orwellian sound. Certainly, it will be a very unfree world. Nevertheless, it need not be totalitarian. Some may consider that a sacrifice of *freedom to* (do certain things) is worth it for the *freedom from* assault and violation. As the world emerges from the violent dark age, most people are likely to take the former view, accepting subjection in return for protection, or giving up liberty and

anonymity in return for order and contentment. As the new era matures, and people become accustomed to peace, they will no doubt begin to chafe again under the discipline of an integrated polity.

This is the perennial paradox of political integration, i.e. the conflict of security and constraint versus autonomy and vulnerability. Those who know one desire the other, and vice versa. Such paradoxes drive history and make it always interesting. They mean that the new era of the world's political recovery will itself become weary and finally change into something else. That, however, is another story, and the subject of another book – one that will be written a thousand years from now.

## Chapter 39 - The economic recovery

### *New economic order*

The countries of Africa are stuffed with riches. Yet many of them have also been the scene of long and depressing crises. Places like the Sudan and the Congo, despite their enormous potential, are associated with the most grinding poverty on the planet. In the years surrounding 1960, these former colonies were given over more or less abruptly to local leaders who had previously been regarded as terrorists and to electorates that had never before been entrusted with the vote. Not surprisingly, they tended to dissolve into insurgency and civil war. The west contributed to their instability by intervening covertly to ensure favourable regimes.<sup>ccxxii</sup> Meanwhile, the countries' leaders were allowed to run up a huge debt with western financial institutions, taking out loans that they then either stole or spent on arms.

In effect, the present world order has denied the people of Africa the opportunity to develop autonomously and to find their own equilibrium. They have suffered because of their inadequate institutions and general lack of experience. Propelled into nation state politics, they sank into turmoil. Entrapped in a sophisticated international economy, they were exploited and pauperised. Political and economic weakness have been self-perpetuating and mutually reinforcing. These countries have suffered from being late developers in the world system.

Even those third world nations that are stable and able to exploit their resources often remain poor because exporting raw commodities attracts little profit. The riches accrue instead to western firms that convert such materials into useful products like ships, cars and computers. This situation is not necessarily unfair, since without western know-how the third world's ores would be just so much worthless rock. It seems reasonable enough that the rewards for producing say a computer should go to those who have the ingenuity to build it, rather than to those who own the original materials through blind luck. However, the unfairness is in the self-perpetuating nature of the western economic advantage. Know-how begets know-how. The third world lacks bargaining power and is perennially wrong-footed and dependent. The west is unwilling to loan it money for developing competitive industries, and closely guards its technical secrets.

The dark age will release countries from this vicious circle. It will sweep away the self-sustaining differentials of wealth and power. There will be no more CIA operatives propping up weak dictators who cannot restore order. Nor will there be officials from the World Bank throwing money at grandiose but inappropriate schemes that undermine local entrepreneurs. Instead, today's disadvantaged peoples will be able to resolve their

internal differences on their own terms, and may create industries that suit their capacities and aspirations.

In the new era, Jamaicans, Zimbabweans and other third worlders will end up on essentially the same footing as everyone else. Since they are on top of some vital minerals, their chances in the new era may well be better than most. The region stretching southwards from the River Congo has the world's largest concentration of chromium and manganese, both of which are critical to modern technological civilisation and not found in the major industrial countries. Some parts of Africa also have major reserves of nickel, which plays an increasing role in aerospace technology.<sup>ccxxiii</sup> The principal source today is the Sudbury Basin in Canada, but its mines are being exhausted.

Despite their reputation for famine, many African nations are actually in better shape than Europe as far as *potential* agricultural productivity is concerned.<sup>ccxxiv</sup> Agriculture is not inherently a constraint on their development. Even if it were, however, Africa could still become rich and populous during the dawn because wealth is a function of involvement in trade and not of the possession or lack of raw materials. Africans could set up a sophisticated space-going industry, for example, supplying the rest of the world with satellite services, space-manufactured exotic alloys and so forth. They would then just need to import food in return. With sufficient initiative, even the most under-resourced country could achieve wealth as a commercial entrepôt.

The dawn is therefore likely to see a new economic order, in which the often unproductive landscapes of today's third world countries will be radically transformed. Where there are now desiccated fields of scant crops and scattered villages, there will one day be high technology factories and lavish cities full of plenty. Some of today's poorest countries may then end up among the richer nations of the world. As they take a more vigorous role in international trade, it will benefit not only themselves but also their trading partners. Their present destitution brings the whole world down. When the third world has become wealthy, other regions will experience stronger demand for their own goods and will at the same time be able to share in the now unlocked bounty of places like the Congo. After the dark age has removed today's economic impass, commerce should move on to a higher plane everywhere, and the entire world will enjoy a better standard of living.

Having said this, while the world as a whole may be wealthier, income differentials will inevitably emerge and widen as the dawn unfolds. However, development will now take place in what is from the start a more or less global economy. This is unlikely to generate the huge disparities of

the present era, in which some regions maintained stone age lifestyles while others were experiencing industrial revolutions. There will be poorer and richer areas, but there should be no real duds. The west may find itself less privileged in the new era, but it should at least be spared the humiliations and wrongs that certain countries experience today. Overall, one can expect the dawn to produce a more equitable and certainly a more complete use of the planet's natural resources and human potential.

### **Resources**

During the present era, humans have found metals, oil, coal and gas readily available in the ground to support an expanding technological civilisation. They have come upon a more or less virgin world and plundered it with aplomb. The people of the dawn, however, will not have it so easy. The remaining ores of many vital minerals are approaching the limits of workability, and the world's oil wells could be past their peak by the time of the collapse. When it comes to rebuilding industry in the new era, people will find that the richest pickings have already been taken. This might seem to preclude any kind of economic recovery. The nascent industries will find that they have nothing to work with.

However, for one thing, the people of the dawn will be able to scavenge among the wreckage of the old civilisation. They may knock down old skyscrapers to extract steel girders and convert them into spacecraft or electric cars. Scavenging on its own will not be enough, but fortunately the world still has significant reserves in unstable regions where western mining concerns are today reluctant to get involved. Africa's prospective area for oil, for instance, is roughly one and a half times as large as that of the United States, though comparatively speaking there has been scarcely any drilling there.<sup>ccxxv</sup> People could also delve into the earth much more deeply than they do today. At more than five kilometres down, there are thought to be extremely large deposits of iron, manganese, chromium, cobalt, nickel, uranium, copper and gold.<sup>ccxxvi</sup> The technical problems in mining at these depths are huge but surely not insoluble.

Perhaps the most obvious opportunity for people to exploit after the dark age consists of the oceans. Today, gold is profitably mined off the Alaska coast. Diamonds have been recovered on a small scale from the waters of south west Africa. Japan has extracted iron from sea gravel. There is a possibility of harvesting phosphates for fertiliser off the coasts of the United States, and of getting silver and zinc from the Red Sea.<sup>ccxxvii</sup> Yet in spite of this activity, the ocean's resources remain all but untapped. It is believed, for instance, that the world's offshore oil fields are several times larger than the onshore areas, which have so far supplied almost all the world's oil needs.<sup>ccxxviii</sup> The same is

no doubt true of other minerals. In one region of the Pacific, nodules containing manganese, nickel, copper and cobalt are just lying around on the ocean floor ready to be picked up.<sup>ccxxix</sup>

The current difficulties surrounding UNCLOS and the development of marine resources will probably mean that the oceans present an almost virgin opportunity in the new era. Once people have started mining there, costs will fall and markets will expand. The oceans may also provide food to support a new round of growth in the human population. The total organic potential of the seas is thought to be at least as great as that of the land. While some whale and fish stocks have been seriously depleted, the general bounty remains relatively untouched.<sup>ccxxx</sup> At the same time, the oceans represent possibly a new habitat for the human species. There have already been proposals to construct giant, partially submerged industrial complexes. Such structures can be highly cost effective, as well as invulnerable to earthquakes and high winds.<sup>ccxxxi</sup> The new era may be expected to see humans moving on to the oceans in vast floating cities.

The vigorous, uncompromising and ambitious people of the dawn are likely to rise to the challenge of depleted ores and exhausted oil fields with all kinds of technological innovation, even moving out into space to satisfy their thirst for minerals. As they learn to drill deep into the earth's crust or to quarry other bodies in the solar system, practically any level of resource consumption might easily be met. After all, just one asteroid a couple of kilometres across contains more metal than humans have excavated in their entire history to date.

People will also come up with superior technologies that allow them to make more of a given quantity of energy or raw materials. They may succeed in exploiting high-temperature superconductivity, for example, thus drastically raising the efficiency of electrical power systems. At the same time, worries about long term oil supply will become quite irrelevant as people invent currently unsuspected forms of propulsion and power generation. Some developments will not need raw materials at all. They will consist of pure abstract ingenuity expressed in computer software, including discoveries in artificial intelligence. In the new era, therefore, vital resources will seem abundant once more and their supply will be completely unproblematic.

### **Innovations**

Innovation today is increasingly stalled. However, the dawn will see it become a torrent again. This future, ocean-dwelling, space-going, asteroid-mining civilisation will eventually make today's industry seem puny and the contemporary world quiet and undeveloped. Fantastic new technologies will facilitate a tremendous expansion

of the human population and extraordinary improvements in standards of living.

In the current era, internet commerce has been largely parasitic on existing economic activity, diverting retail trade from existing outlets towards a more sophisticated form of catalogue shopping. Existing companies are interested in using it more to cut jobs than to create them. One firm has sold industrial chemicals over an internet auction site, bypassing its usual sales staff. There is also an obsession with branding issues. The Pacific island of Tuvalu was paid fifty million dollars for the right to license its internet extension, '.tv', to television companies around the world.<sup>ccxxxii</sup> The business plan of one company that has purchased a '.tv' name involves giving people free televisions in return for an undertaking to watch so many hours of advertisements per week. With this kind of flimsy concept, it is not surprising that most internet businesses have ended in failure.<sup>ccxxxiii</sup> The dawn, by contrast, will see real web-entrepreneurship. Electronic media will be used to offer wholly new kinds of service that are beyond the imagination of people today. The businesses of the dawn will turn the internet into a real source of jobs and wealth, and will make it the vital backbone of a new global economy.

Genetic engineering is another crucial technology that has been much extolled, like the internet, but is finding it increasingly difficult to make headway. Its application to crop plants is sinking in a quicksand of public hysteria. There is no rational debate involved. Genetically modified crops have simply been labelled 'Frankenstein foods' and that is enough. People are in dread of them, though the explanation of precisely what harm they may do, insofar as this has been clarified at all, is based on large amounts of pessimistic supposition. If used wisely, the ability to exert fine control over the characteristics of economically important plants offers signal benefits. Yet there is a growing moral objection to it and an apparent preference for remaining ignorant rather than play with Promethean fire.

One can of course choose ignorance as the least risky course and argue in favour of it. However, after the privations of a dark age, people will prefer to take a chance and investigate what genetic technology has to offer. With no ethical committees or other regulatory paraphernalia to stop them, people will be free to experiment with genetic engineering in all sorts of areas, including the treatment of disease or even the cosmetic alteration of human characteristics. Today, a proposal to create gill-breathing humans by experimenting on embryos would be greeted with horror, and such research is out of the question. During the economic recovery, though, some genetic engineers might well choose to go down this route, and they may create a novel form of

economic specialisation that eventually brings benefits to everybody.

In general, innovation after the dark age will be judged with pragmatic realism. Nuclear power is likely to be an important beneficiary. It is being abandoned today because contemporary attitudes to power generation are based on delusions and fantasies, rather than on straightforward economics and technical merit. Solar, wind and wave power suffer from the inherent constraint of a low energy density, which means that electric plants based on these sources must occupy large areas of real estate.<sup>ccxxxiv</sup> In 1998, Greenpeace demonstrated a solar powered office outside a meeting of European Union energy ministers. It was successful, but there is simply not enough surface area in a city for every office to be solar powered, so long as one still wants room for roads and parks.<sup>ccxxxv</sup> Nevertheless, 'environmentally conscious' pressure groups would rather see numerous green fields go under concrete to make a solar power station than accept a nuclear power station taking up a fraction of the area. Even when they admit the disadvantages, campaigners urge the adoption of solar and wind power primarily on moral grounds.<sup>ccxxxvi</sup>

People cannot afford to adopt technologies for moral reasons but only because they are economically viable and good at satisfying human needs. After the dark age, the moral arguments, which are spurious anyway, will be long forgotten. The measure of any technology will be its ability to improve people's standard living and not romantic ideas about the purity of sunshine. In fact, nuclear power is probably an ideal technology for adoption during the early dawn. It does not require an ongoing supply chain and is compatible with a high degree of self-sufficiency.<sup>ccxxxvii</sup>

One of today's worries about nuclear power is disposal of the wastes, which nobody wants in their backyard. It is true that nuclear waste compacts a lot of nastiness into a small volume. However, the slag heap from a coal-fired power station spreads an equivalent amount of nastiness through a very large volume, and that might be thought even less desirable. It is just that the tradition of building slag heaps was started at a time when pollution and human safety were not significant considerations. The nuclear industry, by contrast, was born into a world where these were becoming neurotic obsessions. It is required to show that its waste will not leak out for at least ten thousand years. Proving this is very difficult. Yet even if radioactive waste were to breach its containment, it is absurd to suppose that people in future could not detect the problem and do something about it.<sup>ccxxxviii</sup>

During the dawn, the concerns that are expressed in current nuclear safety rules will no longer exist. Life will be cheap again. Making things better in the here and now will far outweigh

any concerns about possible harm to future generations. People will assume that their descendants can look after themselves. Worries about the health problems of nuclear technology will also be minimal. Today, these problems are at the limits of detectability anyway. If there is an impact on the health of the general population, it pales into insignificance in comparison with factors such as smoking.<sup>ccxxxix</sup> The people of the dawn, with their realistic approach to life, will not be bothered by such subtle fears.

Even the Chernobyl accident, a worst case scenario, has been shown to be eminently survivable. Nature is flourishing in the evacuated zone despite predictions that nothing would grow there for centuries. The forests are encroaching on the abandoned towns, while boar, goats, rabbits and wolves roam freely in great numbers. Humans are returning to the area, in defiance of the authorities – to loot, to grow opium poppies, and just to live in the area where they grew up.<sup>ccxi</sup> In 1999, the first baby born in Chernobyl since the disaster turned out to be a healthy girl.<sup>ccxli</sup> No doubt, the fallout from the accident is likely to result in tens of thousands of extra cancer cases over fifty years, yet this figure is tiny in relation to the total deaths from cancer over that period. It was a catastrophe and real people continue to suffer. Nevertheless, if viewed in perspective, it will be seen to be a pinprick in comparison with the injuries and insults that the human race experiences every day.

If this seems heartless and complacent, one should recognise that such heartlessness and complacency will be typical of the economic recovery. They were also typical of the industrial revolution, when many people lost their lives in the toxic and hazardous environments of the factories. Clearly, that sacrifice has led to a more comfortable and safer world. Humans learn from their mistakes. During the dawn, it will become acceptable to make mistakes once again, and hence to make unconstrained technological progress.

Objectively, nuclear power is arguably the most efficient and least polluting generating technology that humans know of. Subjectively, it is fearsome, mysterious, and unnatural. The dark age will change all this. Since the Chernobyl disaster, the Russian and Ukrainian public has actually become more accepting of nuclear power than before.<sup>ccxliii</sup> It has seen the worst and realised that it is tolerable. It has moved away from irrational fear towards a realistic estimate of the risks, and it now sees them in the perspective of often greater risks that people readily accept, such as car accidents. A journalist visiting the ruined plant asked one guide why she did not bother to don protective gear like the visitors. “I am not a radiophobe, personally,” she replied.<sup>ccxliiii</sup> Many of Russia’s nuclear power plants remain dangerous, being poorly designed, poorly maintained and poorly operated, but there

are no plans to decommission them.<sup>ccxliiv</sup> Russians have more pressing concerns, such as maintaining any form of civilised lifestyle at all.

In a similar way, during the economically vigorous dawn, people will construct nuclear reactors without hindrance. These will be unregulated and sometimes mismanaged, and one can expect a number of further Chernobyls. Paradoxically, these nuclear disasters will make the technology less feared rather than more. In any case, as engineers continue to gain experience, nuclear power plants will become safer and eventually utterly commonplace. The anti-nuclear dread of today will seem like superstitious Ludditism. After the dark age, the word ‘nuclear’ may become all the rage – to be nuclear will be to be good.

The dawn is also likely to see people developing nuclear fusion. This is widely regarded as ‘good’ nuclear power, for it does not generate lethal waste products, and is potentially extraordinarily efficient in its consumption of resources. Through nuclear fusion, a bathtub of water could yield enough energy to supply the needs of a whole village for a year.<sup>ccxlv</sup> Unfortunately, researchers currently have difficulty containing and controlling the nuclear reaction (not because it causes a runaway explosion but because it fizzles out within microseconds). They predict that success is still several decades away. As the descent continues, in an impoverished world where this kind of activity is thoroughly de-legitimised anyway, they will surely lose their chance. However, under the demand generated by industries of the new era, engineers are likely to crack the numerous problems involved. Necessity, after all, is the mother of invention.

Once the nuclear industry becomes mundane and above all free to experiment, people can be expected to extend it in other novel ways, such as blasting into space atop nuclear rockets. The potential value of nuclear technology in the new era may therefore be summarised as abundant energy and a whole new vista of innovation. With an expanding and economically vigorous population to take advantage of it, the world will experience major leaps forward in wealth. Just as the humblest people today live like kings of former times, so the humblest people in the next era will live like the sultans, sheikhs and business moguls of this one.

### **Spacefarers**

Humanity’s outward push into space has long been dreamed of and predicted. Today, it seems as though the dream might be being realised. However, space-borne activity is not yet financially self-sustaining, and the human presence in space will remain negligible until it is. Private companies are springing up with plans for everything from space tourism to asteroid mining. Yet they will

soon be running into the same problems as the current advocates of nuclear power and genetic engineering.

Plans for space tourism are threatened by the fact that getting into space is not only expensive but also dangerous. One private British enthusiast has spoken of launching a piloted rocket within years, but this was after one successful test and when the preceding one had risen only two hundred feet before going off course and crashing into a hill.<sup>ccxlvii</sup> In the nine months to mid-1999, six military and private rockets blew up shortly after take off.<sup>ccxlviii</sup> This technology is still far from routine. Apart from the risk of a catastrophic failure, astronauts receive very high radiation doses. A Russian doctor who flew on Mir has described the whole experience as a very unpleasant one and says 'never again'. He had problems with nausea, loss of calcium from the bones (which passes through the kidneys, causing stones) and general loss of cardiovascular condition. It took him two years to recover.<sup>ccxlviii</sup>

Following the Challenger disaster, the United States space shuttle fleet was grounded for some five years. The French and British Concorde fleets were also grounded following the supersonic aircraft's first major accident. If space tourism companies ever get off the ground, they will soon be facing bankruptcy, as the newspapers brand their product the carcinogenic trip of a lifetime or some accident forces them to halt their operation and undergo a lengthy investigation.

Space travel will not become orders of magnitude safer until it is an everyday undertaking. To get to that point, people will need to launch very many flights, some of which will inevitably end in disaster. In a compensation-claiming culture, where human life is regarded as priceless, that kind of sacrifice is intolerable. Space flight cannot be a common experience until it is almost perfectly safe, but it cannot be perfectly safe until it is a common experience. This impasse stymies progress. In the dawn, people will take a more robust attitude and the impasse will disappear.

The exploitation of space resources is currently governed by a number of United Nations compacts.<sup>ccxlix</sup> These emphasise that exploration should be for the benefit of all countries, and that celestial bodies should be used exclusively for peaceful purposes. They also assert that outer space must be the province of all humankind, and not subject to national appropriation. However, the idea that chronically bellicose humans will colonise and make use of space in an entirely peaceful manner is not even worthy of consideration. In any case, making space the property of all humankind only encourages a tragedy of the commons. Someone who owns a piece of the moon is likely to exploit it sensibly, not polluting it and realising its maximum potential. On the other hand, if the moon is owned

by everybody and by nobody, then people might as well dig mines by casually exploding nuclear weapons, take the easy pickings, and move on, leaving a horrible mess behind them.

The values enshrined in UN agreements make sense when the exploration of space is seen as a largely academic and governmental exercise. However, they will break down when space is explored as an everyday business activity and, in particular, when bits of it turn out to have enormous economic significance. By the time the dark age ends, these treaties will have long been destroyed anyway and the UN headquarters will have been burned to the ground. The private entrepreneurs who then open up space will certainly not do so on behalf of all humanity. If they find a copper mine on the moon, they will keep it for themselves. One entrepreneur planning to land a spacecraft on an asteroid in 2002 has already said "If I take the risk to go there, by God I'm going to claim it."<sup>cccl</sup>

Professor Nikolai Kardashev once proposed a classification scheme for technological civilisations.<sup>cccli</sup> A Kardashev-1 civilisation controls the resources of an entire planet, a Kardashev-2 civilisation controls the resources of an entire solar system, and a Kardashev-3 civilisation controls the resources of an entire galaxy. Today, humans are variously supposed to be at the level of Kardashev-0.3 to Kardashev-0.7 (the lower figure is probably more reasonable). However, they can be expected to break through the Kardashev-1 barrier some time in the next era.

To reach Kardashev-1, humans will have to take to space on a grand scale. This means, for instance, tapping a large part of the solar energy reaching the earth. In orbit, where surface area is not a serious constraint, solar power stations may come into their own. People may also be expected to use the moon's resources as freely as the earth's. It will be a messy and polluting business. The sky at night will be teeming with artificial satellites. In winter, huge orbiting mirrors will beam sunlight on to northern cities. The moon will be turned into a building site. Nuclear rockets will be shuttling to and fro, occasionally going wrong and exploding with spectacular effect. Terrific wars will be fought in order to gain control over the great prizes to be had on other celestial bodies. It will require the brashness and ardour of the post-dark age world to make such things happen.

On the other hand, some commentators suggest that people will never construct a space-based civilisation. They note that other planets in the solar system seem to lack the minimum requirements for human sustenance, while even the nearest star could not be reached in under a hundred thousand years, and that has no planets anyway.<sup>ccclii</sup> Such reasoning, is based on a classically static view of the world. An eminent

astronomer said in the nineteenth century ‘one thing we shall never know – the chemical composition of distant stars’. He was proved wrong by the advent of spectroscopy. Humans have always been pushing onwards and outwards, doing things that would have been inconceivable a hundred years before. They long ago reached the most remote and inhospitable regions of the earth, just to get away from each other and from governments. There is no doubt that people will eventually move off the one little planet they now inhabit, albeit that the technologies involved may be difficult to imagine.

This is not even a matter of choice. People will need to move into space just to continue developing on earth. By cultivating the seas, for instance, rather than merely foraging in them as today, they will genuinely begin to strain the global environment. Until now, humans have probably only got away with some large pollution events, as well as chronic insults to the atmosphere, because the oceans have acted as a huge stabilising influence. If people actually start interfering in this safety system, their luck may well run out. They are likely to disrupt important chemical cycles, with the effect, for example, of increasing the levels of certain carcinogens in the atmosphere.<sup>ccliii</sup>

In this case, if humanity is to survive, people will need to pay far greater attention to the earth’s dynamic systems. Instead of taking atmospheric and ocean chemistries for granted, they will need to monitor and maintain them in a quite active manner. In other words, they will need to exhibit a level of ingenuity and technology that amounts to taking control over the entire planet and becoming a Kardashev-1 civilisation. At the same time, as people clamber into orbit and on to the moon, taking industry with them, many environmentalist concerns will be invalidated. Outer space is vast and already populated with far more nastiness than human activity can conceivably throw at it. In the long run, human beings will do better by extending their mastery over nature than by reverting to some mythical, Eden-like state of perfect accommodation with it.

It is true that, besides earth, no other planets or their satellites are promising habitats for humans. However, there is nothing that technology cannot in principle overcome. The judicious release of CFCs, for instance, those despised greenhouse gases, might warm up Mars and increase the density of its atmosphere.<sup>ccliv</sup> Some calculations suggest that within just a few hundred years humans would not need to wear space suits there, although they would still need to carry an oxygen supply. Meanwhile, people could live quite happily in suitably pressurised and heated enclosures anywhere within the solar system. This would only be an extension of the long-standing process whereby humans have overcome local environments – for example, with

clothing and with fire – in order to extend their habitat beyond the tropical climes where they originated. Planetary surfaces may not even be the best places for an expanding technological civilisation,<sup>cclv</sup> and the new era could well see people taking up residence in orbit.

In due course, space settlers will be seeking self-government, for that is a natural aspiration of colonists after they have been in situ for more than a few generations. When they are controlling vital assets, such as lunar mines or orbital factories, they will soon begin to question the justice of paying taxes to some earth-bound political authority. Given the economic issues at stake, such independence movements will probably result in some violent wars of secession.

The movement of economic activity into space during the next era will be but the beginning of a new human adventure. Subsequent cycles of dark age and renewal may see humans making the entire solar system their own and then moving beyond it – with technologies as unimaginable today as the jumbo jet would have been to the ancient Romans. Eventually, humans may even achieve Kardashev-3 status. However, that is not thousands but, one might guess, hundreds of thousands of years away.

#### **Scientific discovery**

In 1997, science writer John Horgan brought out a book entitled *The end of science*. In this, he argued that most of the great scientific discoveries have already been made, and, on this point, many people might agree with him. Such a thesis, however, shows a large failure of imagination. Horgan has been accused of precisely that, as well as of pandering to a millennial sense of doom, and of narcissism for claiming that this is a special era of culminations. The truth is that in every age some people believe that everything worthwhile has already been discovered. At the end of the nineteenth century, just before physics was revolutionised with quantum theory and the theory of relativity, Lord Kelvin said that future discoveries were to be looked for ‘in the sixth place of decimals’.

Against such criticism, Horgan points out that most great discoveries were made before the advent of state sponsorship, when the scientific enterprise was a fraction of its present size. He says it seems unlikely that the scientists who made these discoveries were brighter than those of today, and it is more plausible that fundamental science has already entered a period of diminishing returns. While he acknowledges that there are still important things to be discovered – such as a cure for cancer – he says that they will fall within the framework of understanding that scientists already have.<sup>cclvi</sup>

In the short term, Horgan will prove to be correct. This is because his failure of imagination is in tune with the failure of imagination of today’s

descendant civilisation. There is indeed a slow-down in fundamental discoveries, and this is due to the waning creativity of the scientific community. In the long term, Horgan's view will be revealed as utterly and completely wrong. Future generations will regard those who now hold such a view as intellectually primitive indeed – not just ignorant but ignorant of their ignorance. Of course one's theory of the universe seems, at all times, to be nearly complete and consistent, whether it explains the stars as human souls or as balls of burning gas. Of course one cannot imagine what scientific discoveries might be made in the future, or one would have practically made them already. Yet to conclude from this that one knows virtually everything is complacent in the extreme.

The recent failure to make fundamental breakthroughs is actually linked to the fact that science has become a state-sponsored enterprise. When it was done by amateurs paying their own way, science was the domain of perfectly free thinkers who could pursue their interests as they pleased. In consequence, it was always generating new ideas in unconventional areas. By contrast, science is now a well ordered and responsibly managed profession, and its practitioners have become the guardians of a huge orthodoxy. Discoveries are made within the framework of existing knowledge precisely because scientists must work that way to succeed in a scientific career. Those who go off at a tangent or challenge received wisdom find their ideas denounced as preposterous. Their research proposals are unlikely to get past the grant-making committees. In many cases, the ideas may well be preposterous, but without a willingness to explore the preposterous people are unlikely to make fundamentally new discoveries. A recent *Scientific American* article said it all. Describing new particle detectors at CERN, it stated that lengthy computer simulations have shown they 'are capable of detecting whatever new phenomena nature may exhibit'.<sup>cclvii</sup> In other words, nature may only exhibit new phenomena that these instruments are capable of detecting.

Horgan's acknowledgement that there are few signs of progress in obtaining cures for cancer or mental disease illustrates the problem. Thirty years ago, President Richard Nixon committed the United States to a war on cancer, which has involved billions of dollars and tens of thousands of researchers. Yet while a few rare cancers have much better survival chances, overall mortality has changed by a few percentage points at best.<sup>cclviii</sup> This 'qualified failure'<sup>cclix</sup> of cancer research suggests that further tinkering within the existing framework is precisely what is *not* needed. Doctors' whole mindset is quite possibly wrong and, if cancer is to become as trivial as measles, some radical new thinking is required.

It should also be recalled that much of contemporary medicine is probably quite flawed, with one expert estimating that 20 percent of medical care is useless and some is potentially dangerous.<sup>cclx</sup> Future generations will be amazed at how doctors could so crudely hack people about and dose them with poisons. Medical procedures that now seem highly sophisticated will eventually be thought perfectly barbarous. One day, people will look back on them as they now look back on witchdoctors and bloodletting. After all, recent investigations suggest that these folk remedies had a logical basis and could produce useful effects. They seemed efficacious in their own contexts, though they failed many people, just as today's medicine seems efficacious but still fails many people. With respect to some illnesses, the whole paraphernalia of the health care system is an elaborate side show, giving the illusion of control over something that people do not control at all. It is just that ever since the first shamans shook their rattles at evil spirits, humans have been unable to admit to the sick that they are ignorant and impotent to relieve their suffering.

Much of what purports to be scientific today is not science at all. For example, the discovery of genes 'for' libido, homosexuality and so forth is a quack practice that operates very much in the existing framework but provides virtually no insight into the complex behavioural phenomena it purports to explain. In general, there is an enormous gap between the practice of science and the claims that are made of it. Even the extremely bright Stephen Hawking has declared absurdly that scientists nearly understand the universe. They do not. It is as mysterious as it ever was. People have come a long way since their stone age ancestors wondered at the world around them. They often know much better what is happening. Yet they still have scarcely an inkling as to why. Even something as simple as a stone falling to the ground, when studied deeply, reveals riddles and inconsistencies in scientific theory. The idea that these inconsistencies can be resolved by minor adjustments to existing ways of thinking is misguidedly optimistic. Picking at these little threads will eventually cause the whole fabric to unravel.

Herman Kahn and his associates have suggested that future discoveries 'may even seem to contradict the laws of physics'.<sup>cclxi</sup> They are surely right. The view that science is reaching its limit rests on an interpretation of the scientific enterprise as analogous to the exploration of the land surface of the globe. Even if that is correct, there is little good reason to suppose that the regions yet to be explored are small and uninteresting. As Newton saw, there is an ocean of truth beyond the beach where scientists have been picking up pebbles. It may even be that knowledge

has no finite geography at all, and the scientific enterprise is facing limitless horizons and infinite surprises.<sup>ccclxii</sup>

Today people are tethered by their presuppositions, like donkeys in a field. The dark age will release them from this bondage. In the dawn, people will be free to make astounding

discoveries as they roam far beyond their current horizons. Combine this intellectual leap forward with the new resources, new challenges and unrestrained power sources of the next era and one has the ingredients for an extraordinary phase of human achievement – one even more extraordinary than the phase that is now coming to an end.

## Chapter 40 - The social recovery

### ***Multicoloured civilisations***

Norman Tebbit once pointed out that, in international sport, many British Asians support Asian teams rather than British teams. He suggested that this indicates where their true loyalties lie, and it is not with Britain. In this case, he implied, British Asians should not be surprised when their neighbours do not wholeheartedly accept them as compatriots. It is only natural and sensible that people should not be completely trusting or generous with those who act as though their interests lie elsewhere. If British Asians do support British teams, though, then they should be accepted as being fully British and absolutely entitled to the loyalty of other Britons.

Tebbit's remarks proved controversial, although they reflect the straightforward principles of social cohesion. A successful society requires its members to show commitment to its values and goals. Since these are acquired not by biological inheritance but by social learning, there is no reason in principle why Asians (or other ethnic groups) should not become fully British in outlook and allegiance. Of course, no society can realistically expect its members to be completely in agreement on every issue. Some degree of cultural diversity is inevitable and even healthy. Nevertheless, support of one's national team in international competition might reasonably be thought to be a minimum requirement for genuine commitment to a particular society. On the other hand, British Asians may not be wholly loyal to Britain because they are alienated by the suspicion and hostility of the white British majority. It works both ways. In this case, it is wrong to blame immigrants for their non-acceptance in British society. The attitudes of the natives are at least equally responsible.

The dark age should resolve these self-perpetuating problems of disloyalty and non-acceptance. It should eradicate the memory of both Asians and white people concerning their separate origins. By the time of the dawn, everybody living in Britain will be simply British. This will result in a multicoloured but cohesive society. It will be quite different from the multicultural societies that people are trying to create during the descent. It will not emphasise the tolerance of cultural diversity. Rather, it will insist that a single, common culture be adopted by all, regardless of physiological differences. This does not mean that the recent immigrants will have wholly accepted the pre-existing culture of each country – far from it. All the old cultures will have been destroyed and something new will have been created in their place. In Britain, white people may have come to accept Asian customs as much as the other way around.

In America and Australia, the European-derived populations will forget their origins just as Asian-derived populations do in Europe. The 'west' will surely not exist in the new era. There will instead be new civilisations, composed of alternative complexes of societies. By the time the dark age lifts, the national language of Australia is more likely to be some derivative of Japanese than English. Social logic will evolve to reflect geographical logic. These new civilisations will have new cultures, and they will be multilayered, as today for example English culture and French culture are different from each other but part of a broader European culture.

One can expect the social units of the next era to be larger than those of the present one. Today, American television and American products have spread a veneer of shared cultural assumptions around the world. However, this global culture is superficial and not very effective at binding people together. It has encountered strongly entrenched national cultures that it cannot displace. In the dawn of the new era, though, ideas propagated rapidly around the world by internet or jet airliner will encounter almost a cultural vacuum – undeveloped national identities, and civilisations that are still taking shape. Common values can therefore be expected to spread over a wide area at a time when societies remain fluid and malleable. Places which are today struggling for unity of purpose, like Europe or Indonesia,<sup>cclxiii</sup> are particularly likely to benefit and will re-emerge as robust and monolithic entities.

### ***World identity***

The dawn may eventually see the entire world integrated as a political unit. One might ask whether the entire world could also become a socially cohesive cultural unit. Recent history has certainly demonstrated that people aspire to such a goal. This lies behind the formation of the United Nations, and the existence of numerous charities and other organisations that attempt to do good around the globe. For all the ethnic hatred of today and despite the fact that people's attempts to help each other are often desperately flawed, human beings in general appear to have their hearts in the right place.

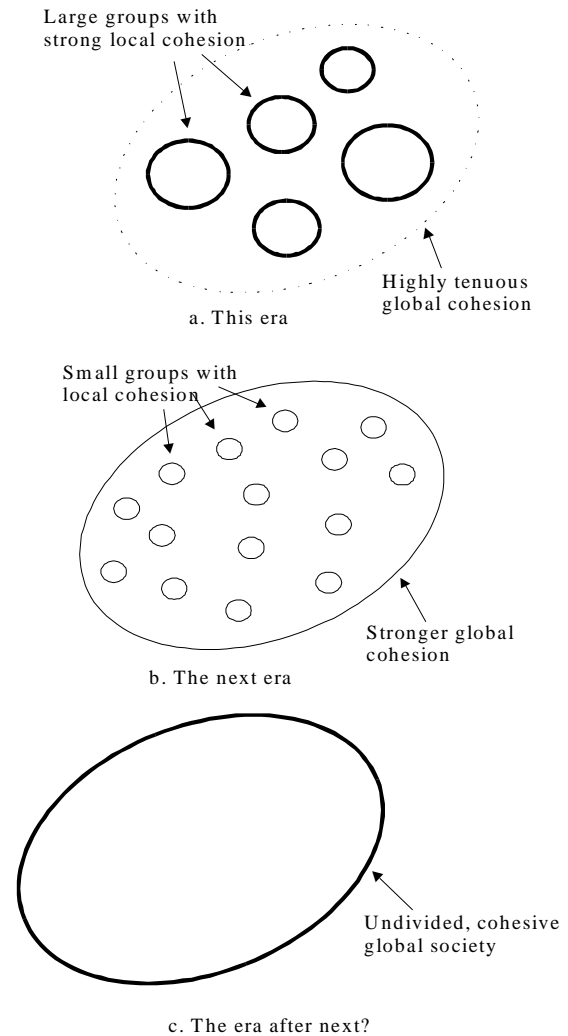
Various thinkers have pointed out that it will be difficult to develop global loyalties, i.e. a 'Terran patriotism', because of the fact that the world as a whole has no external enemies.<sup>cclxiv</sup> Yet while it is true that a common enemy is good for cohesion, this is not absolutely necessary. The survivors of an aeroplane crash in the jungle might be expected to behave as a cohesive group simply because they face common risks and hazards, and without an enemy as such. In a similar way, the human race faces a hostile universe, in which co-operation is helpful for survival, and this creates

some basis for global cohesion. Besides which, if the new era sees humans moving beyond earth's boundaries, political othernesses may emerge in orbit or on other planets, and a nascent world state will be able to measure itself against these.

Cohesion is the product of goal interdependence and shared experience. Today's extremely tenuous and patchy sense of world-wide cohesion may be partly due to the belated realisation that humanity has a common interest in preserving the world, and partly due to the fact that news media can now report major happenings instantaneously around the planet.<sup>cclxv</sup> In the high scale society of the dawn, these influences on cohesion will be even stronger. Achievement of Kardashev-1 will particularly emphasise humanity's common interests. People will have to think about actively maintaining the earth and its borderless dynamic systems. They will recognise it as something they are all responsible for and that affects them all. Such common concerns and duties should bring the different nations closer together. The chances of creating a global identity in the next era may be high.

The total wars of the twentieth century led to the setting up of the League of Nations, the United Nations and the European Union. Those who witnessed the carnage evidently hankered for a better way of resolving their differences. The nuclear-level conflicts of the next era are likely to stimulate equivalent sentiments. When the mushroom clouds dissipate, people will feel more strongly than ever the need for unity. Indeed, the experience of a centuries long dark age may have the same effect on a broader scale. After much blood has been freely shed, a large part of the world's cultural heritage destroyed, and every continent reduced to a subsistence lifestyle, there may arise a huge determination to foster mutual understanding between the world's peoples.

All the same, a cohesive world will not be as unified as a contemporary nation. People will surely not be Terrans in the way that they are now English or French. Though that may eventually come, it will probably not be in the coming dawn. There must be one step at a time. Today, local groups are relatively strongly cohesive, whereas global cohesion is tenuous in the extreme. The next step is likely to involve a reduction in local cohesion and an increase in global cohesion. In this way, the new era could be characterised by many small, weakly cohesive groups, which will be embedded in a global culture that is stronger than today. The step after that would be the disappearance of local groups altogether, and the creation of a strongly cohesive global society. However, this situation will only really make sense when there are societies on other planets to serve as an external reference. This is illustrated in Figure 40-1.



**Figure 40-1:** The new era may be characterised by smaller groups embedded within a more cohesive global culture. This could be a step towards a fully unified world society, which will be achieved in some later era.

Since strong cohesion makes a society effective in the short term but tends to be detrimental in the long term, the sort of arrangement shown in Figure 40-1b might represent an ideal compromise. It implies sufficient cohesion to ensure that people co-operate rather than waste their energies in destructive conflicts. However, it does not imply so much cohesion that creative thinking is suppressed. This might be regarded as the model for which the visionaries of the new era should aim as they pull their respective peoples out of the darkness.

### Religion

Since cohesion necessitates a shared religion, social recovery will require elimination of the myriad cults that have arisen during the descent, to leave just one or two as the kernels of the new civilisations. A key characteristic will be that religion is not just shared but above all *practised*. People will become churchgoers once again – or perhaps mosquegoers. Attendance at religious

ritual, and hence affirmation of the moral way, will be effectively compulsory. Religious institutions will take up a more prominent and powerful role in society. Religious piety will intrude into everyday life.

This religious society will not be a rational or a gentle one. The conversion of Europe following the sub-Roman dark age was a peculiar, superstitious process. The lives of the saints are full of occult acts, such as slaying dragons and curing the sick, as well as magic stones, magic letters, magic belts and magic dust, all of which supposedly convinced people of Christianity's efficacy. There was also much slaughtering of pagans and smashing of their temples.<sup>cclxvi</sup> The early dawn will be a similarly fanatical period. Religiously inspired warriors may be responsible for the most uncompromising violence. When the emperor Constantine embraced Christianity, it was after seeing the vision of a cross and the phrase 'in this sign, conquer'. In the Iran-Iraq war, young boys served as human minesweepers, running through Iraqi minefields to clear the way for Iranian troops. Their priests had promised them paradise in return for martyrdom.<sup>cclxvii</sup>

Societies after the dark age will be intolerant and illiberal. People will be discouraged from anti-social acts by fear of community disapprobation and spiritual retribution. They will be ready to check each other's behaviour, and children will be strictly socialised. Those who behave unconventionally, whether in important ways or in trivial ones, will by no means be tolerated or left to themselves. On the contrary, they will experience gossip, reproach and, if they do not mend their ways, ostracism. There will be social security, but it will be channelled through religious institutions. It will be dispensed not by anonymous bureaucrats but by local clerics who know all about the recipients and see them every day. In such circumstances, it will be very difficult to mangle and defraud the system. This is just another reason why the people of the dawn will inevitably prove more vigorous and more conscientious than those of the descent.

A believed religion may also prove to be an anchor for the people of the dawn as they go out to confront the vast emptiness of outer space, in a manner far more serious than that of today. Over the last thirty or forty years, the numerous attempts to search for evidence of extraterrestrial activity have had a tremendous ability to capture the public imagination. The image of a giant radio telescope listening in to the signal from some distant galaxy, seeking the sounds of intelligent life, is a thrilling one. In the latest such project, thousands of ordinary people have been using their home computers to sift through enormous amounts of data, looking for tell-tale signs of pattern in the noise from other star systems.

Humans are not only interested in finding intelligent life in space. The first craft to land on Mars were equipped with biochemical experiments to detect the signs of possible Martian microbes. The Mars Pathfinder mission of 1997 was also on the quest for life. When scientists discovered a possible ocean under the ice of Europa, one of Jupiter's moons, their immediate reaction was to plan a robotic probe that could search for indications of life there. Obviously, the human race finds something compelling in this quest for life beyond the earth. It is behaving like a child that has woken in a silent house and is running from room to room to see if anyone is at home. Thus far it has found itself alone.

In the context of this mysterious loneliness, religion has always helped bolster people's self-belief. The space-going pioneers of the new era may find themselves very much in need of it. This is especially when scientific breakthroughs and renewed humility reveal how very little humans actually understand about who they are and where they are going. Those who colonise the solar system will be devout people, ready to accept privations and often sacrifice their own lives. One of the first buildings on Mars will surely be some sort of house of worship. These pilgrim voyagers will be driven by faith and by the certainty that, in transforming other planets to human ends, they are fulfilling the destiny god has chosen for them.

### **Art**

Today, artists aim to disturb, disrupt and reject. After the coming dark age, they will encapsulate and communicate each civilisation's values. They will rediscover discipline. They will have something to say and will not fall back, as now, on crude shock value. There will be little subtlety. Meaning will be entirely on the surface. Artists will use conventional techniques and return repeatedly to stereotyped themes. They will suppress their individuality, like the medieval cathedral builders, of whom almost nothing is recorded.<sup>cclxviii</sup> They will express ideals and aspirations, ignoring everything that is base, common and mundane. The art of the dawn may seem to be out of touch with the circumstances of ordinary people, but it will thereby uplift them, providing them with a sense of identity and of transparent confidence.

The art of the new era will probably employ media that are today considered avant garde. It is increasingly rare for, say, Turner prize entries to include any painting or conventional sculpture. This is not just due to the de-legitimisation of traditional art forms. It also reflects the fact that traditional forms have genuinely exhausted their potential or have become irrelevant in an era when representation is ubiquitous thanks to the videotape and electronic camera. Art has always evolved technically as well as stylistically, and future artists

will work with the advanced technologies of the dawn. In the descent, it may seem that artists do not have much further to go. They have done just about every bizarre thing that can be imagined. However, in the dawn-time, using innovative media, artists should find vast new continents to explore, and art will be made innocent again.

### **Roles**

A society is a structure of relationships and a pattern of roles. This pattern can be understood as the result of an interplay between people with different needs and potentials. The forceful supply leadership, the enterprising enrich themselves, the charismatic give moral instruction. Others become artists or technologists, and beyond this there are many ordinary people, who more or less sleepwalk through life, fitting into the various nondescript roles. A person's behaviour and position in society are not the expression of an inherent, biological destiny, but they are the result of an interaction between what that person brings to the society and what everyone else brings. One's experiences in life result from an equilibration process between one's own drives and talents and those of one's peers.

A moral society confines people to fixed roles that are ascribed to them at birth and that dictate how they are expected to behave. The equilibration process takes place against considerable resistance. It is harder for people to realise their most appropriate role, especially when it differs significantly from what they have been born to. Such a society is repressive to those who have unusual talents, although it is not so uncomfortable for the sleepwalking majority, and actually benefits the weak and untalented who might otherwise fall by the wayside.

The most visible manifestation concerns the distinction between male and female paths through life, but that is certainly not the only area. The women's liberation that has taken place during the descent can be regarded as just one aspect of a more general human liberation. The enfranchisement of women, say, was part of a much broader process in which votes were previously given to underprivileged men, and subsequently to younger people. If one goes back several centuries, people's careers were limited in all sorts of ways. What they ate, what they wore, and how they spent their free time were all dictated not just by sex, but also by age, station in life, and even occupation. This is the situation that will characterise the dawn. Today any individual can aspire to any role. In the dawn, people will be constrained, with gender differences being an important determinant of their careers.

The relationship between men and women is not really a matter of male priorities being imposed on women, but rather results from the interplay of male and female priorities. The traditional

gender-based division of labour can suit both parties. It is true that men tend to be physically stronger than women, but far too much can be made of that as an explanation for supposed female subordination. Some women may live in physical fear of their husbands, but it is not a majority, and in general social relationships are determined by more than just a physical contest. Among men, the leaders are not necessarily the physically strongest ones. Psychological factors or personality traits tend to be more important in determining who dominates whom. In the same way, women are able to lead or dominate irrespective of their physiological capacities. Even within the social milieu of fifteenth century France, Joan of Arc managed to become the general of a great army. She was only a slight figure, and no match for any one of the soldiers she led, yet no man beat her back into subordination.

Men's and women's roles during the dawn will reflect their different stereotyped capacities. These are based on the existence of some overall distinctions between male and female orientations to life. Exactly what the distinctions are does not really matter, and in any case there is much overlap. The crucial point is that, in the moral societies of the dawn, the overlap will be ignored, and the result will be rigid social forms such as are familiar from moral societies of the past. Though many men and women do not fit the stereotypes, enough do to make such role confinement viable. These stereotyped behaviours are complementary, after all, and in that way they can form the basis of a successful society.

The return to stereotyped roles will not necessarily be worse for women than for men. Working class women of a century ago may have had hard lives, lumbered with washing, ironing and looking after children, but it is not clear that their husbands, down the pit for twelve or fourteen hours a day in filthy, unsafe conditions, were better off or more fulfilled. It will be the same during the dawn. Furthermore, some women will still be rich and powerful, by virtue of their birth. Traditionalism can actually make it easier for women to achieve wealth and status. It is telling, for instance, that Sri Lanka, India and Pakistan have all had women premiers, despite the fact that they are relatively conservative societies, which supposedly afford women a low status. By contrast, the United States, a land of opportunity, has not yet had a female president, or even vice president. The Asian women premiers came from powerful families, where the restriction of leadership roles to certain dynasties meant that their talented women faced less competition. When the competition for power is very open, as in the US, the most politically accomplished individuals are that much more likely to be male.

More constrained careers for both sexes does not immediately imply that women must return to domestic drudgery. The technology of the dawn will soon surpass that of today, and should therefore relieve the chores of home making. Being excluded from other roles by the rigid attitudes of a cohesive society, women could find themselves with considerable time on their hands. They are likely to seek new accommodations and arrangements, based on novel institutions and different kinds of role. There is apparently no previous model for such a society. Nothing like it has been seen in history, since the circumstances that would give rise to it have not existed before. It must be something entirely new.

#### **A fourth ensemble?**

There are three fundamental institutional ensembles that can form the basis of human societies. These comprise: small societies dominated by friends, medium societies dominated by acquaintances, and large societies dominated by strangers. (It should be recalled that 'friend' and the other terms have specific technical meanings.) The stranger ensemble, for instance, involves shops and rulers, whereas the friend ensemble lacks these and is characterised by sharing and egalitarianism. Any particular society is a complex mixture of ensembles, but one invariably predominates.

Although these three ensembles are the only ones that have emerged in history so far, the dawn might create the conditions for some radical new form of human existence – one that could be called a fourth type of institutional ensemble. Feminists have suggested something along these lines with the idea that the future will produce a new form of society, in which women play a leading role, and social institutions are characterised by supposedly feminine qualities, being more consensual, conciliatory and co-operative.<sup>cclxix</sup> This particular vision is surely somewhat simplistic, given that men will presumably continue to exist and given the uniformitarian assumption that the men and women of the future will be like the men and women of the past. A new institutional ensemble might arise and be based on new principles, but those will not be specifically feminine principles. It will again reflect the interplay of people's different needs and potentials, with gender being just one dimension along which they differ.

The way that a new institutional ensemble may arise in the dawn is exemplified by the experiences of 'The Well', a computer club that was set up in the early 1980s, before the internet was generally established. The club's subscribers could communicate via an electronic bulletin board. It soon became clear that they were forming intense relationships, just through exchanging textual e-mails. People who met only via their computer screens were going out of their way to help one another – offering not just advice but even practical

help, such as making introductions for those trying to break into a particular career. In one case, the plight of a single mother so touched the Well's membership that they got together and raised the money for her son's college education among themselves. There was a downside, in that some members formed terrific enmities on-line. However, overall there was a real sense of community.

To understand the significance of this, one should recall the definition of friends as people who are both intimate and trusting. Friends help each other, asking for no direct reward. They share their goals, while they do not coerce or exchange with each other. Friends are bound together by social relationships, but not by economic or political ones. In every human society, the number of a person's friends is typically between ten and fifty. What was remarkable about the Well was that its members behaved like friends even though they numbered in the hundreds and later thousands – far more than one should expect. Computer-to-computer contact, it seems, can be as intense as face-to-face contact. E-mail transcripts, which are increasingly cited in divorce cases, tend to be very intimate. It is becoming possible to achieve that intimacy and intensity with far more people. The implications are potentially enormous.

Computer communications hint at the possibility of constructing high scale societies that are dominated by friends, or at least in which friend relationships are far more significant than at present. This would constitute a fourth institutional ensemble, presumably prevailing in the on-line world rather than the in-the-flesh world. This on-line world also has high vagility, which is today a feature of friend-dominated societies like the Kalahari foragers and prevents the emergence of political authority. With high vagility, domineering people get nowhere because those being dominated simply put distance between them. On-line communication is exactly like that. Anyone who feels bullied can ignore the bully's e-mails or migrate to another discussion group.

The internet, which has subsumed organisations like the Well, is certainly characterised by the kind of behaviour that one expects for a friend-based society. For a start, it is egalitarian and anarchical. It seems to be incompatible with the jurisdiction of political authorities. People tend to share with each other, or at least they share the sort of thing that can be shared by computer (i.e. computer files though not books and shoes). Although electronic commerce is believed to be the big thing, much of the material on the internet is actually available for no cost. The Linux computer operating system, for instance, has been developed by amateurs for their own enjoyment, as have numerous Linux-based software components, including word processors

and spreadsheet programs. This is all free for the taking on the internet, and in Linux discussion groups enthusiastic amateurs provide each other with free technical support.

Today, the internet is constrained by having been born into a well-established world order. Governments and entrepreneurs are trying to replicate on-line the political and economic structures that exist off-line, and they are resisting the internet to the extent that it undermines those structures. The internet is unlikely to generate radical new social forms this side of a dark age. During the dawn, however, it will be re-built on a grander scale and in a world whose institutions are still being laid down. The internet may play a large role in shaping those new institutions and may influence the course of the social recovery. The features of the fourth ensemble may spill over into ordinary existence, to create a society based on sharing and equality. In the present era, utopian attempts to create such societies have foundered on various human failings. However, the unprecedented achievement of widespread intimacy with high scale may negate the perverse incentives of welfare states and communal lifestyles. It will be difficult to abuse the generosity of one's on-line intimates, for one's behaviour will be easily detected, their generosity will quickly be withdrawn, and the news of one's anti-social behaviour will spread fast.

The internet may also provide the key when women search for new roles and new significance during the social recovery. The more that computers and computer communications are a part of everyday life, the more that women will be represented and the more that the technology will reflect women's interests and aspirations. An on-line world, populated by intimates, is essentially on the private side of life, which is traditionally the feminine domain. Therefore, women may predominate in the cyber-environment of the new era, making it a woman's world in the way that past societies have seemed to be a man's world. Already, young people are making friends and seeking romance via internet discussion groups. Women play strong roles in this environment, where men cannot push themselves forward so easily or pose a physical threat. The intimacy of the internet lets women shape situations far more to their own convenience. When a relationship is continued off-line, its structure is already well-established. In the new era, face-to-face interactions will certainly not disappear, but the new rules of the internet will cast a long shadow over them.

Other technologies could supplement the role of the internet in making possible a new institutional ensemble. For instance, electronic surveillance, including on-street video cameras and traceable electronic commercial transactions,

would make it difficult to be anonymous. Even in very large populations, people could feel as they do today in a small town or a foraging band, where their neighbours know everything about them. This would be not big brotherdom but rather community intrusiveness and the government of shame. With much greater spontaneous co-operation and disclosure of one's actions, the new era might remove much of the incentive and opportunity for crime.

There is a secular progress in human institutions, albeit that it is a glacially slow, snakes and ladders kind of progress. By introducing a fourth institutional ensemble, or by moving in that direction, the new era will continue to make progress possible. Liberal democracy and the free market are more proficient at meeting human needs than totalitarianism, feudalism or various other institutional forms that people have concocted over the last five thousand years. Yet they are still not the basis of a perfect society, and their flaws are now propelling the world towards a dark age. After the darkness, societies may be characterised by sharing, more than by selfish accumulation. The disadvantage of the weak may disappear and with it their long-standing oppression and humiliation. This will be a fairer era, and possibly one of greater understanding between people.

The cynical may regard such a forecast with disdain or indeed with derision. A world of widespread fellowship and equality seems to be an idealistic dream. Nevertheless, this dream is not just the preserve of beatniks and sentimentalists. Ordinary people everywhere aspire to such ideals, though they perennially fall short of them in practice. The great religions have always encapsulated this dream in their philosophies. It lies behind the clauses about 'peace' and 'for all mankind' that appear in everything from United Nations treaties to the message left behind by the first astronauts on the moon.\* An era that takes a few more steps towards this dream will surely be one that satisfies human longings better than any that have gone before.

None of this implies that humans will have changed in themselves or become better at arranging their affairs. It is simply that the changing conditions in which people live, the unforeseen consequences of their human genius, will enforce new ensembles upon them. No other arrangements will be consistent. If one looks back on the atrocities and agonies of the last five thousand years, one might be left with little admiration for the human race and no hope for its future betterment. However, if one truly

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\* 'Here men from the planet Earth first set foot upon the moon. July 1969, A.D. We came in peace for all mankind.'

understands what has gone on in those years, one will realise that hope is written all over them. Five thousand years is nothing. Ahead there await inconceivable amounts of time and inconceivable amounts of space for humans to pursue this adventure. Put all doubt aside. The human story is

one of triumph and disaster. Today, humanity is moving inexorably towards the greatest disaster there has ever been. From the perspective of the millennia, though, there has been and always will be only triumph, more triumph, and triumph again.

## Envoi

This book has come a long way – from the first cities on the plain of Sumer to the yet unborn world of an off-planet civilisation. It has shown that the retrenchment of once ascendant societies is no occasional catastrophe but is an absolutely central part of human experience and the historical record. It has produced a semi-formal theory of human sociality, which extracts the underlying simplicity behind complex and disparate political, economic and social phenomena. It has applied this theory to our present situation and found that we are surely on the leeward slope, descending as we advance, beset by irresolvable difficulties, stumbling towards the abyss. It has looked towards the future and guessed at what it holds in the short, medium and long term – descent, darkness and dawn.

My detailed predictions are bound to be wrong. My description of the future is really just an account of today. I have seen it through tainted eyes. The future will always contain unpredictability, an element that by definition we cannot foresee. My gloomiest prognoses will turn out to be too gloomy, my optimism too optimistic. In many areas I will prove to have been overly dramatic. In others I will have been complacent and lacking in imagination. I have tried my best. Nevertheless, crucial events will deflect history down paths that invalidate huge tracts of my analysis. That is the fate of all those who commit their expectations to the printed page.

So much for the attempt to anticipate my future critics. However, I did not write this book in order to tell my readers' fortunes. I wrote it to justify a model of society based on the concepts of integration, organisation and cohesion, and to elaborate its application in understanding the human dynamic. This model is new in its specific exposition, its terminology, and its movement towards rigour. It is not new insofar as it builds on what many have already perceived before me. The discussion of dark ages has been above all a vehicle to demonstrate the value of this theory. I fully expect that acceptance will be slow and grudging. Yet I hope that others may eventually come to follow this example. Indeed, I hope that they will in due course improve upon it. Naturally, my ideas are crude and incomplete. The light that they cast is dim. It is no use dreaming of being the Newton of social science, or even the Galileo. Social scientists are still waiting for their Copernicus.

Though my predictions may be mistaken in detail, I remain confident in the overall view that a

dark age is coming. During the next few decades it may appear that I have misjudged the situation. Things may seem to be getting better. We may appear more enlightened, wealthier, more in control of our destiny than ever before. Do not be fooled by appearances. Those that have judgement should perceive the historical undertow, unseen, relentless and deadly. Those that understand integration, organisation and cohesion should perceive our world order crumbling from the inside. Amid all the noisy confusion of history, there is one thing that comes through loud and clear, and that is the impermanence of power, wealth and love. To predict that everything we hold dear will be destroyed and that something new will be put in its place is to predict that the night will fall and the sun will rise in the morning. Nothing is more certain. Ashes to ashes, dust to dust. *Sic transit gloria mundi*.

Nevertheless, such a forecast is not just a message of doom. It carries a message of hope as well as a warning. A dark age is a time of suffering but also a time of renewal. A dark age is a great levelling, a time when the records are wiped clean and there is a chance to begin again. For the dispossessed and disadvantaged, there should be no gloom in that. No good thing was ever achieved without hardship. We will all suffer in the disintegrated, disorganised, dis cohesive time to come. We will all thereby be ennobled.

There is one pertinent question that I have not addressed in anything that has gone before. This is, what can be done about these things? The answer at one level is, of course, nothing. The wind blows, the tides rise and fall, the dark age buries the old era that is spent and brings in the new era that is full of opportunity. Even if we could do something about it, why should we want to?

Yet though we cannot avert the dark age, we can prepare for it, survive it, be ready to burst forth when it is over. Irish monks carried some embers of the old civilisation through the convulsion of the sub-Roman dark age. When that storm was over they soon re-lit the fires of learning and civilisation. Perhaps we can do the same. Some of us must join together to establish our own focus of integration, organisation and cohesion that can be lobbed through the dark age like a capsule through interplanetary space. We must preserve order, knowledge and faith in a time of treachery, ignorance and turmoil. If you think that is important, contact me.



## Bibliography

- Adams, James. 1998. *The next world war: The warriors and weapons of the new battlefields in cyberspace*. London: Hutchinson.
- Adnan, Adlin. 1999. *New Muslims in Britain*. London: Ta-Ha Publishers.
- Aldred, Cyril. 1980. *Egyptian art*. London: Thames and Hudson.
- Alexander, Lewis M. 1963. *World political patterns*. Chicago: Rand McNally.
- Alexander, Richard D. 1981. Evolution, culture and human behaviour: some general considerations, In R D Alexander, Richard D and Donald W Tinkle (eds.) *Natural selection and social behaviour*. New York: Chiron Press.
- Alford, Alan F. 1997. *Gods of the new millennium: Scientific proof of flesh and blood gods*. London: Hodder and Stoughton.
- Annan, Kofi A. 1999. *The question of intervention*. New York: United Nations.
- Annequin, G. 1978. *The civilisation of the Maya*. Geneva: Ferni Publishers.
- Appleby, Louis. 1994. *A medical tour through the whole island of Great Britain*. London: Faber and Faber.
- Ardrey, Robert. 1963. *African genesis*. London: Readers Union.
- Ardrey, Robert. 1967. *The territorial imperative*. London: Collins.
- Ardrey, Robert. 1970. *The social contract*. London: Collins.
- Arnold, Arnold. 1989. *Winners...and other losers in war and peace*. London: Paladin.
- Arnold, Benjamin. 1997. *Medieval Germany, 500-1300: A political interpretation*. Basingstoke, Hants: Macmillan.
- Arnold, Guy. 1996. *The maverick state: Gaddafi and the new world order*. London: Cassell.
- Arrighi, Giovanni & Beverly J Silver. 1999. *Chaos and governance in the modern world system*. Minneapolis: Univ. of Minnesota Press.
- Atkinson, A B. 1975. *The economics of inequality*. Oxford: Clarendon Press.
- Atkinson, Rick. 1994. *Crusade: The untold story of the Gulf War*. London: HarperCollins.
- Augustine, Norman. 1997. *Augustine's laws*. Reston, VA: American Institute of Aeronautics and Astronautics.
- Axelrod, Robert. 1990. *The evolution of co-operation*. London: Penguin.
- Backman, Michael. 1999. *Asian eclipse: The dark side of doing business in Asia*. Singapore: John Wiley & Sons.
- Baev, Pavel K. 1996. *The Russian army in a time of troubles*. London: Sage Publications.
- Bailey, Jim. 1994. *Sailing to paradise: The discovery of the Americas by 7000 BC*. New York: Simon and Schuster.
- Bairoch, Paul. 1988. *Cities and economic development: from the dawn of history to the present*. London: Mansell Publishing.
- Bak, Per. 1997. *How nature works: the science of self-organised criticality*. Oxford: Univ. Press.
- Bale, John. 1976. *The location of manufacturing industry*. Edinburgh: Oliver and Boyd.
- Banham, John. 1994. *The anatomy of change: Blueprint for a new era*. London: Weidenfeld and Nicholson.
- Barnaby, Frank. 1996. *Instruments of terror*. London: Satin Publications.
- Barnet, Richard J. 1981. *The lean years: Politics in the age of scarcity*. London: Sphere Books.
- Barracough, Geoffrey. 1991. *Main trends in history*. New York: Holmes & Meier.
- Barrett, David V. 1999. *Secret societies: From the ancient and arcane to the modern and clandestine*. London: Blandford.
- Barton, Brian. 1999. *A pocket history of Ulster*. Dublin: O'Brien Press.
- Basalla, George. 1988. *The evolution of technology*. Cambridge: Univ. Press.
- Beaujeu-Garnier, J. 1966. *Geography of population*. London: Longmans, Green and Co.
- Beckerman, Wilfred. 1983. Commentary on Kenneth Boulding: World society: the range of possible futures. In Donald J Ortner (ed.) *How humans adapt: a biocultural odyssey*, Washington, D.C.: Smithsonian Institution Press.
- Beckman, Robert. 1983. *The downwave*. Portsmouth, Hants: Milestone Publications.
- Begon, Michael and Martin Mortimer. 1986. *Population ecology: a unified study of animals and plants*. Oxford: Blackwell Scientific Publications.
- Bell, B. 1971. *The dark ages in ancient history: 1: The first dark ages in Egypt*. *American Journal of Archaeology* 75: 1-26.
- Bell, Gwen, and Jacqueline Tyrwhitt (eds.). 1972. *Human identity in the urban environment*. Harmondsworth: Penguin.
- Bernstein, Richard and Ross H Munro. 1998. *The coming conflict with China*. New York: Vintage.
- Bertuglia, C S, et al. 1987. *Urban systems: contemporary approaches to modelling*. London: Croom Helm.
- Bhatia, Shyam and Daniel McGrory. 1999. *Brighter than the Baghdad sun: Saddam's race to build the bomb*. London: Little, Brown and Co.
- Bibby, G. 1972. *Looking for Dilmun*. Harmondsworth: Penguin.
- Birmingham, David. 1995. *The decolonisation of Africa*. London: UCL Press.
- Birnbaum, Norman. 1969. *The crisis of industrial society*. Oxford: Univ. Press.
- Blainey, Geoffrey. 1988. *The great seesaw: A new view of the western world, 1750-2000*. Basingstoke, Hants: Macmillan.

## Bibliography

- Blaug, Mark. 1980. *The methodology of economics: or how economists explain*. Cambridge: Univ. Press.
- Blaxter, Sir Kenneth. 1986. *People, food and resources*. Cambridge: Univ. Press.
- Bloom, Allan. 1987. *The closing of the American mind: How higher education has failed democracy and impoverished the souls of today's students*. New York: Simon and Schuster.
- Bloomfield, Brian P. 1986. *Modelling the world: the social constructions of systems analysts*. Oxford: Basil Blackwell.
- Blum, William. 1994. *Killing hope: US military and CIA interventions since World War II*. Monroe, ME: Common Courage Press.
- Bolger, Daniel P. 1995. *Savage peace: Americans at war in the 1990s*. Novato, CA: Presidio Press.
- Bonner, William. 1994. *What went wrong with the 20th century*. London: Fleet Street Publications.
- Booker, Christopher and Richard North. 1994. *The mad officials: How the bureaucrats are strangling Britain*. London: Constable.
- Booker, Christopher and Richard North. 1996. *The castle of lies: Why Britain must get out of Europe*. London: Duckworth.
- Bork, Robert H. 1996. *Slouching towards Gomorrah: Modern liberalism and American decline*. New York: HarperCollins.
- Bornschiefer, Volker and Christopher Chase-Dunn. 1999. *The future of global conflict*. London: Sage Publications.
- Boserup, Ester. 1965. *The conditions of agricultural growth: the economics of agrarian change under population pressure*. London: George Allen and Unwin.
- Boslough, John. 1992. *Masters of time: How wormholes, snakewood and assaults on the Big Bang have brought mystery back to the cosmos*. London: J M Dent.
- Boulding, Kenneth E. 1981. *Ecodynamics: a new theory of societal evolution*. Beverly Hills: Sage Publications.
- Boulding, Kenneth E. 1983. World society: the range of possible futures. In Donald J Ortner (ed.) *How humans adapt: a biocultural odyssey*, Washington, D.C.: Smithsonian Institution Press.
- Bower, Tom. 1983. *Blind eye to murder: Britain, America and the purging of Nazi Germany - a pledge betrayed*. St Albans, Herts: Granada Publishing.
- Boyd, Robert and Peter J Richerson. 1985. *Culture and the evolutionary process*. Chicago: Univ. Press.
- Boyden, Stephen. 1989. *Western civilisation in biological perspective*. Oxford: Clarendon Press.
- Brackett, D W. 1996. *Holy terror: Armageddon in Tokyo*. New York: Weatherhill Inc.
- Brandt Commission. 1983. *Common crisis: North-south: Co-operation for world recovery*. London: Pan.
- Breach, R W, and R M Hartwell. 1972. *British economy and society, 1870-1970*. Oxford: Univ. Press.
- Brewton, Pete. 1992. *The Mafia, CIA and George Bush: Corruption, greed and abuse of power in the nation's highest office*. New York: Shapolsky Publishers.
- Brierley, J K. 1969. *Biology and the social crisis: a social biology for everyman*. London: Heinemann.
- Brittan, Leon. 1994. *Europe: The Europe we need*. London: Hamish Hamilton.
- Brittan, Samuel. 1971. *Steering the economy: The role of the Treasury*. Harmondsworth, Middlesex: Penguin.
- Brogan, Patrick. 1998. *World conflicts*. London: Bloomsbury.
- Brown, Donald E. 1991. *Human universals*. New York: McGraw-Hill.
- Brown, J A C. 1963. *Techniques of persuasion*. Harmondsworth: Penguin.
- Brown, Peter. 1992. *Power and persuasion in late antiquity: towards a Christian empire*. Wisconsin: Univ. Press.
- Buckminster Fuller, R. 1969. *Utopia or oblivion: the prospects for humanity*. Harmondsworth: Penguin.
- Bueno de Mesquita, Bruce, David Newman and Alvin Rabushka. 1985. *Forecasting political events: the future of Hong Kong*. New Haven: Yale Univ. Press.
- Burgess (ed.), Glyn S. 1999. *The lais of Marie de France*. London: Penguin.
- Burnett, John. 1969. *A history of the cost of living*. Harmondsworth, Middx: Penguin.
- Busby, Chris. 1995. *The wings of death: Nuclear pollution and human health*. Aberystwyth: Green Audit Books.
- Butlin, N G. 1993. *Economics and the dreamtime: a hypothetical history*. Cambridge: Univ. Press.
- Butzer, Karl W. 1982. *Archaeology as human ecology*. Cambridge: Univ. Press.
- Cain, P J. 1980. *Economic foundations of British overseas expansion, 1815-1914*. Basingstoke: Macmillan.
- Cairncross, Alec. 1986. *Economics and economic policy*. Oxford: Basil Blackwell.
- Cairncross, Frances. 1991. *Costing the earth: What governments must do; What consumers need to know; How businesses can profit*. London: Business Books.
- Calder, Kent E. 1997. *Asia's deadly triangle: How arms, energy and growth threaten to destabilise Asia-Pacific*. London: Nicholas Brealey.
- Calhoun, J. B. 1970. Population. In A. Allison (ed.) *Population control*, Harmondsworth: Penguin.
- Camagni, Roberto (ed.). 1991. *Innovation networks: spatial perspectives*. London: Belhaven Press.

- Cameron, Rondo. 1992. *A concise economic history of the world: From Palaeolithic times to the present*. Oxford: Univ. Press.
- Carlstein, Tommy. 1982. *Time resources, society and ecology: Volume 1, Preindustrial societies*. London: George Allen and Unwin.
- Carlyle, Thomas. 1907. *On heroes: hero-worship, and the heroic in history*. London: Blackie and Son.
- Carr, E H. 1964. *What is history?*. Harmondsworth: Penguin.
- Carr, Michael. 1987. *Patterns: process and change in human geography*. Basingstoke: Macmillan Educational Ltd.
- Carrithers, Michael. 1992. *Why humans have cultures: explaining anthropology and social diversity*. Oxford: Univ. Press.
- Carstairs, G M. 1983. Changing aspirations for mental and physical health. In Donald J Ortner (ed.) *How humans adapt: a biocultural odyssey*, Washington, D.C.: Smithsonian Institution Press.
- Cartwright, Dorwin and Alvin Zander. 1968. *Group dynamics: research and theory*. London: Tavistock Publications.
- Carver, Field Marshal Lord. 1999. *Britain's army in the 20th century*. London: Pan.
- Casson, Stanley. 1937. *Progress and catastrophe*. London: Hamish Hamilton.
- Castles, Stephen and Mark J Miller. 1998. *The age of migration: International population movements in the modern world*. Basingstoke, Hants: Macmillan.
- Caufield, Catherine. 1997. *Masters of illusion: The World Bank and the poverty of nations*. London: Macmillan.
- C-E-I-R Ltd. 1968. *Mathematical model building in economics and industry*. London: Charles Griffin and Co.
- Ceram, C W. 1959. *A picture history of archaeology*. London: Thames and Hudson.
- Chaudhuri, K. N. 1985. *Trade and civilisation in the Indian ocean*. Cambridge: Univ. Press.
- Cherry, Colin. 1966. *On human communication*. Cambridge, Mass.: MIT Press.
- Chomsky, Naom. 1993. *Year 501: The conquest continues*. London: Verso.
- Chomsky, Noam. 1972. *Language and mind*. San Diego: Harcourt Brace Jovanovich.
- Chorley, Richard J and Peter Haggett (eds.). 1968. *Socio-economic models in geography*. London: Methuen.
- Cipolla, Carlo M. 1978. *The economic history of world population*. Harmondsworth, Middlesex: Penguin.
- Clark, Peter and Paul Slack. 1976. *English towns in transition, 1500-1700*. Oxford: Univ. Press.
- Clarke, David L. 1978. *Analytical archaeology*. London: Methuen and Co.
- Cleary, A S Esmonde. 1989. *The ending of Roman Britain*. London: B T Batsford.
- Coates, B E, R J Johnston and P L Knox. 1977. *Geography and inequality*. Oxford: Univ. Press.
- Coates, David. 1994. *The question of UK decline: The economy, state and society*. Hemel Hempstead: Harvester Wheatsheaf.
- Coblentz, S. 1965. *Ten crises in civilisation*. London: Frederick Muller.
- Cocks, R and R Bentley. 1996. *£300 billion: government spending: the facts*. Reading: Databooks.
- Cœdès, George. 1963. *Angkor: An introduction*. Oxford: Univ. Press.
- Cohen, Mark Nathan. 1989. *Health and the rise of civilisation*. New Haven: Yale Univ. Press.
- Cohen\_Y, Yehudi (ed.). 1974. *Man in adaptation: the biosocial background*. Chicago: Aldine.
- Cole, J P. 1974. *Geography of world affairs*. Harmondsworth, Middlesex: Penguin.
- Colebatch, Hal. 1999. *Blair's Britain*. London: The Claridge Press.
- Coleman, D C. 1977. *The economy of England, 1450-1750*. Oxford: Univ. Press.
- Collins, Harry, and Trevor Pinch. 1993. *The golem: what everyone should know about science*. Cambridge: Univ. Press.
- Connah, G. 1987. *African civilisations*. Cambridge: Univ. Press.
- Conrad, G. W. and A. A. Demarest. 1984. *Religion and empire*. Cambridge: Univ. Press.
- Cooley, John K. 1999. *Unholy wars: Afghanistan, America and international terrorism*. London: Pluto Press.
- Coon, Carleton S. 1967. *The history of man*. Harmondsworth: Penguin.
- Costen, Michael. 1997. *The Cathars and the Albigensian crusade*. Manchester: Univ. Press.
- Cotterrell, Arthur. 1993. *East Asia: From Chinese predominance to the rise of the Pacific rim*. London: John Murray.
- Cottrell, Alan. 1981. *How safe is nuclear energy?*. London: Heinemann Educational.
- Cottrell, L. 1966. *The Penguin book of lost worlds*. Harmondsworth: Penguin.
- Coveney, Peter and Roger Highfield. 1995. *Frontiers of complexity: the search for order in a chaotic world*. London: Faber and Faber.
- Cruttwell, Peter. 1995. *History out of control: Confronting global anarchy*. Totnes, Devon: Green Books.
- Curtin, P. D. 1984. *Cross-cultural trade in world history*. Cambridge: Univ. Press.
- Curtis, Mark. 1998. *The great deception: Anglo-American power and world order*. London: Pluto Press.
- Custer, J. F. 1989. *Prehistoric cultures of the Delmarva peninsula*. London: Associated University Presses.
- Dalyell, Tam. 1983. *A science policy for Britain*. London: Longman.

## Bibliography

- D'Andrade, Roy, and Claudia Strauss. 1992. *Human motives and cultural models*. Cambridge: Univ. Press.
- Darlington, C D. 1969. *The evolution of man and society*. London: George Allen and Unwin.
- Darwish, Adel and Gregory Alexander. 1991. *Unholy Babylon: The secret history of Saddam's war*. London: Victor Gollancz.
- Davidson, James Dale & William Rees-Mogg. 1992. *The great reckoning: How the world will change in the depression of the 1990s*. London: Sidgwick and Jackson.
- Davies, Norman. 1997. *Europe: A history*. London: Pimlico.
- Davis, John. 1992. *Exchange*. Buckingham: Open Univ. Press.
- Davis, Kingsley, and Mikhail S Bernstam (eds.). 1991. *Resources, environment and population: present knowledge, future options*. Oxford: Univ. Press.
- Day, Richard H, and Ping Chen. 1993. *Nonlinear dynamics and evolutionary economics*. Oxford: Univ. Press.
- De Grand, Alexander. 1989. *Italian fascism: Its origins and development*. Lincoln: Univ. of Nebraska Press.
- De Jouvenel, Bertrand. 1967. *The art of conjecture*. London: Weidenfeld and Nicholson.
- De Marchi, Neil. 1988. *The Popperian legacy in economics*. Cambridge: Univ. Press.
- De Vries, Jan. 1976. *The economy of Europe in an age of crisis, 1600-1750*. Cambridge: Univ. Press.
- De Vries, Jan. 1984. *European urbanisation 1500-180*. London: Methuen.
- Deane, Margaret, and Robert Pringle. 1994. *The central banks*. London: Hamish Hamilton.
- Dendrinos, Dimitrios S, with Henry Mullally. 1985. *Urban evolution: studies in the mathematical ecology of cities*. Oxford: Univ. Press.
- Denley, Peter and Deian Hopkin. 1987. *History and computing*. Manchester: Univ. Press.
- Denman, D R. 1958. *Origins of ownership: a brief history of land ownership and tenure from earliest times to the modern era*. London: George Allen and Unwin.
- Diamond, Jared. 1991. *The rise and fall of the third chimpanzee*. London: Vintage.
- Diamond, Jared. 1997. *Guns, germs and steel: a short history of everybody for the last 13,000 years*. London: Jonathan Cape.
- Dick, Charles and Anne Aldis. 1998. *Central and Eastern Europe: Problems and prospects*. Strategic and Combat Studies Institute.
- Dimpleby, Jonathan. 1998. *The last governor: Chris Patten and the takeover of Hong Kong*. London: Warner Books.
- Diuk, Nadia and Adrian Karatnycky. 1993. *New nations rising: The fall of the Soviets and the challenge of independence*. London: John Wiley.
- Dixon, Patrick. 1996. *The truth about Westminster*. Eastbourne, E Sussex: Kingsway Publications.
- Dougherty, James E and Robert L Pfaltzgraff Jr. 1981. *Contending theories of international relations: a comprehensive survey*. New York: Harper and Row.
- Douglas, Mary. 1984. *Purity and danger: an analysis of the concepts of pollution and taboo*. London: Routledge.
- Drake, Michael. 1969. *Population in industrialisation*. London: Methuen.
- Dunbar, Robin. 1995. *The trouble with science*. London: Faber & Faber.
- Duncan, Alan, and Dominic Hobson. 1995. *Saturn's children: How the state devours liberty, prosperity and virtue*. London: Sinclair-Stevenson.
- Duncan, Ronald and Miranda Weston-Smith (eds.). 1977. *The encyclopaedia of ignorance*. Oxford: Pergamon Press.
- Dyer, Christopher. 1989. *Standards of living in the later Middle Ages: Social change in England, c. 1200-1520*. Cambridge: Univ. Press.
- Dyke, C. 1988. *The evolutionary dynamics of complex systems: a study in biosocial complexity*. Oxford: Univ. Press.
- Dyker, D A & I Vejvoda. 1996. *Yugoslavia and after: A study in fragmentation, despair and rebirth*. Harlow, Essex: Addison Wesley Longman.
- Dynes, Michael and David Walker. 1995. *The Times guide to the new British state: The government machine in the 1990s*. London: Times Books.
- Earle, Timothy. 1991. *Chiefdoms: power, economy, and ideology*. Cambridge: Univ. Press.
- East, Gordon. 1938. *The geography behind history*. London: Thomas Nelson and Sons.
- Eatwell, John. 1982. *Whatever happened to Britain?* London: BBC.
- Eccles, John C. 1991. *Evolution of the brain: creation of the self*. London: Routledge.
- Ekins, Paul (ed.). 1986. *The living economy: A new economics in the making*. London: Routledge and Kegan Paul.
- Elliott, Paul. 1998. *Warrior cults: A history of magical, mystical and murderous organizations*. London: Blandford.
- Elliott, Paul. 1998. *Brotherhoods of fear: A history of violent organizations*. London: Blandford.
- Ellis, John. 1990. *Brute force: Allied strategy and tactics in the Second World War*. London: Andre Deutsch.
- Ellis, Peter Berresford. 1998. *The story of the Cornish language*. Redruth, Cornwall: Tor Mark Press.
- Esler, Gavin. 1998. *The United States of anger*. London: Penguin Books.
- Evans, Brendan. 1990. *The ideological basis of British politics in the 1990s*. Huddersfield: Dept of Humanities, Polytechnic of Huddersfield.

- Eyre, S R. 1978. *The real wealth of nations*. London: Edward Arnold.
- Fairservis, W. A. 1984. Harappan civilisation according to its writing. In B. Allchin (ed.) *South Asian archaeology 1981*, Cambridge : Univ. Press.
- Falkus, M E. 1972. *The industrialisation of Russia, 1700-1914*. London: Macmillan.
- Farb, Peter. 1969. *Man's rise to civilisation as shown by the Indians of North America, from primeval times to the coming of the industrial state*. London: History Book Club.
- Ferro, Marc. 1984. *The use and abuse of history: Or how the past is taught*. London: Routledge and Kegan Paul.
- Fiedel, S. J. 1987. *Prehistory of the Americas*. Cambridge: Univ. Press.
- Finley, M. I. 1977. *The ancient Greeks*. Harmondsworth: Penguin.
- Finley, M. I. 1977. *Aspects of antiquity*. Harmondsworth: Penguin.
- Firth, Raymond. 1958. *Human types: an introduction to social anthropology*. New York: Mentor Books.
- Firth, Raymond. 1961. *Elements of social organisation*. London: Tavistock.
- Fischer, David Hackett. 1996. *The great wave: Price revolutions and the rhythm of history*. New York: Oxford Univ. Press.
- Fletcher, Richard. 1998. *The conversion of Europe: From paganism to Christianity 371-1386 AD*. London: Fontana.
- Flinn, Michael W. 1981. *The European demographic system, 1500-1820*. Brighton: The Harvester Press.
- Flood, Robert L and Ewart R Carson. 1988. *Dealing with complexity: an introduction to the theory and application of systems science*. New York: Plenum Press.
- Florence, P Sargant. 1990. *Atlas of economic structure and policies (Vol 2)*. Oxford: Pergamon.
- Foot, David. 1981. *Operational urban models: an introduction*. London: Methuen.
- Frank, Andre Gunder and Barry K Gills. 1996. *The world system: five hundred years or five thousand?*. London: Routledge.
- Fraser, Derek. 1984. *The evolution of the British welfare state: A history of social policy since the Industrial Revolution*. Basingstoke, Hampshire: Macmillan.
- Frazetta, T H. 1975. *Complex adaptations in evolving populations*. Sunderland, Mass.: Sinauer Associates.
- Freedman, Lawrence. 1985. *Atlas of global strategy: War and peace in the nuclear age*. London: Macmillan.
- Freeman, Christopher and Marie Jahoda (eds.). 1978. *World futures: The great debate*. London: Martin Robertson.
- Freemantle, Brian. 1995. *The octopus: Europe in the grip of organised crime*. London: Orion.
- Fremlin, J H. 1987. *Power production: What are the risks?*. Oxford: Univ. Press.
- Freund, Bill. 1998. *The making of contemporary Africa*. Basingstoke, Hants: Macmillan.
- Friedman, J, and M J Rowlands (eds.). 1977. *The evolution of social systems*. London: Duckworth.
- Friman, H Richard & Peter Andreas, ed. 1999. *The illicit global economy and state power*. Lanham, Maryland: Rowman and Littlefield.
- Fukuyama, Francis. 1992. *The end of history and the last man*. London: Penguin.
- Fukuyama, Francis. 1995. *Trust: The social virtues and the creation of prosperity*. London: Hamish Hamilton.
- Fukuyama, Francis. 1997. *The end of order*. London: The Social Market Foundation.
- Fukuyama, Francis. 1999. *The great disruption: Human nature and the reconstitution of social order*. London: Profile Books.
- Furtado, Peter (ed.). 1994. *The rise of the enterprise society*. London: Hamlyn.
- Gabor, Dennis. 1964. *Inventing the future*. Harmondsworth, Middlesex: Penguin.
- Galbraith, J K. 1961. *The great crash, 1929*. Harmondsworth, Middlesex: Penguin.
- Gamble, Andrew. 1981. *Britain in decline*. London: Macmillan.
- Gardiner, Patrick. 1961. *The nature of historical explanation*. Oxford: Univ. Press.
- George, Susan. 1986. *How the other half dies: The real reasons for world hunger*. Harmondsworth, Middlesex: Penguin.
- George, Susan and Fabrizio Sabelli. 1994. *Faith and credit: The World Bank's secular empire*. London: Penguin.
- Gerth, Hans and C Wright Mills. 1954. *Character and social structure: the psychology of social institutions*. London: Routledge and Kegan Paul.
- Giddens, Anthony. 1984. *The constitution of society*. Cambridge: Polity Press.
- Giles, J A (ed.). 1848. *Six Old English chronicles*. London: Henry G. Bohn.
- Gill, Richard T. 1973. *Economic development: past and present*. Englewood Cliffs, N.J.: Prentice-Hall International.
- Gillham, Bill. 1997. *The facts about teenage pregnancies*. London: Cassell.
- Gimpel, Jean. 1975. *La révolution industrielle du Moyen Age*. Paris: Editions du Seuil.
- Glyn-Jones, Anne. 1996. *Holding up a mirror: how civilisations decline*. London: Century.
- Goddard, Donald with Lester K Coleman. 1993. *Trail of the octopus*. London: Bloomsbury.
- Goldman, I. 1970. *Ancient Polynesian society*. Chicago: Univ. Press.
- Goldschmidt, Walter. 1992. *The human career: the self in the symbolic world*. Oxford: Blackwell.
- Goldsmith, James. 1994. *The trap*. London: Macmillan.

## Bibliography

- Goldsmith, James. 1995. *The response*. London: Macmillan.
- Goldstein, Joshua S. 1988. *Long cycles: prosperity and war in the modern age*. New Haven: Yale Univ. Press.
- Gottstein, Klaus. 1999. *Catastrophes and conflicts: Scientific approaches to their control*. Aldershot, Hants: Ashgate.
- Goudsblom, Johan et al. 1989. *Human history and social process*. Exeter: Univ. Press.
- Gough, Leo. 1998. *Asia meltdown: The end of the miracle?*. Oxford: Capstone.
- Gowlett, John. 1984. *Ascent to civilization: the archaeology of early man*. London: William Collins Sons and Co.
- Grant, Michael. 1978. *History of Rome*. London: Book Club Associates.
- Greenhalgh, C A, P R G Layard and A J Oswald (eds.). 1983. *The causes of unemployment*. Oxford: Univ. Press.
- Gribbin, John. 1976. *Forecasts, famines and freezes: Climate and man's future*. London: Wildwood House.
- Gribbin, John. 1982. *Future weather and the greenhouse effect: A book about carbon dioxide, climate, and mankind*. New York: Dell.
- Grigg, D B. 1974. *The agricultural systems of the world: an evolutionary approach*. Cambridge: Univ. Press.
- Grousset, R. 1951. *The sum of history*. Hadleigh: Tower Bridge Publications.
- Gurney, O. 1954. *The Hittites*. Harmondsworth: Penguin.
- Gwynne, Robert N. 1990. *New horizons? Third world industrialization in an international framework*. London: Longman.
- Hadfield, Peter. 1991. *Sixty seconds that will change the world: The coming Tokyo earthquake*. London: Sidgwick and Jackson.
- Hage, Per and Frank Harary. 1983. *Structural models in anthropology*. Cambridge: Univ. Press.
- Hägerstrand, T. 1988. Some unexplored problems in the modelling of culture transfer and transformation. In P. Hugill and B. Dickson (eds.) *The transfer and transformation of ideas and material culture*, Texas A&M University Press.
- Haggett, Peter and Richard Chorley. 1969. *Network analysis in geography*. London: Edward Arnold.
- Hall, John Whitney. 1970. *Japan: From prehistory to modern times*. London: George Weidenfeld & Nicholson.
- Halliday, Fred. 1996. *Islam and the myth of confrontation*. London: I B Tauris.
- Hallpike, C R. 1988. *The principles of social evolution*. Oxford: Clarendon Press.
- Halsey, A H. 1986. *Change in British society*. Oxford: Univ. Press.
- Ham, Adrian. 1981. *Treasury rules: Recurrent themes in British economic policy*. London: Quarter Books.
- Hampden-Turner, Charles, and Fons Trompenaars. 1993. *The seven cultures of capitalism*. London: Judy Piatkus.
- Handy, Charles B. 1985. *Understanding organisations*. Harmondsworth: Penguin.
- Harcourt, Alexander H and Frans B M de Waal. 1992. *Coalitions and alliances in humans and other animals*. Oxford: Univ. Press.
- Harden, D. 1971. *The Phoenicians*. Harmondsworth: Penguin.
- Hardin, Garrett. 1969. *Population, evolution, and birth control: a collage of controversial ideas*. San Francisco: W H Freeman.
- Hass, Hans. 1973. *The human animal: the mystery of man's behaviour*. London: Corgi.
- Hassan, Fekri A. 1983. Earth resources and population: an archeological perspective. In Donald J Ortner (ed.) *How humans adapt: a biocultural odyssey*, Washington, D.C.: Smithsonian Institution Press.
- Heaton, Herbert. 1948. *Economic history of Europe*. New York: Harper and Row.
- Heikal, Mohamed H. 1988. *Cutting the lion's tail: Suez through Egyptian eyes*. London: Corgi.
- Heilbroner, Robert L. 1977. *Business civilisation in decline*. Harmondsworth, Middlesex: Penguin.
- Hennessy, Peter. 1996. *The hidden wiring: Unearthing the British constitution*. London: Indigo.
- Herm, G. 1975. *The Phoenicians*. London: Book Club Associates.
- Herman, Arthur. 1997. *The idea of decline in western history*. New York: Simon & Schuster.
- Herodotus. 1954. *The histories*. Harmondsworth: Penguin.
- Heyerdahl, T. 1989. *Easter Island: the mystery solved*. London: Souvenir Press.
- Higham, C. 1989. *The archaeology of mainland southeast Asia*. Cambridge: Univ. Press.
- Hills, Christopher. 1979. *The golden egg: Manifesting the rise of the phoenix*. Boulder Creek, Calif.: University of the Trees Press.
- Hillyard, Paddy and Janie Percy-Smith. 1988. *The coercive state: The decline of democracy in Britain*. London: Fontana.
- Hippler, Jochen (ed.). 1995. *The democratisation of disempowerment: The problem of democracy in the Third World*. London: Pluto Press.
- Hobsbawm, E J. 1990. *Nations and nationalism since 1780: Programme, myth, reality*. Cambridge: Univ. Press.
- Hodder, Ian (ed.). 1978. *Simulation studies in archaeology*. Cambridge: Univ. Press.
- Hodges, Henry. 1971. *Technology in the ancient world*. Harmondsworth: Penguin.
- Holden, K, D A Peel and J L Thomson. 1990. *Economic forecasting: an introduction*. Cambridge: Univ. Press.

- Holm, Jeanne. 1992. *Women in the military: An unfinished revolution*. Novato, California: Presidio Press.
- Holsti, Kalevi J. 1991. *Peace and war: armed conflicts and international order 1648 - 1989*. Cambridge: Univ. Press.
- Hoogendijk, Willem. 1991. *The economic revolution: Towards a sustainable future by freeing the economy from money-making*. London: Merlin Press.
- Hopkins, Terence K, Immanuel Wallerstein et al. 1996. *The age of transition: Trajectory of the world system, 1945-2025*. London: Zed Books.
- Howard, Michael. 1977. *War in European history*. Oxford: Univ. Press.
- Huggett, Frank E. 1975. *The land question and European society*. London: Thames and Hudson.
- Hunt, Edwin S & James M Murray. 1999. *A history of business in medieval Europe, 1200-1550*. Cambridge: Univ. Press.
- Huntington, Ellsworth. 1959. *Mainsprings of civilisation*. New York: Mentor Books.
- Huntington, Samuel. 1996. *The clash of civilisations and the remaking of world order*. New York: Simon and Schuster.
- Hutchinson, R. W. 1962. *Prehistoric Crete*. Harmondsworth : Penguin.
- Hutchinson, Robert. 1997. *Their kingdom come: Inside the secret world of Opus Dei*. London: Transworld Publishers.
- Hutton, Will. 1996. *The state we're in*. London: Vintage.
- Hutton, Will. 1997. *The state to come*. London: Vintage.
- Hyams, Edward and George Ordish. 1963. *The last of the Incas*. London: Longmans.
- Inglehart, Roanld, Miguel Basanez and Alejandro Moreno. 1998. *Human values and beliefs: A cross-cultural sourcebook*. Ann Arbor: University of Michigan Press.
- Ingold, Tim. 1986. *Evolution and social life*. Cambridge: Univ. Press.
- Ingold, Tim, David Riches and James Woodburn (eds.). 1991. *Hunters and gatherers, Volume 1: History, evolution and social change*. Oxford: Berg.
- Ingold, Tim, David Riches and James Woodburn (eds.). 1991. *Hunters and gatherers, Volume 2: Property, power and ideology*. Oxford: Berg.
- Irwin, G. 1992. *The prehistoric exploration and colonisation of the Pacific*. Cambridge: Univ. Press.
- Isard, Walter. 1990. *Practical methods of regional science and empirical applications*. Macmillan Academic and Professional.
- Jaber, Hala. 1997. *Hezbollah*. London: Fourth Estate.
- James, Lawrence. 1998. *Raj: The making and unmaking of British India*. London: Abacus.
- James, Oliver. 1997. *Britain on the couch: Why we're unhappier compared with 1950 despite being richer: A treatment for the low-serotonin society*. London: Century.
- James, Simon, and Christopher Nobes. 1996. *The economics of taxation: principles, policy and practice*. Hemel Hempstead: Prentice Hall Europe.
- Jay, Peter and Michael Stewart. 1987. *Apocalypse 2000: Economic breakdown and the suicide of democracy, 1989-2000*. London: Sidgwick and Jackson.
- Jean, François (ed.). 1993. *Life, death and aid: The Médecins Sans Frontières report on world crisis intervention*. London: Routledge.
- Johnson, Allen W and Timothy Earle. 1987. *The evolution of human societies*. Stanford: Univ. Press.
- Johnson, G. A. 1989. Dynamics of southwestern prehistory. In L. S. Cordell and G. J. Gumerman (eds.) *Dynamics of southwest prehistory*, Washington DC. Smithsonian.
- Jones, E L. 1987. *The European miracle: Environments, economies and geopolitics in the history of Europe and Asia*. Cambridge: Univ. Press.
- Jones, Emrys. 1990. *Metropolis: The world's great cities*. Oxford: Univ. Press.
- Jones, Peter M and Gordon Reece. 1990. *British public attitudes to nuclear defence*. Basingstoke: Macmillan Press.
- Judah, Tim. 2000. *Kosovo: War and revenge*. London: Yale Univ. Press.
- Judge, W. J. 1989. Chaco canyon - San Juan basin. In L. S. Cordell and G. J. Gumerman (eds.) *Dynamics of southwest prehistory*, Washington DC : Smithsonian.
- Kahn, Herman, et al. 1976. *The next 200 years: Ascenario for America and the world*. New York: William Morrow and Company.
- Kaster, Joseph. 1995. *The wisdom of ancient Egypt*. London: Book Club Associates.
- Kauffman, Stuart. 1996. *At home in the universe*. London: Penguin.
- Kay, Paul (ed.). 1971. *Explorations in mathematical anthropology*. Cambridge, Mass.: MIT Press.
- Kealey, Terence. 1996. *The economic laws of scientific research*. Basingstoke, Hants: Macmillan.
- Kennedy, Noah. 1989. *The industrialisation of intelligence*. London: Unwin Hyman.
- Kennedy, P. 1989. *The rise and fall of the great powers*. London: Fontana Press.
- Kennedy, Paul. 1989. *The rise and fall of the great powers: economic change and military conflict from 1500 to 2000*. London: Fontana Press.
- Kenwood, A G, and A L Loughheed. 1983. *The growth of the international economy, 1820-1980*. London: Unwin Hyman.
- Kidron, Michael and Ronald Segal. 1987. *The book of business, money and power*. London: Pan.

## Bibliography

- Kinder, H, and W Hilgemann. 1974. *The Penguin atlas of world history (2 vols)*. Harmondsworth, Middlesex: Penguin.
- Kindleberger, Charles P. 1987. *The world in depression, 1929-1939*. Harmondsworth, Middlesex: Penguin.
- King, Alexander, and Bertrand Schneider. 1991. *The first global revolution: A report by the council of the Club of Rome*. London: Simon and Schuster.
- Kirch, P. V. 1989. *The evolution of the Polynesian chiefdoms*. Cambridge: Univ. Press.
- Kitto, H D F. 1957. *The Greeks*. Harmondsworth, Middlesex: Penguin.
- Klepikova, Elena and Vladimir Solovyov. 1995. *Zhirinovskiy: The paradoxes of Russian fascism*. London: Viking.
- Knipe, Humphry and George Maclay. 1973. *The dominant man*. London: Fontana.
- Knowles, L C A. 1926. *The industrial and commercial revolutions in Great Britain during the nineteenth century*. London: Routledge and Kegan Paul.
- Knutsen, Torbjørn. 1999. *The rise and fall of world orders*. Manchester: Univ. Press.
- Kriedte, Peter. 1983. *Peasants, landlords and merchant capitalists: Europe and the world economy, 1500-1800*. Leamington Spa: Berg.
- Kroeber, A L. 1969. *Configurations of culture growth*. Berkeley and Los Angeles: Univ. of California Press.
- Krugman, Paul. 1999. *The return of depression economics*. London: Allen Lane.
- Kuhn, Thomas S. 1970. *The structure of scientific revolutions*. Chicago: Univ. Press.
- Kwitny, Jonathan. 1998. *Man of the century: The life and times of Pope John Paul II*. London: Warner Books.
- Laffin, John. 1994. *The world in conflict: War annual 6*. London: Brassey's.
- Laffin, John. 1996. *The world in conflict: War annual 7*. London: Brassey's.
- Laffin, John. 1997. *The world in conflict: War annual 8*. London: Brassey's.
- Laidi, Zaki (ed.). 1994. *Power and purpose after the cold war*. Oxford: Berg.
- Laidi, Zaki (ed.). 1994. *Power and purpose after the cold war*. Oxford: Berg.
- Lamb, H H. 1982. *Climate, history and the modern world*. London: Methuen and Co.
- Lambert, Camilla and David Weir. 1975. *Cities in modern Britain*. London: Fontana.
- Lazarsfeld, Paul F, William H Sewell and Harold L Wilensky (eds.). 1968. *The uses of sociology*. London: Weidenfeld and Nicholson.
- Leach, E. 1954. *Political systems of highland Burma*. Lissner, I. 1957. *The living past*. London: Jonathan Cape.
- Leontief, Wassily, Anne P Carter, and Peter A Petri. 1977. *The future of the world economy*. New York: Oxford Univ. Press.
- Levi, Maurice. 1983. *International finance: financial management and the international economy*. Singapore: McGraw-Hill.
- LeVine, Robert A. 1973. *Culture, behaviour and personality*. London: Hutchinson.
- Lewis, W Arthur. 1955. *The theory of economic growth*. London: George Allen and Unwin.
- Lieber, Robert J. 1973. *Theory and world politics*. London: George Allen and Unwin.
- Lindqvist, Sven. 1979. *Land and power in South America*. Harmondsworth, Middlesex: Penguin.
- Linebaugh, Peter. 1991. *The London hanged: Crime and civil society in the eighteenth century*. London: Penguin.
- Lintott, Andrew. 1993. *Imperium Romanum: Politics and administration*. London: Routledge.
- Lipsey, Richard G. 1975. *An introduction to positive economics*. London: Weidenfeld and Nicholson.
- Lissner, I. 1957. *The living past*. London: Jonathan Cape.
- Llewellyn, John, Stephen Potter and Lee Samuelson. 1985. *Economic forecasting and policy: the international dimension*. London: Routledge and Kegan Paul.
- Llewellyn, Peter. 1996. *Rome in the dark ages*. London: Constable and Company.
- Lloyd, S. 1984. *The archaeology of Mesopotamia*. London: Thames and Hudson.
- Lorenz, Konrad. 1966. *On aggression*. London: Methuen and Co.
- Lovelock, James. 1987. *Gaia: A new look at life on earth*. Oxford: Univ. Press.
- Lovelock, James. 1988. *The ages of Gaia: A biography of our living earth*. Oxford: Univ. Press.
- Lunan, Duncan. 1983. *Man and the planets: The resources of the solar system*. Bath, Avon: Ashgrove Press.
- Machowski, J. 1976. *Island of secrets*. London: The Scientific Book Club.
- Mackay, Angus with David Ditchburn. 1997. *Atlas of Medieval Europe*. London: Routledge.
- Mackay, Charles. 1980. *Extraordinary popular delusions and the madness of crowds*. New York: Crown Publishers.
- Mackenzie, W J M. 1979. *Biological ideas in politics*. Manchester: Univ. Press.
- Magnusson, M. 1977. *BC: The archaeology of the Bible lands*. London: Book Club Associates.
- Mair, Lucy. 1962. *Primitive government*. Harmondsworth: Penguin.
- Maisels, Charles Keith. 1993. *The emergence of civilisation: from hunting and gathering to agriculture, cities, and the state in the Near East*. London: Routledge.
- Manchester, William. 1996. *A world lit only by fire: The medieval mind and the renaissance*. London: Macmillan.
- Mandelbrot, Benoit. 1983. *The fractal geometry of nature*. New York: W H Freeman and Co.

- Markham, S F. 1947. *Climate and the energy of nations*. Oxford: Univ. Press.
- Marshall, P J (ed.). 1996. *The Cambridge illustrated history of the British empire*. Cambridge: Univ. Press.
- Martin, Angus. 1975. *The last generation: The end of survival?*. London: Fontana.
- Martin, Hans-Peter, and Harald Schumann. 1997. *The global trap: Globalisation and the assault on democracy and prosperity*. London: Zed Books.
- Marwick, Arthur. 1974. *War and social change in the twentieth century: A comparative study of Britain, France, Germany, Russia and the United States*. Basingstoke, Hants: Macmillan.
- Mason, J Alden. 1957. *The ancient civilisations of Peru*. Harmondsworth, Middlesex: Penguin.
- Mason, John. 1985. *The dissolution of the Austro-Hungarian empire 1867-1918*. Harlow: Longman.
- Mattli, Walter. 1999. *The logic of regional integration: Europe and beyond*. Cambridge: Univ. Press.
- Mauss, Marcel. 1990. *The gift: the form and reason for exchange in archaic societies*. London: Routledge.
- Mazarr, Michael J. 1995. *North Korea and the bomb: A case study in nonproliferation*. Basingstoke, Hants: Macmillan.
- Mazower, Mark. 1999. *Dark continent: Europe's twentieth century*. London: Penguin.
- McDermott, F C. 1992. *Autopsy of a social and economic miracle*. London: Janus.
- McEvedy, C. 1967. *The Penguin atlas of ancient history*. Harmondsworth, Middlesex: Penguin.
- McEvedy, Colin and Richard Jones. 1978. *Atlas of world population history*. Harmondsworth, Middlesex: Penguin.
- McGrew, Anthony (ed.). 1994. *The United States in the twentieth century: Empire*. London: Hodder and Stoughton.
- McGrew, W C. 1992. *Chimpanzee material culture: implications for human evolution*. Cambridge: Univ. Press.
- McHale, John. 1971. *The ecological context*. London: Studio Vista Ltd.
- McKinnon, Michael. 1997. *Friends in need: The Kuwait Fund in the developing world*. London: I B Tauris.
- McKinstry, Leo. 1997. *Turning the tide: A personal manifesto for modern Britain*. London: Michael Joseph.
- McNeill, William H. 1977. *Plagues and peoples*. Oxford: Basil Blackwell.
- McNicoll, Geoffrey and Moni Nag. 1983. Population growth: current issues and strategies. In Donald J Ortner (ed.) *How humans adapt: a biocultural odyssey*, Washington, D.C.: Smithsonian Institution Press.
- McRae, Hamish. 1995. *The world in 2020: Power, culture and prosperity: A vision for the future*. London: HarperCollins.
- Meadows, Dennis L, and Donell H Meadows (eds.). 1973. *Toward global equilibrium: Collected papers*. Cambridge, Mass.: Wright-Allen Press.
- Medawar, Peter. 1984. *The limits of science*. Oxford: Univ. Press.
- Meggers, Betty J. 1983. Explaining the course of human events. In Donald J Ortner (ed.) *How humans adapt: a biocultural odyssey*, Washington, D.C.: Smithsonian Institution Press.
- Melvorn, Linda. 1995. *The ultimate crime: Who betrayed the UN and why*. London: Allison and Busby.
- Mesarovic, Mihajlo, and Eduard Pestel. 1974. *Mankind at the turning point: The second report to the Club of Rome*. New York: E P Dutton & Co.
- Métraux, A. 1957. *Easter Island*. London: Andre Deutsch.
- Meyer, W. C. and W. L. Sherman. 1979. *The course of Mexican history*. Oxford: Univ. Press.
- Miall, Hugh. 1993. *Shaping the new Europe*. London: Pinter.
- Midgley, Mary. 1983. Toward a new understanding of human nature: the limits of individualism. In Donald J Ortner (ed.) *How humans adapt: a biocultural odyssey*, Washington, D.C.: Smithsonian Institution Press.
- Miller, Davina. 1996. *Export or die: Britain's defence trade with Iran and Iraq*. London: Cassell.
- Milne, Seumas. 1995. *The enemy within: The secret war against the miners*. London: Pan Books.
- Milward, Alan S. 1970. *The economic effects of the two world wars on Britain*. Basingstoke: Macmillan Press.
- Minchinton, W E. 1969. *The growth of English overseas trade in the 17th and 18th centuries*. London: Methuen & Co.
- Monod, Jacques. 1972. *Chance and necessity*. London: Collins.
- Moorcraft, Paul L. 1994. *African nemesis: War and revolution in South Africa 1945-2010*. London: Brassey's.
- Moore, Jr, Barrington. 1967. *Social origins of dictatorship and democracy*. Harmondsworth: Penguin.
- Morgan, Elaine. 1978. *Falling apart: The rise and decline of urban civilisation*. London: Sphere Books.
- Morishima, Michio. 1984. *Why has Japan 'succeeded'? Western technology and the Japanese ethos*. Cambridge: Univ. Press.
- Morris, John. 1995. *The age of Arthur: A history of the British Isles from 350 to 650*. London: Phoenix.
- Morris-Suzuki, Tessa. 1994. *The technological transformation of Japan: From the seventeenth to the twenty-first century*. Cambridge: Univ. Press.
- Moss, Robert. nd. *The collapse of democracy*. London: Maurice Temple Smith.

## Bibliography

- Mossé, Claude. 1973. *Athens in decline: 404-86 BC*. London: Routledge & Kegan Paul.
- Mowat, R C. 1991. *Decline and renewal: Europe - ancient and modern*. Oxford: New Cherwell Press.
- Mowlana, Hamid, George Gerbner, and Herbert I Schiller. 1992. *Triumph of the image: The media's war in the Persian Gulf - a global perspective*. Boulder, Colorado: Westview Press.
- Mulgan, Geoff. 1997. *Connexity: How to live in a connected world*. London: Chatto and Windus.
- Mumford, L. 1966. *The city in history: Its origins, its transformations and its prospects*. London: Penguin.
- Mumford, Lewis. 1944. *The condition of man*. London: Martin Secker and Warburg.
- Mumford, Lewis. 1967. *The transformations of man*. New York: Collier Books.
- Murphy, Brian. 1973. *A history of the British economy, 1740-1970*. London: Longman.
- Murray, Andrew. 1997. *Flashpoint: World War III*. London: Pluto Press.
- Musson, A E (ed.). 1972. *Science, technology and economic growth in the eighteenth century*. London: Methuen & Co.
- Myers, Norman. 1990. *The Gaia atlas of future worlds: challenge and opportunity in an age of change*. London: Robertson McCarta.
- Myres, J N. L. 1989. *The English settlements*. Oxford: Univ. Press.
- Naisbitt, John. 1982. *Megatrends: Ten new directions transforming our lives*. New York: Warner.
- Needham, J. 1954. *Science and civilisation in China, Vol I*. Cambridge: Univ. Press.
- Noland, Marcus. 1999. *The new protectionists: The privatisation of US trade policy*. London: Institute of Economic Affairs.
- Northcott, Jim. 1991. *Britain in 2010: The PSI report*. London: Policy Studies Institute.
- Norton-Taylor, Richard. 1982. *Whose land is it anyway?*. Wellingborough, Northants: Turnstone Press.
- O'Balance, Edgar. 1989. *Terrorism in the 1980s*. London: Arms and Armour Press.
- Odell, Peter R. 1979. *Oil and world power*. Harmondsworth, Middlesex: Penguin.
- Officer, Charles, and Jake Page. 1993. *Tales of the earth: Paroxysms and perturbations of the blue planet*. Oxford: Univ. Press.
- Ohlsson, Leif (ed.). 1995. *Hydropolitics: Conflicts over water as a development constraint*. London: Zed Books.
- Ohmae, Kenichi. 1995. *The end of the nation state: The rise of regional economies*. London: HarperCollins.
- Oliver, Roland & J D Fage. 1962. *A short history of Africa*. Harmondsworth, Middx: Penguin.
- Omar, Mohamed Osman. 1992. *The road to zero: Somalia's self-destruction*. London: HAAN Associates.
- O'Neill, Michael. 1996. *The politics of European integration: A reader*. London: Routledge.
- Ormerod, Paul. 1994. *The death of economics*. London: Faber and Faber.
- Osman, Ahmed. 1999. *Out of Egypt: The roots of Christianity revealed*. London: Arrow Books.
- Pacey, Arnold. 1974. *The maze of ingenuity: Ideas and idealism in the development of technology*. London: Allen Lane.
- Pakenham, Thomas. n.d. *The mountains of Rasselas*. London: Weidenfeld and Nicholson.
- Pakenham, Thomas. 1992. *The Boer War*. London: Abacus.
- Pallottino, M. 1991. *A history of earliest Italy*. London: Routledge.
- Parker, David and Ralph Stacey. 1994. *Chaos, management and economics*. London: Institute of Economic Affairs.
- Parker, Geoffrey and Lesley M Smith. 1978. *The general crisis of the seventeenth century*. London: Routledge and Kegan Paul.
- Parkinson, C Northcote. 1963. *East and west*. London: John Murray.
- Paxman, Jeremy. 1991. *Friends in high places: Who runs Britain?*. Harmondsworth, Middlesex: Penguin.
- Pettman, Ralph. 1975. *Human behaviour and world politics: a transdisciplinary introduction*. London: Macmillan.
- Phillips, J R S. 1998. *The medieval expansion of Europe*. Oxford: Clarendon Press.
- Piggott, S. 1965. *Ancient Europe: From the beginnings of agriculture to classical antiquity*. Edinburgh: Univ. Press.
- Pilger, John. 1998. *Hidden agendas*. London: Vintage.
- Pippard, A B. 1985. *Response and stability: an introduction to the physical theory*. Cambridge: Univ. Press.
- Plamenatz, John. 1992. *Man and society: political and social theories from Machiavelli to Marx, Vol 2: From Montesquieu to the early socialists*. London: Longman.
- Political and Economic Planning. 1955. *World population and resources*. London: PEP.
- Ponting, Clive. 1998. *Progress and barbarism: The world in the twentieth century*. London: Chatto and Windus.
- Popper, Karl. 1986. *The poverty of historicism*. London: Routledge.
- Powell, Enoch. 1969. *Freedom and reality*. London: Paperfront.
- Préaux, C. 1971. Graeco-Roman Egypt. In J R Harris (ed.) *The legacy of Egypt*, Oxford: Clarendon Press.
- Prosterman, R L and T Hanstad and Li Ping. 1996. Can China feed itself?. *Scientific American* 275: 5, pp. 70-6.

- Prunier, G'érard. 1995. *The Rwanda crisis 1959-1994: History of a genocide*. London: Hurst and Company.
- Radcliffe-Brown, A R. 1957. *A natural science of society*. Glencoe, Ill.: Free Press.
- Ramage, Janet. 1983. *Energy: a guidebook*. Oxford: Univ. Press.
- Ramsey, Peter H. 1971. *The price revolution in sixteenth century England*. London: Methuen and Co.
- Rapoport, Anatol. 1974. *Conflict in man-made environment*. Harmondsworth, Middx.: Penguin.
- Redwood, Heinz. 1989. *The price of health*. London: Adam Smith Institute.
- Redwood, John. 1999. *The death of Britain?*. Basingstoke, Hants: Macmillan.
- Rees-Mogg, William. 1992. *Picnics on Vesuvius: Steps towards the millennium*. London: Sidgwick and Jackson.
- Renfrew, Colin. 1984. *Approaches to social archaeology*. Edinburgh: Univ. Press.
- Reynolds, Lloyd G. 1986. *Economic growth in the third world: An introduction*. New Haven: Yale Univ. Press.
- Rice, Michael. 1991. *Egypt's making: the origins of ancient Egypt 5000 – 2000 BC*. London: Routledge.
- Roberson, B A (ed.). 1998. *The Middle East and Europe: The power deficit*. London: Routledge.
- Roberts, Simon. 1979. *Order and dispute: an introduction to legal anthropology*. Harmondsworth: Penguin.
- Robertson, Priscilla. 1952. *Revolutions of 1848: A social history*. Princeton: Univ. Press.
- Rohm, Wendy Goldman. 1998. *The Microsoft file: The secret case against Bill Gates*. New York: Random House.
- Rohwer, Jim. 1996. *Asia rising: Why America will prosper as Asia's economies boom*. New York: Touchstone.
- Rose, General Sir Michael. 1998. *Fighting for peace: Bosnia 1994*. London: The Harvill Press.
- Rose, Steven (ed.). 1982. *Against biological determinism*. London: Allison and Busby.
- Rosenberg, Nathan, and L E Birdzell. 1986. *How the West grew rich: The economic transformation of the industrial world*. London: I B Tauris & Co.
- Rotberg, Robert I and Theodore K Rabb. 1986. *Population and history from the traditional to the modern world*. Cambridge: Univ. Press.
- Rubinstein, W D. 1994. *Capitalism, culture and decline in Britain, 1750-1990*. London: Routledge.
- Sahlins, Marshall. 1974. *Stone age economics*. London: Tavistock.
- Sahlins, Marshall. 1977. *The use and abuse of biology: an anthropological critique of sociobiology*. London: Tavistock Publications.
- Sale, Kirkpatrick. 1980. *Human scale*. London: Secker & Warburg.
- Sampson, Anthony. 1977. *The arms bazaar: The companies, the dealers, the bribes: from Vickers to Lockheed*. London: Hodder and Stoughton.
- Saul, S B. 1985. *The myth of the Great Depression, 1873-1896, Second Editions*. Basingstoke: Macmillan.
- Sayers, R S. 1967. *A history of economic change in England, 1880-1939*. Oxford: Univ. Press.
- Scientific American. 1967. *Cities*. Harmondsworth: Penguin.
- Séjourné, L. 1978. *Burning water*. London: Thames and Hudson.
- Seneca. 1969. *Letters from a stoic*. Harmondsworth, Middx: Penguin.
- Shacochis, Bob. 2000. *The immaculate invasion*. London: Bloomsbury Publishing.
- Sharp, A. 1957. *Ancient voyagers in the Pacific*. Harmondsworth: Penguin.
- Sharp, A. 1970. *The journal of Jacob Roggeveen*. Oxford: Univ. Press.
- Sharp, L. 1952. Steel axes for stone age Australians. In E. H. Spicer (ed.) *Human problems in technological change*, New York: Russell Sage Foundation.
- Sharp, U S G, Admiral USN (Ret.). 1998. *Strategy for defeat: Vietnam in retrospect*. Novato, CA: Presidio.
- Sharrock, David and Mark Devenport. 1998. *Man of war, man of peace: The unauthorised biography of Gerry Adams*. London: Pan Books.
- Shirer, William L. 1991. *The rise and fall of the Third Reich*. London: Arrow.
- Simon, Julian L. 1986. *Theory of population and economic growth*. Oxford: Basil Blackwell.
- Simon, Julian L, and Herman Kahn. 1984. *The resourceful earth: A response to 'Global 2000'*. Oxford: Basil Blackwell.
- Simons, Geoff. 1998. *The scourging of Iraq: Sanctions, law and natural justice*. Basingstoke, Hants: Macmillan.
- Singer, J David. 1990. *Models, methods and progress in world politics: a peace research odyssey*. Boulder, Colorado: Westview Press.
- Skinner, B F. 1973. *Beyond freedom and dignity*. Harmondsworth: Penguin.
- Skinner, Quentin (ed.). 1990. *The return of grand theory in the human sciences*. Cambridge: Univ. Press.
- Smith, Charles D. 1988. *Palestine and the Arab-Israeli conflict*. New York: St Martin's Press.
- Smith, Dan. 1999. *The state of the world atlas*. London: Penguin.
- Smith, David. 1989. *North and south: Britain's growing divide*. Harmondsworth, Middlesex: Penguin.
- Smith, David. 1992. *From boom to bust: Trial and error in British economic policy*. Harmondsworth, Middlesex: Penguin.
- Smith, David. 1997. *Eurofutures: Five scenarios for the next momentum*. Oxford: Capstone.

## Bibliography

- Smith, F V. 1951. *Explanation of human behaviour*. London: Constable & Co.
- Smith, Keith. 1984. *The British economic crisis*. Harmondsworth, Middlesex: Penguin.
- Smith, Merritt Roe & Leo Marx. 1994. *Does technology drive history? The dilemma of technological determinism*. Cambridge, Mass.: MIT.
- Smith, Michael et al. 1985. *Asia's new industrial world*. London: Methuen.
- Smith, Wilfred. 1968. *An historical introduction to the economic geography of Great Britain*. London: G Bell & Sons.
- Snyder, Christopher A. 1998. *An age of tyrants: Britain and the Britons AD 400-600*. Stroud, Glos: Sutton Publishing.
- Sorokin, Pitirim. 1957. *Social and cultural dynamics: a study of change in major systems of art, truth, ethics, law and social relationships*. London: Peter Owen.
- Soros, George. 1998. *The crisis of global capitalism: Open society endangered*. London: Little, Brown and Co.
- Soros, George. 1998. *The alchemy of finance*. London: Little, Brown.
- Southwick, Charles H. 1963. *Primate social behaviour*. Princeton: D Van Nostrand Company.
- Spanier, John. 1972. *Games nations play: analysing international politics*. London: Thomas Nelson and Sons.
- Spencer, Herbert. 1937. *First principles*. London: Watts & Co.
- Sprott, W J H. 1958. *Human groups*. Harmondsworth: Penguin.
- Standen, V, and R A Foley. 1989. *Comparative socioecology: the behavioural ecology of humans and other mammals*. Oxford: Blackwell Scientific Publications.
- Stent, Gunther S. 1978. *Paradoxes of progress*. San Francisco: W H Freeman.
- Sterling, Claire. 1994. *Crime without frontiers: The worldwide expansion of organised crime and the Pax Mafiosa*. London: Little, Brown and Company.
- Stern, Vivien. 1989. *Bricks of shame: Britain's prisons*. Harmondsworth, Middlesex: Penguin.
- Stevenson, John. 1992. *Popular disturbances in England, 1700-1832*. London: Longman.
- Stevenson, Leslie. 1987. *Seven theories of human nature*. Oxford: Univ. Press.
- Stonehouse, B. 1985. *Pocket guide to the world*. London: George Philip & Son.
- Stroebe, Wolfgang and Willi Meyer. 1982. *Social psychology and economics*. Leicester: British Psychological Society.
- Stuart, G. S. 1988. *America's ancient cities*. Washington, DC. National Geographic Society.
- Sugg, Ike and Urs Kreuter. 1994. *Elephants and ivory: Lessons from the trade ban*. London: Insitute of Economic Affairs.
- Suter, Keith. 1992. *Global change: Armageddon and the new world order*. Oxford: Lion Publishing.
- Swann, Dennis. 1995. *The economics of the Common Market: Integration in the European Union*. Harmondsworth, Middlesex: Penguin.
- Tainter, Joseph. 1988. *The collapse of complex societies*. Cambridge: Univ. Press.
- Tanner, Marcus. 1997. *Croatia: A nation forged in war*. New Haven: Yale Univ. Press.
- Tapp, B A and J R Watkins. 1990. *Energy and mineral resource systems: an introduction*. Cambridge: Univ. Press.
- Taylor, Andrew J. 1990. *Trends in British voting behaviour*. Huddersfield: Dept of Humanities, Polytechnic of Huddersfield.
- Teilhard de Chardin, Pierre. 1965. *The phenomenon of man*. London: Wm. Collins Sons & Co.
- Terrell, J. 1986. *Prehistory in the Pacific islands*. Cambridge: Univ. Press.
- Thomas, Jr, William L. 1956. *Man's role in changing the face of the earth: Volume 1, 2*. Chicago: Univ. Press.
- Thompson, Damian. 1996. *The end of time: faith and fear in the shadow of the millennium*. London: Sinclair-Stevenson.
- Thompson, J. E. S. 1993. *The rise and fall of Maya civilisation*. London: Random House.
- Tilly, Charles. 1992. *Coercion, capital and European states: AD 990-1992*. Oxford: Blackwell.
- Tillyard, E M W. 1972. *The Elizabethan world picture*. Harmondsworth, Middx: Penguin.
- Toulmin, Stephen. 1983. The natural past and the human future: an introductory essay. In Donald J Ortner (ed.) *How humans adapt: a biocultural odyssey*, Washington, D.C.: Smithsonian Institution Press.
- Toynbee, Arnold. 1972. *A study of history: the new one-volume edition*. London: Oxford Univ. Press.
- Trigger, B G. 1983. *Ancient Egypt: A social history*. Cambridge: Univ. Press.
- Trigger, Bruce G. 1993. *Early civilisations: ancient Egypt in context*. Cairo: American Univ. in Cairo Press.
- Tsuru, Shigeto. 1993. *Japan's capitalism: Creative defeat and beyond*. Cambridge: Univ. Press.
- Turnbull, C. 1984. *The mountain people*. London: Triad/Paladin.
- Turnbull, Colin. 1961. *The forest people*. London: Jonathan Cape.
- Turner, Jonathan H. 1988. *A theory of social interaction*. Cambridge: Polity Press.
- Tylor, Edward B. 1870. *Researches into the early history of mankind*. London: John Murray.
- Ukolova, V. 1989. *The last of the Romans and European culture*. Moscow. Progress Publishers.
- Ulam, S M. 1990. *Analogies between analogies: the mathematical reports of S M Ulam and his Los Alamos collaborators*. Berkeley and Los Angeles: Univ. of California Press.

## Bibliography

- UNDP. 1993. *Human development report 1993*. Oxford: Univ. Press.
- United Nations. 1995. *Basic facts about the United Nations*. New York: United Nations.
- Vaillant, G. C. 1950. *The Aztecs of Mexico*. Harmondsworth: Penguin.
- Van de Mieroop, Marc. 1999. *The ancient Mesopotamian city*. Oxford: Univ. Press.
- Van der Meer, F. 1967. *Shorter atlas of Western civilisation*. London: Thomas Nelson and Sons.
- van Kemenade, Willem. 1999. *China, Hong Kong, Taiwan, Inc.: The dynamics of a new empire*. London: Abacus.
- Vestal, James. 1993. *Planning for change: Industrial policy and Japanese economic development, 1945-1990*. Oxford: Univ. Press.
- Vogt, Joseph. 1993. *The decline of Rome: The metamorphosis of ancient civilisation*. London: Weidenfeld and Nicholson.
- Von Hagen, V. W. 1973. *The ancient sun kingdoms of the Americas*. St Albans: Paladin.
- Waddington, C H. 1978. *The man-made future*. London: Croom Helm.
- Wagar, W Warren. 1992. *The next three futures: Paradigms of things to come*. London: Adamantine Press.
- Walker, Martin. 1993. *The cold war*. London: Fourth Estate.
- Walmsley, D J and G J Lewis. 1984. *Human geography: behavioural approaches*. London: Longman.
- Ward, Barbara, and Rene Dubos. 1972. *Only one earth: The care and maintenance of a small planet*. Harmondsworth, Middlesex: Penguin.
- Warren, R. and A. Erskine. 1955. *Six centuries of great poetry*. New York: Dell Publishing.
- Waterman, Charles. 1946. *The three spheres of society*. London: Faber and Faber.
- Watson, James. 1970. *The double helix*. Harmondsworth: Penguin.
- Webb, M. C. 1989. Functional and historical parallels between Mesoamerican and Mississippian cultures. In P. Galloway (ed.) *The southeastern ceremonial complex: artifacts and analysis*, Lincoln: University of Nebraska Press.
- Weber, Max. 1978. *Economy and society*. London: Univ. of California Press.
- Webster, Hutton. 1942. *Taboo: a sociological study*. Stanford: Univ. Press.
- Wee, Herman Van Der. 1987. *Prosperity and upheaval: The world economy, 1945-1980*. Harmondsworth, Middlesex: Penguin.
- Wenke, Robert J. 1990. *Patterns in prehistory: humankind's first three million years*. Oxford: Univ. Press.
- Whiting, D P. 1976. *Finance of foreign trade and foreign exchange*. Plymouth: MacDonal and Evans.
- Whitley, John. 1994. *A course in macroeconomic modelling and forecasting*. Hemel Hempstead: Harvester Wheatsheaf.
- Whittle, A. 1985. *Neolithic Europe: A survey*. Cambridge: Univ. Press.
- Wiener, Martin J. 1985. *English culture and the decline of the industrial spirit, 1850-1980*. Harmondsworth, Middlesex: Penguin.
- Wigley, T M L, M J Ingram and G Farmer. 1985. *Climate and history: studies in past climates and their impact on man*. Cambridge: Univ. Press.
- Wildavsky, Aaron. 1995. *But is it true?: A citizen's guide to environmental health and safety issues*. Cambridge, Mass.: Harvard Univ. Press.
- Wilson, E O. 1975. *Sociobiology: the new synthesis*. Harvard: Belknap Press.
- Wilson, E O. 1978. *On human nature*. Cambridge, Mass.: Harvard Univ. Press.
- Windle, R. 1971. *British and American economic history, 1850-1950*. London: Macdonald and Evans.
- Winters, Alan L, and Zhen Kun Wang. 1994. *Eastern Europe's international trade*. Manchester: Univ. Press.
- Wittfogel, Karl A. 1957. *Oriental despotism: a comparative study of total power*. New Haven: Yale Univ. Press.
- Wood, Christopher. 1988. *Boom and bust: The rise and fall of the world's financial markets*. London: Sidgwick and Jackson.
- Wood, Christopher. 1992. *The bubble economy: The Japanese economic collapse*. Tokyo: Charles E Tuttle.
- Woodcock, Alexander and Monte Davis. 1978. *Catastrophe theory: a revolutionary way of understanding how things change*. Harmondsworth: Penguin.
- Woodward, Bob. 1988. *Veil: The secret wars of the CIA 1981-1987*. London: Headline Book Publishing.
- World Bank. 1992. *World development report 1992: Development and the environment*. Oxford: Univ. Press.
- Yahya, Harun. 1999. *Perished nations*. London: Ta-Ha Publishers.
- Yallop, David. 1993. *To the ends of the earth: The hunt for the jackal*. London: Jonathan Cape.
- Yellen, J. 1990. The transformation of the Kalahari !Kung. *Scientific American* 262: 4, pp. 72-79.
- Yergin, Daniel, and Thane Gustafson. 1994. *Russia 2010 and what it means for the world*. London: Nicholas Brealey.
- Young, Hugo, and Anne Sloman. 1984. *But, Chancellor: An inquiry into the Treasury*. London: BBC.
- Young, J Z. 1971. *An introduction to the study of man*. Oxford: Univ. Press.
- Zelinsky, Wilbur. 1970. *A prologue to population geography*. London: Prentice-Hall International.

## *Bibliography*

Zimmermann, Klaus F (ed.). 1989. *Economic theory of optimal population*. Berlin: Springer-Verlag.

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- cxlvi Study by the University of Hertfordshire.
- cxlvii Barton 1999, p. 154.
- cxlviii O'Balance 1989, p. 15.
- cxlix Jaber 1997, p. 90.
- cl Robertson 1952, p. 289.
- cli James 1998, p. 144.
- clii Holm 1992, p. 51.
- cliii *The Sunday Times*, 10.10.99.
- cliv *The Sunday Times*, 8.8.99.
- clv *Muslims taking the veil*, BBC2, 19.5.00, 10.35 p.m.
- clvi Hills 1979, p. 60. See the photographs illustrating the riots.
- clvii Davidson 1992, p. 105.
- clviii Murray 1997, p. 153.
- clix Suter 1992, p. 276.
- clx *The Times*, 19.12.96.
- clxi Rapoport 1974, p. 242.
- clxii Brogan 1998, p. ix.
- clxiii Davidson 1992, p. 331.
- clxiv Davidson 1992, p. 105.
- clxv Bonner 1994, p. 43.
- clxvi *Scientific American*, March 1993.
- clxvii Barnaby 1996, Chapter 5.
- clxviii Thomas, Jr 1956, p. 1142.
- clxix Fukuyama 1999, Chapter 2.
- clxx *The Times*, 15.3.00.
- clxxi Friman 1999, p. 2.
- clxxii Castles 1998, p. 83.
- clxxiii *The Times*, 2.9.00.
- clxxiv *The Times*, 26.8.00.
- clxxv *The Times*, 13.5.00.
- clxxvi *The Times*, 20.5.00.
- clxxvii *The Times*, 15.3.00.
- clxxviii *The Sunday Times*, 29.8.99.
- clxxix *The European*, 3-9.8.98.
- clxxx Ekins 1986, p. 56.
- clxxxii Augustine 1997, p. 126ff.
- clxxxii *Scientific American*, November 1992.
- clxxxiii *The Times*, 22.5.98.
- clxxxiv Pilger 1998, p. 601.
- clxxxv Lovelock 1987, p. 111.
- clxxxvi Morgan 1978, p. 39.
- clxxxvii *The Times*, 11.6.00.
- clxxxviii Officer 1993, p. 211.
- clxxxix Eyre 1978, p. 49.
- cx Furtado 1994, p. 62.
- cxci Goldsmith 1994, p. 103.
- cxcii Morgan 1978, p. 152.
- cxci Morgan 1978, p. 209.
- cxci *The Times*, 7.3.97.
- cxcev Sale 1980, p. 268.
- cxcevi Eatwell 1982, p. 15.
- cxcvii Huggett 1975, p. 160.
- cxcviii Thomas, Jr 1956, p. 818.
- cxci *The Times*, 20.5.00.
- cc Huntington 1996, p. 272.
- cci The information in the last three paragraphs is taken from an article in *The Times*, 11.7.98.
- ccii *Scientific American*, January 1995.
- cciii *Scientific American*, January 1995.
- cciv Stent 1978, p. 50.
- ccv Powell 1969, p. 283, 289. Much of what Powell wrote on this subject consisted of pretty offensive anecdotes of bad behaviour by West Indians and underlying it was the general presumption that blacks are sub-human and inherently undesirable.
- ccvi Diamond 1991, p. 275.
- ccvii Bork 1996, p. 279.
- ccviii Barrett 1999, p. 21; Elliott 1998, Chapter 2.
- ccix Birmingham 1995, p. 91.
- ccx Arnold 1996, p. 21.
- ccxi Myers 1990, p. 98; McRae 1995, p. 272.
- ccxii Freund 1998, p. 15.
- ccxiii Moorcraft 1994, p. 76ff.
- ccxiv McRae 1995, p. 242.
- ccxv 'Unity in diversity' – the national motto of Indonesia, recently also adopted by the European Union.
- ccxvi Smith 1997.
- ccxvii Wagar 1992, p. 22.
- ccxviii Jean 1993, p. 3; Annan 1999, pp. 24, 12.
- ccxix Kahn 1976, p. 207.
- ccxx Stern 1989, passim.
- ccxxi Stern 1989.
- ccxxii Hopkins 1996, p. 24.
- ccxxiii Barnet 1981, p. 136.
- ccxxiv Eyre 1978, p. 116.
- ccxxv Odell 1979, p. 250.
- ccxxvi Kahn 1976, p. 103.
- ccxxvii Barnet 1981, p. 128.
- ccxxviii Odell 1979, p. 248.
- ccxxix Wee 1987, p. 125.
- ccxxx Thomas, Jr 1956, p. 501.
- ccxxxi Kahn 1976, p. 31.
- ccxxxii *The Times*, 8.4.00.
- ccxxxiii *The Sunday Times*, 5.1.97.
- ccxxxiv Simon 1984, p. 415.
- ccxxxv Simon 1984, p. 417.
- ccxxxvi E.g. Sale 1980, Part 3.
- ccxxxvii Walker 1993, p. 228.
- ccxxxviii Simon 1984, p. 409.
- ccxxxix Appleby 1994, p. 74.
- ccxl *The Times*, 10.7.99; *The Times*, 9.5.99.
- ccxli *The Times*, 17.9.99.
- ccxlii Baev 1996, p. 42.
- ccxliii *The Times*, 10.7.99.
- ccxliv Yergin 1994, p. 218.
- ccxlv Thomas, Jr 1956, p. 1021.
- ccxlvi *The Times*, 7.7.00.
- ccxlvii *The Times*, 14.5.99.
- ccxlviii Boslough 1992, pp. 173-4.
- ccxlix United Nations 1995, p. 123.
- cccl The future of space exploration, *Scientific American Presents*, Spring 1999.
- cccli Lunan 1983, Chapter 13.
- ccclii Martin 1975, p. 114.
- cccliii Lovelock 1987, pp. 118-9.
- cccliv Lovelock 1988, Chapter 9.
- ccclv Lunan 1983, p. 111.
- ccclvi *The Times*, 5.5.97.
- ccclvii *Scientific American*, July 2000, p. 6.
- ccclviii *Scientific American*, January 1994; *Scientific American*, September 1996; *The Daily Telegraph*, 1.4.00.
- ccclix *The Times*, 15.5.98.
- ccclx Kidron 1987, p. 179.
- ccclxi Freeman 1978, p. 212.
- ccclxii Freeman 1978, p. 212.
- ccclxiii Smith 1985, p. 132.
- ccclxiv Gabor 1964, p. 133.
- ccclxv Mowlana 1992, p. 244.
- ccclxvi Fletcher 1998, Chapter 1.
- ccclxvii Jaber 1997, p. 76.
- ccclxviii Manchester 1996, p. 21.
- ccclxix Fukuyama 1992, pp. 137-8; Fukuyama in *The Times*, 10.10.98.