

A tribe came down from the trees and blundered hither and thither on the savannah of evolution. The grass was too tall for them to see over, so they jumped up and down muttering:- "Where the fuck are we?"

The tribe are called the 'Wethefkarwi', and we are they.

'LIFE IS A SUM HUMANITY IS DOING WRONG'.

by

Henry Bentinck

CHAPTER ONE

My opening proposition from which the book stems is this:-

If civilisation and population are allowed to continue unmodified on their present expansionist courses it will cause ecological catastrophe which will destroy that civilisation and most of that population.

Humanity, in common with all life, obeys a survival instinct which causes it to pursue its own best interests. We developed the stone axe and civilisation to serve those interests, and it worked. It worked so much better than the efforts made by any other species that it is upsetting the balance of nature upon which everything depends for survival. Including us. Thus civilisation does not, any longer, serve our best interests. It threatens them. And yet we are bred and conditioned to perceive civilisation as normal, as comprising and enshrining all the values, motives and goals that for us constitute normality. To have to perceive normality as wrong, because it threatens our survival, is what makes it so difficult for us to think how to do anything about it. So all we do is to try to titivate it, hoping to keep it going, more or less as it is because that is the normal thing to do.

Normality, then, is the name of The Sum we have done so wrong.

In the autumn of 1995, the consensus of 2,000 of the world's top meteorologists and scientists consulted by the Intergovernmental Panel on Climate Change (I.P.C.C.) said it was now certain that Global Warming would cause droughts and floods to increase out of control - that the climate would continue to heat up and the seas to rise for generations to come and it cited the complexities of manmade pollution as the principal cause. This report was put out on the Internet and forwarded to governments so there is no question of our not knowing about it. Few papers mentioned it and little notice was taken. As I said, we don't know how to respond. On the other hand, there is a substantial reaction in our unconscious that gives rise to the social upheaval we are familiar with and the many alternative movements.

Our predicament is not only attributable to global warming, but to the enormous complexity of the interlocking patterns of pollutions, some of which are directly, and others indirectly, responsible. It is false to think that our predicament is 'nothing but' that phenomenon. It is not 'nothing but' anything. The real danger and difficulty of ecological destabilisation is in this extreme complexity and the paucity of our understanding.

The subject is called geo-physiology and even that is not yet in the dictionaries. It concerns the physics and chemistry of the planet and the way in which this has been moulded by the activities of teeming life so that the two, together, evolved the living earth, which maintains the environmental equilibrium we all depend upon for survival.

The complexity of this can be glimpsed in a picture given by Professor E.O. Wilson (Professor E.O. Wilson, 'The Diversity of Life' first published in 1992, The Bellknap Press of Harvard University, Penguin 1993). He suggests a hypothetical encyclopaedia in which the name of each living species - animal and vegetable - should be written on one A4 sheet of paper. These sheets should be bound into volumes each of a thousand pages and put on a shelf. This list would then occupy

sixty metres of shelf per million species. Since there are about 100 million species, the shelf would be about six kilometres long. Each species would have thousands or billions or trillions or more of individuals. A single locust swarm often consists of a billion locusts. The most numerous, biological life-form is krill, of which there is a greater weight on the earth than that of people, as there is of insects. How these compare with the numbers of flowers, or leaves on trees, I don't know. Yet each one is microscopically different from its neighbour. Its need are infinitesimally different and it pursues them in its own way. In nearly any pinch of soil taken at random from a forest floor, one is likely to find between four and five thousand bacterial species under the microscope. Every ounce of the world is teeming with life, and new species are constantly being discovered. There are millions of molecules of air in the earth - millions of tons of dust in the air - there are more living creatures burrowing into the soil than graze upon its surface.

Consider the numbers of individual, living things - animal and vegetable - comprised by a hundred, million species with up to a trillion members. Now consider that they survive by interacting with each other. Without them, earth would be very much like the moon. The number of these interactions is unknowable, but it is they that comprise and maintain what we call the environment. In each and every one of them the interactors are doing one thing and one thing only - they are pursuing their own best interests. As a flower makes itself attractive to a bee or turns its face to the sun, as a root turns in pursuit of soil bacteria or moisture, so we turn to those things which serve our interests best. We have never done anything else and we still don't. There are individual examples of much disputed altruism but, on the whole, we pursue our own best interests. If we didn't, we would soon become extinct. The exception is that parents sometimes put the needs of their offspring before their own. Where this puts us, in relation to our descendants, will be considered in the last chapter.

The pursuit of our own best interests is the survival instinct - universal and absolute. We will consider in detail how it got started and persists in Chapter 3. As a result of its having been mindlessly pursued in all directions by every living thing they have kept each other in check. This works so well that it produces that dynamic equilibrium upon which we all depend for survival and it is forever incomprehensibly complex. It will emerge later on that this has a significance far beyond the terms in which it is here presented.

It has maintained conditions here on earth between the very narrow limits that are comfortable for the life that has been present for 3.6 billion years. For example, since about 540 million years ago, oxygen has remained constant at 21%. If it had been a few percent more, spontaneous combustion would have occurred - never mind combustion from a flash of lightning - and the forests would have burned. If less, life would have developed differently. The salinity of the sea has remained constant for hundreds of millions of years and the mean temperature of the air has varied only by about 5°C. The proportion of other gases in the atmosphere and the constituents of water have also remained constant by the efforts of an infinitude of lifeforms struggling to pursue their best interests. They have accomplished this in spite of a 25% increase in solar output, in spite of five major near extinctions, in spite of thirty major planetesimal impacts, in spite of a whole series of ice ages and temperate periods, in spite of such perturbations to our environment as enabled Hippotomi to inhabit our Antarctic and the earth's magnetic field to be several times reversed.

But now, in pursuit of these interests of ours, humans can, by civilisation and population, pollute the environment at nearly any point where they interact with it. A tanker captain obviously can have a greater impact than a Tibetan peasant or a farting Sumo wrestler.

So far, we've all done it unconsciously. But I want to try to hold up what we are doing for realisation, to ask if we still intend to go on doing it deliberately and to suggest we must choose to look at how we reached this predicament and to consider what is involved in finding a way out of it.

I should clearly say I have no pet answer - I believe in no god - no special set of values - no cranky 'fix', no return to any past 'wisdom'.

To follow up all the knock on effects of the thousands of ways in which pollution interferes with the unknowably complex, timeless and subtle equilibrium so as to understand it is impossible. There are many books which, by attempting, confirm this.

But I do want to communicate some feeling of what it amounts to, so I have set out fifty points that give a glimpse, not of its scope, for that is endless, but its complexity. [HERE INCLUDE JAMES' PIECE].

In addition, there is the question of the time scale involved. Some people say 'Oh there have been catastrophes in the past and everything got back to normal' and they misquote James Lovelock to suggest Gaia will put it all right in the end. What he actually said is that there have been extinctions in the past and added '...but life went on'. He didn't mean our life and he didn't mean it went on as before. And when he said that Gaia will survive he doesn't mean that our civilisation will. Indeed, past catastrophes have resulted in 50-96% of all life going extinct and extinction means forever. The major ones happened at 540 million years ago, 350 million years ago, 250 million years ago, 225 million years ago and 60 million years ago when the age of the dinosaurs ended. Professor E.O. Wilson, probably the most respected biologist in the world, includes in his diagram of these extinctions, the one that we have recently started and comments that it promises to be the most severe.

Each one of these extinctions took millions of years to complete and for a largely different variety of life to recover. Needless to say, it was the most basic lifeforms that survived; the complicated ones, like the dinosaurs, didn't. The most complicated lifeforms that succeeded them during the next 60 million years, and became dominant, were the mammals. After about 20 million years i.e. at about 40 million years age, they produced the Tarsier. He was a bug-eyed, nocturnal chap with bobbly finger tips, small enough to sit on your hand and from him the anthropoid line evolved.

Which of the 6km of species might survive the extinction we have started - currently proceeding at the rate of five species per hour - is hard to predict.

The circumstances under which these earlier extinctions took place is important when one wants to put ours into perspective. Probably smaller ones also happened through the peaks and troughs of planetary evolution. But the main ones resulted from geological catastrophe or planetesimal impact but even though each shock may have happened only once, the effects rumbled slowly on for millions of years. In our case, however, the damage has been done in a quite different way and on a quite different time scale. It started about 200 years ago with the Industrial Revolution and now its enormous potential and our huge population are increasing at an exponential rate.

Consider, for example, that it took a hundred million years - from 340 to 240 million years ago - to extract carbon from the atmosphere through the growth of worldwide forests and to lay it down as coal - oil being laid down by a different process. No attempt to put it all back in a few hundred years - 1750 to 2000 - has ever been made and nobody knows what the effects of them will be.

Burning fossil fuel is, of course, only one of thousands of ways in which we can destabilise the environment remorselessly, insidiously, spectacularly - in the seas, the air, the land, the tissues of living things - affecting their metabolic chemistry, their genes, their reproductive functions and their food chains. Toxic chemicals are already found in the eggs of the albatross, the milk of Antarctic seals and in lichens on the tops of mountains. The sperm count of men in many parts of the world is down by 50%. The land and seas of Russia are seriously polluted by oil and nuclear waste; as are most European rivers with industrial effluent. Soon there will be 350 million fridges in China leaking CFCs. And every time you open the papers, a new example or consequence of pollution is mentioned e.g. that the plastic wrappings of food is a likely source of the cause of the fall in sperm count and the impoverishment of its quality.

The rate of extinction has encouraged our attempts to preserve threatened species in order to protect bio-diversity. This is because it is recognised that it is of fundamental importance that the biota should continue as rich and varied as the 6km of species makes it - that it should exist for meters down in the ground to kilometres down in the oceans, even hundreds of feet below its floor, and up into the air - be played upon by the sun filtering through the complex, gaseous membrane of our atmosphere so as to produce the cloud shapes, the weather, the colours etc of our environment that are endlessly varied and beautiful. All this has been the 'teeming womb' of the splendour of the mind of humanity. Simple environments produce simple creatures, as any biologist or psychologist will tell you. It can also be shown that a diverse and numerous flora and fauna are necessary for the survival of a biota to be long and successful enough to produce the microcosmic orderliness of the components of the brain and nervous tissue that enables consciousness to evolve a mind of apparently infinite scope. Recently - on an evolutionary timescale - the biota has become twice as rich and varied as it has ever been before in the history of the planet. Diversity is universally important, biologically, socially, ethnically, linguistically, nationally, culturally. Levellers, federalists, egalitarians etc are all espousing a wrong principle. This book is not the place to go into it particularly because the idea that unifying egalitarian ideas grew out of fear and repugnance for conflict after our terrible wars and the threat of nuclear war has to be thought through critically in relation to any alternative which one would suggest. It is, however, a subject where our feelings and conditionings run so deep that devolutionism may, in fact, be driven by instincts and anxieties more subtle and compelling than the merely nationalists levels where they arouse so much contention.

It is also important to reflect that during the thousands of millions of years preceding the recent evolution of mind, animal unconscious evolved which we have in some way inherited and which is the source of so much of our personality and behaviour. We will expand upon all this in subsequent chapters but this relationship between complexity and our evolution should be born in mind when people are talking about life probably being common in the universe. Indeed, there may well be lots of lichen about.

To return to the comparison of past extinctions with the one we have just started. We are progressing it with all our cleverness and with all the power of science, industry and computer technology, the last of which enables us to think millions of times as fast as we could a year or two ago. Now add the awesome notion that this human lifeform also considers itself sacred. Nearly everybody accepts the idea of the sanctity of human life. But why? The only basis for the idea is religion, yet people who are in no way religious cling to it as something incontestable. What does it even mean outside religion?

We think we are 'progressing', but progress can only be defined in terms of getting close to a known and approved goal. There is no such goal so we confuse progress with expansion and improvement. But improvement only means improvement of our lot. Any science, politics or industry whose end product can't be seen as improving our lot ends fairly quickly. We have seen that the improvement of our lot i.e. the pursuit of our own best interests, leads to destabilisations yet we accept the idea of the sanctity of human life - of progress - of serving the interests of mankind. So who invented these definitions? Who invented the idea of defining? How and out of what did we evolve our opinions of the world and our place in it?

We were considering the way in which the extinction we have started differs from those which have happened in the past. The difference is that they happened by some kind of cataclysm - not because of the behaviour of any one living species, especially not one that knows its behaviour is leading it to disaster and continues to do it deliberately, as is now becoming the case. The normal response of nature to a destabilising influence by a given species has always been for that influence to trigger a kind of equal and opposite cascade of events that will dilute or destroy or upset the influence that had become destabilising. If antelopes become too numerous they eat all the food, become weak and fall prey to predators and disease, or die of starvation and their numbers decline. Then the fodder grows back and other antelopes, or herbivores, move in to graze it. Superficially it might be thought, and is often suggested nowadays, that that is what will happen to us, Gaia will zap us, they say, and point to examples of where this is already happening, like the falling sperm count, the famines and wars and ethnic cleansings, the rising of the seas - the floods and droughts which will get worse and worse until they cause an ecological catastrophe etc.

But the really epoch making importance of our predicament is this fact that our destabilisation of the environment is being orchestrated by our mind. And we have the ability to change our mind. So far, we haven't. I shall be talking a lot about mind - about consciousness - so I'd better describe what I mean by it.

Animals are conscious but to what extent does not matter very much for the present argument. They do not use their consciousness to modify their environment to serve their best interests to the dangerously destabilising extent that we do. The whole thrust of the survival instinct and to the pursuit of best interests suggests that, if they could, they would. After all, many of them do the best they can - beavers build lodges - birds make nests - others dig holes. Termites build mounds ten or more feet high and twenty feet or so long. They are accurately orientated north and south for cooling reasons and carefully pierced with tunnels so that, together with their inhabitants, they form a beautiful thermostat system. And they contribute nearly all the necessary methane component to our atmosphere. Canadian bees, incidentally, have an equally subtle thermostat system by which they maintain the interior temperature of their hive throughout a Canadian summer and its notorious winter, when temperatures are often forty degrees below freezing for weeks at a time.

What animals do not have - at any rate to a degree that can be recognised as interfering with the balance of nature - is our ability and propensity to make appraisals, conceive abstract ideas, manipulate them into new combinations and play them back deliberately into the material reality of the world around us so as to modify it by the construction of a hypothesis, a bomb or a poem or a phenomenon like global warming. This propensity, by ordinary Darwinian rules, evolved in one species much better than any other: us, the "Wherethef'karewe?" Tribe.

By consciousness, therefore, I am talking about our objective awareness of ourselves, our ability to think deductively, to evaluate and make decisions and to act on them. This also involves intelligence. The fact that our unconscious often acts with evident intelligence shows that in the

evolution of consciousness from it, there is no clear line of demarcation. This raises the question of the general awareness by humanity, in its different states and groups, of the fact that if we go on as we are it will end in catastrophe. It depends upon many things and in this chapter we will consider our conscious recognition of this and also our deep and ubiquitous unconscious awareness and anxieties and how they effect our behaviour.

In the conscious sense, few people can get their heads around the idea that to prevent this catastrophe, we would have to modify our way of life by putting the needs of the environment before ours in order that it might survive and therefore also us. It would mean accepting a more modest, but viable, way of living that freed itself from the obsession to expand and exploit which we are conditioned and, to some extent, bred, to think 'normal'.

Whether there is still time to do this nobody knows, particularly because it depends on how soon we start. And that depends upon a change of attitude. Our present attitude comes from the fact that we are tremendously proud of claiming that it demonstrates the brilliant and noble ascent of man. Now that we realise its latest achievement is to have taken us quite a long way down the road to catastrophe, it is time to look again at the story of that evolution so as to try to develop a different attitude to our place and role here that could enable us to survive. We will be doing that in subsequent chapters.

At the moment, our 'normal' attitude makes us think that exploitation and expansion are normal. The idea that a policy of expansion can be pursued indefinitely in a finite planetary system is a contradiction in terms. Yet in a five hour debate in Parliament on a sustainable economy, the question of any of the proposals being sustainable by the environment was not raised. We think it normal to suppose that manmade pollution cannot affect anything so huge and majestic as the earth. Moreover, it is normal for scientists to think that because they created most of the means of global warming and pollution, they can fix it, for example by shooting dust into the air. This is rather the attitude of American Republicans, and other politicians who dismiss the idea of ecotastrophe as being put about by 'eco-terrorists' (Teresa Gorman, M.P., *The Guardian*, 5/10/93). Because of the way we have done The Sum, it is even normal for Christians and other believers, which means the majority of us, to explain that a cataclysm would be God's will - like it was in the time of Noah or any of the flood heros, like Ducalian in Greek mythology, Uta Napishtim in Babylonian mythology, Manu in the Indian mythology and Cox Coxtli in the Aztec version. Most folk tales tell of a man who escaped the flood with his family and animals. Such believers explain that we have again failed failed God and will again be punished and that the best we can do is to 'keep the faith' and go on burning the environment at both ends so as to pray by the revealing light which it shines upon our wickedness.

A good example of another normal attitude is given in a poll (*The Guardian*, April 21st 1994) where the people of the U.K., Germany, Japan and America were asked 'What is the most serious problem facing the world?' Britain and Germany put war at number 1 and pollution at number 2. Japan put ethnic strife at 1, pollution at 4. America put crime at 1 and did not mention pollution at all. This is interesting since the leaking air-conditioning plants in American cars alone contribute more than half of the C.F.C.'s the human race emits and the American people, per capita, use 8 times as much of the earth's resources as anybody else in the world.

On the other side, there are people who do recognise the danger and respond in a wide variety of ways. First of all there is a large literature that measures and appraises the damage we are doing and makes proposals about what should be done that become the basis of laws, and international laws,

of which a few are obeyed. But since humans can pollute the environment at almost every point where they interact with it our destabilisation of it is too complex and subtle for that kind of legal, pragmatic response to be effective. It is only the unique problem solving propensity of the human mind, working individually and collectively, which can cause a change in attitude and behaviour on an appropriate scale. It can't happen by edict, it won't happen of its own accord. We will consider what might cause it. I am not proposing any moral reason for any of this - nor any religious, spiritual or noble reason. Just that if we don't, we will condemn our children and our grandchildren to suffering and the death of most. Such indifference, when genetically parents can be disposed to act altruistically towards their offspring, will be discussed in the last chapter with particular regard to the relevance of meme Theory to those considerations.

Then, of course, there are the 'alternative' responses. The teaching of anthropology, mythology, archaeology, history and psychology has evolved according to the timeless sequence of indoctrination and conformity that is a strand in The Sum. From this teaching, the 'alternative' attitudes, beliefs and cults have been skimmed or dredged. They produce as many solutions to our problems as sociologists, politicians, economists etc produce analyses of it. And we will be considering these in order to propose a single alternative way of looking at the whole of The Sum from the beginning to the way we are doing it now.

Many of these 'alternative' specifics lead to a mystical relationship with the environment and the idea that we should therefore learn to live in rapport with it instead of by exploiting it. I will argue that of course we must learn to forego its exploitation but for new, demonstrable and testable reasons without having to invent a mystical ground of all being, nor a spiritual oneness. Other alternative approaches are via a Jungian fusion of the human psyche with the world's psyche and here again, this was conceived in Jung's mind and expressed in the parameters of the culture of his time and its history. There is a new way of looking at things and it cannot be construed out of any of the old ways or their disciplines or out of their beliefs. The things we have evolved for ourselves to believe in are, I will suggest, all too often, wrong things. Not pre-existent, but invented mistakenly by us.

Some alternative groups hark back to the 'normal' interpretation of mythology for terms and symbols to help them understand with the mysteries of life. Others suppose that there is a lost learning slipped down out of the minds of men or that there is an old religion of chthonic wisdom or a presiding goddess whose once halcyon rule we must return to that there is a hereditary Marxism evident in the unconscious practises that led to the Hunter-Gatherer culture, or that there is a yogic route into universal oneness. Or, perhaps, there is something just around the corner of the mind waiting, perhaps longing, to be seen - something just upon the tip of the mind's tongue waiting, perhaps longing, to be uttered: and I think this comes closest to expressing the idea that during the development of consciousness out of the background unconscious, we found the experience traumatic and unaccountable and also moving (we will come back to that later). So we invented all manner of superstitions, theologies and myths to explain it - all as wildly wrong as that Thor made the thunder. We will look at this turbulent ocean of influence in our minds from the new perspective afforded by the New Knowledge. This New Knowledge, or information explosion, fills a room, every day, with new papers from around the world; it rushes from the brains of more scientists and thinkers living today than have ever lived before. It comprises a body of information gleaned in the last 150 years which is greater than all the knowledge built up before then since the beginning of time. And we will take note of the important fact that this knowledge is perceived as of use for specialists only and is hardly used at all to help us re-appraise the problems, mores or goals of our existence.

I will elaborate the proposals at some length to show that the New Knowledge offers a prize more glittering by far than any yet envisaged because it is an absolutely testable component in the physical nature of reality - and does not rely upon the supposition that it stems from or infers an outside supernature.

I have spoken of our indoctrination to a disciplined acceptance of the normality we have developed. This is evident in our instinctive way of trying to explain things to ourselves in terms of god - or religion - mysticism etc as I have just been saying. A good example of the way that The Sun brain-washes us into doing things like this is evident in the extraordinary phenomenon of Gaia.

Doctor James Lovelock, C.B.E., F.R.S., in his book 'The Practical Science of Planetary Medicine', (1991), writes of the period when he was working for N.A.S.A. in 1978:

'I was in a small room on the top floor of the building at the Jet Propulsion Laboratory in Pasadena, California. It was the Autumn of 1965, the room was an office of the BioSciences Division and I was talking with a colleague, Dian Hitchcock, about a paper we were preparing on a method for the remote detection of life on a planet'.

He then goes on to explain, in two or three paragraphs, how his thoughts proceeded and he says:

'The air of a dead planet would be expected to have a composition close to what is called the Chemical Equilibrium State. That is to say, all possible chemical reactions among the gases would have taken place and the atoms would be rather like the exhaust gases escaping from a car or factory chimney....a planet that bore life' (on the other hand) 'would have a very different atmosphere because living organisms are obliged to use the air as a source of raw materials and as a depository for their waste materials.

He goes on to explain how the atmosphere of Mars or Venus was in the first category and that of Earth was in the second, ending: "An observer on a space craft, even from beyond our Solar System, could confidently have said that, of all the planets, only Earth bore life." And he then continues:

'It was at that moment that I glimpsed Gaia. An awesome thought came to me. The earth's atmosphere was an extraordinary and unstable mixture of gases, yet I knew that it was constant in composition over quite long periods of time. Could it be that life on earth not only made the atmosphere, but also regulated it - keeping it at a constant composition and at a level favourable for organisms'.

During the next 25 years, he and various other scientific colleagues, have done the mass of work necessary to demonstrate the validity of this hypothesis just as work was done, over a similar period, to test the validity of Einstein's sudden perception of the fact that $E=mc^2$. While others, in both cases, very properly have tried to demolish it and have not yet succeeded.

James Lovelock has written three books about it: (1)'Gaia: A New Look At Life On Earth', published in 1979; (2) 'The Ages of Gaia; A Biography of Our Living Earth', published in 1988; and (3) 'Gaia: The Practical Science of Planetary Medicine', published in 1991.

The burden of his books is that conditions on earth have remained constant within startlingly narrow limits for billions of years through the interaction between life and the planet in a feedback

system which has thus maintained an environment that is comfortable for life. The strength is in the detail, in the proof of each step in the construction of the hypothesis. To generalise, to summarise that work, is to miss the point, so I won't. Read the books and see. The scientific world was, at first, sceptical but much of it has now come round to accept Gaia as a hypothesis which cannot, so far, be falsified.

We are, as will be shown to be, conditioned to be obedient to the old ways that brought survival and success. That is why we always want to dismiss new ideas as heretical and dangerous. Max Planck once observed

If we can't actually dismiss the ideas, our next line of defence is to only accept them when we can express them within the sanctions of the old terms. This is dramatically demonstrated by the way popular reaction at once hijacked the name of Gaia and attached its own meanings to the homeostasis it describes in order to bolster old or pet theories. This is done by New Agers, Catholic lecturers and Indian Gurus - by mythologists and Jungians - by ecstatic ecologists and psychedelic junkies - by pop singers and bliss ninnies and thinking men and women everywhere who are longing to proclaim that the star to which their traditional wagon had always been hitched has, at last, been identified by James Lovelock. They usually do this with that paralytically irritating preface: "Of course, what Lovelock really means..." and go on perhaps "...is that Gaia is a kind of global intelligence". Or "What he's actually saying is that Gaia is another name for God". They thus assume or imply that Gaia is a spiritual entity or a super intelligence. Whereas what he did say, on, for example, page 11 of the Introduction to his first book was:-

'We have defined Gaia as a complex entity involving the earth's biosphere, atmosphere, oceans and soil. a totality constituting a feedback or cybernetic system which seeks an optimal physical and chemical environment for life on this planet'.

From his next book comes this quote:

'Gaia is entirely indifferent to us or to our individual welfare until we start to threaten the balance of nature. When we do that it will react in the same kind of indifferent way as it would to a herd of elephants which ate all the available fodder so that they died and then the fodder was able to grow up again'.

And elsewhere in that book it was necessary for him to write:

'When I wrote the first book on Gaia I had no inkling that it would be taken as a religious book. Although I thought the subject was mainly science,* there was no doubt that many of its readers found otherwise. Two-thirds of the letters received, and still coming in, are about the meaning of Gaia in the context of a religious faith'.

* (I heard Lovelock lecture and liked his downbeat English sense of humour so I asked him if, when he used the words 'I thought it was mainly science', he, as a scientist, was being ironic and he said, rather crossly seeing what it had led to, that that was true.)

Even so, in his third book, published in 1991, ('Gaia: The Practical Science of Planetary Medicine'), he had to reiterate the point thus:

'...neither Lynn Margulis nor I have ever proposed that planetary self-regulation is purposeful. Yet we have met persistent, almost dogmatic, criticism that our hypothesis is teleological'.

I will be writing in several places about teleology and anthropicism and this fixation we all have with the idea of Something More Besides, including the many dogmatic confusions that arise from it. It cannot be brushed aside, but the means of understanding it are rewarding, inspiring and surprising.

I now want to refer, very briefly, to what sort of form the catastrophe to which we are heading might take, because reference will be made to this from time to time. Nobody knows how it will happen because we don't understand enough about the complexities of the ways in which we have interfered with the balance of nature that James Lovelock has written about so exhaustively and very kindly summarised on page 3.

The two most likely scenarios concern: (1) the increase in droughts and floods and the general toxification of the food chain and spoilation of climatological rhythms and balances; and (2) the melting of the polar ice caps, which can already be perfectly well measured and seen. The most likely eventuality is a combination of all factors. As various communities run out of water or food, animals and plants will die, people will leave their polluted, or arid or flooded, homelands and prey upon their neighbours, bringing with them indigenous disease to which they have some immunity but to which the local people do not. Epidemics will spread. The local population will resist them. Wars will start and get worse. Ethnic groups, religious and national groups, fighting for diminishing supplies of food and water may be expected to use every weapon available. Since it is obvious, in an over-populated world, that the more people you can kill the better are your own chances of survival, the actual slaughter of populations - not armies - will be the aim and those with the means of mass destruction at hand will use their chemical, biological and nuclear potential, as well as conventional weapons, to the hilt.

The effects of these are cataclysmic, toxifying, mutating, radioactive, long lasting and are intended to spread their own epidemics which are, so far as we know, unstoppable. The effects of such wars on an ecology already in the grip of a destabilising ecotastrophe are unpredictable. It is difficult to see how anybody could survive, though some probably would.

How long the ensuing state of barbarism would last one can't imagine. What memory would the chance survivors have of the possibilities to which the human mind had once aspired. What goals, ideas or values would be theirs? The words of Matthew Arnold come to mind:

'And we who are brought forth in
hours
Of change, alarm, surprise
What shelter to grow ripe is ours
What leisure to grow wise?'

If we find it hard today to think critically about doing The Sum wrong and where that is leading, it would not cross the minds of those fighting tooth and nail to survive at all under the conditions we are considering. To argue that a trauma like that is just what is needed to cause a useful paradigm shift would not work except to cause, perhaps, a set of superstitious, propitiatory rituals like the California sect that currently worships the nuclear bomb at the Superet Light Church in Los Angeles as a basis for doing the whole Sum over again - and still with no idea where they were going or what for.

Unless, of course, there was some account of how we did it wrong this time.

An alternative to the gradual melting of polar ice is that it might lose its grip on the sloping rock on which it stands and slide into the water rather quickly. The Antarctic Ice Cap comprises an area about as big as Spain and France put together and is up to three miles thick. If it did slip into the sea, it would raise the mean global level by about 30 feet. The low countries, Venice, the Po Valley, Bangladesh, Louisiana etc etc would be submerged, plus the many large cities which started life as ports, like London, New York etc.

Perhaps the whole complicated process of pollution and its knock-on effects will just gradually get worse and more terrible as it has started to do. So perhaps we will have time and come under ever increasing pressure to consider how we did it all so wrong. But is there a right way, and can we find it?

No. There absolutely, certainly is not and we cannot. That's why the alternatives skimmed or dredged from the history of The Sum are no help. The solution cannot be found because it does not exist. It does not lie in the past and barely in the present. We must invent it - create it - and then evolve its further terms or die. Let's look at this proposition more closely.

Hitherto, every living thing has existed according to straightforward, Darwinian principles by the survival instinct to blindly pursue its own best interests. We have done the same and we are still doing it and we developed our civilisation to help us do it and now it doesn't - it threatens us. This is where the fundamental difference between us and other life forms becomes so important it achieves the status of a survival factor. Because we are now capable of recognising that if we continue to evolve in blind pursuit of best interests, as everything else has done since the beginning of time, we will snuff it. Therefore, we have to decide - to deliberately choose - to evolve in a different way. Our survival depends upon this decision. We are the first phenomenon ever to have existed that could bring to an end evolution by blind pursuit of best interests and decide rationally to do it differently. Thus, to evolve on purpose has itself become a survival factor.

Now there is no fey or moral or altruistic or religious or superstitious reason for this. It's totally selfish - as it has always been. We can only achieve it by making the intelligent decision that in order to survive we must ensure the survival of the environment upon which we depend for our existence. This means we must put its best interests before our own. Not altruistically, as I said, but selfishly. Not in order to be magmanomous, nor in order to look after our poor, dear Earth, but just in blind obedience to our survival instinct now raised to the level where it enlists mind to help it work in a new way.

Evolution on purpose is only a slight change of mind - just another way of looking at things, but once started the knock-on effects are over-whelming. It is an absolute paradigm shift. Its implications involve us in looking back afresh at how we got to where we are and forward to where the idea will lead us. It's difficult to do, but the possibilities make the hackles on your mind rise.

Sometimes questioning the normal sensible things we take for granted will seem to be going too far, too deep, or to be nearly silly. Well, under the circumstances, it would, wouldn't it?

As I said, this is not a moral book. It is not a specialist book either. I am not a specialist. I have always thought that specialist knowledge must pass over, into and become cultural knowledge in order to be available to the layman for him to make effective at the polls or, if necessary, at the

barricades. Also so that it can inform the unique problem solving propensity of the human mind working individually and collectively, out of whose potential only can be born our response to the crux criticorum at which we stand - only by whose efforts can we enter into this era of mind and evolution on purpose.

I shall try, throughout the book, to present my argument in the familiar terms of that general apprehension of our evolution and role that moulds our attitude to our response to our predicament. It doesn't help to delve into research,, specialist knowledge unavailable or unknown to the person in the street and thus of little influence upon the way she thinks or behaves.

Evolving on purpose goes further than the cuddly appeals on t.v: "Don't let's be beastly to the planet", or the anthropocentric stuff about 'Fragile Earth' or 'spaceship earth' or the ideas of those who try to make us feel that noble humanity must protect the poor, dear world from something. In fact, the living earth is extremely robust. Life will go on. It's we who may not. Except on purpose - a purpose that we must create.

Some people think that by stressing the importance of mind and its autonomy, one is on the way to a vain and glorious defence of humanity as having been 'singled out' for something - even to the idea of 'the universe with man in mind' - or some other mystical notion of our own, unique wonderfulness. I think The Sum has indoctrinated us to think like this, to see ourselves as the special favourites of the gods as being already, to some extent, partially supernatural like them.

Throughout our known history, we have been searching for a purpose or meaning and have supposed that it was mysteriously concealed within some intrinsic, cosmic design or was the secret of the Great Architect or it was The Will of God - or some kind of sublime, unknowable, teleological principle and we have, in ways described in our libraries and hallowed in our churches, awaited an apocalyptic event when the truth behind this eternal mystery might be elucidated or stumbled upon or revealed or discovered - discovered because it was pre-existent. I will argue that there is no testable evidence for this, nor defensible reason for supposing it to be there. Indeed, it seems clear that conscious self-awareness, the ability to think, would necessarily result in the organism that could do it being different from those that couldn't, and we just happen to be it. It was us who invented these 'noble' attributes - which are not intrinsic nor given - in order to account for it. So the quick response to the question 'What are we here for?' is 'To evolve a purpose for being here; nothing else can, or will'. Our most curious characteristic is that we have ideas and invent things, and we give purposes to them. We see purposes in nearly all things in the world but, staggeringly, not for ourselves or for our existence. We have never, in any popular secular sense, even ever tried to do this. Except, of course, by the words we put into the mouths of the gods we invented so that they answered those eternal questions in the mysteries and doctrines of the religions we concocted.

As mind does, with the help of the New Knowledge, really apply itself to these questions, we will enter ever more deeply the unprecedented 'era of mind'. We will take the fourth great step in evolution and we will be looking at this in subsequent chapters. The previous three steps having been the Beginning (Big Bang) - the origin of life - the origin of consciousness.

When we consider the New Knowledge we will find routes into an understanding of ourselves and our place and role here that simply were not available during the long evolution of The Sum upon which our present ideas of normality grew-up. We will look at the origin of the unconscious and the evolution of consciousness and we will realise that for nearly all of the time taken by that evolution it had, per force, to screen out most of whatever awareness it had of its own development

because it was simply too difficult. Like the person with the three trays on his desk: 'In', 'Out' and 'Too Difficult', called 'Pending'. Our churches are like huge and hallowed 'Pending' trays, cluttered with mysteries which we were not equipped nor motivated to elucidate - until, upon pain of extinction - now.

Many people think human nature won't change and therefore the theme of this book is irrelevant. Others argue that it has never done anything but change and suggest that a traumatic ecotastrophe, affecting the whole race on the scale foreseen is just what's needed to cause the change in attitude that is necessary now. Leaving aside the scenario of the slow start and slow progression and the partial containment of ecotastrophe, there are those who argue that if the period of barbarism that followed were sufficiently terrible and of the optimum length i.e. long enough to be cathartic, short enough for some helpful kind of memory of what went wrong to be carried over, then the treatment might work. We might then move into some kind of new relationship with our environment.

Against this, all the prognoses state that once ecological catastrophe gets started, it will proceed at an exponential rate, be irreversible and therefore as destructive as in the Proposition. My fear is for the survival of mind. It has only reached its present, precarious condition through the influence of chance as exquisitely subtle and fortuitous as a whole eternity of Butterfly Effects. It need not have happened at all. Even now, it teeters like thistledown upon the threshold of self-awareness, blinking from its shy eyes the myopic stigmatism developed by The Sum. That's why I suggested that if the catastrophe happened slowly enough - say three or four generations - sufficient pressure might be put upon us to result in the injection into our period of barbarism of some kind of ultimate aspiration.

Let's consider the matter for a moment in another way. Let's imagine that, by some means, we do do enough to prevent catastrophe. The consequences then show themselves in a rather pleasingly ambivalent manner, namely that in order to survive we must radically change our attitude but that, if we do survive it will only be because we have changed it. In either event, the is-ing of consciousness - the entry into the era of mind - the total change of entire attitude that is implicit in the idea of evolution on purpose, must happen as a precondition of survival.

Let us turn to the situation as it is - to the reality of the way society is behaving and thinking and what the torrents of communication that characterise today's culture tells us about our conscious and unconscious preoccupation with our complicated and deadly predicament.

At the moment, the industrialists, industrial scientists, as well as the Government and the rest of us, know perfectly well what is happening to the environment, as reports like the one from the 2,000 scientists all the time confirm. Also, Earth inspection satellites provide three new tapes daily to add to the library of thousands. These show photographs, in various parts of the spectrum, by which details of the Earth's surface can be studied, right down to how this or that field is being used to the point where it can be seen and whether or not it is obeying, for example, Set Aside Rules (whether good or bad) or anything else. They can show that an oil slick, in the middle of the ocean, has been caused by an oil tanker flushing out its tanks, and exactly where and when so that the ship could be identified. They show pollution in rivers, estuaries and tidal waters, in which latter 80% of all marine biological activity, whose life is what a healthy ocean means, largely occur. They show exactly what is going on in gaseous emissions and the toxification of the soil. Other systems of measurement tell us about the parts per trillion in the atmosphere of C.F.C.'s and the chemicals emitted from the exhausts of air-breathing engines. The physics and chemistry of all this is understood, though not perfectly, particularly since we have too little data about the reserve response - so to speak - of nature because we have never so closely watched it being tested so

severely before. But it is understood well enough to be certain that an ecological catastrophe is inexorably building up. At Rio, this was made clearer to all the world than any other issue has ever been made clear. Yet we have merely issued guidelines and they are largely ignored or deliberately evaded.

In the ninth report of the Select Committee on the European Community's Re-Implementation and Enforcement of Environmental Legislation, 10/3/92, it says: 'This report concerns the extent to which laws, made by the European Community, are observed in practice. Community Environmental Law now consists of something over two hundred separate pieces of legislation. In many Member States, this corpus of law outweighs that of purely domestic origin. And in future it is likely that the Community will become even more important as a forum for environmental policy making. Yet Community activity in this field is of very recent origin, and even those charged with implementing it - let alone the general public - may not be fully aware of the extent of its influence or requirements.....It remains the case that the Commission and the other Community institutions, devote more resources and attention to the formulation of environmental legislation than to its implementation".

This is a fair description of the fact that the environment is not felt to be a political issue. In a democracy, issues come to be felt as political by the feelings of the electorate and their feelings stem out of their attitude of mind.

Since the earth has grown so very much smaller, it throws into terrifying appositeness the story of Easter Island. Five years of painstaking study of pollen counts, excavation of hearths and living areas, analysis of tools and bones, show that Polynesians settled the island in about 400 A.D. At that time, it was home to about 25 nesting species and was the richest nesting area in the whole of the Pacific. It was enormously fertile and covered in vegetation, mostly forest and heavy undergrowth, the trees, comprising many species, grew to heights of up to 80 feet and were 3 feet across. The most common of these was the wine-date palm. There were a great many hau-hau trees which provided rope, used later by the islanders for moving and raising their statues, just as the trunks of the palms were used as rollers for them. It supported between 7-20,000 people who fished, speared porpoises in ocean-worthy canoes so that they contributed a third of the diet, which also consisted of sea birds and land birds. They formed into clans, who built the statues in the same competitive way as the towers in San Gimignano, or houses on Beverly Hills, were built namely the bigger the building, the more powerful the clan.

These people cut down all the trees and turned the place into a desert. They knocked down each other's statues to show who was boss, the last one being toppled in 1864 (the present ones have been re-erected later) and ended by eating rats and finally each other.

By 1722, when Jacob Roggeveen discovered it in April of that year, he thought it was a sandy desert so dry and parched was its treeless surface. And yet the islanders had had hundreds of years to see what was coming. But they did nothing. They just went on living in the way that they were programmed and conditioned to see as normal.

This was not a lack of intelligence. These people were not primitive. It was the total failure of something else; it was the failure of their ability to raise their conscious understanding - their attitude of mind - to a point where they could decide to evolve on purpose by protecting their environment upon which they depended for their survival.

An attitude can be changed by trauma but also, as is well known, it sometimes just suddenly flips for no obvious reason - often when something we tacitly knew all along gets precipitated into overt recognition by the action of a meme - a catchphrase - an occurrence - an individual or much publicised act. Martyrdom, heroism or horror all work in this way. But a specific and familiar example of the way it works is that in our heart of hearts most of us knew, at the beginning of this Century, that Votes for Women was just and necessary. But it was the hype given to middle class girls standing chained to railings in a puddle of their own pee that provided a lurid precipitant to the laws being changed. Consider something even older:- slavery. It has always existed. So what triggered its end so suddenly in the British Empire and later in the United States? It is hard to tell what acted as a catalyst to the climate of the mind during 1830-1860. Another example is fashion. It had always been handed down from the court through 'society' to the general public. What caused this to flip, so that the fashion of the opprobrious Teddy Boys spread upwards and achieved, in a decade or so, the sartorial eclecticism we have today?

'No taxation without representation' was an example of specialist knowledge becoming cultural knowledge in a way that encapsulated a democratic right and made such representation easy to demand and difficult to refuse.

Phrases like that - catchphrases - acting as memes can often do this.

'Evolution on purpose' enables us to refer succinctly to the description of our predicament and the only possible response to it that would work about which I have been writing. It would not be an act of altruism, it would be an act of pure selfishness - the continued obedience to the survival instinct - that primal force that I shall talk about later on - but now raised to the level of conscious determination.

Evolution on purpose means that since we can only survive if our environment does, then we must put its interests before ours as deliberately and instinctively as we have always put ours before its.

To understand how we are dominated by our unconscious pursuit of best interests and how difficult a conscious response is, try the following experiment.

For one day, make every decision by putting the interests of the environment ahead of your own. You open your eyes in the morning in your own best interests. Take it from there. It's difficult, not merely to do, but even to think about. Or you can try, just for one day, saying to yourself before you make any decision, "What's in it for the environment?" "How will this affect the environment?" And then, say "What's in it for me - my family - business - pleasure - next appointment; how will it affect them?" It is obvious that we steer ourselves through life, through history, in the second way. It is part of just being normal.

Living, as I suggest in the experiment, in a state of recollectedness is not new, it has been, and is, widely advocated and is part of the newly popular consciousness raising. Gurus and 'alternatives' advocate it a lot, plucking their ideas of how and why it should be done from the terms of the old, old Sum. Here I am not suggesting it for the sake of any old gods or beliefs or theories or mystics or gurus or councillors. I suggest you do it under duress. Do it or die. Do it or confess that at the end of that infinitude of time it has taken for such a phenomenon as you to be able to choose that mind should survive on purpose, you were such a pratt you fell down on your knees and passed the buck to God; to the Establishment; to convention or normality, to any of the cyphers of The Sum by which we have been guided to do it so deadly wrong.

You can, in fact, start responding meaningfully in your daily work. Supposing that each time a bunch of scientists or industrialists or politicians or anybody else, sat down to discuss a project the convenor began by saying "Right. First of all let's consider how we could put the environment first in this instance". The point is not that hugely different decisions would or could be made. Rather the reverse. Tiny changes in the attitude of mind of a few individuals would feed and encourage the unique problem solving potential of the minds of the others, working individually and collectively, so that the aggregate consequences would gradually become considerable. Such a conference would, for example, right from the word go, be different from present ones where people are rewarded for having studied the Green laws or guidelines so as to be able to circumvent them for gain. Politicians, scientists, industrialists all have Green hats and, if they kept them on, the climate of the mind would slightly change. If people in high places were seen to be setting an example, it would encourage our existing, individual inclinations to behave in a similar way and it has been suggested in very much those terms in the House of Lords.

There is a strong section of public opinion which resents the idea that environmentalists spend their time saying how god-awful humanity is. In the first place, humanity is only awful if you think that survival matters. The strong section I am talking about, like, for example, the Republican Party in America or powerbrokers everywhere, don't. They think getting rich and successful matters more, so they say to their grandchildren, "Fuck you, Jack, I'll be dead." Secondly, nobody is saying that we did The Sum wrong on purpose. When the first people "came down out of the trees" they didn't look where they were going. They had no ideas about where they should go. Amazingly, they still haven't. Imagine the Wherethef'karewe tribe on the open savanna of evolution jumping about in search of his next best interest. That is how we have been for the last few million years and still are. We have no idea where we should be going. Our total response to our existence here is summarised in Kipling's revealing couplet:

'If you can fill the unforgiving minute with sixty seconds worth of distance run,
Yours is the earth and everything that's in it, and what is more you'll be a man my son'.

Why 'unforgiving'? Why 'run'? Whereto? What for? What are we after? And we will look at 'man my son' in the chapter on women. I wonder what Ms. Kipling might nowadays write?

Much is written to analyse our troubled civilisation in order to see how we can help it to continue to perform the role for which we evolved it, namely to serve our normal interests; and hitherto, we have always taken the environment for granted. Most people did not even acknowledge the danger it was in until about fifteen years ago. This was in spite of the fact that Professor N.S. Shaler of Harvard was not alone when, in 1896, he wrote:

'If mankind cannot devise and enforce ways of dealing with the earth which will preserve the source of life we must look forward to a time - remote it may be yet clearly discernible - when our kind, having wasted its great inheritance, will fade from the earth because of the ruin it has accomplished'.

By the 1920s, Albert Howard, Lady Eve Balfour and Fred Sykes were founding The Soil Association, which concerned itself with the fact that the balance of nature was being upset. This was also recognised by thousands of horticulturalists and others whose experience of life was wider and deeper than that of those in the Corridors of Power who, in a democracy, represent the majority.

These subjects are not a real political issue. Environmentalism is still largely the province of diverse specialities, geophysiology, biology, botany, soil chemistry, physics, meteorology and so on - areas where 'they' ought to be doing something. It can still pass over into and become a cultural issue, part of the attitude of mind of the layman that I've been talking about, such that he will want to make it effective at the polls and thus force it to become a political issue not for any goody-goody or 'long haired' reason. But so as to survive and not fall back into barbarism.

Until that happens, politicians will continue to function, as they always have, in terms of political reality. This means a gloves-off affair, not of principle or wisdom or imagination, but the pursuit of traditional best interests for the self, party, class, tribe, by every means they can get away with. It has been called 'the art of the possible'. It is the forum of the pursuit of power and it has been, and still is, a male forum driven by the same classical, male obsessions as motivate scientists, farmers, industrialists etc to seek to tame, control, exploit or even, as it is now so often put, conquer, nature, for the benefit of man. In all walks of life, we find at the top those whose atavistic qualities have, together with The Sum, evolved our predicament and are not equipped to solve it. For this they, and the established values they represent, are viewed no longer with respect nor even envy, but a resentment we will later identify. They are in the same unconscious grip as prevented the Easter Islanders from bringing up into consciousness and responding to a predicament that was staring them in the face. Unconsciously, we recognise them as irrelevant which causes us to hold them in such low esteem. They are aware of this without knowing why it is so, but it undermines them so that, the world over, they cut such wretched figures and attract such worthless people to their ranks. In any case, who can govern a country or people who have lost their way and are looking for a scapegoat that we are not yet sufficiently enlightened to recognise as ourselves. We have always been looking for one - in all the mythologies of the world - through to the Jews chasing an escapegoat into the hills or over a cliff laden with the sins of the tribe, right down to the crucifixion of the saviour laden with the sins of the world and in his memory ever since.

When we do achieve that level of consciousness, when we can accept responsibility for all that we must be and do differently, then the period of primitive buck-passing will end. After all, we invented it. Only we can, by recognising it, take the next step towards that enlightenment.

The failure of The Green Party is revealingly symptomatic. The people who went to its meetings were those whose unconscious reply to the irrelevance of politics to the situation and to failure of our society to respond to its peril, pushed them to its fringes and they came to the meetings, as Anita Roddick observed, 'as to an encounter group' unconsciously seeking help. Nobody, certainly not its leaders, nor those who wrote its manifesto, had hammered out in their own minds any single, succinct, comprehensive concept of what the whole movement was trying to achieve. Such an idea had not yet evolved as we are trying to evolve it in terms of, for example, 'evolution on purpose'.

If, then, our survival is not the province of politics and political thinking, is there any direction in which we can look for leadership?

Could science become effective as a body in redressing the situation? The Daily Telegraph (30/8/91) reported that 41% of the population would like to renounce the benefits of science and return to nature. But science bashing is only an example of turning upon that which threatens us, because science, after all, invented or discovered all the means of pollution, except population and sewage. Moreover, scientists do the science they are paid and asked to do by the rest of us. Now that we recognise that a great deal of science, like most of the Establishment, is continuing faithfully and obediently to drive steadily in the wrong direction, it is clear that only the attitude of mind of the electorate can stop them. How and why is it then that our attitude in this respect,

though informed and aware, is yet so apathetic? Why doesn't the penny drop? Why do we seem not to mind about our predicament? The question is asked in many ways - many baffled ways, and yet the most baffling of all is that deep in our heart of hearts most of us are not really too surprised that our response is so feeble. There is a certain kind of normality about our reluctance to challenge normality. Well there would be, wouldn't there?

And yet we would not be asking ourselves or our rulers or our society to do anything weird, like give up sex or take to God or to go to work on a biodegradable pogostick. We're thinking about saving our descendants from their ancestor's mistakes, about raising our consciousness to be aware of the possibilities of evolving on purpose as the fourth evolutionary step and about enabling mind to survive so as to do that. So what is this universal feeling we all obey that says 'Tut, tut. You can't suddenly trot out ideas like that in cabinet'. What are the roots of the terrible taboo that causes us to proceed like a goose with its beak on a line to the cliff's edge and over when our's is the beak and we drew the line?

It is no good ascribing it to apathy or inertia, to convention or even, as is paradoxically often done, to realism! That merely describes the symptom. The question is 'What is the cause?' And the answer is that it comes from our indoctrination to obedience and discipline which has brought us success as individuals, tribes and nations and is deeply instilled into the workings of our minds and mores and institutions. I will be elaborating this later, but it is clear that for at least ten million years the ape tribes whose discipline was best won the richest territory and prospered. Individuals who were obedient to the law and lore didn't get picked off by predators and succeeded in other ways as well. As the tribes slowly became human, the disciplined ones prospered. Compare the Romans with the Aborigines; was the Roman way better than the Aboriginal way? What do you mean by 'better'? Better for the environment? Then clearly no. Better for 'progress' and the ascent of man? Yes. But, in the last analysis, I would, after the cataclysm, back a handful of Aborigines to survive against a gang of Romans. So now what does one mean by better?

One of the things that the brightest and most successful and disciplined tribes learned was that, for them, war paid. There is no mystery about this. We could make war. It paid. So we did it. It obviously served the best interests of Romans and Europeans very well, so they did a lot of it. It evidently didn't serve the interests of Aborigines so well because they did it very little - if at all.

Understanding of this will be found to lie in their system of thinking. It is as logical to them as is our perception of causality connected by mathematical principles is to us. It is called gurrutu and just as ours evolved from counting our fingers and working-up a system of relationships from five plus five equals ten, so theirs began with the observation of the relationship between a man and a woman, each of whom had two parents and four grandparents. Among these, and their mutual relationships, property belonged and responsibilities were shared and each of these facts were invested with a significance derived from the quality of grandmotherhood or fatherhood or sonhood - the web of kinship in whose terms they lived. Thus, a piece of land is grandfatherland - always. Responsibility for water, the way it flows and how it is cared for is part of grandmotherhood. There is, of course, a great deal more to it than that. It is subtle and complex and so far it is very imperfectly understood.

I mention it as an example of the fact that other cultures have other attitudes to life which make them understand things differently. Sir James Fraser's twelve volumes of 'The Golden Bough' presents thousands of examples of what he calls "quaint superstitions". These were the "perfect pattern after which every man strove to shape his life; a faultless model constructed with rigorous accuracy upon the lines laid down by a barbarous philosophy. Crude and false as that philosophy

may seem to us, it would be unjust to deny it the merit of logical consistency." He then quotes the Reverend Thomas Lewis, writing 'The Ancient Kingdom of Kongo' in 'The Geographical Journal', number 19, 1902, page 554: "The mind of the savage is not a blank; and when one becomes familiar with his beliefs and superstitions and the complicated nature of his laws and customs, preconceived notions of his simplicity of thought go to the winds. We laugh at and ridicule his festishes and superstitions but we fail to follow the succession of ideas and effort of mind which have created them. After most careful observations extending over nineteen years, I have come to the conclusion that there is nothing in the customs and festishes of the African which does not represent a definite course of reasoning." And then he quotes from the Reverend H.A. Junod, *Le Conceptions Physiologiques de Bantou Sud-Africiens et le Tabous*. (Revue D'ethnographie et Sociologie. 1/1910 page 126). The study of primitive peoples is extremely curious and full of surprises. Only a superficial observer could accuse their individual or tribal life of superficiality. If we take the trouble to seek the reason of these strange customs we perceive that at their base there are secret, obscure reasons, principles hard to grasp, even though the most fervent adepts of the right can give no account of it. To discover these principles and so give a true explanation of the rights is the supreme task of the ethnographer - a task in the highest degree delicate, for it is impossible to perform it if we do not lay aside our personal ideas to saturate ourselves with those of primitive peoples.

And that is what we have never really done and which Helen Verran has tried so illuminatingly to do in the presentation of their culture with which the Yolgnu Tribe charged her to make public to western civilisation.

All three Nineteenth Century writers still clung to the point which they had never finally dredged up into the open mind for conscious appraisal that savages have a quaint - crude - false - version of the true European view of reality. And yet their own words bring them tantalisingly close to recognising that in fact the 'savages' have a totally different view of reality. They have their view. Logical and consistent, as it is described. But they do not recognise it in the way it is recognised in the description of the gorrutu.

From this it is both proper and necessary to recognise that in our growing from animalhood to the Royal Society, we went down many paths and they still exist. The perception of reality, of our place and role here, our relationship with our environment etc is arbitrary. One perception will produce and serve one set of interests and one another. The one - originated by Europeans - that dominates today served our best interests with galloping, runaway success, so that many others followed or tried to follow it. Now it does not serve these interests, as we have seen - it threatens them.

The point, however, is that very roughly all the other philosophies grew up like ours from humanity's initial response to the world around us as we first began to think. If we agree that our present attitude is lethal, and that we need to formulate one that responds to the world around us, as it is now - to the circumstances and problems of today. We find it difficult to throw-off the one we have evolved to its present state over thousands of thousands of years. And it is helpful, therefore, to realise that there is nothing intrinsically right about it. It is arbitrary. It is deadly.

Some of the others were deadly also - they destroyed Easter Island - the Aborigines turned Australia into the rather treeless, infertile expanse that it is about 50,000 years ago. Maybe they evolved gorrutu as a means of putting their environment on which they depended, and which they were despoiling, into the care of grandmother and grandfather, parents and children, as a powerful, comprehensible, respected kinship network to protect it.

The point is that, just as there are thousands of ways to skin a horse, there are thousands of ways to live on this planet. Ours is but one and if we don't change it, it won't last very long.

One of our difficulties here is that, in our culture, the leaders of the establishment, the loyal, disciplined, honourable, united, patristic, traditional hard-working, ambitious, aggressive, go-getting, exploitative, selfish, acquisitive, individual or class or tribe or nation has come, throughout history, to be most admired. Until now. Opinions are changing.

The New Knowledge - notably Quantum Mechanics - offers us a route, particularly into the understanding of our relationships with the inner workings of our brains and sensory system that make possible the function of our minds and what we have come to call our spirit.

But if one looks at the majority of ordinary people just bumming along in an ordinary way, one finds a very large number who are sensitive about behaving in a polluting way - some are ashamed and reprove their friends. Why don't the scientists, and politicians and industrialists amongst us feel like that and say so? Why don't we all simply say, "We bogged it. It was nobody's fault - we never knew where we were going. We went in a quite arbitrary direction. But now we do, knowing where it leads. That's the point. Now we do. And we know that the better way is to evolve on purpose and that begins by admitting that the way you've come so far was the wrong way."

The effect would be very significant. And it doesn't need much. A lot of publicity is put out advocating and boasting about eco-friendliness. For example, petrol companies tell how good they are at this! Imagine the effect if all such advertising were couched in the vein of acknowledging error and then showing how you had corrected it. At the moment, the connection between error and correction is not made. Somehow or other we have avoided bringing up into consciousness the acceptance of the fact that civilisation is something we have done wrong - that it is our fault - that the solution is not to be found, but instead must be created, invented, by us. Instead, reacting to unconscious awareness that something is seriously wrong, we lay the blame in all the traditional directions because we can't raise our objective, conscious awareness of what is happening far enough to recognise that there must be a single, underlying cause for such a universal malaise as we know is affecting us. We go on trying to identify the old, old causes for each symptom. We offer socio-economic causes, political causes - the influence of t.v. - the breakdown of the family or of communities or the church - of morality - the loss of the feelgood factor - the poverty trap. We all the time encounter headlines such as: "Crime is family's fault" or "Once we believed in something" (Neil Acheson, Daily Telegraph); "Party politics no interest new generation" (Daily Telegraph, 29/9/94); "The demise of the Establishment" (Sunday Times, 16/1/95); "The Church of England must be privatised". The events are worldwide - terrorism - massacres - ethnic cleansing - genocide - crime waves - pride in being a shit in politics or the boardroom or City and these phenomena are perceived and proclaimed to be the cause and effect of each other. They are not causes, they are symptoms. A good deal of poverty is the side effect of despondency, as, of course, is the reliance upon drugs. These become a vicious circle, leading to crime etc. It is hard to know to what extent homosexuality may actually have increased, but a great deal of it, particularly its militant side, involving repudiation of, and a kind of vengeance against, conventional straight society and this is certainly part of our general sense of turning against the norms of society which which now can be seen to threaten us. It produces the gay boast that they are not breeders. All of these symptoms come from our unconscious, tacit awareness that we are living in a world that is already on the road to catastrophe and can be expected to produce exactly these effects. We will be examining the unconscious awareness later. At the other end of the scale, it can be expected to produce such phenomena as American Republicanism, which espouses and is part of the anti-environment lobby.

This deep, unconscious fear and uncertainty affects us all and all our institutions. It has rattled the church so severely that all the congregations have been shaken out into cults of various religiosity or into simple disillusionment. It reached classic proportions in the confusion of the United Nations in trying to cope with the Balkan War. It infects conferences like Rio where everything was said and nothing was done. It resulted in the negation, by the backward, macho China, of women's attempt to raise their voices in another cry for help and in the attempt at Cairo to make an attempt to control population; aborted by the Vatican. It showed up in the extraordinary phenomenon that occurred in the march of a million black men in Washington. This was supposed to make a militant statement about black Islamic fundamentalist opposition to the rule of white America - the Great Satan - but it turned into something significantly different. Because the huge population of American blacks feel themselves marginalised and ineffectual, they were free to act out spontaneously their own individual sensibilities instead of toe-ing a conformist line. In this way there was discovered a curious consensus emanating from individual blacks that they should accept more responsibility for themselves. This stems out of the same strata of human response to our predicament as do, for example, all non-governmental organisations, pressure groups, alternative movements etc. Here, it is felt, in various disunited ways, that we are doing it wrong and that the change must come from within us as something we do for ourselves. The disillusionment with government is part of this recognition that the solution will not come from without - from politics, nations or edicts. It is in just such backgrounds as these that consciousness raising groups, or meditation groups, thrive. Awareness is spreading that we, as the source of all thought and ideas and understanding, are alone responsible for this and for the consequences of this and for ourselves and our survival.

It is significant that in the meantime we attribute the malaise to a desire for freedom from something - in fact from the unconscious, oppressive fear that our juggernaut civilisation is on a wrong course. We want freedom to 'come out' from its trammels and to 'make a statement', make a change, be ourselves. As yet, we have no positive idea of what we should be like. This is evident in fashion, art, architecture and in the particular muddle that education is in which also infects other areas where information is being offered. The New Knowledge and the rate of change results in the idea that anybody is as likely to be right about anything as anybody else. This shows up alarmingly in education where there is no clear cut goal. Since nobody knows what's right as it may change tomorrow, structuralism is opposed - exams are opposed - standards are opposed. What could possibly be more symptomatic of a society where the increase in knowledge and rising consciousness makes us begin to realise that we have done it wrong, but don't quite know how this happened and are not yet able, or ready, to proclaim this nor to recognise what would be the right way to go. Another trivial, but useful, example is in the case of t.v. documentaries. No producer can decide what it is mete to communicate, so snippets of interviews with half a dozen experts from different countries are edited together. They speak in different idioms at a different 'pace', coming from different directions and the editing doesn't add up to a clear piece of memorable exposition. At the same time, the 'other side' is faithfully slotted in, unexplained and unevaluated, so no-one knows what the final consensus might be.

All the symptoms of the malaise are driven, the world over by the powerful communication techniques: telephone, battery, radio and t.v., thus leaping over the barrier of literacy. The fact that we live in the midst of not only an information burst but also a communication burst which gives a crucial importance to our awareness of each other and of how we are all experiencing the same uncertainties, anxieties and desire for change. And change is the important word, so let's look at this in the howl-round situation that communications technology and travel has made us the centre of.

Howl-round happens when you put a mike in front of a loudspeaker and the system amplifies the input round and round, distorting it. The Internet, the media and communications technology provide the components and the contents are, of course, the symptoms of our malaise. The 'crumbling institutions' - 'failure of our culture' - 'erosion of national conscience' - 'the empty pews' - 'fundamentalism' - 'lost our way' - 'worldwide bewilderment' - 'moral crisis' - 'crisis of civilisation'. We have reports of violence, mistrust, degradation of standards and behaviour all of which reflect the picture we have of our lives today. Running all through it is the idea, taken for granted by the young, that protest is a righteous cause plus the vociferous demand for a change. But if we look carefully, we will find that the question, 'What is it that we are all struggling and squabbling so savagely for?' is never considered. And the reason for this is that we don't know. We are merely struggling and fighting for 'the mixture as before' with, of course, my side on top instead of yours; but that's all.

That is why the t.v. images and the journalists' reports are so universally negative. Nobody is fighting or aspiring to achieve anything new; nobody has a better alternative to the normality enshrined in our civilisation that now threatens us. So the only significant question is left un-posed and certainly unanswered; who or what is responsible? Who or what are we trying to blame? And the reason that it remains silent is that unconsciously we all know the answer, namely that our whole way of life is leading to cataclysm. We are, therefore, afraid of it. We want to stop it. That is why we are so busy tearing it to bits and destroying it before it destroys us and why we resent and despise our leaders. Naturally, because these feelings are still unconscious, we project them onto the old, familiar bogies like the other party, the other class, the other sex, the other generation, the other nation or race while consciously only continuing to ask for the normal and obvious mixture as before. Indeed, our incomprehension of our unprecedented, unthinkable dilemma is so total that we also struggle to maintain or re-establish the conditions as they have always been. Paradoxical? Of course. What else would you expect of the response to the contradiction that normality is lethal?

To fear and want to destroy the thing that you built to serve your best interests is the most terrible rack to put our psyche on - to stress our mind. It's just what you'd expect at the threshold of the Fourth Step. It is, if you wish, like a koan - a question that by denying all previous possible routes to an answer bursts open a new route. The koan that comes to mind in this context concerns the teacher, bound hand and foot and suspended over the abyss by a rope held in his teeth; 'Where do we go from here?' demands the media daily on our behalf. How should the teacher answer? Since there is no teacher but ourselves, I hope that this book may help to provide or quicken a response from you.

For we are, in fact, turning upon ourselves, our ways of life, our values and institutions; in other words, upon the cyphers of The Sum that we did wrong; but we have not, as yet, got far enough to have reached the cathartic point where we can bring this fact up into public consciousness and so trigger our ability to evolve some idea of what to put in its place.

There is a further side to our unconscious disenchantment with life. Some parents will no longer talk about ecotastrophe in front of the children. Some parents have rows about it in front of the children because they can do nothing to protect them. Small children grow-up in the polluted air of inner cities because that's where father's job is. Parents worry about this, feel guilty and trapped. So they turn upon the institutions and leaders and standards and values that seem to be responsible. Then the children grow-up to hear them denouncing these things that they cannot control, while suggesting nothing to put in their place.

Small wonder that the children shut themselves away with t.v. games and computers and music. They are, as of old, pursuing their best interests. This time by controlling things for their benefit while avoiding contact with the anxious and nihilistic reality of daily life which apparently neither the parents nor anybody else can control. Interestingly enough, this is more true of young boys than it is of young girls. Their retreat into this unreal world, commentators claim, is because their masculine role model is being challenged and they do not know what their role should be. This, and the question of the future role for little girls, will be discussed in the chapter on women. Since men have, so far as is generally understood, made the decisions and led the world, it is fair to say that they led us into the fix we are in and that their shortcomings constitute that normality which is so dangerous. It is a male normality. A female normality would have been different. Would it have been better? What do we mean by 'better'?

If you believe in God, then his/her religion will be the bottom line for any moral system and provide the terms in which 'better' and 'progress' can be evaluated. This is particularly true today if your god is Mammon. In a general sense, our idea of good and bad stem from such sources as these e.g. 'Greed is good'. Opinion polls say that about 54% of Swedes believe that there is a god or something similar, about 82% of Britons and 94% of Americans. It should not be forgotten that most of the First World is Judao-Christian so that the idea, however woolly, which they exported with their cultures to the world that has done so much to destabilise the local cultures is based upon Jehovah's bidding in Genesis 1, 26-31, to subdue the earth (conquer nature) and populate it and that all the flora and fauna are here for our benefit. These ideas are just as deeply engrained as the ones about right and wrong and the sanctity of human life. The fact that it is all now leading to disaster means God was wrong and this is a pretty hard thing for people to swallow. I am not talking about a true believer suffering a loss of faith, but about the ordinary person in the street who thoughtlessly takes certain standards for granted. The more sincere believer would say that God is certainly not wrong, but that he did it on purpose to teach us a lesson so that after umpteen years of barbarism we might toe a more devout line. Others would say that in fact God did not tell us to exploit the earth and populate it, as we are doing, but to be stewards of it. In the references to 'steward' in the Bible Index or Concordance, none have that connotation. There are references to good husbandry in the sense that if you abuse your plot of land you will starve, which has been the common experience of all farmers since agriculture began and is, of course, reflected in Hindu teaching and elsewhere.

To have to face up, moreover, to the fact that the values and aims we have been conditioned to perceive as proceeding out of the mouth of God and being, therefore, sacred, are those in which we have done The Sum so wrong is shocking. It might be supposed that those who do not believe in God would regard this as rather satisfying. This is not the case. The truth is much deeper and more novel. Suffice it to say here that it is very moving and significant that so much beauty and individual goodness has come out of the pursuit of a god who evolved from the only font of creative originality in the universe namely the human mind. We can take comfort, then, at the prospect of what may be born out of our understanding of that source and its unlimited potential.

It should not be supposed that my atheistic position denies the possibility of what is normally called 'the spiritual experience'. I will produce evidence to show that nearly everybody has had, at any rate once in their lives, the feeling that there is Something More Besides. This experience is real, but it is not divine or of divine or supernatural or spiritual origin. We have given to it the term spiritual and put it in the holy 'pending' trays because we didn't know what it was. The fact of finding, in the New Knowledge, a route into understanding what it really is, fills one with a majestic surmise that is more illuminating and hopeful than anything heretofore proposed.

There is one more point. Some people, notably our intelligentsia, academics, philosophers, scientists, technicians, business men and industrialists are likely to proclaim that instead of God, it is man's intellect that sets him above nature and destines him to rule over it. This cannot work because he would only rule in his own best interests. The very phraseology in which the proposition is variously couched tells us that no other way had occurred to the proposer. But it is self-evident that the best interests of any one species, if successfully pursued, will eventually be at the expense of all the others to the point of being destabilising and catastrophic, as at present. Rulership is not an option - we have to evolve on purpose and then evolve a purpose upon which to continue evolving and it lies in a realm difficult to describe because the terms have not yet been invented - the data that would validate them not yet assembled. It is part of the purpose of this book to ask your help in suggesting how this may be done.

It is, after all, not surprising we did The Sum wrong. It had never been done before. There was no one to do it. It hadn't been thought of. There was no mind to think of it. There was nobody to teach us. We just blundered about in pursuit of our best interests and became so successful we upset the apple cart.

Since there is no point at which it can be said 'This is where doing it wrong started' we must, perforce, go back to the beginning. That is where we will start the next chapter and we will follow what happened freely, without interpolating any of the manmade ideas of purpose, teleology, plan, principle, god, in-dwelling motivation, design or anything else.

We will define and explain what is meant by the New Knowledge because the most interesting aspect of it is that, hitherto, whatever attempts have ever been made to use this New Knowledge have only been of academic interest. Society was not supposed to take action as a result of it. No one was supposed to live according to the proposal for a new way of looking at things that it suggested. There was no urgency. Now there is.

The old cry of the successful tribes, and establishments ringing from the tree-tops down the millennia into the Corridors of Power: "We didn't get where we are today, young man, bothering about things like that!" is a knell.

CHAPTER TWO

There are, broadly speaking, two theories about how we got here. One the scientific theory of evolution and the other the religious idea of creation. As to our role and purpose here, the scientific theory offers few conclusions - though some people struggle a bit with this - while the theory of creation offers about as many as there are religions whose number is large and whose beliefs are fiercely contested.

For The Theory of Evolution, there is a vast amount of evidence that can be seen and tested and is growing every day. It takes us right back to the beginning of time, which, according to Big Bang Theory, popped into existence together with space, matter and energy about 15 billion years ago in what scientists call 'a singularity' whence all the primary particles of us, our brain and our universe originated. It also demonstrates, with a mass of evidence, how we developed here on earth from similarly rudimentary, but now organic, beginnings via the evolutionary chain that produced all the six kilometres of species of whom we are macro-cosmically and micro-cosmically an intrinsic part and leads to the evolution of consciousness and mind, to which we will turn at the end of the chapter.

Now the extraordinary thing about The Theory of Evolution is that we make almost no cultural use of its facts to elaborate or explain the way that we are part of reality or the role such an understanding might enable us, as its only self-aware portion, to play. Instead, we have ignored this aspect of it and had, instead, recourse to all the old ideas, ethics and mores nurtured by our religions for thousands of years that result in our continuing to see ourselves as different from and superior to, both matter and nature. Indeed, we largely ignore the new knowledge, together with its implications for a new understanding of ourselves and reality. The scientific theory is, moreover, accepted by a rather small minority of people in the world - only partially by Christians and may not be taught in Iowa or Islam, nor as a part of Judaism.

We will look at it - starting with the theories surrounding The Big Bang - in a moment before, in the second half of the chapter, making an appraisal of the significance of mind, its possible origins and its early evolution. Mind is the most significant thing that has ever happened. Yet its study has been neglected by ordinary people.

In the following chapters we will pursue the evolution of mind, right to the present time, whose study is a missing factor in our understanding of ourselves and our role and our possible significance, and we will suggest that to be conscious of consciousness and to try to increase it on purpose is now a vital step in its development.

For Creation Theory and God, on the other hand, there is no testable evidence whatsoever. Yet most people in the world believe in it in one form or another. We are permeated by its influence and in the attitude of mind it has shaped in us; in the effect it has had on most of what we take for granted as normal.

Its message, as explained in the Bible, is that God created the whole universe and he designed it to circle round the earth which, as the jewel in its crown, he put at its centre to be the home of man whom he had made in his own image. Being made in God's image means He had given us a soul which made us partly divine. God said explicitly that the earth and all its flora and fauna were there for us to exploit, and for no other reason, and that we should go forth and conquer and populate the Earth in every way we chose. God also explained that our life was not important for

the Earth, whose only real significance in the divine plan was to provide a testing ground where we might overcome the temptations of the flesh as exemplified in the brutish lives of other species, in order thereby to purify our soul well enough for us to pass into Heaven and live forever in eternal bliss as part of the infinite soul of the Divine Father. It is easy to see how this belief has indoctrinated our general ideas about exploitation and the sanctity and superiority of human life.

The description appropriate for Jewry and Christendom and, *mutatis mutandis*, Islam. It is important because it produced the attitude that Europe exported to the world. This attitude had always contained the idea that progress justified exploitation - the pursuit of best interests etc - and was an unquestionably admirable aspiration. The fact that you can't define progress, except, as it turns out, in terms of fulfilling these divine instructions will be looked at later.

To put the world religions of today into a rough historical and demographic perspective, one should, perhaps, begin with the Vedas and Upanishads, which were written somewhere around B.C.1500 and it is upon these that Hinduism is based. The core of Hinduism is the concept of Brahman, although there are a great many versions of what Brahman is, and there are about 655 million Hindus. These versions have, obviously, certain essential features that are most importantly relevant to the present context, namely that Brahman is a universal, in-dwelling principal that is the creator and preserver of reality and all things and all people. Brahman is the sole reality, the ultimate cause, of all existence. In practice various aspects of it are called by many names e.g. Vishnu and Shiva who are worshipped, propitiated and prayed to in sacred temples accordingly.

About 275 years later, in B.C.1225, the Jews escaped from bondage in Egypt in the Great Exodus, and then, under Moses, with his receipt from Jehovah on Sinai, of the Ten Commandments, Judaism developed in the way the Bible chronicles. We will be looking at Judao-Christianity later on. There are about 18 million Jews today.

In about 563 B.C., at Kapilavastu, the Hindu Prince, Siddhartha, was born son of Suddhodana, chief of the Sakyas. He became known as Sakyamuni, sage of the Sakyas, and later as Gautama Buddha. He died about 483B.C. and there are now about 310 million Buddhists in the world. As a matter of interest, the lives of Confucius, (550-470 B.C.); Lao Tze - founder of Taoism - flourished 560 B.C.; Plato (429 B.C. to 347 B.C.) and Buddha nearly over-lapped. Today there are between 2-300 million Confucionists and about 20 million Taoists.

Buddha said he was not God and not to be worshipped as such. Perceiving that wanting - desire - attachment - caused conflict and unhappiness on every hand he offered The Four Noble Truths and The Eightfold Path as philosophical pointers whereby we can learn to stop wanting and live in a state of spiritual equilibrium and recollectedness, both with ourselves, nature and other people. An excellent account for lay occidentals of this subtle philosophy was written by Christmas Humphries and published by Pelican in 1951. Humans have, however, a deep appetite for a Supreme Being (to whom we can pass the awesome buck of self-reliance which comes to us via free-will offered by mind), so Buddha was, in fact, very soon turned into a god.

Next came Jesus in the year B.C. 4 to A.D. 29, the essence of whose teaching is to be found in The Sermon on the Mount, Matthew 5, 6 and 7. Were it not for the later, substantial adulterations by Paul, this would be seen to have more in common with the gentler and more pragmatic teachings of Buddha and Lao-Tsu than with Judaism.

Then, between 570 and 632 A.D., Allah spoke to Mohammed the words which are now the Koran. The teaching of Islam also reflects the idea of the superiority of created man, the principle

significance of whose life is to do God's will, behave according to His teaching, believe in His account of the nature of reality in order to enjoy the rewards of His promises in paradise forever. There are about 971 million Moslems. It has always interested me that no end product for the human potential has ever been suggested beyond his happiness here and hereafter and God's gratification at his obedience that led to it.

Our attitude to the question of how important religion is to the life of the man in the street is full of paradoxes. On the one hand it is popularly thought to have little bearing on the way we live our lives, or upon our values and motives etc. Indeed, much concern is expressed about the emptying of the churches, and of Catholic apostasy. At the same time, much is heard of fundamentalists, fanatics or evangelists. There are ordained scientists and higher mathematical proofs of God. 'The Physics of Immortality' by Frank J. Tipler, and the attempts to hold onto the feeling of a centre - a source - that has been with us ever since ideas first came into our nascent minds from we know not where.

But what is important for our present discussion is the way thousands of years of religious teaching has left a residual attitude of mind that is taken for granted and perceived as normal. Moreover, if you ask a person from any background, no matter how agnostic/intellectual, if they believe in god and then press them rather hard on the issue, you will find very few, almost none, who will say firmly and thoughtfully: "There is no God. Nor is there any 'sort of something somewhere'. There is nothing and no one who is 'doing it' or 'started it' or 'runs it' or 'exists' in any way whatsoever. There is nothing supernatural which can be viewed as a first cause nor as guiding our lives."

I asked my wife about this feeling and, in the end, she said it wasn't 'up there' or 'outside' or 'all around', but inside - not in the tummy or heart or solar plexus, but specifically at a point within her thorax, midway between sternum and spine. I think some variant of a response along such lines as this would be true of a very large majority. Most have a lingering idea of a 'source' or a 'centre'; or a first cause - of some kind of purpose or plan or authority. Such ideas can't be dismissed. It is my proposition that we have misunderstood their source and gone on to do The Sum in the misleading terms that ensued from that misunderstanding. I will try to show how, as life evolved at random and consciousness very slowly and sporadically came into being, we tried to account for its baffling promptings in various primitive ways. Although these have been elaborated in hundreds of cultural labyrinths, they have never, I will maintain, been formally recognised for what they are and deliberately discarded. Very few of us aspire to the infinite destiny offered by sovereignty of mind, far less to the idea that it is this very consciousness that comprises the whole significance of evolution.

For example, if you confront a person who maintains that nobody cares about God anymore and press him to then explain why in that case he thinks life is 'sacred' or why humans should be considered before animals, or before the environment, or why we are superior, or why our accomplishments are noble or fine, or why we should do this rather than that, the argument will nearly always end in a defence based upon the theocentric precepts with which nearly everybody in the world has been indoctrinated. Selective breeding in this context is important too. That a boy should marry a good Jewish girl - or into a Christian family - or a devout Moslem, or Hindu is a familiar idea, *mutatis mutandis*, in every culture. The upper, ruling, influential example-setting families of all cultures have been doing this with often punitive severity for thousands of years. And we will look at it in the context of our own ruling establishment later on in the chapter. They have been helped in this by the fact that evincing faith or steadfastness, devotion, belief, loyalty, obedience or submissiveness, has always been praised and admired by the Establishment. Socialists hate a person who is 'a traitor to his class' and other levels of society despise a person for

'letting the side down', and hate him for being a heretic. Islam, for example, actually means surrender and Christians use the phrase 'Whose service is perfect freedom'. The same inclination to shrug off a way of behaviour as being normal and customary defends nearly everything we do, from fiddling the insurance to trying always to tell the truth. Few people take a carefully considered line of their own - deliberately - objectively.

We will be looking at the significance of discipline and obedience as well as faith, but they are all descriptions of how difficult it is to ascend further up the scale of consciousness. They comprise, in fact, the sum of the means we developed in the course of evolving from animals to humans to pass that terrifying buck of evolving on purpose. The way of enlightenment is hard as every ascetic in every discipline has been averring these last few millennia. So hard, that few reach its goal or recognise its significance - the evolution of consciousness which means choice, appraisal, self-determination. The truth of the matter is that enlightenment, at the brink of which we stand, is the unindoctrination of the mind; and that is harder still by far. But it is the alternative to cataclysm and you can't adopt an attitude that accepts the responsibility of evolving on purpose by rattling a tambourine and shouting 'Hari Krishna' in the gutters of the mind, any more than you can by merely taking your garbage to the dump on a pushbike or wearing a green tie in the Corridors of Power so as to 'save the world'.

Hitherto, humanity, in common with every other lifeform, has competed to get the best for themselves, which includes getting to the top. Forever, via the apes and primitives and tyrants, right into the democratic arena, there are no criteria an aspirant to leadership must fulfil, except that he has what it takes to make it to the top. The characteristics required to get there - to be effective as a leader - in any sphere of life are the same now as they were in Victorian or Renaissance or Roman or Egyptian or Biblical, tribal or primitive times; indeed, in several ways the same as they were in Simian times. The role of the dominant males, if not as absolute as once supposed, has, on the whole, been decisive. Men, in their struggle to the top, their acquisition and maintenance of power, created the circumstances which best suited their aspirations. They contrived and inspired a cultural forum in which they could thrive and be admired and, above all, maintained in office and their competitors, followers and heirs were careful to maintain these values so as to emulate them. The goals may have differed, as those of the Communists and Fascists - Socialists and Tories - may be said to differ but the way of attaining them don't differ, except in degree. Some are more ruthless than others. Their aims have always been expansion, exploitation, power or self-interest for individual family or tribe. Thus, the ancient genotype, which has in this way created our predicament, is incapable of solving it. We have seen how our attitude to our predicament has been programmed to create it and to be unable to feel the need to respond to it. Now we can see the added reason why today's politicians and industrialists are irrelevant. In the case of politicians, this shows, though it is not yet recognised, in our disenchantment with politics and our lack of response at the polls.

An example of this irrelevance is in the way their best progressive thinkers will talk about 'progress', consisting of freeing us from the legacy of our past by which they mean monarchism or imperialism! We have seen how this legacy is The Sum. But their genotype is conditioned not to be able to see this.

Evolution on purpose, on the other hand, can only be done by the unique problem solving potential of the human mind working individually and collectively to follow our survival instinct in the new way directed by reason of putting the needs of the environment first so that by its survival, our own may be ensured.

Today, sages and teachers of every kind are respected for knowing what they have been taught. They are made dull and dangerous by being taught to believe that certain foundations of orthodoxy are unquestionable. As we stand at the crossroads of disaster and the era of mind, what matters is what we have learned and what our unique mind enables us to think. All living things can be taught - look at the circus - or trained - look at the wisteria. It is only we who can think. So we must think that since this established orthodoxy has brought us to the brink of ecotastrophe it is, in some ways, wrong. And we must try to figure out a way to avoid being its victims. All life is obedient to the rules governing its survival and success. It is crucial to remember that they governed our evolution as living organisms for 4.6 billion years, as animals of various kinds for 500 million years, as mammals for 60 million, as hominids for about 7.5 million years. We have only been homo sapiens sapiens for about 40,000 years. Tribes of our anthropoid ancestors that were more disciplined fought better for territory and prospered. Individuals who obeyed tribal lore and law and did not straggle, did not get picked off. Those who drank in a disciplined manner did not get pounced upon at water places etc. Discipline and obedience became a paramount survival factor producing alpha tribes. It is fair to assume that we descended from them. Human tribes that behaved thus became the successful ones.

This programming therefore directed our unconscious behaviour for millions of years and shows how the unconscious influences not merely our conscious behaviour, but actually the way in which the conscious mind developed and functions. The result has been that as consciousness grew and we gradually conceptualised and objectified obedience, we also objectified loyalty and orthodoxy, naming them as virtues and applied them in our lives, proclaiming them to be examples of the noble attributes of man. In this way, there is an element of pride in being unenlightenable, hidebound or conventional, because these things had always had survival value. We are conditioned to see it as prudent to view freethinkers as incautious or traitorous or letting the side down.

Animals have a perfectly good sense of cause and effect. They know that if they push this button, or go this way, the result will be good and vice versa. They perceive connections. A tribal leader who best perceived the connections between cause and effect led his tribe to greater success and bred members in his own image. The perception of connections is one of the principal ingredients defining intelligence which is believed to be 60% or more hereditary; and obedience and discipline are the means by which it could yield the best results in the competition for survival.

Animals like discipline - routine - orderliness - belonging. It makes them feel secure and happy. They are conditioned that way. And in us this conditioning has made us feel that it is important that our God should be righter than your God, indeed, should be absolutely right and proven so. But none of us knows what 'right' is. That's why we fight with such irrational fanaticism: why we massacre, torture, persecute people for not worshipping our God in our way or obeying our orthodoxy, accepting our tenants being like us. What is this anxiety that they should, by conforming, acknowledge that our God -our way - is righter than theirs? It is the fear that if, by not acknowledging this, and thus gathering the faithful round our god, our way, we would feel bereft, that our God had weakened in some way and that we had been left out, not accepted. We all inherit an attitude of mind that inclines us to unconsciously wish to snuggle up to something desirable and right, even though we don't know what it is, and to find consciousness, reasoning, free-thinking or independence of mind difficult. Let me give a mundane domestic example of how this works all the time. It is useful because it describes a way of behaving that is commonplace in every day life. It comes from a homily offered by C.S. Lewis to university leavers.

When they went out into the world, he said, and got their first job they would find that those already there would be likely to infer that there is an inner ring of special, or privileged people: 'People like us' - by whose tacit standards a chap's behaviour could be judged. It is the same in working men's clubs and middle class Societies. A typical remark, he suggested, was that of a senior figure who would, perhaps, say:- Well actually there are rules about expenses and running up a "tick", and that sort of thing, but I think people like you and me will know pretty well what the form is and act accordingly. In warning of the inner ring, Lewis explains that it doesn't really exist - that no one can define it or exactly say who is in it or where its centre lies or of what values or behaviour patterns it is comprised. Nevertheless, he emphasises, people will mutter and go behind your back and strive desperately, unreasonably, cruelly, to get closer to its inner precincts. They will worry about what others think of them and the supposed place in the concentric rings that they have reached. They will dress, behave, entertain, lie, toady, make themselves ill in pursuit of the chimera. And they do it all the time and have to keep going to see shrinks to help them do it better. This universal desire to 'belong' to something that isn't there - the inner compulsion to 'know god', itself perceived by priests etc as holy - which I have described in such an ordinary way is influenced both by our indoctrination to obedience to the tribe and also to a very long period on our history when we first fell under the thrall of the gods, which will be discussed in Chapter Four. This programming to the idea of a centre - a source - is universal and very powerful. We will be looking very carefully at what it really is later on.

People try to get closer to God without knowing what God is and defend this on the grounds that he is unknowable and that the whole point is to go on trying. Thus we have all been busy for a very long time trying to do something ineffable. Our visionaries have produced bright phrases. Our minds have glimpsed great vistas - our poets have ravished our souls with the attempt to state great truths whose nature is that they can never be fully stated. We have been offered wonderful possibilities and they have all been used as we use wisdom and knowledge in the way I suggested in the first chapter - to prop-up our established view of our attitude towards The Sum we have done wrong and the way of life to which it has led. The question of how we got going right from the earliest moments of consciousness - and on such a huge canvass - is what we are going to inch our way towards because it is what I mean by The Sum done wrong that makes it so difficult for us to shake off so as to change our attitude to the intellectually acceptable necessity to put the needs of the environment before our own.

So how did we come to evolve as we did in a way that has led to the brink of our present disaster? We don't often look very deeply at our survival instinct - our pursuit of best interests. We don't often look very deeply at why we are here and whether our sojourn is sustainable or our future viable, except, of course, by re-hashing the old religion-based values we were taught to revere and conditioned to accept as normal. But now is the time when we must. And not, pray note, for any theoretical, far less moral or least of all spiritual reason but only so that we may survive.

It must be realised that the idea of ecotastrophe is not melodramatic 'end of the world-ism'. It should be viewed as part of the evolutionary process. All flora and fauna learn - in an evolutionary sense - by their mistakes. Some of them make such grave mistakes that they do not recover from them and go extinct. It is possible that we will. We are on the brink. I argue elsewhere that our evolution into the era of mind, being itself such a fragile accomplishment, might fail in this way.

Hitherto, the history of our evolution has been largely approached from the tacit standpoint, whether scientific or religious, that we were somehow meant to get where we are or, if not, then so as to account for the wonderful fact of having got here. It also assumes that our evolution, from animal to fully conscious, mindful human is now complete. It isn't. I can't think of any reason or

point why or where the human mind should stop evolving. But we have been programmed to find normality and security in that sense of causality which has been an important survival factor throughout our evolution as animals. In us, it has worked its way up into consciousness and been conceptualised as an instinctive, indisputable requirement that there should be a first cause - and most people are pretty well stuck with that need.

Randomness is repugnant and frightening. It seems impossible. We 'instinctively' turn away from the idea of chance in evolution. Even those who postulate and think about it find the vocabulary and the concepts seem to lie behind some screen, so that although they ought to be able to get to grips with the idea, they can't. There are, therefore, those who say the facts they have ascertained simply cannot be part of a random development.

It is this ageless and deep programming that determines our first primitive supposition that there was a first cause and makes it difficult for ordinary people like me to really get into the idea of a causeless Big Bang and a random evolution thereafter in the way described.

Let us now turn to the scientific theories of the beginning of the evolution of the cosmos which has led to consciousness manifest in us. At the instant of the Big Bang, scientists say, temperatures have to be 'correct' up to six hundred places of decimals - and other specifications have to be similarly precise in order for the system not to re-collapse into the quantum foam. This fine tuning of events, they say, is too precise to have happened by chance and they have therefore produced The Theory of Teleology to account for it. Teleology is the idea that 'developments are due to the purpose or design that is served by them'. Paul Davies, Professor of Physics at various universities, is a prime exponent of this Theory and in his books, 'Cosmic Blueprint' and 'The Mind of God', he takes the idea as far as it can go, especially in his moving peroration to the latter. Teleology is also sometimes referred to as The Anthropic Principle, for obvious reasons, and sometimes and more explicitly, 'The universe with man in mind'. And, at one point, this proposal seemed, to me, to be eerily attractive, more sophisticated and rarified than the God proposition we were all used to.

The way in which new ideas come into peoples minds is often discussed and little understood. A 'kind of rightness' is a familiar property of this event and we accept it rather readily in concepts like Newton's idea of gravity 'coming together' in his mind at the falling of the apple. Similarly, one can understand how suddenly all sorts of things came together in Stephenson's mind as the steam lifted the kettle's lid. The stories may be apocryphal. But they act like magnets for ideas, polarising them around the 'thinking aids' of apple and lid.

I had, over a period of many years, thought my way out of the idea of a supernatural agent, which had first come into our minds tens of thousands of years ago and been inherited obediently by me. But I couldn't take hold of the idea of chance and participate in it straight off. I was conditioned not to. I had been turning this over in my mind, seeking, I now realise, some kind of thinking aid to get to grips with it when, one wintery night, I took Tarquin for his walk at about 10.30p.m. Tarquin is a dog and we have the good fortune to live in a field. So we walked across the field, whose grass was crisply white. The sky was clear and the cold stars blazed. We went into the spinny, which sometimes smells of fox or badger, and along the stream to the pond. I knelt down to put my fingers into it to see if it had frozen yet. It hadn't. I could see the stars reflected in it and my fingers moved amongst them in the ice-cold space between. My movement made ripples that made the stars wiggle and disintegrate and re-assemble themselves and be still. I got up and craned my head back to look at them in the cold, black sky. I stayed looking up. It hurt my neck and disorientated me.

I knew that there are estimated to be 1020 stars in our part of the galaxy, each comprising an infinitude of particles that have been reacting with one another millions of times a second for an estimated 109 years. Such particles comprise the atoms that make the cells of our bodies and brains, nerves, sensors, glands, in the form of molecules, atoms, protons, neutrons, electrons and ultimately the full range of primary particles, some actually called strange, whose behaviour patterns are part of the Uncertainty Principle of Quantum Theory. I tried to recall the microscopic picture of the matter that comprises me and the stars and Tarquin and hold it present in my mind. This picture is important for what it has led to.

Excluding isotopes, there are 92 naturally occurring different kinds of element in the universe, from the lightest hydrogen, to the heaviest, uranium. All the atoms of an element are the same. The atom of hydrogen consists of one positively charged nucleon called a proton and one negatively charged electron. Uranium has 92 protons plus 92 electrons. The other constituent of the nuclei of all atoms, except hydrogen which is unique, is the neutron. This has no charge and is about the same weight as the proton. The number of protons and neutrons in the nucleus are not necessarily the same, for example Uranium 238 has 92 protons and 146 neutrons ($92 + 146 = 238$). '238' is called the Atomic Number. The number of protons in any atom is always exactly matched by the number of electrons, which are, however, very much smaller and lighter and buzz around it, jumping in and out of various orbits in clouds at a very great distance from it. Each electron carries a negative electric charge that balances the positive charge of the proton. When such discrete atoms are joined in different proportions and combinations into a molecule, they give to that molecule properties that were not apparent in the atoms themselves e.g. two atoms of hydrogen gas plus one of oxygen gas combine to make water. Other molecules, made of various combinations of discrete atoms, combine to make the cells of ourselves, including our brains and our neural networks which enable us to think. But the question is this: what is it that the atoms themselves are made of that give them these properties, particularly the propensity, when combining with other atoms, to yield in the molecule qualities not evident in either?

Atoms are made, as described, of protons, neutrons and electrons. If the proton and neutron were each about the size of a pinhead, they would weigh about 1,600 tons. If - at that size - they were suspended at the centre of a very large building, like The Albert Hall, the electrons would be jumping in and out of their orbits somewhere round about where the walls are but so fast that they make matter seem solid. But the picture of the two nucleons, as solid entities surrounded by an 'empty' space between them and the electrons, though helpful is false because they are not really solid but are comprised of, and constrained by, the forces and activity of the sub-nuclear elementary particles - mesons - quarks - gluons etc - whose behaviour is probabilistic and indeterminate and which move in this space and also in and out of the nucleons and also from one atom to another.

They are called elementary because they are considered not to be composed of still more fundamental entities. They are the particles with which Quantum Theory is concerned. They are continually absorbed and emitted by the nucleons they surround which are, therefore, perceived as having 'influenced' each other, just as their movement between atoms 'influences' the atoms. Thus, the fundamental particles of matter, whose behaviour holds together the very atoms of the universe, giving it solidity and materiality, and of our brains and sensors giving them the ability to think and feel, are not obedient to the principles of causality but behave in an indeterministic and uncertain way which cannot be predicted. There are many of them. They can affect each other instantaneously at a distance and thus function independently of the conventional perception of time.

capable, through itself having been evolved in this way, of thinking about the way in which it evolved. How proper that it should be, potentially, the whole significance of the universe. I felt part of it in a way that was free and bursting with potentialities and hope. I had achieved a new attitude - a new way of feeling how I related to the world. Not special, or different, or superior but as physically cerebrally and mentally a seething part of its particulate existence. The Tarquin analogue was my thinking aid, like the lid or the apple. Around it, in its sphere of influence, ideas, like iron filings in a magnetic field, could form new patterns.

'Tat Tuam Asi' has for long been the Sanskrit exclamation of a mystic at the moment when he ecstatically apprehends that which he calls, for reasons set out elsewhere, the Divine Ground of All Being. These experiences are, as we shall discover, real points in our rising consciousness. But we did not know what they alluded to and named them in the terminology of The SUM we were doing wrong. This idea of glimpses of reality having been misunderstood throughout our history is the vernacular of this book.

What I had realised by the pond was that if cosmic particles can, given long enough, combine in a sequence that achieves mind, they will. And they have. Or else I wouldn't be writing these words. But I still wanted to know how it was done. What was 'driving it along', even if as random as the wind? (See how we are conditioned to think of a cause: 'driving it along'.) Our language itself, that grew-up as part and parcel of the way we did The Sum wrong, makes it hard to think about the matter, and it is harder still to express it. Can you say evolution is caused by chance? No, for chance is not causative. Energy, force, power, are, indeed they would be nothing if they did not cause something to happen - if they could not be felt or apprehended in some way. Chance cannot be felt or apprehended - if it is, then it isn't chance. So things happen because they have a propensity for happening. But in a totally random way. If you deny that it is random, then you have to say what directed it, and why? And I am arguing that there is no testable evidence for such a thing.

But remember the propensity. We will be back to it in a little while. It's not the perfect word, but the best one I can think of.

And so, at last, I bent my head and looked at Tarquin, who was leaning against my legs for the warmth. I knelt and hugged him. The hug and his smell and my cold knees and the place were real and the point of this paragraph is that so was my sense of evolution from the random permutations of cosmic matter. Since my particles are its particles, then it had happened. It gave me a new and real sense of belonging as a permutation of the particles of matter which, in my brain and nervous system, have made possible what we call mind that can, for the first time, handle - manipulate - the abstract ideas that comprise my conscious awareness of what I am - as we all can do. There was nothing abstract in the universe before there was mind - only things and events. The claim that 'all scientists agree that the laws of physics are logically prior to, and more fundamental than, the complicated universe they describe', will be considered on page 29 (Paul Davis, Letters, New Scientist, 17.2.96).

So we walked back up towards the house where the lighted windows under the thatched roof were a part of its own interior cosiness. I was full of wonder because I had found the perspective from which to begin to write about how we had got to the present situation in which we know that the normality we embrace is deadly but can't bring ourselves to do anything about it. I had in no way experienced any kind of illumination from outside - merely a sense of myself from within: as the chance combination of matter that can think.

So let's try to think how it happened.

There are several theories and ideas about this which we will look at briefly before picking upon the one that makes the best of the greatest amount of the latest data and follow it through. We will begin with Stephen Hawking, because his book, 'A Short History of Time', has been a Best Seller for five years - and that's only in hardback. It has sold about 10 million copies and been translated into 22 languages and is, therefore, a familiar benchmark. For the benefit of those who are still inclined to the idea that there is Something More Besides, let's first deal with his often quoted last sentence. It says that if we could formulate a complete Theory of Everything (T.O.E.), 'it would be the ultimate triumph of human reason, for then we would know the mind of God'. Many people were conditioned to say that he had, therefore, come back to God in the end and so we don't have to bother any further.

In fact, although there is no entry for God in the index, Hawking mentions Him about 28 times in his book as a shorthand for some kind of hypothetical omniscient, omnipotent force. Perhaps even he cannot quite emancipate himself from his programming. He makes his attitude to the almighty in any other sense perfectly clear in an interview with Shirley Maclean reported in The Times, January 2nd 1992 when she asked him if he believed there is a god who created the universe and guides his creatures. He replied firmly "No."

He explains how Roger Penrose, 'using the way light cones behave in general relativity', showed that a star collapsing under its own gravity would compress itself into a region of zero volume so that the density of matter and the curvature of space was infinite: i.e. a black hole, or a singularity.

'However', he says, 'general relativity claims only to be a partial theory so what the singularity theorems really show is that there must have been a time in the early universe when the universe was so small that one could no longer ignore the small scale effects of the other great partial theory of the Twentieth Century, Quantum Mechanics. At the start of 1970, we were forced to turn our search for an understanding of the universe from our theory of the extraordinarily vast to our theory of the extraordinarily tiny'.

This, he explains, begins with the consideration of the particles in the universe of which there are 10^{90} in that part of it that we can observe.

"Where", asks Hawking, "did they all come from? The answer is that in Quantum Theory particles can be created out of energy in the form of particle/anti-particle pairs. But that just raises the question of where the energy came from. The answer is that the total energy of the universe is exactly zero. The matter in the universe is made out of positive energy. However, the matter is all attracting itself by gravity. Two pieces of matter that are close to each other have less energy than the same two pieces a long way apart, because you have to expend energy to separate them against gravitational force that is pulling them together. Thus, in a sense, the gravitational field has negative energy. In the case of a universe that is approximately uniform in space, one can show that this negative gravitational energy exactly cancels the positive energy represented by the matter, so the total energy of the universe is zero".

He also proposed that the boundary conditions of the universe were that it had no boundary, either in time or space, and added that it was, therefore, the function of the universe simply to be. The possibility of a Theory Of Everything has, however, receded with our growing study of complexity, which computer-aided thinking has enabled us to grapple with. As a result, it is now realised that the remark of Sir James Jeans, 'the secret of nature has yielded to mathematical attack', is far from

the truth - that not everything is, or can be, amenable to mathematical regulation or understanding and indeed that the 'idealised relationships of mathematics are the exception not the rule' ('Frontiers of Complexity', Peter Coveney and Roger Highfield, Faber & Faber, 1995).

Reductionism, whose idiom is mathematics, was the necessary product of the limitation of our unaided brain in seeking to bring order out of intrinsic, chaotic complexity. All of this, as elaborated by Coveney and Highfield, gives a technical account of the way in which The Sum has been done wrong, and provides a powerful and striking explanation of why the civilisation we have forced upon the world, structured upon such simplistic understanding, has had such a distorting and destabilising influence upon the complexity of humanity, the environment, and their interactions.

To return to the Big Bang. Its proponents say that before it there was nothing. No space. No time. No matter. No darkness, for darkness occupies space. And then the universe popped into being - together with time and space - and expanded according to those rules of incredible precision that I mentioned. What I left out was that physicists say that 15 billion years - the most generous estimate for the age of the universe - is statistically not long enough for all this fine tuning which could ultimately lead to Tarquin by the pond, to have happened by chance. This, of course, becomes another prop in the teleological argument defined earlier. To get round this problem of the time not being long enough, a theory called the Big Bang-Big Crunch was proposed and examined. It is interesting that this idea of the universe having a cycle of existences is very ancient. They are to be found in Sumerian and Babylonian, Buddhist, Mayan, Chinese and Stoic sources. They are calculated as being anything from a period of 424 thousand years up to a series of Buddha lifetimes, each one of which is 311 trillion years, plus a good many inbetween. To return to the modern, Big Bang-Big Crunch argument. This suggested that the universe popped into existence as described and expanded until the gravity between its parts which, as we know, diminishes as the square of the distance between them, finally falls equal to the residual momentum of the explosion of the Big Bang and they then start to pull together again, right back to the singularity of infinite smallness and infinite heat and pop back out of existence, taking away time and space and matter and leaving NOTHING. Then it all happens again and as each subsequent universe would not, of course, be the same as the one before, it follows that if the series were long enough, there would come a time when your brain could evolve by chance - namely this time.

The difficulty, as I see it, with this argument is that if, (as claimed) together with space and matter, time itself pops into existence at the Big Bang, then who is in a position to say that this is the second or umpteenth time. Every time - it seems to me - would be the first time. What has happened to the evidence that could show that previous universes existed?

A theory was advanced and tested that the universe was twice as old as was thought and therefore there had been time for these chance permutations to have occurred, but it was not very satisfactory and in 1992 another theory that the universe was only half as old as previously believed was advanced and abandoned!

The next theory - Spring 1993 - comes from Professor Alan Guth of The Massachusetts Institute of Technology (M.I.T.) and Tim Redford reports him in The Guardian as having:

'calculated that the universe we can see together with the much larger universe we cannot and quite possibly all the other universes we can never know about, were created by a false vacuum.

This state which is just a name given to something which exists in theory but which nobody could ever observe would be enough to create in less than a twinkling of an eye the fabric of all the stars

and all the galaxies that stretch for fifteen billion light years and a whole lot more from either absolutely nothing or a mass of matter and energy of about 10 kilograms'.

Later, Tim Redford says:

'In mathematical physics, if you can think of it without cheating it is real'.

I wonder who decides whether you are cheating or not?
'It is', says Tim Redford, 'head-spinning stuff'.

So let us now turn to the factual, scientific evidence that our latest technology enables us to gather and to process. Knowledge like this has never been at our disposal before. Until now, it would have taken hundreds of life times to collect, examine and process, so let's take the New Knowledge and its implications more seriously than we do. Let's take it more seriously than we have ever taken anything before, because it leads to evolving on purpose our way out of the mess we have got into by mindless pursuit of best interests. I hope that some people will respond to this by saying 'Why should we, since the New Knowledge is evidently based upon such shifting evidence, as you have presented?'. And indeed, that was partly why I did it because it presents the difficulty of something having popped into existence out of nothing. Some people try to get over this by saying that before the Big Bang, there were only virtual particles in virtual space. But, as Professor Davies had said, either there is nothing or there is not and if virtual particles are not nothing, they are something.

For my own part, I accept the evidence - which I will explain in a moment - for all that happened within one split second of the Big Bang with the thought 'So once there was nothing and then there was a lot', so there must have been a point at which a particle came into existence and persisted. It must, therefore, have had a propensity to persist and it is not altogether important by what name or formula or hypothesis that point and that propensity is described. And then I read John Gribbin's book, 'In The Beginning', and discovered that a whole group of scientists had, of course, 'been there before'.

He begins by explaining that the first step in our understanding of our origins depends upon the findings of the Cosmic Background Explorer, (C.O.B.E.S, which had been launched in 1989. The whole scientific world was, therefore, waiting anxiously for its report.

And then, in 1992, it sent back the vital accounts and measurements of real events which confirmed that ripples in the cosmic background radiation left over from the Big Bang produced a certain kind of specific evidence about the universe. This was the confirmation needed to validate the mass of demonstrable evidence which he then presents in his book and it has been confirmed, in 1996, by a radio telescope at Cambridge to a degree of accuracy forty times greater than C.O.B.E. It is impossible to summarise. The point of it is that it is the detailed presentation of so much knowledge that is convincing and that enables you to understand the description of a 'foam' of primary, sub-nuclear particles on page 246 which is necessary for the understanding of the conclusion to which he comes on page 250.

On page 246 he describes why he chose as the title of his book the words 'In The Beginning...'
when things popped into existence, by reiterating the formulae I and others find so difficult, but

after that he goes on to describe particles in a state in which they can be observed to exist today. He begins:

'...because particles are made of energy ($E=mc^2$) (this means that particles are allowed to pop into existence in the vacuum of empty space...' as described by Hawking, and continues:

'They are made out of nothing at all and can exist only if they pop back out of existence again very quickly.'

And then he goes on:

'In this picture the quantum vacuum is a seething froth of particles constantly appearing and disappearing and giving "nothing at all" a rich quantum structure. The rapidly appearing and disappearing particles are known as virtual particles and are said to be produced by quantum fluctuations of the vacuum.'

It may seem that Quantum Theory has run wild when pushed to such extremes and commonsense might tell

you that the idea is too crazy to be true. Unfortunately for commonsense, these quantum fluctuations have a measurable influence on the way "real" particles behave.'

Indeed, Professor Wolpert wrote an article in *The New Scientist* saying that science nearly always proved commonsense wrong.

Gribbin goes on:

'The nature of the electric forces between such charged particles, for example, is altered by the presence of virtual particles, and the measurements of the nature of the electric force show that it matches the predictions of Quantum Theory, rather than the commonsense way it would behave in a "bare" vacuole'.

The whole book leads up to the point, on page 250, where he can say with conviction:

'Yes indeed, the universe can be born out of "nothing at all" as a result of quantum fluctuation...!'

On page 251, Gribbin goes on:

'Nobody would argue, these days, that human beings appeared out of nothing at all on the face of the earth. Simpler kinds of living organism came first and it took hundreds of millions of years of evolution on earth to progress from single-celled lifeforms to complex organisms like ourselves.'

And so we come to the point of his main hypothesis that we will follow, where he says:

'The new understanding of cosmology suggests that something similar has happened with the universe. Simpler universes came first and it may have taken hundreds of millions of universal generations to progress from a Planck-length fluctuation - 10^{-33}cm the diameter of the universe at birth - see page 166 *ibid* - to a complex universe like our own. Lee Smolin of Syracuse University has been a leading supporter of this idea....

The key element that Smolin has introduced into the argument is the idea that every time a black hole collapses into a singularity and a new baby universe is formed, the basic laws of physics are slightly altered as space time itself is crushed out of existence and reshaped. The process is analogous (perhaps more than analogous) to the way mutations provide the variability among organic lifeforms on which natural selection can operate. Each baby universe is, says Smolin, not a perfect replica of its parent, but a slightly mutated form.

The original natural state of such baby universes is indeed to expand out to only about the Planck-length before collapsing once again.'

A Planck-length is, as we have seen, 10^{-33}cm and all the mass - energy - of the universe as it is today was squeezed into it, creating an intense gravitational field almost exactly balanced by the equally intense, outward expansion of this seed of creation.

'But if the random changes in the workings of the laws of physics - the mutations - happen to allow a little bit more inflation, a baby universe will grow a little larger. If it becomes big enough, it may

separate into two, or several different regions that each collapse to make a new singularity, thereby triggering the birth of a new tiny universe. There is even an element of competition involved with one another, jostling for space time elbow room within the superspace.

Heredity is an essential feature of life and this description of the evolution of universes works only if we are dealing with living systems. I believe that the universe - like all the universes - is literally alive. In this picture, universes pass on their characteristics to their offspring with only minor changes, just as people pass on their characteristics to their children with only minor changes.

Universes that are "successful" are the ones that leave the most offspring.'

The general idea that the universe is alive has been going on since Greek times and has been referred to as a Divine Flux or the Ground of all Being. People like Tielhard de Chardin, William James and A.N.Whitehead have referred to a 'pan psyche' and David Bohm and Danah Zohar have suggested that the electron is conscious. 'Partly', she says, 'because in some strange way an electron or photon (or any other elementary particle) seems to "know" about changes in its environment and appears to respond accordingly' and she goes on to suggest that 'it is like God - or is God'.

What is significant is that they are all thinking in the old pattern that it has always been, and still is, normal to think i.e. in terms of Something More Besides, a source of authority we are programmed and conditioned to feel the existence of, that is extrinsic to ourselves. And I think they have entirely missed the point: a point of great consequence.

To explain what I mean, let's consider this question of chance and what it may be discovered to mean and how understanding the behaviour of particles in the baby universes may lead to this important point. As has been said, the universe wasn't old enough for pure blind chance to have produced - for example - us. But what is pure blind chance and how does it actually work? Richard Dawkins approached this problem via the popular proposal that if a monkey bashed away at a typewriter for long enough, it would eventually, according to the theory of pure blind chance, type out the entire works of Shakespeare. Dawkins, in his book 'The Blind Watchmaker', then produces the calculations to show how long, by this method, the monkey would need, not to write all the works of Shakespeare but merely the shortest sentence in the entire opus, namely Hamlet's remark to Polonius, 'Methinks it is a weasel'. And it transpires that the monkey would need ten thousand, million, million, million, million, million tries. So the idea of getting from the Big Bang to Tarquin by this route is out of the question. 15 billion years is nothing like long enough.

Dawkins, however, examines more closely what happens in apparently chance occurrences and goes on to explain that in the example, the monkey was using "Single step selection." By this method, he says on page 45 of 'The Blind Watchmaker', "the entities selected or sorted - pebbles, or whatever they are - are selected once and for all. In 'cumulative selection', on the other hand, they 'reproduce'; or, in some other way, feed the results of one sieving process into another sieving which is fed into another, and so on. The entities are subjected to selections of sorting over many 'generations' in succession". Sorting means that some survive and others don't. Those that do, by chance, survive thus hand on to the next sorting a propensity - a microscopic adaptation - that permits survival. And so on in a sequence of cumulative selection or 'natural selection', as it is called in evolutionary parlance. In a cosmological (baby universe) context, he suggests -that a form of this natural selection happens in the evolution of matter and the important point to which this leads is that as primary particles arise in the randomness of Quantum Foam, one of them, by

chance, persists in such a way that: 'A random chain reaction by chance becomes self-perpetuating at the expense of the material which would otherwise be gobbled-up in further random reactions that failed, and so produces a chain of results that remain organised. This suggests that there may have been unknowable physical sequences which, because they did not lead to repeatable chains or sequences, vanished without trace. The consequence of this, in the history of the universe, is that we are left with only the repeatable, sustainable sequences initiated by chance, and upon whose existence we base our theories of evolution'. The chain was formed by circumstances it itself created. This is an enduring property of evolution and is evident at this moment when we must respond to the circumstances we have created in order to persist and survive.

I want to recapitulate all this because it is crucial to what follows. In the continuous, random reactions of the particles in the Quantum Foam, all collapse back into it until suddenly, by chance, one such reaction produces a particle which persists. Thereafter, it divides and the propensity for persisting now exists within the chance combination of its constituents and so its 'progeny' persist. Thereafter, all matter that persists in all of its eventually nearly infinite permutations nevertheless share this one vital, primal propensity - to persist. If they didn't, they wouldn't be here. You will remember I said on page 9 keep your eye open for the FIRST PROPENSITY.

And it is this which causes Gribbin and Smolin and others to suggest, because, as I said, we are programmed to think in that way, that the universe is thus alive. Like us. Danah Zohar, in "Quantum Self", page 35, says:

"What if, after all, we share to some extent, our being conscious with other things and creatures in the universe - perhaps with the universe itself? Such questions become impossible to ignore if we take into account the knowledge of modern biology or take seriously suggestions made by philosophers and physicists like Whitehead and David Bohm that even elementary, subatomic particles might possess rudimentary conscious propensities".

And on page 204 she says:

"I have argued earlier (chapter 7) that ultimately we can trace our consciousness back to its roots in the special kind of relationship that exists wherever two Bosons meet, to their propensity to bind together, to overlap and to share an identity. It is this propensity which makes possible the much more coherent ordering of complex quantum systems (those found in life and in human consciousness) where millions of Bosons overlap and share an identity, behaving as one large Boson - but in its primitive form it is there whenever two Bosons meet."

What was it, then, at the absolute beginning, that particles had which made such people talk of them as being 'alive'? They only had one characteristic. The propensity to survive. That was the first enduring propensity that ever came into existence in the universe. All before that had been random. And each next particle had it - and passed it on, or else it would have ceased to persist and fallen back into the quantum foam. So all subsequent particles throughout the infinitude of the universe and earth and us must needs contain the propensity in order to survive and evolve.

My point, therefore, is that Gribbin, Smolin, Zohar et al have got it back to front. If you call this first propensity 'gribbin' then it is obvious that the universe is not alive but that life is 'gribbish'. It is not like us - it came first - we are like it. And it's no good saying it comes to the same thing because it comes to something very importantly different.

In the first place, it means that every particle that persisted did so because it had 'inherited' the propensity for doing so. And that applies to every particle in every one of the infinitude of combinations that have gone on from them to populate the cosmos. This propensity to persist means the propensity to pursue its best interests since survival is 'better' than annihilation. Most particles, of course, did not persist but fell back into the quantum foam and nothing more is known of them. Thus survival, by the pursuit of best interests, emerges as the primal urge that influences every particle of every object in the universe and it leads to the utmost imaginable complexity.

This pursuit remained, in some cases, rudimentary, In others, it became elaborate and sophisticated. After some ten billion years, for example, something happened here on this lifeless, barren earth which was, after the Big Bang, the second great step in the evolution of mind, which is the whole significance of the universe. Namely that the particles with the propensity to survive chanced upon an organic form in which this propensity could pursue its best interests in a much more subtle, richly various and hereditary way.

These particles thus became the disposing factor in the cyanobacteria's unicellular response to its surroundings that caused some of them to survive. The conformation of these particles in those later amoeba which did survive was passed on. In this new organic form, we say it was inherited. Through the billions of years and an infinitude of generations of species, it developed a huge store of successful awareness and responses. These became the reflexes of plants and slugs and finally of animals that governed their behaviour: the sharper the reflex, the more self-advantageous the behaviour and the more they prospered. These responses became a store of 'know-how', like a palimpsest of the experience of all life, from the amoeba to you. It contained, in its awareness and motivations, the data of how to obey the first propensity present in everyone of its particles and thus how to respond in its own best interests. In this way, the foundations for what becomes memory in the deepest possible sense, was laid down. What this amounts to is that, in the organic form uniquely taken here on earth, every cell in the bodies, brains, glands, hormones or nervous systems of all life, including ours, comprises what we have come to call The Unconscious. It is intrinsic to all the particles of all the cells of all life. That is where it resides in every interactive bit of us and this is how it is passed on. That is what the unconscious is - the stored infinite urge and ability of organic life to survive, in which is, therefore, implicit the memory banks of how to do it.

Anthony Storr refers to the subject of 'energetics' (ref: Anthony Storr, 'Jung - Selected Writings' from Tana Paperbacks, page 69) first proposed by Robert Maya in 1844 and later described by such people as James Fraser, saying it's equivalent to the idea of 'sole, spirit, god, health, bodily strength, fertility, magic, influence, power, prestige as well as certain states of feeling, which are characterised by the release of affects'. It is, he explains, a power concept which has undergone countless variations in the course of history, and he gives examples of this. The more one tries to enter into the idea which is being expressed by countless such people, every particle of whose person is imbued with The First Propensity and the unconscious, the more one is driven to the conclusion that it is these two phenomena themselves that we sense and seek to account for in so many different ways.

In as much as promptings from this source are processed by us, both unconsciously and consciously in certain ways that, so far as we know, they are not processed by chimpanzees, we have come to talk of the unconscious mind as, perhaps, somewhere between the unconscious and the self-aware mind. In turn, the nervous system, as William James observed, evolved to process more and more useful pieces of information about its environment. As a result, a natural cord has grown-up between the organisation and structure of the brain and the world we live in.

The unconscious is, at one level or another, the source of most of our responses and also the means by which much of our experience has always been processed and it is the phenomenon from which consciousness slowly develops, but does not entirely separate itself.

There are dozens of examples of the way that our unconscious processes information, either for our benefit or at our expense. An example of the former is when all the men in a lab agreed to be a little nicer to any girl who wore red. They told no one, particularly not the girls, and did not speak of it and did not mention red or the garments she was wearing in the course of being nice to her. Within a week, nearly all the girls in the lab were wearing red in one way or another.

My proposition, then, can be summarised thus:-

1). Until there was mind, there was nothing abstract in the universe. There were happenings and there were patterns of happenings. These patterns mind has now called laws - like the laws of physics. But until mind there was no medium in which they could exist so as to be 'understood' and manipulated until there was mind. It is for this reason that I think the statement mentioned on page 18 - 'all scientists agree that the laws of physics are logically prior to, and more fundamental than, the complicated universe they describe', is wrong. Such laws cannot exist in vacuo. As the first particles persisted and, by chance, formed chains etc as described, the sequences we call 'laws' came into existence too. Thus, the 'laws' have two possible modes of existence. First in the pattern that is intrinsic to the matter and those chance events it went through that happened to enable it to survive and secondly - much later - in the abstract form of a concept, in a mind that can apprehend them. To suggest that they - all of them in their almost infinite complexity - pre-existed matter and its behaviour is to propose a plan or design in existence 'somewhere' to which evolution can conform. This orderliness of mathematics and science is the pattern of persistence i.e. the infinite manifestation of the First Propensity. If it were totally disorderly, it could not achieve the forms in which to persist. Orderliness can be rather perfect - sequential - symmetrical - and demonstrable, or it can merge into the anomalies of Quantum Theory or the complexities of Chaos Theory and the areas delved by cyclotrons, where some particles have no mass, no charge and one half-spin, and are strange and ephemeral.

It is, therefore, I think, inaccurate to say to say that the brain provides the interface between the material and the abstract because that infers that the abstract had a pre-existence in some other medium and we do not know of any such medium. Brain made mind possible and mind is the abstract analogy of material reality in which ideas, (intentions etc) are, so to speak, 'particles', rather as physical particles comprise physical reality. Mind, I propose, holds this position of importance in that it can make objective appraisals of the ideas that comprise it and manipulate them intentionally into new combinations. It can then play these new combinations back into physical reality in forms which have never hitherto existed in the cosmos - whether bombs or cyclotrons, computers, religions, sonnets or memes.

Thus, mind must be recognised as the only deliberately (self-consciously) creative force in the universe. If it can choose to put the needs of the environment in front of ours so that the environment can survive and therefore also us and our mind, then it will have started to evolve on purpose for the first time in time. My Proposition on the first page, therefore, that if civilisation and population are allowed to continue unmodified on their present expansionist courses, that civilisation will destroy itself and most of that population, is therefore only important in the context that the attempt at achieving full consciousness would be put back, or might never happen. The road back from barbarism might be too difficult.

2). The whole significance of the universe is the evolution of this mind. By significance, I do not mean purpose or meaning. There is no purpose. There is no meaning. Yet. Mind is the only phenomenon which may ultimately be able to create - evolve - meaning into the universe where it never was before. Even God, I have pointed out, seems to have been able to think of nothing more meaningful than eternal bliss. Which is consistent with the notion that man is only partially conscious and still entirely programmed to seek self-gratification. It doesn't matter where, or in what form, consciousness occurs. If it has evolved in other forms, on other planets, the significance will still be in the potential. There is, therefore, nothing intrinsically special about humanity except that, so far as we know, we are the only conscious creatures. If there are other forms, maybe we and they will compete, maybe co-operate. It doesn't alter the fact that the significance of the universe will evolve in the creativity of 'mind' - because it has the unique ability to handle abstracts and then to invent purpose and meaning and to pursue the possibilities and consequences of that. Thus, the significance of the universe is - via mind - to evolve meaning and that becomes the purpose of life, but only because life - our life - is the (so far as we know) only source of mind.

The Sum has been done wrong because this point - that the significance of the universe is the evolution of consciousness - was never recognised. Recognising it now gives us a new way to study our evolution and that of our cultures etc., as providing evidence of the undirected, unaware evolution of consciousness. Such a study would take lifetimes, but everything in this book is intended as an example of how it might proceed. Moreover, recognition of the proposition would give a meaning to the over-worked word 'progress', which has never had any meaning before.

So far, we have been driven by the one over-riding endeavour, as familiar in our daily lives as our faces in the morning mirror, to pursue our individual, family, group, class or national best interests. And, if we think that that could ever have been a sufficient *raison d'être* for the evolution of mind in time and space, then that single thought proves the validity of the book's title to the hilt.

So the study of consciousness, its emergence, its history and nature is the most important subject in the world. Relatively little time or effort has been given to it, compared to that given to other subjects. So far as the layman is concerned, we have really only started even to think about it in the last few years. This is highly significant. It means we have become conscious of consciousness, realised its importance and are, in some areas, taking steps to deliberately raise and improve it, precisely at a time when it offers the only route to a solution of our predicament. [PICK THIS UP IN 'WOMEN'].

What do we know - what have we thought about its origins and development, compared with our conventional studies in anthropology, mythology, religion, magic etc etc?

The answer is - extraordinarily little. The reason why this is so is because we thought of the invention of artefacts, the building of temples, the performance of rites, the beliefs in gods and their works had some intrinsic significance or value, often as steps in the 'ascent of man' that we are taught to be so proud of, or that they might represent some primal wisdom that we could reclaim. And we also developed, from *primaeval* times, to think there was an outside, divine source for things spiritual. We were rather fearsomely indoctrinated, from one generation to the next, to think thus. And it has always been one of the most powerful influences in the doing of the Sum. It is my contention that the cultures of the past are the relics of the many alleys we went down in our hit or miss evolution of consciousness, something that we have never done on purpose nor been aware of doing, any more than a monkey knew he was growing a tail or did it on purpose.

To fully reappraise all that learning on the grounds that it is like a sum done wrong, would take a lifetime of study. But, as I said, we will look at some of the issues and the kind of way they might be reconsidered and what it could lead to and we will find that it suggests a different attitude to our history and to ourselves, to our beliefs, and our ideas about our role and place here. And, as I have tried to suggest in the first chapter, it is our attitude today that is leading us to destruction. An interesting aspect of this that is often missed is this: our species has one thing in common, which no other species has: consciousness, and the intelligence and abilities it gives rise to. Our use of this unique faculty in competing for our best interests means that we are now actually competing with the whole of the rest of the environment. And we are 'winning'! So let's go back to the dawn of this cosmically significant consciousness. The only phenomenon that can enter into and imagine what this was like and learn anything about it, is the humanbeing itself, believing in nothing - proposing nothing - free from any of the previous attitudes engendered by The Sum; this is a difficult prescription to fill, particularly because the subject we are nowadays worst at thinking about is ourselves because our way of doing so is so irremediably steeped in the terms of The Sum.

For thousands of millions of years, we have been part of the unconscious I described. About 180 million years ago, the reptiles began to evolve into mammals and when the dinosaurs became extinct, about 65 million years ago, the mammals took over and eventually became the major species. A common ancestor of all primates was living about 33 million years ago and from the line that descended from it, we diverged about 7 million years ago. For all that time during which our evolution was so very slow, we were not conscious and could not think. There is much disagreement about what one means by 'the dawn of consciousness', and therefore about when it happened. Richard Leakey, for example, thinks it evolved very slowly and continuously with the development of the humanoid line, producing artefacts like the stone axe about 1.5 million years ago and others thereafter as indications that this is so. There came a time, however, when our ancestors took a certain particular step from being animals into being conscious humans. However blurred and long-drawn-out and difficult that step may have been, it cannot be other than at the 'moment' that they first realised it. And I shall base my argument upon the idea that consciousness - self-awareness - arose, therefore, at the moment when we first noticed it. I perceived this moment as being prior to the moment at which we realised we had noticed it - at which we realised we were people; and that will be the subject of the next chapter.

So let's start by trying to imagine this first experience of consciousness. What subjective feelings did our ancestors have - what promptings did he/she experience, suffer - what bewilderment - what was it like to have ideas for the first time or feel the madness of growing out of being an animal into being a person - what was their reaction to that experience - how did it affect them?; because that is the foundation of our understanding of ourselves and our place and role here and, what's more, the experience would have set an indelible print on our reaction to it. We would have achieved a kind of consciousness deeply influenced by the trauma of acquiring it. To what did we attribute it? By attribute it, I don't mean consciously. I mean where did it feel as though our very first conscious promptings were coming from? What were they like? What did they do? How did they persist and grow? I refer to 'promptings' because 'idea' is too sophisticated. I mean we had an 'urge', a 'feeling', probably very physical - like fear or breathlessness or sudden spasmodic contrariness or violence - but like that - through that - in that form, the promptings first welled-up in us and we thought they came from an outside source. The fact that they are referred to in those terms as lately as The Iliad and The Old Testament and elsewhere, is so extraordinary we will consider it in Chapter Four.

So let's first try to establish a source from which consciousness arose. I have described how the presence of the first propensity in all the particles of organic life that urged and enabled them to persist, as it itself had done, and thus to survive, was what comprises the unconscious; and it is, of course, present in us and our ancestry. The realm of the unconscious is delved by Jung in about seventeen volumes, also by Freud and many others from around the world. Their work is undertaken from various standpoints, entrenched in the values and predilections of The Sum. Much of it is intended to help us to understand ourselves better so that we can function more effectively, even profitably, in the world that The Sum has produced. One of Jung's most important ideas was that of the archetypes. These have one thing in common - they nearly all represent a different way of advancing their own self-interest, and are thus manifestations of the first propensity to survive and persist - The selfish gene, of course, manifests the same propensity in a different way. Jung attempted, he said, to understand the human psyche but stated that he had reached no 'definite theory explaining all, or even the main parts, of the psychological complexities' (ref: "An Introduction to Jung's Psychology" by Frieda Fordham, Foreword by Dr. C.G. Jung, Penguin 1953)

Neumann (Erich Neuman, 'The Origins and History of Consciousness', Routledge & Kegan Paul, 1954, Karnac Books 1989) describes how animals, and therefore we as animals, lived, for tens of millions of years, in a state of security vis a vis our environment. We had evolved with it and were responsive to it like, I suggest, a pencil with a score of elastics holding it tremblingly ready for reflex action. The dominating importance of reflex is that the quicker and better and more unthinking it is, the greater the chance of survival.

And then, with consciousness, we began, over a long period, to be aware of a different kind of prompting that offered, as it were, an alternative to reflex and instinct. Unless it served our immediate interests in some way that was better than instinct, we did not so much dismiss or ignore it as not reckon it; not understand it, and therefore we did not respond to it and its progress was slow.

We learned to understand these promptings in terms of what was good for us - useful to us. Things easiest to understand were the ones whose use was most obvious. It is still, to this day, an unconscious criterion that directs our ability to 'take something on board'. It underlies boardroom conferences - parliamentary arguments. We understand in terms of "What's in it for us?" and the person who thinks most piercingly and fastest in this way is heeded and respected. If the benefit is at one remove - e.g. to the environment - we are programmed to dismiss it. And, for the most part, we do.

The next thing that these new promptings did was to give us an edge over our competitors and the more blatant and simple, the easier they were to understand and obey. So this became the other powerful programme in shaping the way we learned to think. The ideas which enabled us to outsmart our competitors were the ones most easily understood and most highly prized - the people who had such ideas became the most successful, influential and powerful.

There is a traceable strand exemplifying this which turns up eventually in our early records and runs through mythology, folklore and history - which it is illustrative to follow, particularly because of the place to which it leads.

The clever trick is a primal example of this dawning consciousness. The first evidence of it is the feint - used by all animals - and elaborated as, for example, in a pair of lurchers chasing a hare. All three are fully extended and the dogs can't catch the hare. The right-hand dog lurches a little bit to the right and the hare instinctively jinks to the left, just enough for the left-hand dog to catch it.

Animals use ruse and deceit in many ways. Richard Byrne and Andrew Whiten say that, while watching baboons, they saw a youngster, Paul, watch a mature female digging for a rhizome. He looked round, cautiously, to see that there was nobody else about then he screamed loudly - which baboons seldom do - so that his mother came running out of the bush to his aid. Seeing the other female, she chased her off and Paul took the rhizome. But the fundamental significance of the conscious discovery of deceit is the discovery that circumstances are not immutable, as they would be if ordained by some outside source such as God. One can change them to one's own advantage. It is the beginning of mind's propensity to be the only creator of abstract reality in the universe (no matter to whom it belongs) and also the beginning of the growth of our unconscious awareness of this. Just as children first discover their bodies, their fingers and toes etc, they later, at a certain age, discover deceit. It is this conscious conceptualisation of deceit that is the significance of its introduction into the Garden of Eden by the serpent who 'beguiled' Eve. It is the significance of the Trickster as an archetypal figure of whom Jung ('Man and His Symbols', page 103/4, Picador edition, 1978 by Pan Books Ltd) says: "His physical appetite dominate his behaviour". Just as we saw when we first understood by seeing what was in it for us. "Lacking any purpose beyond the gratification of his primary needs, he is cruel, cynical, unfeeling". Thus it is a very primitive archetype indeed and, of course, therefore seen as emanating from, and identified with, various animals familiar to various cultures e.g. coyote in North America or fox in Europe.

The clever trick, when elaborated, becomes the most basic example of conscious understanding being concomitant with advantage. Once upon a time, when you confronted a competitor, you either bashed him or ran off; now you made him look the other way and then took his lunch. As animals, we had used this kind of ploy for millions of years, but now it became conceptualised - we did it with forethought. We understood an idea as serving our interests; so it had achieved a new, abstract reality in the analogue of mind.

The earliest myths concerning the relationship between our thousands of gods and us are full of tricks played by them on us and by us upon each other. The earliest stories about peoples behaviour are full of these tales of tricks played that commend the trickster. The Cuneiform Tablet dated in such a way that it means 701 B.C., which was found in the library of Ashurbanipal in Ninevah, ('The Sultantepe Tablets,' Vol. 1, no: 38, British Museum Collection), is about 'The Poor Man of Nippur', who got his own back on his enemy, the mayor, by playing three tricks on him. In one of these, for example, he dressed-up as a girl and ended by beating the mayor black and blue.

In about 1,000 B.C., King Solomon, the revered epitome of wisdom ever since, invited the Queen of Sheba to dinner at his palace. Then, 'with wise intent' (ref: 'The Queen of Sheba and her son Meneylek, being the Book of the Glory of Kings, (Kebra Nagast)' translated from the Ethiopic by Sir E.A. Wallis Budge, O.U.P., 1922) gave her a lot of spicy food to make her thirsty and, at the end of the meal, invited her to stay the night. She agreed on condition he swore he would not take advantage of her and he agreed if she would swear not to take anything that was his. Then he told a servant to make-up a bed for her in his room (as was usually the custom) and added, in a language that she did not understand, that he should put a jug of water next to his bed, but none next to her's. During the night, she awoke thirsty and went to drink from his jug. He took her by the wrist and said that since she had broken her vow, broken her vow by taking his water, he was now released from his and took her to bed with him.

His fabled wisdom, popularly evinced in the tale of the two women claiming the same baby (1 Kings: 3-16) does not ring true but the fact of its having been revered for 3,000 years shows how it is wileyness itself that is so universally admired. The story is as follows:- Two harlots had babies. The first lay on her's during the night and it died. She was so distraught she took it to the second

women as she slept and swapped it for her live one. In the morning, they quarrelled as to who was the true mother. Taken before Soloman to decide, he drew his sword and said he would cut the babe in two and each could have half. The first woman agreed, the second refused, saying that she would rather the babe lived, even with the other woman, than that it should die. Soloman then knew that she was the rightful mother.

However, the truth of the matter is that any woman who wanted a baby so much as to steal somebody else's would never consent to it being split in two in front of her eyes for her to receive a half of its corpse.

Thus the story is actually about a clever trick. It is totally unconvincing and implausible, yet it satisfied the male chauvinist society of the time by showing how sharp the great King Soloman was and it has been accepted in the male-dominated religions and cultures ever since.

As soon as written stories appear, like 'The Poor Man of Nippur', many of them show that tales about clever tricks had already been popular for a very long time. The most famous exponent was, of course, Ulysses/Odysseus, whose story was ancient before being written down by Homer. The trick involving the Trojan Horse is almost universally known. It was Odysseus' idea. Two other tricks were as follows: he wanted to be the only man to hear the Song of the Sirens and survive. Those who heard them were always beguiled by the song, steered too close to their island, were wrecked on the rocks and killed by Parthenope, Ligeia and Leucothea. Odysseus plugged his sailors' ears with wax and had himself lashed to the mast, far from the tiller, with his ears unplugged and so got away with it. Tricks, being eternally popular, a painting of the event, by Gerard Hoffnung was commissioned in 1960 by Schweppes to be one of those huge posters on the wall of the London Underground next to which the train stops. Another of Ulysses' tricks was when he and his men were trapped in a cave where lived Polyphemus, the one-eyed Cyclops giant who blocked the entrance with a stone too big for the men to move and was eating them one by one. Ulysses cudgelled his brains and then first made sure that the giant knew his own name was 'Nobody'. Then he heated a staff in the fire, gave Polyphemus too much to drink and, when the Cyclops was asleep on his back, Ulysses and his men plunged the staff into his single eye and churned it around until 'the eyeball cracked'. The blinded giant raged about, screaming for help. His friends came and shouted past the entrance: 'Who is doing this to you?'

'Nobody,' shouted Polyphemus. So they all went away.

In the morning, Polyphemus rolled back the stone and sat in the entrance to feel for the men as they came out with the sheep. 'What a fool he must have thought me,' said Odysseus when he told the story and he tied the sheep together in threes and lashed some of his men under each triplet while he himself escaped clinging underneath the largest ram.

There are several other examples of the tricks he played, and everybody has admired him and his sharp wits ever since. Except Dante, who put him in Hell for being a cheat. There are countless such tales in mythology, like that of Atalanta, 'The Fleet of Foot', who swore she would never wed a man who could beat her in a race. A suitor - Melonion - got three of the golden apples of the Hesperides from Venus and during the race with Atalanta, he dropped them, one by one. Her cupidity and conceit made her stop to pick them up, so that Melonion won and married her.

The figure of the trickster appears throughout all folk lore. In the Ibo Folktales that were told again in Uncle Tom's Cabin he was Brer Rabbit or Brer Fox; in Germany he is Thyl Eulenspiegel, who runs through the world rejoicing in cheating all who employ him, and causing confusion in

parodies, proverbs, pranks and mischief. Jeremy Diddle, is one of his common names in England, but all cultures have many such tricksters. Even 'Jack-the-lad' is an echo of his mischievous nature.

It has always been presumed clever, smart or admirable to be able to put someone down - to be able to use this new fangled consciousness to serve your interests at somebody else's expense. Well, you may say, it sounds pretty normal to me. Precisely.

But that is not all, because respect is accorded to people who excel at this kind of behaviour. A businessman, financier or politician who is good at it is called 'clever' as in "He's a very clever man". We all know how difficult it is to define intelligence, but cleverness is easily recognised in those whose wits serve their interests best and make them rich or successful - and it is much respected. The best example of this respect is in the way children learn how to behave like that through the ubiquitous practice at Michaelmas of 'Trick or Treat', whereby they learn how to get money, by dubious means, in a socially acceptable manner.

Broadly speaking, then, we understood the primary promptings of consciousness in terms of "What's in it for me?" and "How can I exploit another person or situation or thing to my advantage?" It was these promptings within our persons which began to cause, as if often the case, the growth of tissue appropriate for responding to them. Just as there would be no ears if there were no sound - no eyes if there were no light; and noise and light came first. So the tissue grew to understand the promptings from the unconscious that served our best interests. The rest of the output from the unconscious we screened off and simply didn't grow the tissue appropriate to understanding its great wealth and subtlety.

This screening-off is mentioned by many writers on the subject as, for example, Max Delbruck, ('Mind From Matter', 1986, Blackwell Scientific Publications, introduction by Gunter S. Stent, page 6), was obviously not cut and dried; it left us with a baffled sense of The Source of these promptings. It left us with a flickering awareness in the back of our minds that is the source of all mystery.

Mystery is no more mysterious than that it is the part of the unconscious I described which we carry in ourselves and that we screened off because it was too difficult to understand while we continued to grow the tissue necessary to receive and understand those aspects of its promptings which served our immediate interests and appetites and thus had survival value. Indeed, I think that our predisposition to hanker after The Source is because we hanker after the wholeness of belongingness described and that there is no need to infer anything supernatural or teleological.

Hitherto, we had steadily evolved, from the Egyptians via the Greeks and the Renaissance, the mathematical science that produced reductionism, which seemed to give a promising account of everyday events, though it emphasised and helped to enshrine this great volume of phenomena and experience we called 'mysterious', because it was not amenable to study and understanding in those terms.

Then came the study of the very large - relativity - and the very tiny - Quantum Theory, which gave an account of phenomena and existence which was so different from the way the very tissue of ourselves had evolved to understand, and the fabric of mathematical science, indoctrination with which we had evolved, that very few of us, even now, can get our heads round its cultural implications. We can't feel ourselves part of a quantum system. And now we are entering into the further study of complexity. Our brain tissue evolved in terms of the simple idea of "What's in it for

us?" The primary terms of mathematics - profit and loss - grew out of this and reductionism followed in a(end of side one).

Today's study of complexity, coming on top of relativity and Quantum Theory, is only approachable by the brain having invented computer power to help us think in new ways. And it has become apparent that they offer us a route into the understanding of all those areas we have, since time immemorial, called mysterious and invented such terms as supernatural, spiritual, divine or paranormal in which to speculate about phenomena and experiences we all have. This is important. These 'mysteries' are real. We experience them. Our problem now is that after tens of thousands of years of evolving our mind and conditioning ourselves around the copious notions and beliefs concerning mysteriousness, we have now reached a point where we can take another great step into understanding them. We stand, as I have said before, on the threshold of the era of mind. Part of the great revolution that it involves is that it must pass over, into and become cultural knowledge that will change the attitude we have towards our place and role here, towards our attitude to our world and each other and the idea of evolving on purpose instead of the pursuit of best interests in whose terms we first grew the tissue to understand the promptings from the unconscious that in fact pervades us.

To go back, then, to that point in time when these promptings first began to occur in replacement of instinct and thus to turn us slowly from animals into people:

Two things ensued from this: first we were confronted with two ways of behaving: obedience to reflex or obedience to prompting - the unconscious versus the conscious - the instinctive versus the cerebral, the basis of dualism. And we had an eternal, inarticulable sense of the first that comprised a oneness at two levels. First, that which manifests itself in the state described by Neumann concerning a living creature in its natural habitat. But secondly at quite a different level, which we have not yet examined. This is the ultimate basis of the elementary particles linking all matter according to quantum principles that transcend those of classical physics and commonsense.

This 'sudden' beginning of the promptings went on for thousands of years, in which we suffered the agonies of doubt about something we could not understand nor even know that the idea of understanding was an objective possibility. We just suffered and we longed for certainty. We had always been certain - been en rapport with our habitat. Now we weren't. It was traumatic and it produced a consequence in our Mark I, malfunctioning minds that is of huge and lasting importance, namely that we became certain that the promptings were something that happened to us, from outside. This is echoed throughout 'The Golden Bough', which reflects a living tradition and it is clearly the accepted attitude in The Old Testament and The Iliad, both of which were handed down, by word of mouth for probably thousands years. The Torah (Pentatuch) is believed to have been written by Moses in about 1250 B.C. on coming down from his meeting with Jehovah on Sinai. The rest of the books were written during a period leading up to, and ending, in about 800 B.C., at about the same time that The Iliad was committed to writing by Homer. The way in which God - in the scriptures - or his minions - ordered or ordained or administered the lives of people among whom they moved or spoke is familiar to us all:- "The angel of the Lord spoke unto Abraham saying...." And God also told them directly how to build the

tabernacle (Exodus 25-26 and 36-40) and how to eat healthily and what part of which beasts to sacrifice to Him. All the mythologies and, for example, the Mahabharata are written in the same vein, as we shall see later.

Trained by millions of years obedience to the promptings of instinct to obey by reflex instantly - trained by tribal customs for millions of years to be obedient to its lore and law - we were a people born and bred to obey, and we did. Nearly all holy books are written in terms of God planning, or telling, us what to do and in us obeying or disobeying, and thereby carrying his programme and indoctrination over into our new secondary state of emerging consciousness via language and letters as we evolved them. We are so accustomed to reading accounts of the Gods' presence amongst us and of our lives being played out at their behest, that we don't stop to think it remarkable. But it is. What was this God whose voice we heard during the thousands of years long hallucinating madness of turning from instinctive animals into conscious human beings? We will find out in Chapter Five, where a fresh understanding of this, our myth and religion-building period, will be presented.

The second point was that there also runs through the study of the origins of consciousness this idea in the back of our emerging minds, of The Source - which we had screened off. An early reference comes in connection with the Sumerian folk hero Gilgamesh, about whom an epic poem of about 3,600 lines was written, whose title means 'He Who Discovered The Source'. The existent, Cuneiform, Text of this was found in the library of King Ashnurbanipal in Ninevah, 700 B.C., though a fragment remains of a version of about 2,100 B.C., and it is known that Gilgamesh was King of Sumaria in the Third Millenium B.C. Interestingly, his friend, his 'brother', his alter ego in this enterprise of discovering the Source was Enkidu, who was covered in hair, ate grass and ran with the gazelles, so he was effectively half-animal and symbolising - as do many other examples we will look at - this long, traumatic evolution from animal into human.

I have suggested how this Source existed ultimately in the first propensity, thus in the particles of organic life and so in the unconscious, which drove the living world to persist as it itself had done: to survive. From here, within ourselves - within our own unconscious - it very slowly evolved into our our consciousness and began to wonder about itself. In the next chapter, we will consider the artefacts which suggest the manner in which this began to happen.

The screen is partial, patchy and semi-permeable. The promptings forming in The Source within us and handed down amongst us were very confused, as was the language that evolved to handle them. So let us move on at this point to a consideration of its function because it, like the attempt to enter into an idea of what the first promptings were like, must be speculative.

The only evidence we have is, of course, writing, which comes very late and I want to concentrate on the Rig Veda because it opens up for me a way of entering into the possibility of participation in the kind of things some of us may have first used language to express that gives us a feel of how we thought about them.

We know from extensive studies of The Iliad how it was handed down by word of mouth with certain disciplines, phrases, usages - clichés really - that were passed on intact. We know how very slowly evolution works. Tools did not change for hundreds of thousands of years. Cave art improved only over a period of 15,000 years. It must be legitimate to suppose that speech evolved slowly also and that, therefore, the aural tradition goes back so far that it reflects the way we were thinking and our feelings about our experience of the world when we first found we could think and had no idea whatever how we were supposed to think or what the 'rules' of thinking were or what it

was all about. I want to go into this and expand the proposition but first let me give some example of what other people say about the material and of how that seems to confirm the proposition I am making. A very great deal of the material, particularly the Rig Veda, is barely comprehensible. The trouble, as Wendy O'Flaherty (Wendy Doniger O'Flaherty, Doctor of Indian Literature, Professor of Historical Religions, Chicago, 'The Rig Veda (An Anthology', Penguin 1981)says:- 'It is so complex that most serious translation has been rendered unreadable by critical apparatus' and she explains that to make her own presentation she has 'stood on the shoulders' of a 'series of translators and commentators'. Her selection from the 1028 hymns was, she said, 'the product of serendipity...'. She says that past translations are full of *cris de coer* like 'this hymn is one of the most obscure in the whole Rig Veda' and 'I can make no sense of the second line' etc. 'Several hymns', she says, 'are simple to translate but impossible to understand'. The language may be esoteric even for people of its own time...or difficult because we have not the thread of the underlying idiom'. So, 'How can we know that we are translating correctly and not merely unconsciously simplifying complex ideas. They are meant to puzzle, surprise, to trouble the mind'. They contain 'issues that are in many cases intrinsically unfathomable'. And finally, 'each verse in a hymn stands on its own and often bears no obvious relationship with the verses immediately preceding or following it; indeed, each line of a two line verse - and sometimes each half-line - may contain a thought not only grammatically distinct from what surrounds it but different in tone, imagery and reference'. 'Translators are painters rather than photographers' and she says her present translation differs massively from former ones and will differ as much from future ones.

So let's look at the kind of ideas that may have been passing through our minds when we first began to try to talk about our awareness of The Source - screened off in the back of our minds, remembering always that we had filtered through and developed only an understanding and a way of thinking about material things, like "What's in it for me?" and "How can I get the better of this person or situation?"

Imagine the following as referring to that baffling sense of there being something within ourselves that our untutored, Mark I minds are feeling the presence of:-

'10.129*

There was impulse beneath; there was coming forth above

Who really knows? Who will here proclaim it? Whence was it produced?...

Perhaps it formed itself - or perhaps it did not.

8.79.

(Line 5)

Let those who seek find what they seek. Let him find what was lost before. Let him stretch out the life-span that has not yet crossed its span.'

* Rig Veda, Ibid.

The more one reads of it, the more it sounds like stream of consciousness stuff. And that is implicitly what I am suggesting that it is. Interestingly, it characterises so much Indian and Oriental thinking - it influences the whole way of life that is so different from the Judao-Greek based European attitude and process. And yet there are many primal ideas, images, symbols that find their way into the same words when they at last come to be uttered for the first time.

'Veda 10.129, verse 3:

In the beginning, darkness was hidden by darkness
With no distinguishing sign all this was water.
The life force that was covered in emptiness
That one arose through the power of heat'.

Compare this with Genesis:

'In the beginning....the earth was without form and void and darkness was upon the face of the deep and the spirit of god moved upon the face of the waters.'

A watery origin is common to countless mythologies and I will suggest reasons for this at the end of this chapter.

I think that the First Propensity inherent in the primary particles of all the cells of life influences our mind so when Verse 4 of the Veda 10.129 says 'In the beginning desire came upon that one...' (the self?) '....that was the first seed of mind...'. We hear the person struggling to articulate the primal urge to survive, to render the urge as a desire to survive.

One finds this kind of contradictory reference to existence and non-existence everywhere in Indian writings. I think it has given birth to the doctrine of the non-existent, Divine Ground which yet exists in everything etc etc. There are countless forms of it. I think that, because they have the aura of mystery that I spoke of earlier, they have become hallowed and we are enjoined as obedient disciples to try to use them as a thinking aid to understand god. But if there is no god, then can't one just say it was a mistaken idea? We had a feeling of a source which was our own, inner, unconscious potential, struggling to emerge into a new form of existence - the mind - for the first time ever - trying to become the first functioning, abstract phenomenon in the universe and we were far too naive and infantile to recognise what it was. It's hard enough now. And so we symbolised it in all these manifold forms - manifold descriptions that actually only described one thing and that was bafflement. These are not mysterious truths. These are not divine mysteries. These are not references to some higher plane where wisdom, external to ourselves and greater than us, can be apprehended. Not at all. These are just us growing up and getting wrong the fact that the unique form of matter which, by chance, evolved us is itself the source of all abstract ideas.

It has often been remarked that across all the millennia, continents and languages that the metaphors and similes used to describe any kind of mystical or spiritual experience, which is how this kind of writing is described, remains startlingly the same, showing how we have always been experiencing the same phenomenon - the same cryptic and ineffable thing.

Consider Brahman - the inherited core upon which Hinduism has grown up. Brahman is defined as being indefinable, and how could you better describe The Source than that? Or than this? (Ref: 'The Crest Jewel of Wisdom' by Shankara, 9th Century A.D.): '...the essence of Brahman - Atman - is pure consciousness...their identity is affirmed in hundreds of sacred texts...'
Or this:

'Brahman has neither name nor form, transcends merit and demerit, is beyond time, space and the objects of sense of experience. And Thou Art That.'

Or this:

'Supreme beyond the power of speech to express, Brahman may yet be apprehended by the eye of pure illumination....such is Brahman and Thou Art That'.

Or this:

'Though One, Brahman is the cause of the many. There is no other cause and yet Brahman is independent of the law of causation...such is Brahman and Thou Art That.'

In reading slowly and thoughtfully through the Rig Veda, I tried to imagine I was writing it at the time that it was written and that I really did actually think of language as a goddess, which is how one of the hymns describes it. Today, we 'invoke the muse', so the idea is close by. But I tried to think of language as a goddess coming into my mind from somewhere. I walked with Tarquin in the woods by the Torridge River and felt the breeze on my face as a goddess who was all around me in the air and touched me, while the river racing powerfully past was a god, very busy about something, and the trees swaying and rustling did so because a goddess moved them. I thought of the sun as a god (as today's Massai tribesmen greet it every morning, "Hail sun, glorious god" in their native tongue as 'Ngasak ngek enya osirua Ngai') whose light existed between me and the trees, enabling me to see them and whose warmth was pleasantly touching my skin and mysteriously penetrating to spread into my body so that they were all part of me being me. It meant that the world, via all sense data, was full of powers telling me mysterious things. I walked along, breathing all this in, keeping my mind focused on what I had described - it's quite difficult - and, in the end, it lifted me out of trying to do it until it was indeed happening to me. I realised that the experience for a half-formed mind would have been ecstatic; not wanting to account for it, only to experience and (since it is language we are talking about), to utter it, neat, to (so to speak) say the experience - transmute it into this new medium of speech. Just like one wants to write a poem - the muse is close. The urge was just to mull it over in the mind, on the tip of the mind's tongue, twist it and turn it with the fingers of the mind - relishing it. It was a static and ecstatic and purposeless, pre-logical experience of being alive.

Being alive was an experience we were, so to speak, giving birth to in the analogue of our mind, as a concept, an awareness. It is beautiful and arouses in us feelings which are more exciting than religious feelings because they relate to an indisputable reality. That's what makes it so heart-stopping. You don't have to believe in them. You don't have to use belief as an aching attempt to draw them closer to you - trying desperately to make that belief strong enough so that they will survive. Their reality is absolute. They are actual, and consciousness is their recognition, conceptualisation, in the abstract analogue of mind.

I know a man who, at the age of, I think, one and certainly not more than two and a bit, lay in his pram and became aware of light. It made him so supremely happy, he has remembered the feeling of it to this day and he is now 76!

Later, as we came to write, we had just about started sporadically in this half of a line and differently in the next to speculate about these experiences. In some places to try to identify, connect, its components, like the first propensity struggling to persist by forming stable, coherent sequences. Thus it was the first flickering attempt at coherent thought.

The next is to understand mind and ourselves better - which means learning to dismantle the screen we erected around the source and to evolve a new vocabulary and a new attitude. It means that

standing, as we do, on the threshold of the era of mind the first meaning of progress lies in the direction of stepping over that threshold where we will, at last, stop blundering about blindly in pursuit of self-gratification.

It means remembering that the way primary particles pass among the nuclei of all matter, including our brain and nervous system, forming the basis of our minds, that these particles are not constrained by classical notions of causality or time, but offer plenty of scope within which to account for phenomena hitherto called by us, in our ignorance, mysterious or supernatural etc. By screening them off from our dawning power of understanding, we have given ourselves an account of reality and ourselves that was wrong - that was construed out of only a tiny bit of the evidence - the bit that served our best interests.

It is for all these reasons that I think the orthodox study of anthropology, mythology, psychology, religion or history is barking up the wrong tree. The experiences that all human beings are subject to are real. The fact that we can and do have ideas, experiences, feelings or aspirations of breath-taking scope and beauty is far more inspiring because they come into the world through the unique faculty of mind - our mind - than had they come from some outside source we had invented especially to be their fountain, or which had a totally different existence from ourselves in a form so unlike our own or that of our mind that we are totally unable to imagine, understand or describe it. Certainly, The Source is as wonderful as all the things we have ever thought of and the gob-smacking truth about it is that 'Thou Art That'.

I will just put the proposition briefly from a different standpoint and then we will pass on to other matters.

We have no testable evidence for the primal existence of anything but the matter in the universe. This has, in the course of its infinite permutations, including the function, in all matter, of the first propensity, arrived by chance at a combination that is aware of itself. It can think. Finally, the whole significance of the universe to achieve this ability and thus to act deliberately and effectively, is embodied in us. The only thing lacking is any kind of direction for this unique ability. And it is my proposition that that is the next step we now must take, and I don't mean 'must', for any high-falutin' reason of which dozens are showered at us from all sides, but so as to survive. That is how we got where we are today - by surviving. And it is the only reason why we will take the next step towards evolving a direction for our unique ability to gain. But this time it will be on purpose because it will be directed by mind in mind's best interest and mind's best interests are concerned with the manipulation of ideas into new forms, of which purpose, not hitherto existent in the universe, is the apocalyptic one. If we are moving in that direction, then progress has at last acquired a meaning.

I was looking at Rodin's piece - 'The Thinker At The Gates of Hell'. It occurred to me that the chaotic scenes in hell represented the whole story of the tens of thousands of years of schizophrenic madness that we are still passing through and that, poised above them, naked, alone, vulnerable and perplexed is neither a runner nor a fighter but the Thinker. The only one who can think. The thinking form of matter.

What are we to do with this unique ability? That is what is so exciting. There is in the world no good or evil, right or wrong, beauty or ugliness nor anything else that is abstract until it existed in the human mind, and the consequences are terrifying and inspiring. There is no reason, no compulsion, whereby we should do this or that, except so as to survive. A recipe for selfishness - self-indulgence? No. We have been and still are on that primitive and mindless track and we now

know that it leads to catastrophe. The inspiring thing is that since an alternative did not exist until we invented it, it follows that, now that we have, here, glimpsed it, we must live by its standards or go extinct by them.

In the next chapter we will move forward to consider the earliest artefacts our species made, so as to consider them not according to conventional standards of the acquisition of power or the invention of a weapon or a religion, but as evidence of the actual experience of becoming conscious. Before doing that, there is one more idea I want to introduce.

This book is based upon the need to look at our origins, our place, our role from a different point of view in order to survive. A very substantial and important idea of this sort is the Hardy/Morgan Hypothesis and it covers a certain, important 12 million year long period in the evolution of humanity. During the Miocene Epoch, around 20 million years ago, the ancestor we shared with the apes developed to within about 98% of the genetic pattern of humanity. Then we continued to evolve in this respect and the other primates did not. What happened? The Pliocene Epoch, which followed the Miocene, consisted of about 12 million years of drought and, during it, many viable ape forms - whose remains have been found - became extinct. A few survived in the small areas of forest that persisted, and as the end of the Pliocene merged into the beginning of the Pleistocene, about 500 thousand years ago, they were the long-armed, arboreal apes whose descendants we are familiar with.

But to the other form - our ancestors - something happened, it is proposed, that was entirely different. The conditions of drought pushed them, over a couple of million years, to take to the water - sea or lake - and to live there for the next ten million years or so.

Then, in 1960, the marine biologist Sir Alistair Hardy F.R.S., wrote an article for *The New Scientist* on the subject of this long aquatic sojourn. It was later broadcast on the B.B.C. Third Programme and then published in *The Listener*, where I read it. His argument was based around the following observations. No really satisfactory theory of how we alone came to walk upright has ever been presented that is anything like as satisfactory in many important particulars as that we learned it in the sea. By the same token, how had we come to lose all our ape-ish hair? Not so as to get cool in the drought and heat of the Pliocene, as some biologist had suggested, because we also put on subcutaneous tissue to keep us warm. We are the only land mammals that has this. But all marine mammals, like seals, etc., have it.

Moreover, the remaining hairs that did grow on our bodies grew in patterns and directions utterly different, indeed opposite to, those in which they grew on the other primates. Ours grew in exactly the pattern that would follow the flow of water over our bodies if we were swimming.

At the beginning of the Pliocene drought, we had evolved as far as *Pro-Counsel* and he was not bi-pedal. At the end of that epoch, and the beginning of the Pleistocene, *Australopithecus* makes his first appearance and he was bi-pedal.

These are the very bare bones of what Alistair Hardy pointed out.

However, twelve years later, in 1972, Elaine Morgan who, as she explains, had also read the talk in *The Listener*, wrote a book called '*The Descent of Women*'. Here, she pursued the evidence and the implications in a way that makes it the most interesting anthropological hypothesis since Darwin. She put forward and expatiated upon many interesting points that I will summarise:-

1. When an aquatic mammal, like a seal, dives, some of its metabolic processes slow down, reducing its oxygen demand, notably its heart rate; a process known as bradycardia. This enables it to stay submerged much longer. Other mammals, such as primates, though some of them can swim, do not have this ability; humans do.
2. Anthony Storr, tells us of the doctors of the Peckham Health Centre who found that 'quite tiny' children could be safely put in shallow water and, if left alone, would teach themselves to swim.
3. During our aquatic period, only our heads were out of the water so we retained our hair there to protect our skulls. Also it gave babies something to hang on to - long, floating hair was a good target for an infant to aim at. Thus the importance of hair to the survival of children is one of the reasons why women's hair is generally of more robust growth than men's, particularly before the menopause. At the moment in Britain, 7.4 million men suffer hair loss and a very large percentage of them are under forty years of age.
4. Of a thousand children examined in 1926 by Professor Basler, 9% of the boys and 6.6% of the girls had webbing between their second and third toes and, in some, it was found between all the toes. No other primates have this. Nor do they have the web that we have between the root of the index finger and our thumb. It would seem that, after 10 million years in the water, we were starting to evolve webbed feet and hands, while the other primates, who did not take to the water, did not do this at all.
5. Our nose grows straight down. An ape's doesn't. If it dived, the water would be driven, under pressure, straight into its sinuses etc.
6. Any marine creature, including birds, ingests salt water, which its stomach can't deal with and which it has to get rid of. Most seabirds and mammals do this by weeping. We are the only primate that weeps and it is thought that, just as we had begun to grow webbed digits, we had also started to become proficient at ridding ourselves of salt water in this way.

Elaine Morgan makes a great many other points, but I have left two of the most important until last:

7. Learning to walk upright freed our hands. The many movements we made with these in the water, developed their suppleness and dexterity. But this was also developed as we foraged for seafood in the often turbid water and around the nooks and crannies of rocks and as we learned to crack open shells. Thus our constantly immersed fingers became pliant, sensitive and adroit. The more you use your hands, the more the brain-hand co-ordination develops and it leads to developing a larger and better brain. For this, you need a high protein diet to nourish it. Nowadays, although a human brain is only one-sixtieth of body weight, it consumes 25% of the energy a person's system generates and seafood is, of course, very rich in protein.
8. By comparison, it is now known, in hunter-gatherer societies the men actually brought in rather little protein-rich meat, had to be bribed to bring in any at all with promises of sex and often ate most of it themselves. So the long, marine period and seafood diet would help to explain our advance. It also put women in a very different relationship to the evolution of the species and Elaine Morgan expands upon this aspect in an interesting way.

Now the importance of the Hardy/Morgan Hypothesis is this: no conventional anthropology explains the salient points I mentioned. On the whole, it does not say much about them.

Even when the smooth skinned Mousterian - Cro Magnon - who could pass for a contemporary person, appears on the scene quite suddenly, around 40,000 B.C. in Europe, with his wide range of delicate tools to replace the very hairy, shambling, brutish Neanderthal who never innovated anything in their whole existence, even then no one quite knows how he got like that though it is thought he had existed for some time in Africa and moved into Europe via the Middle East.

But the consequences of our ancestors being the kind of person Cro Magnon had become are what the next chapter is about.

CHAPTER THREE

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The unconscious was, therefore, the source of most of our responses and also the means by which so much of our experience was processed and is the source from which consciousness slowly emerged. It was the source of what I am calling 'promptings'. I don't want to call them ideas as that is too sophisticated. An animal gets promptings. She responds instantly by reflex i.e. without any conscious appraisal, because the faster the response the greater the survival potential. Sometimes you will see an animal torn between conflicting promptings. To say conflicting ideas would suggest he was thinking it out.

Imagine, then, some ancestor of ours more intelligent than others in whom the unconscious responded more subtly and originally to problems, for whom it processed information and experience in a more useful way than others, in whom the tiny grain of permanganate of potash was starting to tinge some of those brain cells, perhaps newly mutated by the heavy showers of cosmic rays that bombarded earth around 60,000 years ago. These cells began to exhibit a response that adumbrated consciousness. They were frail, fitful, primitive, infantile but true to the first propensity comprising their cells, they received best those promptings that were useful in their pursuit of best interests. In other words, we began to understand what was good for us. If it wasn't, we didn't understand it and screened it out. This sounds obvious because it is true today. Normal. But we have begun, at once, to programme our consciousness to understand, in terms of self-interest. And it is justifiable. To have done otherwise would have been self-destructive. That is why our today's predicament is so paradoxical. We have to find a new way of being 'selfish', a new set of criteria and pursuit of best interests i.e. survival on purpose. Just let's look at how this tiny first response of our nascent consciousness to only being able to understand and respond to promptings that were in its interests which is with us today. Hook a poor student to a bio-feedback apparatus and offer her a tenner every time she gets her blood pressure, temperature or pulse down a point and she will quickly learn to understanding 'what is good for her'. The principle is the same.

There is reason to suppose that the firings of promptings which were of use to us through being those 'received' actually 'bred' or modified the growth of their receptors i.e. biologically influenced our apparatus for discrimination among the overloading potential of the unconscious.

And that brings us to the final crux in this section. What did we therefore start and thereafter forever increasingly, obediently and loyally, and by conditioning and programming, do? We began to screen out all other kinds of promptings. They were simply too difficult for our infantile minds. Among them was any knowledge of the source from which the promptings came. Any understanding of its location, its existence, its origin or function. All this we screened out turning it, therefore, into something shadowy and mysterious, something of unknowable potential, something awesome, wonderful, incomprehensible, omniscient, frightening, sublime. In short, we began slowly and laboriously, via scores of routes which we will look at, to create crudely, and later in exquisite intellectual subtlety, that which is, in all the tongues of man, called God.

Thus we screened out the huge source of Something More Besides and it very slowly caused us to conceptualise all those inner feelings of a cause, an authority, lurking somewhere that we must, on pain of death, obey and so we looked for it in so many places, called it by so many needs, desperately tried to harken to it, frantically tried to get nearer to it to propitiate it, to worship it,

entreat and please it, if only it would break the screen we did not know we had constructed and reveal itself to us in all its infinite experience of the code of life.

What is much more important for the significance of the universe which I defined, is that there is a direct material line from the first propensity to the cells of ourselves in whom exists that analogue of reality that is our mind wherein that first propensity can at last pass over, into and become conscious i.e. deliberate in making possible further persistence, survival on purpose.

We will not pursue that precise line of thought any further. After all, we live it - we live in it - it lives in the pages of this book. Instead, I want to lay the foundation of how the presence of this unconscious I have described exists in all the particles of our environment and us and is 'the power behind the throne' of human consciousness. Let us hold clearly in mind a picture of us and it as a nearly infinite series of variations on a theme of 92 atoms, of which we are the variation that can think.

Let's look from that cool standpoint at our relationship with this environment that produced and sustains us.

Let us imagine the 6km of species that inhabit the air, water and soil microcosmically and macrocosmically. Think of each member of one species of bacteria - 5,000 species in one pinch of soil from a forest floor - think of the number of krill - a greater weight of which is to be found in the sea than of people on earth - think of the number of insects, a greater weight of which exists in the air than of people on the earth. Imagine each individual in that infinite number, pulling in his own selfish direction, head down, mindlessly shoving along in pursuit of best interests. Think of him attached to an imaginary string. Each string is attached to a central point. They are all pulling away from that point, making a sphere like a swarm of captive bees. The equal and opposite effects cause the central point to remain where it is in a state of dynamic equilibrium. That equilibrium is the balance of nature and we are upsetting it, because we evolved a prowess no other species evolved. We could think. By thinking, we could manipulate abstract ideas and play them back into the material reality in a form that had never existed before and that no other life form could compete with and which served our best interests better than any of our competitors could serve theirs.

Equilibrium is important because it is unique. If you have a pair of scales and you put ten grains of sand on one side and ten identical ones on the other, the scales will be stationary. If you put twenty, or twenty trillion, grains of sand on each side the equilibrium will not get any better. Thus, equilibrium cannot be improved upon. Therefore it is perfect. It is the only thing I can think of whose perfection is demonstrable and incontestable. For that reason it is unique. I have looked up 'perfection' in several different dictionaries. None of them gives 'That which cannot be improved'. I think mine is better. As I wondered on page 26 do our leaders hold this picture in the forefront of their minds when they pontify about sustainability?

The concept of equilibrium and its perfection runs deep and is important. It describes a system, like the universe or the environment or a healthy organism for as long as it persists. When, for whatever reason, the equilibrium is disturbed, the system becomes unstable and falls, ultimately, into chaos and nothing more is known of it. It doesn't have to be eternally perfect i.e. mystical. A few million years would do. We are dealing with realities. One of them is our irrefutable, unconscious sense of there being something greater than ourselves - something shadowy and mysterious (namely the unconscious that we have wrongly called god). The point is that there does have to be a discipline, a set of criteria, by which we can exist. If there weren't, we would

randomise and fail. Up until now, it has been the head-down discipline of absolute selfishness that balanced things out. Now that we have the secret weapon of consciousness, we can destabilise the balance and cause ecotastrophe. What must not happen is what scientists, science writers, sci-fi writers, intellectuals, cyber-people suggest that if only the man in the street knew what they knew, he'd be able to see that the future of humanity lies in mankind 'running the whole show'. Well, it doesn't. For two reasons. First, the extraordinary fact that in every such statement there is always the tacit, implicit, unquestioned assumption that humanity should use his conscious intelligence and huge cybernetic potential to run the show for his benefit. Have you ever heard, or heard tell, of a proposal that we should 'pursue our infinite destiny among the stars' on behalf of Bloggins? What they therefore propose is precisely what we have been doing since the beginning of time and that has led us to the Proposition on the first page. Selfishness or specialisation means destabilisation and cataclysm, whereas equilibrium means survival.

The second reason is therefore that humanity can only fulfil the significance of the universe by the evolution of consciousness and by raising it far enough to recognise that he must chose to work for that equilibrium which is the sine qua non of survival. We have to be subject to some constraint. Namely that of equilibrium which I have shown is perfect. Thus our inner prompting to hanker after, to feel the existence of, SOMething More Beside, which is in a state of balance and perfection - the typical experience of mystics and most of us, at one time or another, is part of that reality we screened out.

There is a purely practical reason why humanity couldn't 'run the whole show'. Consider the image of the tethered bees. It is impossible for us ever to have so much and so subtle knowledge as to be able to replicate the permutations of the bees' influence upon the dynamic equilibrium of the centre. This is because one could not formulate rules governing their influence because it is chaotic.

We need, that is to say, a new criterion to offer terms in which to appraise our problems. For example, the criteria that flow from putting first the needs of the system we depend upon for survival.

You can read examples of the impasse into which old-fashioned Pursuit of Best Interests leads us every day in the papers, where arguments rage which can never possibly be solved because the premises upon which they are put forward are, in fact, the values which we are now being forced to question. A good example that comes to mind is the fact that after 200 years of exemplary co-habitation, the Maoris and the white New Zealanders are now heading, some say, for civil war. New Zealand is one of the most environmentally sensitive regions. The Maori are much motivated by their desire to protect the land. If every conference that they and the whites sat down to started at the beginning by agreeing that they should try to put first the interests of the environment, they would find that they had entered into a means of compromise, a set of terms for compromise, which had not hitherto been broached. Freedom of mind has to include the free choice of a discipline for it. Consciousness, that is to say rationality etc, cannot be random.

We have, of course, been aware of this necessity to make ourselves amenable to the notion of perfection, balance. It is the doctrine of the middle path - at the core of Buddhism. It is called surrender, which is the meaning of the word Islam. It is described in the Christian phrase "Whose service is perfect freedom". Awareness of this condition of being pops-up in our consciousness in that look on the face of a really epic Buddha - as though his soul were a tiptoe on the threshold of the screen, of enlightenment, or as though he were on the brink of a sneeze. It is the still, small voice. It is there, alright, as mystics and magi will attest. But we began inventing the wrong terms

for it when we reached a mental age of .000001; namely 100,000 years ago. Which, as you will see, would give us a mental age of about one, now.

The above picture is an important one to hold in mind as we pursue the gradual evolution of consciousness.

The Sum has been done as deeply wrong as that. It has to be recognised that consciousness itself has become destructive of the self and thus of the environment through obeying the primal urge, the purely selfish way described. And it has made us very good at it. You will remember in Chapter One we saw how perfectly clearly the evidence and the predicament have been, and are daily, presented to politicians and leaders who are the successful representatives of the system it has produced.

Thus, as I have said elsewhere, we now stand at the threshold of the era of mind where we either use that consciousness to choose to evolve on purpose by knowingly embracing the idea of self-control, self-abnegation as a means of maintaining the perfection of the environmental equilibrium, or we fail and fall back into the seas of a new attempt. For this reason, if my suggestion that the whole significance of the universe is the evolution of mind is correct, we stand at a point so important that the words have not yet been evolved to describe it.

Before we go on, in the next chapter, to pick up the actual beginning of this evolution by looking at the artefacts that our ancestors left behind, there are a couple more general points I would like to make.

First I would like to suggest an image of the slow, unbounded and subtle way in which consciousness mingles with reality, becomes part of it so that its analogue in the mind I suggested is formed. It suggests the whole length, breadth and depth of the growth of this consciousness, not only right up until today but onwards forever into all our tomorrows. It is this. Imagine objective reality as being a land with a very irregular coastline, like that of Western Norway. Imagine consciousness as being the sea and the coastline, therefore, as the interface between them. A coastline, we know, is the most popular example of a fractal, a Mandelbrot Sequence. The closer you get to the irregularities of the outline, the more you discover it is composed of yet more detailed irregularities and as you zoom into these, you find they are composed of ever finer irregularities and so on, ad infinitum. Imagine the coastline as being made of a row of cliffs, but the cliffs are made of sand or clay, or chalk. Between them and the sea is a wide beach. The sea of consciousness rolls slowly over the beach of ripples in the sand, that represent the unconscious, towards its first ever encounter with material reality. What happens when it reaches and starts to interface with all the fractals? To penetrate, to feel its way forward into an understanding of the fractals of reality? It changes them. They are only made of sand or clay and it changes them. Lest you should wish to assume that the fractals of the coastline are firmly there, the data of reality - eternal, perpetual, god-given - think again. It is soft, of shifting contour and it is probed and changed by the sea as a person's attention changes a quantum experiment. The sandy, fractal coastline of reality is a quantum state and the tide coming in is our consciousness apprehending it. As we evolved consciousness by encountering these fractals and making what we could of them, some became thinking aids to help us in the process.

Mind should not be thought of as the phenomenon that handles abstractions. That would imply that these abstractions had a prior existence of their own somewhere else, that mind latched onto and took over. Mind comprise the first abstract analogue of reality, couched in continually combining and re-combining assemblages of ideas. Ideas are a name we give to impulses generated in brain tissue by the firing of neurons that is not yet understood but which Francis Crick is presently investigating.

Broadly speaking, animals are not conscious. We were animals evolving the unconscious for hundreds of millions of years. The emergence of consciousness therefore can usefully be held in mind as being the emergence from the thrall of our animal nature and of the unconscious that is part of all life. The history of this part of our evolution will be traced in the story of our long, agonising, incomplete disentanglement from that thrall.

The other point that I wanted to make is this: we have glanced at the inner, almost biological aspect, of the dawn of consciousness and considered the ageless unconscious as one of its primary sources supplying its vocabulary. This source would have been made up of the experiences and the sense data of all our ancestors and a great part is that which I am going to call our pre-conscious, Rorschach experience of being alone in the world. A Rorschach Test is when you put some dabs of colour on a bit of paper, fold it and squidge it out and open it and say at once, without thinking, what it makes you think of. Doing it instantly, like that, means, it is claimed, that it was your unconscious that threw-up from this prompting a verbalisation of what the shape arouses in it without the selection - the screening - of reason. In the primal experience, of course, there was no reason to screen or select. The response (which we nowadays tap into in the test) was being laid down. If Rorschach Tests are given to people in different cultures, a certain number of common

images will be thrown up from shapes which can be seen to fall into certain groups. Much has been written about the universality of these archetypes and by whatever tomes you may know them, the basic theme emerges that humans, descending from omnivorous anthropoids and, before them, some mammalian sequence in the last sixty years, have built up a basic repertoire of images which developed in their unconscious under the influence of this steady, unrelenting pursuit of best interests, the presence in that unconscious of the wisdom of life, the codebook of survival, the palimpsest of the know-how of response and the street cred of primordial existence. Let us remember, then, for the last time and before we get going on the story, that human consciousness is the only tool that is capable of speculating about the dawn of human consciousness. Speculation, then, about what it felt like to be the most sensitive phenomenon ever to have existed being part of the teaming wonder of the world until, one day, you had an idea for the first time in time and, from it, the oceanic torrent of human speculation in a chain reaction like that from the primary particle in the baby universe which populated the cosmos has flowed into all the ideas that populate the minds of men and women.

As has been done before, I will choose, as the first moment when this may be thought to have begun, as being the moment when we stood up. Other people claim it freed our hands to make tools. So it did. It also freed them to help us to feel our way into reality - like the sea into the coast - so as to apprehend and change it. We began to feel our way onward into time, to feel our way literally and analogously with no guide, standard or goal. Our fingers are extraordinarily sensitive. We understand things by feeling them, often with our eyes shut, the sense data passing directly into our brain and into that abstract analogue of reality, the mind. Elaine Morgan suggests that a million years in the water helped with this as we felt for food in nooks and crannies or murky water so that sensitive fingers had survival advantages. Wet hands, of course, became more sensitive. Our hands are, moreover, the means whereby we apprehend but also respond to and alter our environment. That is different from the other senses. We don't alter things by looking at them, nor by smelling them or hearing them or even licking them is not in the same league as the things that we can do with our hands to feel, change or make. In the mind's analogue of reality, we change its shape and then play that changed shape back via our hands to shape the reality of the world. All the senses offer a different way of learning but so far as acting or doing things is concerned, the hand-eye association is paramount.

We went on making weapons/tools, driven in pursuit of physical survival for about 2 million years and then at - so far as we know - about 50,000 years ago, this relationship with the 'feeling of the finger and the find' and the evolution of mind produced and left behind for us to consider as evidence a new and completely different artefact.

Its importance cannot possibly be exaggerated.

Hitherto, all artefacts had helped us to eat and so to survive by eating. Now we began to make things to help us think. To survive by thinking. They were not bashing, cutting or killing or fighting aids - they were thinking aids. And that is how they should be studied. They were the aids we evolved to help in the pursuit of consciousness which is the whole significance of evolution.

What, then, was the first thing we began to think about? Not unnaturally, it was ourselves. Just as a baby discovers itself - its toes, fingers etc. This is an absolutely crucial event. Animals are deemed not to have this awareness of self. It is the precursor and also the concomitant of the very long, tortuous, many faceted recognition of the fact that we and animals were different. This disentanglement goes on in hundreds of ways for tens of thousands of years and will serve us as a kind of calibration of the emergence of the human mind and in ways that may seem merely anecdotal and quaint, one will find it is still as close at hand as the man in the Californian pet cemetery who said through his tears to the t.v. cameras, "I'm telling you, that dog was people".

What happened that time in 50,000 years ago was that somebody began feeling a lump of moist clay. He or she smoothed it. It felt like skin - wet skin. Almost the first thing a baby touches with its fingers is its mother's breast, probably moist. The lump of clay responded to this unconscious memory as the hands began to mould it into the shape that suggest itself to his or her touch and that person began to shape a breast and then a figure, with breast and thighs and buttocks, a figure like that dug up on the Golan Heights which was dated to 50,000 years ago and was discovered to be exactly the same in style as about 120 dug, from various sites, from the Dordogne to the Caspian Sea and dated to about 25,000 B.C.

(Top of old page 23).

All the ideas, beliefs or feelings we have ever had - that there is some huge cosmic force behind it all - is this force; the force of the first propensity. How could we, who are comprised of it, be unaware of this - however confusedly - how could our 'feelings' not feel it? And that is the subject to which I will return in a few pages.

Out of the unimaginable power of chaos there chanced a combination that persisted while the rest collapsed back into the cosmic foam. So all the power of that universal chaos was concentrated into the one form that, by its coherence, could receive it. No wonder its potential was so vast its 'urge' to survive - to pursue its best interests in surviving instead of perishing in the foam - has been sufficient to cause the 'explosion' of particles into consciousness as soon as the chance combination in the cells of our animal brains provided a favourable opportunity.

But now its power has boiled up in the creation of 'ideas' in whose terms understanding is possible, including self-awareness and understanding of self. Ideas that in turn make random combinations, some of which have survival potential for themselves and their host, the mind, that alone in all the universe can handle them.

The point that emerges from this is that the pursuit of best interests being the primal force is unstoppable. And since it is heading to destabilisation - ecotastrophe etc - the situation might be thought to be self-evidently, irremediably destructive and the analogy thus probably wrong - like The Sum. This is not so, but I shall pursue the notion in order to show why before returning to the evolution of the particles of matter of mind and our sense of them, our feelings, our consciousness.

The level of mindfulness we have reached has so far only produced books on the origin of consciousness written to account for some intimate experience cosily peculiar to mankind.. They are couched in terms of childish anthropocentricity. The birth of mind is a cosmic event. There is one chance combination of matter in time and space that makes it possible and we are it. Because in our mind we can manipulate ideas so as to make new combinations i.e. create new ideas and then play them back into material reality, our mind has become the seat of and makes possible the birth of deliberate creativity. Of purpose. Of meaningfulness. For that is part of purpose. Idea combinations occur as randomly in the mind as did particle combinations in the universe (indeed Crick may well demonstrate how nearly the same in the cells of the brain the two things are). These combinations will be selected for by mind if they have survival value for mind. By 'select' I mean in the way mind can do for the first time in time, namely on purpose, not merely as the word was used by Darwin or Dawkins and others i.e. selected for by the fact of survival continuing its existence.

I said that all particles, and therefore all matter, all phenomena including living phenomena, were driven by the universal primary urge to survive i.e. mindlessly to pursue their own best interests. And I said that that was, ex hypothesis, unstoppable and that since we now realise that it was driving us to destabilising the environment on which we depend, the situation looked so negative that the argument must be flawed.

It does not work like that because the particles of mind, and therefore mind itself, is under the same compulsion to pursue its best interests, its survival. And mind can clearly cope with the paradox that the best interests of the environment must be put in front of ours in order for both to survive. This is a deliberate - purposeful - redirection of the primal urge and it is the first time it could ever happen. That is why I have called it the fourth - and for mind being the source of creativity - the greatest step in evolution.

This does not mean that it is bound to succeed. We may not respond in time. Cataclysm may overtake us, it is certainly already in the pipeline. Scientists looked at the 6km of species and the equilibrium their individual pursuit of best interests had achieved and realised that our predations were becoming destabilising. The best ones said that the scale of the equilibrium and the diversity of our intrusion made the knock-on effects impossible to predict. But they added that something would happen - probably within the next hundred years or so - that will cause - as I said at the beginning - this civilisation to destroy itself and most of its population. The media took up the simplest aspect, like global warming and 'The Hole at the Pole' melting ice-sheets and hyped it. In the meantime, the sperm count in Italian men has fallen by 50% in ten years, and a similar fall is being hushed-up in other parts of the First World - the atmosphere is becoming rather toxic in cities where 70% of our population live - ultra violet impairs the immune system of plants and people - we have the auto-immune diminution depletion destruction syndrome climbing to a worldwide epidemic - we have increasing and unexpected failure of various parts of the flora which are going extinct, as are various species in the fauna at the rate of [find out and put it in] and we do have global warming at about 0.5% per year[?] which is very large because the mean temperature on earth has remained within 50 for ten billion years. [?] It may cause more precipitation, thus more snow and ice-sheets or it may cause the . But those few sentences bear no relation whatever to what conclusions different people with different computers handling billions of bits of different information might come to on a thousand different aspects of an equilibrium whose complexity is a function of the geometrical progression of the interaction of 6km of species times their individual numbers. The product of that little sum is a number so large that, if written down, it would stretch round the noughts which stretch round the world.

But we can't calculate - we can't predict - we can only know that something will happen and behave in such a way as to avoid it. This depends upon our readiness to review the idea that we have done The Sum wrong and adopt an attitude that will give us a perspective in which we can do it right, or at any rate righter than we have been doing it. And that means an attitude that drives and enables the problem-solving propensity of the human mind to find a way of evolving on purpose. It is a question of attitude.

It is, of course, the evolution of this mind that we are concerned with.

At some point in our evolution, then, the interaction of particles comprising brain tissue began to change - by mutation. We don't know when nor how long it took. But we do know that it happened because the brains of the most intelligent mammals - probably dolphins - as well as those of anthropoids - are physiologically different from ours.

The tissue attached was, of course, thinking tissue - that's what we are talk about - or on its way to becoming thinking tissue. The tissue of an emergent eye would send signals that the brain would learn to interpret as pictures - of a nose that would be interpreted as smells relating to this or that object. The signals sent by brain tissue that was mutating into thinking tissue into emerging mind were, let us say, mind signals; that is to say, different from the sense data coming from eye or nose with which we had been familiar for hundreds of millions of years and could handle quite well. By 'mind signals' I mean two things: first, consider a piece of brain tissue that is changing. I know it is far fetched to talk about such matters, but all I am saying is this. Once there was mammalian tissue that could not think, and that was not self-aware. Now we can think and we are aware. It is more reasonable to assume that the evolution of one into the other proceeded unevenly in ways that I have, and will again discuss. The signals sent out from this erratically mutating tissue could have caused any kind of responses - a reflex response - a horror response or a joyful response and also a

sensible response. What did sense mean to protoman? Probably 'there lies your advantage'. The sense that mind slowly evolved became euclidean sense or quantum sense that would have seemed, to protoman, like nonsense just as it does to millions today. The whole experience would have been disturbing, shattering, confusing in the extreme. I think those who assume that we slipped easily out of animalhood into humanity like a favourite pony talking better and better to its childish owner throughout a million years long Christmas Eve is sentimental and untenable.

Now the first experience of this mental activity overloaded the very channels, the very means, for ordering and using it that it was itself evolving so the first thing we had to learn to do was to screen-out the random 'noise' - of ideas that were incomprehensible as well as the actual, physical activity of the particles of our brains that must be called the very stuff of mind. Also, of course, we screened out things we couldn't understand and found no use for. This is evident from two facts: (1) that much, or most and may be all, original thinking happens through a random combination of ideas that our previous training or experience now enables a person to recognise. I mentioned Einstein, Newton and Lovelock in this context in the previous section. Consider what the previous primitive experience of early man was compared to the experiences and preparations of the thinking part of Einstein's mind and you will see how the possibility of making use of our newfound talent evolved. It is suggested that in fact all thinking happens more or less in this way. I would like to suggest here that the primal urge of particles to pursue best interests (the Gribbish factor) must, by definition, operate on all matter, including that of brain. Thus the function of the mind so soon as it was able to discriminate, would be to think to its own best advantage i.e. towards its own survival. And brain will select ideas (combinations) that have some survival value for it. This selective power is what makes it possible for mind to over-ride pure blind mindless p.b.i. which leads to destabilisation and select, for ideas, that favour evolving on purpose by putting the needs of the environment ahead of what, to our primitive attitudes, perceived as being our advantage. It is in this way that the primal urge to pursue best interests has evolved the means not to be the cause of the destruction of the host and that has made its latest and most sensational development i.e. creativity through its ability to think in abstracts possible.

It has, in this context, evolved memes.

A meme is perceived as a unit of information retained in the human brain and modification to the brain tissue as a result of its residence there could, theoretically, be visible through a microscope. A meme can be communicated in all the ways by which humans communicate, into another brain where it will be modified by memes already in the brain of the receiver and later passed on by that brain, either modified or diminished or augmented and, of course, possibly with great force and to a great many people through the powerful communication industry, particularly t.v.

Let us say that one or a group of these memes contains the idea that we have done The Sum wrong - that normality is lethal - that we can only survive by learning to evolve on purpose. It then becomes clear that the importance of the role of memes for the survival of mind has overtaken the classical role of genes, although it has not, of course, in any way replaced it.

The point I made about the way we, in primitive times, as our mind evolved, screened out not only the background of primal hum, of our own particles as they were actively grooving away in a self-sustaining manner, but also idea combinations, that were useless because incomprehensible, is evident all around us. We all know stories of ideas that occurred to people whose purport they could not recognise - Ptolomey and his fears - not getting it quite right. Leonardo da Vinci invented the bicycle chain and could think of no more use for it than Rutherford for having split the atom in 1931. But the best example is that of the diesel engine. Some of the most primitive

peoples in the world in Papua New Guinea, devised a method for lighting fires which went as follows: they first hollowed out a stick - carefully, beautifully and straight - down to within an inch of the bottom. They then put some tinder inside it and took a plunger which they had whittled and smoothed to exactly fit the cylinder. They raised the plunger and struck it a tremendous blow with a stone. It shot down the cylinder, compressing the air so that it heated to such an extent as to ignite the tinder. They then poured the glowing tinder out and lit a fire. Thus they had, by some tens of thousands of years, anticipated the function of the diesel engine.

To return to the question of mind. The evolution of mind was a cosmic event. Our mind was evolving an analogue of reality that was abstract. This was a new level of existence for reality. And it was happening in us. After evolution of one, material, kind, through an infinite sequence of baby universes and after fifteen billion years of further evolution in one universe - after 4 billion years evolution of life and of brain, a phenomenon had occurred in which, for the first time, the abstract had evolved and could be manipulated in the analogue of reality that is mind so that its particles, namely ideas, could be manipulated and changed and played back into reality as something different and on purpose, and we are it - we are that phenomenon.

Incidentally, it is nice to be able to use the word 'infinite' allowably: if, with each baby universe, time and space and matter popped into existence, no such sequence can be seen as finite since no scale can exist upon which to measure its dimensions.

As our mind, therefore, slowly began to develop in this unprecedented way of its being a new level and condition of reality, we had to develop a way to cope with it in order to survive. Sometimes, obviously, it must have overwhelmed us and we became irredeemably mad and died. The crucially important point for the way we did develop was that our best interests were served by those who could screen out the incomprehensible part, or the mere noisy part, of the physical reactions of the particles in the thinking cells and do it most successfully. The particle activity that, by chance, formed combinations that were coherent and formed an association or sequence and therefore did not fall back into the random noise any more than the primary particles that by chance formed chains did not fall back into the quantum foam. They served the interests of their host, the mind, and therefore persisted. Thus the screen erected against the random noise, had become a selective screen. The means of distinguishing a 'useful' idea had begun to emerge. A useful idea as a p.b.i. idea. For the moment, I want to follow-up the fact that the first thing we became consciously aware of was the particulate activity of our own selves, our own thinking - the particle activity of our own brain. It lingers on boilingly behind the screen as part of that sense of there being Something More Besides of which every person, at least once in their lives, will have an experience of one kind or another. And it is the role of these particles of mind that this section is concerned with.

I am not, just here, talking about the unconscious as popularly written and argued about.

I have described, in the previous section, the agony, turmoil, trauma, the madness, schizophrenia that accompanied the cosmic event of the emergence in mind of a new level of reality - the reality of ideas which give us the power - unique in the universe - of creation on purpose - the creation of purpose.

In the course of doing so, I suggested that a better way of looking at the 25,000 year old clay figures than to suppose them to be goddesses of religion, in the way of The Sum that we did wrong, was to look upon them as thinking aids. I suggested that the same was true of cave paintings that led to our perception of magic and ditto the thinking aid of death as a subject around which the civilisation of Egypt grew up. I paid particular attention to the way we puzzled, in words, over the

disturbing associations that arose in our minds that we had evolved the habit of attributing to an outside, divine, source. All of these and many others around which - like seeding a cloud - other cultures grew up in rich and various ways. I pointed out that all these systems had one thing in common namely that they had to invent and accept a prime mover that whatever their experiences of Something More Besides were, it had always to be supposed to be coming from outside.

It is my contention that this is not the case. It is the sense, within ourselves, of the most exultant and triumphant cosmic event of all - the advent of the abstract in the phenomenon of mind which, in turn, makes mind the only creative phenomenon in the universe.

We are, as has been stated by many others, entering the era of mind. This means the era in which consciousness raises itself so that we are less the victims of the age old, mindless pursuit of best interests.

It is now immediately obvious that the description I gave in the first chapter of the chaotic state of mind which is reflected in the nihilistic behaviour of our cultures wholly manifests the opening skirmishes of this battle where mind is trying to find its own way out of the mess, the systems, the orthodoxes, which we have been conditioned, since animality, to know so deeply as having survival value that we perceive it as obvious, normal, to be as we are. And now, suddenly, we realise that this normality is threatening us.

In all situations where people are confused and afraid, they tend to draw together. This time it is part and parcel of the phenomenon of the shrinking world with its communications system so that memes are carried from the individual to the collective mind so fast that attitudes change all the time. That is the main ingredient, the main characteristic of today's world. Things do not change from this to something better; they simply change. That is what I was referring to in Chapter One when I said media criticism, media attitude, is universally destructive. Nobody has any alternatives to suggest - to set up and to fight for. [PUT IN ALVIN TOFFLER HERE?] The new knowledge keeps fuelling the change and will continue to do so until the wrong attitude of The Sum is eroded and a new attitude emerges which the new knowledge will keep slotting into and filling out. We are all in the situation described by Max Planck, when he said that scientists do not change their minds; they simply die and a new generation of science students grow-up in which the new ideas are already part of the accepted wisdom.

The new specialist knowledge is bursting over into cultural knowledge ready for the layman to make available to the problem solving potential of the human mind working individually and collectively and all the points where he interacts with his environment in his daily life and collectively by the network that grows in subtly and ubiquity by the hour. [MENTION MANIC GENOCIDE OF THIS COUNTRY CONTINUING IN THE BALKANS AND RWANDA AND WILL HAPPEN IN NORTHERN IRELAND]. Change is in the air. So far, that is the only place where it is. Cyberspace is an analogy of the analogue of the mind where ideas can be manipulated and a new reality created, but so far no particular way of co-ordinating this, so that it can be played back into material reality effectively, has come to life.

So what kind of change is it to be - what will be the basis of the great new deception of the nature of reality that will form the ingredients of the era of environmentally exploitative p.b.i.

I described how the first thing our embryonic minds became aware of was the activity of their own primary particles pursuing their own best interests in the nuclei, atoms, molecules and cells of their very particles of mind that were struggling to achieve self-awareness. I said that we had to screen

out this seething activity in order to learn to think straight. Obviously learning to think straight involved thinking at first in the simplest possible way. Those who were best at it became dominant and passed on their way of achieving success and so the input from our microcosmic selves remained - has remained - screened off and this has mostly, but not exclusively, unconsciously. We did it, and do it, on purpose too. The crucial point is this: what kind of particles and where are these primary particles? What systems of behaviour do they conform to? And the answer is quantum mechanics. Of the brain's 10¹⁰ neurons, about 10⁷ are believed sensitive enough to register quantum level phenomena at any one time. And what are the prime qualities of the quantum system? And the answer is indeterminacy. Uncertainty. Probability. Independent action at a distance so that particles in one system can and do affect those in others in ways we don't fully understand. One of the many reasons we don't understand the implications of Quantum Theory is that a quantum system concerns the behaviour of the primary particles of our brain cells which produced exactly the kind of random noise we have screened out for the last 40-100,000 years. Indeed, survival - normality - was that which resulted from our success in screening it out and in developing, for those thousands of years, the way of thinking that produced the way in which we know it produced the prime tenets of truth - the basis of normality. Now that is a pretty tough thing for anybody who is a product of it to criticise. And indeed it is unlikely that anybody would have been driven to do so except by the very forces of survival which operate when the person doing it is doing it because he realises that, to go on doing it, will mean disaster.

We will consider what is the role of Quantum Theory as part of that new knowledge which, as I said, we never use to direct our understanding of our reality or our role here. It is difficult, and nobody has yet reached any conclusion which can be passed over, into cultural knowledge to be of use to our problem-solving, though some good tries have been made (see Appendix, Zohar etc).

We will also consider the fact that the presence and activity of these primary particles that provide the underlying, ubiquitous driving force of everything are much closer to our own awareness than we think. And we will look at the significance of this for the way in which we think about ourselves, our philosophies, religions, and ways of behaving. (This means the S.M.B., Particulate Theory, equilibrium, its beauty satisfying old urges, called, as usual by wrong names, as being the basis for the new attitude deriving from the new knowledge and how it has been described in the past and through penetrating the screen as in Huxley and Laski).

First of all, let us look at Quantum Theory. An atom comprises a quantum state. We commonly describe it in non-quantum terms as we have described everything since the beginning of consciousness and yet everything is made from atoms. In a sense, this is one aspect of the scale of the wrong way that we have done The Sum. The new knowledge affords us the means to do it differently. It would mean a great change in our perception of ourselves and our world. It would provide a different language in which to reform our relationship with our environment on purpose because the idea of purpose, which is necessarily based upon cause and effect, would be revolutionised by the fact that the quantum system is constrained by principles of probability and uncertainty and not by the cause of determinism, from which we selected to bring us to our present success. Normality and commonsense will change in a way foreshadowed by John Gribbin when he said that commonsense might tell you that the idea of a virtual particle is too crazy to be true and added, 'Unfortunately for commonsense, these quantum fluctuations (virtual particles) have a measurable influence on the way "real" particles behave. The nature of the electric forces between charged particles, for example, being altered by the pressure of virtual particles in a way which matches the predictions of Quantum Theory rather than the commonsense way it would behave in a bare vacuum' is an example of what he means.

INSERT PIECE ON QUANTUM THEORY HERE FROM ZOHAR PAGE 58-59 etc.

In a similar way, it is necessary to show that the relationship between quantum systems and thought processes is a real one. The screening out that began with our first gropings after the power of logical thought began to structure and focus our indeterminate mental processing and imaginings, namely thoughts and the compromise in our consciousness that developed described the various positions in this evaluation of mind and reality and thus of many of the proposals in this book that our population has now reached.

As David Bohm has said, and an increasing number of others are agreeing, there is a close analogy between quantum processes and inner experiences and thought processes.

One has, for example, an un-formed idea and the moment one focuses conscious thought upon it, it changes as - it can be demonstrated in a laboratory - does a quantum state under the focused attention of an experimenter. Thus the kind of vague notions struggling into existence at the dawn of consciousness in the form given by the quantum reality that governs the behaviour of the primary particles of the brain tissue were shaped by the naive requirements of our Mark I brain and progressed along the lines that it prescribed thereafter. Our ideas were, at the beginning, therefore thrown-up by quantum systems and collapsed as under the focus of our reductionist requirements upon them. Indeed, a quantum system can be seen in the lab to collapse under scrutiny.

[NOTE TO SELF: At the end of these thoughts and the piece that you're going to do on quantum theory, return to summarise rather as follows:

Thus the earliest promptings of our thinking tissue were selected for having survival value and became the ones that determined how the process of thinking could continue and the factor which determines which ones had survival value being itself the emerging mind was itself pre-occupied with p.b.i. so that, from the beginning, we began to evolve an analogy of reality in the crudest possible terms of "What's in it for me?" - of survival - of p.b.i. - of putting self unquestioningly first in direct response to the primal urge and that is the whole point of the argument - that nothing existed in the world until mind which could stand up to it and that is what makes the emergence of mind the fourth and greatest step of evolution.

It seems to me that the interplay of the particles that determine the motion and ability of the atoms that comprise the tissue of our senses and thinking apparatus was, and is, also influenced by other particles of quantum reality imparting a sense to us of our belonging to - being part of - something greater than ourselves. I want to suggest that our evolution towards the far distant point where we could achieve some kind of awareness of things at this esoteric level can, perhaps, begin by our laying our minds open to the idea of us being, in a particulate sense, physically a part of the unifying reality which actually exists. Surprisingly, it exists in a form which can be experienced in terms which lie, as it were, half-way, or at any rate a small way, along the route towards the more esoteric experience while yet being accessible in ordinary terms. There are three examples which are relevant to the present context in which I have tried to show that we cannot go on as we are: firstly, the feeling expressed in all religions that we cannot go on putting self first; secondly the feeling that somewhere, somehow there exists something sublime, perfect, everlasting; and thirdly we feel the presence of something 'spiritually' sustaining to which we belong and are part of.

The crucial thing is that these feelings are real as I emphasised on page X in asking if, as I believe, they do not come from god or any such source, than where do they come from? We discussed the idea of looking at parts of the art and literature of the most primitive time from the point of view of there being, as it were, thinking aids. In the last section, I spoke of re-reading the Upanishads and

the Vedas with the idea in mind that what we were in truth mulling over and over was our confusing awareness of the particulate activity of ourselves and brains and that sometimes made some kind of sense and sometimes it didn't.

I now want to go on to observe that in just as much as we are what we are because of the infinitely variable potential of the interactions of particles so, also, we are influenced by these interactions in the environment whose equilibrium surrounds us. And we are absolutely part of it. When you speak of the environment for example, the 6k of species, you think of their interactions as comprising it. You don't say 'No, trees are different' or 'Crill aren't really a part'. The environment is the feedback system of the 6k and we are a percentage of it. Not only do we interact with it at a microcosmic level, we also breathe, eat, drink and exchange our molecules with it the whole time and in every way. If we didn't, we would die. What's more, we respond to it emotionally, aesthetically, intellectually in ways which are of enormous consequence. Consider what we have done in our nuclear programmes - what the idea of Communism did in laying waste to half a continent - what 'Greed is good' has done to the rainforests etc. But also consider the music and poetry our beautiful earth has inspired at one end of the scale and the self-sacrifice of Greenpeace activists at the other. Our behaviour is conditioned by our being a part of our environment. So let us look closely at the minute detail of our being so intimately a part, both microcosmically and macrocosmically, of our environment. Consider every living thing that there is in the world, both flora and fauna, the lot of whose species occupies 6km of shelving. Each leaf on each tree is microscopically different from every other leaf - no two aardvarks are the same, nor lift-drivers. Some of them take lift-driving seriously. Each individual lifeform has different needs, preferences, appetites from the others, and different ways of serving them. This leaf turns a thousandth of a millimetre more to the sun than its neighbour. This root goes past that crumb of soil differently from another, changing the crumb in a different way, finding a solution to its needs microscopically different from the solutions found by its neighbouring root. This is true of every living thing that inhabits the oceans, the air and the earth. That is the scale of the complexity of macrocosmic and microcosmic life and the influence of that upon the mineral substance of the earth. All this, in turn, depends to unmeasured degrees of subtlety, upon the earth's magnetism and gravity and its movement around the sun. It depends upon the contrapuntal orbits of all the nearer planets and upon this celestial quadrille as it passes in stately procession around a precise path through the spiral galaxy we call the Milky Way. It depends upon the attraction and counter-attraction of every speck of matter in the universe each pulling in its own particular, mindless manner. It is wrong to describe it as floating thus under these influences because to our terrestrial mind, floating means a medium upon which to float, like the gull upon the ocean. The bubble of the thing is that in the icy vacuum of space, our great is weightless among a billion, weightless stars - no down, no up - not floating, just there. So that it makes me hold my breath although awaiting a sneeze, like the expression on the face of a buddha caught at the instant of ecstatic enlightenment.

Think of the time - about 4,000 million years - that the living environment has been evolving and consider what each one of that infinitude of living things is doing every instant of its life in response to all these forces into each other. Each individual is pursuing its best interests and those of its offspring. Very roughly speaking, that is what Richard Dawkins' book, 'The Selfish Gene', is about because the goal of each living thing is to live as well as it can. This means bloody and smelly caves for bats - bees and sunny days for flowers - sheep for the maggots, sprung from the eggs of flies, to eat alive. Dung for scarabs. Mantis heads for female mantises and loose pants and organic food for fin du siècle men so as to increase their sperm count.

Visualise all these reactions as an imaginary sphere, which each of the infinitude of living things attached, as it were, to a string tied to an imaginary centre as, in turn, the microcosmic particles of

ourselves are teeming in intimate pursuit of best interests that balance each other so that we do not become unbalanced and become ill or mad. Each one is pulling on its string in the direction of its own best interests regardless of the interests of anybody else with the result that the imaginary centre where the strings join is poised in a state of dynamic equilibrium like the pull of the celestial particles upon the earth. The random forces of the cosmos have here achieved equilibrium - conditions comfortable for life which have been self-sustaining for thousands of millions of years. We live in and depend upon this equilibrium that has been evolved - this balance of nature - this homeostasis of Gaia which comprises things as they are - reality as it is. You touch them and breath them and smell them and hear them and eat them and see them and drink them. If you did none of these things to them then you'd die. If they were not also doing these things to each other, they would die. At the same time, the particles which comprise you and the tissues of your mind and of the environment are part and parcel of the quantum system described. Then this equilibrium - this balance - this homeostasis - does not do anything. It never has. 'The Tao does nothing. By it all things are done' (Lao Tzu - 556 B.C). There is nothing mystical about that. Taoism is not a religion. The statement sounds it, that's all. It is just there. It just is as it is in a state of equilibrium forever. I said earlier that equilibrium has a curious quality which, upon examination, turns out to be exalting.

Because if a thing is in a state of equilibrium - of balance - then there is nothing you can do to improve that state.

Imagine a pair of scales with exactly one pound of sugar on each side. It is still. It is in a state of balance. If you add or subtract any sugar from either side you will cause imbalance. If you added, or subtracted, the same amount of sugar on both sides you would only have preserved the balance: you would not have improved it.

Equilibrium cannot be improved. SOMETHING WHICH CANNOT BE IMPROVED UPON IS, BY DEFINITION, PERFECT. It is the most perfect thing that can exist or can be imagined. Its function is not to do anything, but just to be as it is as it is and it is exactly that which we depend upon for our survival. No wonder we have an inner sense of this real and physical perfection and hanker after it. No wonder we are still using the arts as thinking tools to raise our consciousness of it. No wonder we produce work that haunts us with its beauty and its unassuageable longing to be whole.

I have looked-up a definition of 'perfection' in several dictionaries. I think 'That which cannot be improved' is better than any of them.

I am not suggesting that this perfection is a synonym for 'God', or anything supernatural. It is the necessary condition of survival - imbalance is terminal. I am stating that it exists in the practical way I described and, as we have seen, it is the macrocosmic existence everyone of whose tiniest and biggest characteristics is made possible and determined by the output of its primary particles. What is extraordinary is that we sense this. Our bodies and minds are intimately a resonating part of the microcosmic and macrocosmic existence of nature which caused us to be aware, miles below the threshold of consciousness, that this perfection existed and, of course, as usual we called it divine. We are part of its, it comprises our health; we depend upon it and it therefore feels like the font and guardian of our continued existence. It feels like the source we call a 'guiding spirit' or 'controlling principle'. In truth, it is the vastly more diverse and well attested microcosmic reality we have been considering which also provides a physical and material route through into our understanding of this. And what this is leading up to is an examination of this route to show that, from whatever point you start, you finish at the same place. Here, again, we have long since sensed

this fact by the promptings we tried to screen out and the best example is in the phrase 'And the Lord Krishna said: "To whatsoever god thou prayest, it is I who answer thy prayer"' and Jehovah said: 'I am that I am.' Allah makes the same claim. They all do because the feeling comes from the primary particles that make feeling possible. So what is this route to an understanding of the reality which we have, ever since understanding began, understood wrong and done The Sum so fatally in its terms?

In pursuing a route into understanding this, I will use the phrase 'Something More Besides', hoping that it does not already attach to any popular system. I mean no more by it than by what the words state. Nearly everybody will experience it once in their lives. We have felt it in thousands of ways - a sense of perfection, a feeling that things just are as they are, couldn't be otherwise - ultimately, satisfyingly whole, infinite, imminent - that they comprise a seethe of stillness. And we have thought they were supernatural and we were wrong.

But as I said earlier, experience is paramount. If we have all sensed it, then we must account for it. I shall do so by showing that the experience is not just incontestable and universal but just that the terms in which The Sum has constrained us to think of it are wrong. I am saying that the phenomenon for being real and testable is more awesome and exalting than any call to mere belief has ever been or could ever be. To know that the wildest ecstasy of the soul can, in principle, become an experience of reality; to perceive that 'that which the mind cannot perceive nor the tongue relate' is something real, not imagined and that it is in fact an experience that awaits the evolution of mind to fully experience, is more wonderful by far than mere spirituality than the hope that there is a god who has never manifested himself nor provided any evidence of his existence. It is the gold of which belief is the paper interim promise to pay. If religious say that to believe in the unattainable is richer and better, I would reply that that is what we have conned ourselves into believing as a sop (THINK OF A BETTER WORD) to the thousands of year long entreaty to schizophrenic voices who never do, never could produce the goods. So we had to build up religions around the idea that what they did produce manifested the mysterious way our unknowable god moved. [PERHAPS THIS NEEDS ELABORATION].

We have been experiencing this Something More Besides accounting for it and describing it for thousands of years. We have called it by all the names of god and think of it in all the terms of the occult - of the spirit - of the soul. We refer to it as 'The Divine Ground of All Being' - as 'The Atman' or 'The Immanent Eternal Self' - as 'Brahman, the Absolute Principal of All Existence'. Taoists call it the Tao, saying 'The Tao does nothing, by it all things are done'. There is Suchness - Sunyata - or the essence of mind which is called Shinnyo in Japanese, in Hindu Tathata: '...anything said about Sunyata is insufficient or too much'. The same idea is perceived as an 'Anima Mundi', a 'spirit of the world', and it is expressed by Nordic peoples in the nature context under the name Heltija or by the Eskimo as Innua, the Iriquois as Orenda etc etc. Surprisingly our conditioned compulsion to find a hook to hang the 'certainty' on manifests in the astrophysicist's recourse to teleology to explain things. All it does is show how our conditioning twists our mind to take refuge in such a tortuous paradox.

It also produces scientists who believe in god and ferociously reject paranormal experiences as a route into accounting for so many of which is certainly suggested by Quantum Theory.

Let us, therefore, look at the attempts to penetrate this Something More Besides and see what we can deduce from the way we have done it. What kind of experience was it that so many libraries, religions and cults have obsessively tried to describe?

We will begin by looking at the history of it and then at today's contemporary experience of the same thing.

The extraordinary thing is that, right through the millennia, round the world, across all cultures and in all periods and languages we all chose such similar metaphors and similes to describe our ineffable experiences as to leave one in no doubt but that the thing experienced has always been the same. From this, the whole esoteric vocabulary of mysticism and then the sacred vocabulary of religion grew up to refer to experiences which came to be regarded as sublime or divine because of their intrinsically ineffable nature. These, it is my contention, are neither spiritual nor divine but drawn from the microcosmic interplay of atomic and subatomic particles that determine the potential of the matter which enables our minds to work; drawn from the random combinations of the particles of mind stuff - from ideas they throw up which reflect aspects of their own intrinsic properties such as quantum states that caused us the kind of confusion that is reflected in the grey area between being and not being, between logical thought and the collapse of a quantum system, of understanding conditions which, because they do contradict commonsense, because they cannot be explained in conventional scientific terms, because they are a new aspect of particle behaviour just as is plasma in a fusion was recognised as a new form of matter - were so baffling they gave rise to several ways of thinking about them.

Then there is the whole subject of the paranormal. [READ THE NEW SCIENTIST AND DO A PIECE ON THE PARANORMAL HERE]. It raises the temperature of those who discuss it as does religion and race. But there are new facts about the way things tick. It is true that if a twin did a trip at a speed close to that of light, when he got back he would be younger than his sister. It can be demonstrated with very fast aeroplanes and twin clocks that work accurately to small fractions of a second. Equally, there are the anomalies in the behaviour of quantum particles that cause quantum scientists to talk as do Bohm and Zohar as quoted on page X.

The phenomena perceived as paranormal tell us one thing and one thing only: it is our idea of the 'normal' that is wrong. And I made that statement on the first page. It is so wrong that we will never be able to understand how to evolve on purpose and therefore survive in its terms. And that includes the terms which, as I said, have been common to all meditators for many thousands of years.

The subject has, of course, a huge literature. The most succinct reference and guide to the aspect of it that I want to discuss is 'The Perennial Philosoph' by Aldous Huxley. The phrase of the title - 'perennial philosoph' - he explains was coined by Leibnitz, but, he goes on, 'the thing, the metaphysics, that recognises a divine reality to the world of things and lives and minds; the psychology that finds in the soul something similar to, or even identical with, divine Reality; the ethic that places man's final end in the knowledge of the immanent and transcendent Ground of all being - the thing is immemorial and universal. Rudiments of the Perennial Philosophy may be found among the Traditional lore of primitive peoples in every region of the world and, in its fully developed form, it has a place in every one of the higher religions. The version of this Highest Factor in all preceding and subsequent theologies was first committed to writing more than twenty-five centuries ago and, since that time, the inexhaustible theme has been treated again and again, from the standpoint of every religious tradition and in all the principal languages of Asia and Europe'. Though in no language it is supposed that the source is ourselves and, as I said, the descriptions, even the phrases, are extraordinarily similar.

He later adds, in 1946, the significant words 'Knowledge is a function of being. There is a change in the being of the knower'. There is a corresponding change in the nature and amount of knowing.

COmpare this with Uri Orlov (1982), when he suggests that quantum indeterminism is at the basis of creative thinking in that the process involves the thinker in perceiving something that does not exist in reality - namely an idea - and he perceives several of these simultaneously (for such is the nature of quantum correlations or instantaneous action at a distance, whereby one quantum event can trigger another at a far distance instantaneously) and then choose. This is particularly significant for our present enquiry because we have been concerned with tracing the course of the way we evolved knowledge from its beginnings to the point of having got it so critically wrong that unless we change its mode, we will perish and have established a new microcosmic route into such a new knowledge and understanding.

This is not - never was - easy to do; as Huxley says in his introduction: 'It is only by making physical experiments that we can discover the intimate nature of matter and its potentialities. It is only by making psychological and moral experiments that we can discover the intimate nature of mind and its potentialities'. This exactly describes what is necessary in the modern context. We can learn to understand the ideas of a space-time continuum which was the product of the flash of insight of Einstein's mind which was accustomed to think in these terms and could creatively manipulate them. In the same sort of way, we can nowadays learn to understand the relationship between memes and brain cells - the way the primary particles of the cells, still operating their primordial propensity to pursue best interests, will certainly influence memes, and therefore mind, to do the same. But in as much as (since forever) only those primary particles have survived which are obedient to the pressures of equilibrium, this will cause memes to behave in a similar way - a way which responds to the pressures of equilibrium - a way which is constrained to perfection. The behaviour of a meme constitutes what we call understanding. Understanding at this level is the place where doing The Sum right has to begin. Let us start our look at this ancient route into the nature of the Something More Besides with quotes from Shankara's 'The Crest-Jewel of Wisdom', being a summary of the words of the Upanishads. There is a curious way in which these ancient words, trying to describe the spiritual undecipherable, fit the microcosmic world of primary particles and infinitely perfect equilibrium which are also ineffable but real and the very stuff of life. The first quote is 'Brahman has neither shape nor form, transcends merit and demerit, is beyond time, space and objects of sense experience. Such is Brahman and That Art Thou, 'Tat Tuam Asi', see page --.

Chuang Tzu says 'Do not ask if the Principle is in this or that. It is in all things...and is all things, but it is not identical with beings, for it is neither differentiated nor limited'.

Huxley quotes Richard Trench saying that language is obscurely wise and contains truths we fail to recognise. On the question of 'seeing but one in all things; it is the second that leads you astray', he remarks that in Indo-European languages the root meaning 'two' connotes badness, for example dishonourable, dubious, bevue, 'blunder, literally too sight', Zweifel - a two-timer, or Mister Facing Both Ways'. The Something More Besides is but one thing - however ubiquitous.

Huxley says 'It is because we don't know who we are....that we behave in the generally silly and often insane, sometimes criminal ways that are so characteristically human'. AND things have got a lot worse since he wrote that in 1946. To know who you are is to achieve consciousness - mind - and that is what we have been talking about. As I have said, we are still in the process of doing this as the sine qua non of evolving on purpose. We have never known who we were or what we were for and had to invent the idea of god and afterlife to give us some point. And that is what we are going to face up to by the end of this chapter.

He proposes that the Divine Ground of All Existence is a spiritual absolute, 'ineffable but sometimes susceptible of being directly experienced and realised by the human being' and goes on 'to persist in worshipping only one aspect to the exclusion of all the rest is to run into grave spiritual peril. Thus, if we approach God with the preconceived idea that he is exclusively the personal, transcendental, all-powerful ruler of the world, we run the risk of becoming entangled in a religion of rights, propitiatory sacrifices (sometimes of the most horrible nature) and legalistic observances'. Our view of things is distorted for all the reasons given.

As to the question of 'Who is God?', he quotes St. Bernard's reply, "I can think of no better answer than 'He who is'."

And this reference to the eternal something whose salient and most sensible property is that it just is as it is as it is, forms a large part of the mystic's experience. It is the same thing as Hawking has come to via mathematics - that the function of the universe is to Be and it is the same as my point that equilibrium, which cannot be improved upon, only impaired, is that upon which we depend for our existence and is the same as the experiences described by poets and writers. We can't dismiss it - or invent a name for it - as we have done - we must try to enter into it knowing that it is as real as a handshake or love and that that is how we should relate to it because our habitat is an integral part and product of it.

Huxley writes of 'the physiological intelligence which in men and lower animals unsleepingly perform the task of seeing that bodies behave as they should. Indeed, the physiological intelligence may plausibly be regarded as a special aspect of the general re-creating logos. The bodies of human beings are affected by the good or bad states of their minds. Analogously, the existence at the heart of things of a divine serenity and goodwill may be regarded as one of the reasons why the world's sickness, though chronic, has not proved fatal'. What is the idea of a 'divine serenity and goodwill' but the physically real and pervasive equilibrium I am speaking of which, because it can't be improved, is 'perfect'. It also has a quantum existence at the primal source of matter which must be probabilistic - random in order to be in a state of self-perpetuating equilibrium. If it were not random, it would be planned and there would have to be a planner.

So much, then, for a passing reference to the two and a half thousand years of recorded attempts to describe that Something More Besides of which everybody who has ever lived has, at one point or another, had an inkling - but an inkling of such a special quality that they could never afterwards banish from their thoughts the haunting idea that there is, perhaps, just around the corner of the mind something that is waiting - perhaps longing? - to be seen. Let us now turn to the modern, prosaic evidence for the same thing, collected by and commented on by Marghanita Laski in her book 'Ecstasy: Some Experiences Secular and Religious' (1961).

On the advice of a friend involved in mass observation, she asked the first sixty people she met (to whom such a question could reasonably be put) if they had ever had an ecstatic experience. Fifty-nine said they had and she details the same six questions she put to them and the answers which she got. These people were not meditators. The experiences occurred spontaneously, though the circumstances are interesting in human terms, for example on the top of a bus - listening to music - after visiting a child at school - driving - after making love - while washing up - walking in flood water etc. Most said they had assumed few people knew of the experience they had had. For example, after quoting one of Virginia Wolf's ecstatic experiences which she had described in answer to a question, Marghanita Laski adds, 'Virginia Wolf continued, characteristically: "Now perhaps this is my gift; this perhaps is what distinguishes me from other people; I think it may be rare to have so acute a sense of something like that" '. And Laski adds that Charlotte Bronte also

assumed that few people knew the experiences she described in one of her writings. I think it is important to note that they are not only common, but particularly that they are commonly supposed to be uncommon. I have said elsewhere that we are on the brink of acknowledging that we did The Sum wrong, which means we are on the brink of seeking to embrace an alternative way of looking at things. So far, all these alternatives are re-hashed out of past postulates, all equally infected with one wrong ingredient or another of The Sum.

The questions put in the book to the fifty-nine people, asked for a description of the experience; how often it had happened, under what circumstances, what triggered it etc. The answers, some long, some short, had a great deal in common and I will quote the bits which illuminate various aspects of the whole experience and which are so particularly relevant to my theme. They describe a causality, our awareness of our particles which we have always screened off. They do it in evocative, original yet familiar ways. They talk also about that perfection of equilibrium - things being as they are and couldn't be otherwise. The quotes from Huxley affirm that this direct, non-rational awareness has been part of our lives for thousands of years. In saying that each of us will have an experience like this at least once in his or her life, I am claiming that the source of all spirituality is within ourselves.

I find it moving that, for so long, we all seemed to have known what I am saying, but without knowing that we knew it and invented the wrong alternative explanation which has led into so much trouble.

Here are the responses that Laski got to her question.

1. '....a sort of merging into the experience - the hard lines round one's individuality are gone - the ultimate trademark is that this does touch reality. It happened several times'.
2. 'Release - soaring up to something you always wanted, always knew was there'.
5. 'Transcend your normal limitations, your capacity for experience, burst into a wider one'.
6. 'A feeling that the mind has an accurate understanding, which it can't conceptualise. Heightened awareness and sense of union with external reality'.
19. 'Sensation of absolute wonder, rightness, the same thing - the whole world falls into place, matches, fits.'
20. 'A sense of the oneness of things. Differences suddenly becoming one'.
22. 'Hovering on the edge of seeing right beyond'.
23. 'This is it and everything fits in - all creation comes into harmony'.
24. '...I enclose the universe or it encloses me - it is an end of individuality for a moment because there is sudden glory in both me and the universe, both inextricably mingled'.
25. 'Indescribable - I know but I can't describe it - a shock of joy - something perfectly apprehended, not formulated, a recognition'.
27. 'Difficult - communion with something else before reason enters'.

34. 'Feeling in unity with everything - no, not with everything, with nature, but not specifically trees, flowers, plants, everything that comes out of nature'.
35. 'Sense of something being perfected - couldn't be better done'.
36. 'Feeling of satisfaction with the actuality of existence.'
37. 'Feeling of identification with the whole of the sensible universe'.
39. 'You can't describe it because the more you describe it the further it gets from you'.
40. 'A feeling of oneness with the totality of nature'.
56. 'Complete suspension of time, sudden sense of certitude about nothing I can define, exultation - tears running down my face at the force of beauty'.
61. 'When you can suddenly hold in the forefront of conscious feeling both knowledge of the smallest bacteria in the field, how the blade of grass works, and the universe, in the same detail. All you know about nature, the whole thing, you can think about them all simultaneously and not in parts. Once in the evening, in autumn, the fields were flooded, the sun low. Sloshing through the fields, the grass and the water had a peculiar colour. Once, at that temple outside High Wycombe, I used to write poetry then and I wrote 'Evening Sunlight On A Blade of Grass'. If I say that to myself, I can sometimes recapture it'.

There then follow twenty-five literary texts and twenty-two religious texts which cannot be quoted here because there is too much of them, but they contain such descriptions as, for example, that of C.P. Snow (page 121 of Laski's book on 'Ecstasy'): 'It was a though I had looked for a truth outside myself and, finding it, had become for a moment part of the truth I sought; as though the world, the atoms and the stars were wonderfully clear and close to me and I to them, so that we were part of a lucidity more tremendous than any mystery'. The historian Arnold Toynbee describing in 'A Study of History', volume 10 page 139 how he found himself 'in communion not just with this or that episode in history but with all that had been or was or was to come'. Or Jacquetta Hawkes in 'Man On Earth': "One's mind is one infinitesimal node in the mind present throughout all being, just as the body shares in the unity of matter". And later 'our satellite was itself a living presence bounding in the sky. Indeed, the whole night was dancing about me'. Compare this with the words of nuclear physicist Fritjof Capra in the Preface to his book, 'The Tao of Physics', which has in Introduction by Werner Heisenberg, where he says: 'I was sitting by the ocean one late summer afternoon, watching the waves rolling in and feeling the rhythm of my breathing, when I suddenly became aware of my whole environment and being engaged in a gigantic cosmic dance. Being a physicist, I knew that the sand, rocks, water and air around me were made of vibrating molecules and atoms, and that these consisted of particles which interacted with one another by creating and destroying other particles. I knew also that the earth's atmosphere was continually bombarded by showers of "cosmic rays", particles of high energy undergoing multiple collisions as they penetrated the air. All this was familiar to me from my research in high energy physics, but until that moment I had only experienced it through graphs, diagrams and mathematical theories. As I sat on that beach, my former experiences came to life: I "saw" cascades of energy coming down from outer space in which particles were created or destroyed in rhythmic pulses; I "saw" the atoms of the elements and those of my body participating in this cosmic dance of energy.'

Compare this with the words of Professor David Bohm, Professor of Physics at London University: 'We can picture these virtual potentialities or probability amplitudes as a swarm of particles of imaginary mass interacting together like a frictionless gas'. The books of many physicists and cosmologists contain references to the area into which high energy physics is leading them and speculations about the highly ambivalent nature of reality that these states of matter indicate. What the screening-out process has done is to narrow our minds against the reality that this all stems from the cosmic event - the achievement of mind - as it awakens to awareness of itself and the human phenomenon that makes this awareness possible.

We have been feeling this, experiencing it for so long. Consider, for example, the Grail period and the beautiful Grail literature where Gallahad, 'at the end of his spiritual and physical journey, achieves the Grail and becomes aware of the sublime mystery which the heart cannot conceive nor the tongue relate' or again with the words taken from Pauline Matarasso's book, 'The Quest For The Holy Grail' when, she says, 'This was a time when things were rarely quite what they seemed - when the outward appearance was merely a garment in which to dress some inward truth where the material world was but a veil through which the immutable could be sporadically glimpsed and perpetually re-interpreted'. To me, the language is evocatively ambivalent. We have been hovering around the understanding of truth centuries, looking for a route into it and now, post-reductionist thought makes matter and 'reality' seem so equivocal that they resemble the terms in which the Something More Besides is described. Tomorrow, we will know better what it is and the day after perceive the outflowing of a further 'mystery' from our minds, awakening the potential to penetrate that screen it originally erected. How often in the literature is the screen itself referred to as a mist or veil is as scales before the eyes or described as a vision partially glimpsed, a voice unclearly heard.

The source is there, more wonderful because real. Have no fear that this might diminish it - it can never be completely known because the most inspiring of all reasons. For what does our mind do with each new truth as it bubbles up? It manipulates it in the analogue of reality that it comprises so that, like the interaction of particles in the cosmos it evolves a new combination, a new truth, and it will go on indefinitely. The following two quotes from such different sources and periods describe the situation very beautifully: 'The mind of man is bounded only by the universe' and 'It is the boundary condition of the universe that it has no boundaries'.

The idea of participating in reality, which we have been considering in various terms and from various standpoints, is put with great felicity, both for the experience and the difficulties of talking about them, in 'The Story of My Heart', the autobiography of Richard Jeffries (1848-1887). He started thinking about it in 1866 when he was eighteen, and wrote it in 1883. Of it, its publisher, C.J. Longman, wrote at that time:

'The author describes the successive stages of emotion and thought through which he passed, until he arrived at the conclusions which are set forth in the latter part of the volume. He claims to have erased from his mind the traditions and learning of the past ages, and to stand face to face with nature and with the unknown. The general aim of the work is to free thought from every trammel, with a view of its entering upon another and larger series of ideas than those which have occupied the brain of man for so many centuries. He believes that there is a whole world of ideas outside and beyond those which now exercise us'.

And that was written in 1883.

The book itself is very largely a paen of praise and adoration for nature and his sensual relationship with it. He says he 'would prefer to write "psyche" always instead of "soul" to avoid meanings which have become attached to the word "soul"' but adds that it is too awkward to do so and that he will therefore "stick to soul". However, because psyche is now more easily accepted, I have put it back as he would have written it, because I think it makes better sense in these days. He describes how he walked up a favourite hill until he was "utterly alone with the sun and the earth". He continues:

'Lying down on the grass, I spoke in my psyche to the earth, the sun, the air and the distant sea far beyond sight. I thought of the earth's firmness - I felt it bear me up; through the grassy cough there came an influence as if I could feel the great earth speaking to me. I thought of the wandering air - its pureness, which is its beauty; the air touched me and gave me something of itself'.

And in another place:

'Sometimes I went to a deep, narrow valley in the hills, silent and solitary. Sparrows chirped in the wheat at the verge above, their calls falling like the twittering of swallows from the air. There was no other sound. The short grass was dried grey as it grew by the heat; the sun hung over the narrow vale as if it had been put there by hand. Burning, burning, the sun glowed on the sward at the foot of the slope where these thoughts burned into me. How many, many years, how many cycles of years, how many bundles of cycles of years had the sun glowed down thus on this hollow? Since it was formed? How long?'

I am sure that everyone has had simple experiences like this and I quote it for its extreme simplicity. I love 'the grass dried grey', 'the sparrows twittering'; after all, they often twitter! And then suddenly it's important. Because they are there. Doing it. I am sure everyone has quotes that say it for them. Walt Whitman says:

'There was a child went forth each day
And the first object he looked upon
That object he became.
And that object became part of him
For the day, or a certain part of the day
Or for many years or stretching cycles of years.'

H.D. Thoreau said, 'Sometimes as I drift on Waldron Pond
I cease to live and begin to be.'

It is noteworthy that because of the nature of the phenomena, those who are only trying to describe the experience itself are the ones who use the same language and similes. It is by definition ineffable because it is not a conscious, conceptualised experience and we have deliberately screened-off all other experiences, as I have described. The fact is, that experiences are everywhere around us. Jung approached the matter in his own way, asking 'Why have we not long since discovered the collective unconscious?' And he goes on, 'It is because we had a religious explanation for everything psychic.' Psychic and religious are but two of the names I mentioned as having been invented to describe the mental activity we screened-off in order to achieve more surely our conditioned idea of what constituted our best interests. The thing saturates us, so to speak, and so it should - for we are it. But we have not yet realised that that is so in such a way as to be able to do anything with it. Instead, we mess about with the disciplines of yogis, the pretensions of canonising popes, the visits to soothsayers and quacks and concern ourselves with

the ideas of magic and divination and occultism and miraculous statements and temple virgins and levitations and everything else you can think of. We are pretty much obsessed with different kinds of superstition and occultism, because the feeling that there is Something More Besides is present in every fibre of our beings - literally.

[PUT IN HERE THE PIECE FROM FORUM ON CULTS AND THE HIDDEN PERSUADERS AND BRAIN-WASHING AND THE COMPARISON WITH THE WAY IN WHICH, NOTABLY CATHOLICISM, WORKS.]

The truth of the ambiguity of this thing that is simply a part of ourselves is best stated in the remark of Laski in her follow up book, 'Everyday Ecstasy: Some Observations On The Possible Social Effects Of Major And Minor Ecstatic Experiences', where she says 'A proper bibliography would be out of place. The everyday material on which it was based was easily picked-up in everyday looking, listening and reading and is always readily available'. Indeed, it only needs some kind of catalyst to bounce us over into sharing fluently in all that I am talking about. And it would seem that ecotastrophe, in whatever form it takes, will perhaps give us that catalyst.

As we now begin to understand this better, I think we will start to move past words like 'intuition', E.S.P., revelation or apocalypse etc with their implications of an outside, cryptic, supernatural source which is there to be revealed. The true source is as dead ordinary as standing by the pond and realising that particle interactions on that cosmic, random scale up there was just what was needed to get to me and Tarquin and you and this book by chance. But funny things are said about it, for example that the whole thing is on some plane of reality that stands at right-angles to the one where we eat fish and chips. Nonsense. It's like looking at boxes and cubes, that's all; now they're one thing and now they're another - it depends upon your attitude and how you can disenfranchise yourself from the one that you have inherited from The Sun.

It all begins with the fact that the thing we all feel is there - it always has been - it is the interplay of primary particles which cause atoms to have the characteristics that they have. It is the resonances of these atoms in their proper lattices in ourselves; in the synapses and neurons of our brain and in our glands and in our nervous sensors; in our entire coenesthesia; but also in the atmosphere and food and water and environment. It is also our billionfold empathy with the similar or identical movements in the molecules, cells and organs of earth life as they behave in such a way as to preserve the equilibrium upon which they and we depend for our continued existence as we all are. It is going on all the time. We live on it. We are part of it. It is us in the same real way that we are made of these atoms and molecules. It's just that we called it by the wrong name and pretended it was supernatural - outside nature. It isn't. We also breath it and eat it and drink it and smell it and touch it and hear it and see it and taste it and notice it all the time - in the weather and the seasons etc and, of course, in countless other ways. But also it is so complicated - such perfect equilibrium - that its very reality gives you goosepimples with wonder because of the fact of its being so real and not something divine, which you can never get to grips with. My contention is that we are unconsciously aware of all this. Our conscious mind has forever been training itself to filter out these inputs. Now our knowledge and understanding of nuclear physics - of the Uncertainty Principle - of Chaos Theory - of Simultaneous Action At A Distance - of atomic resonance etc gives us a means of knowing that this awareness is possible. Heretofore, we did not know this and so we invented all the other names for the feeling and we then exalted them into gods and ascribed authority and laws and goals etc to them and their edicts and all of them, as we have seen, were the inherited, obeyed, products of the primordial pursuit of best interests which became the first concept to formulate in our consciousness as it emerged. Or else we deduced conclusions from theories about supernatural intelligence because we could feel the heart-bursting, mind-blowing,

ecstatically various and pervasive interaction of the equilibrium upon whose rolling and vast perfection we depended for our survival.

Our next step, then, is to try to enter into an understanding of something which is there. So as to do a different kind of science and philosophy, arguing out different values, using different arguments - that is quite practical and every day. It is not easy, but it is pragmatic. It will involve striving for an attitude where, instead of using our talents to separate ourselves from reality, as we have been taught to do and which has resulted in destabilisation, we will be trying to use them to bring up into conscious awareness the understanding of the physical function of nature and self and of those origins and implicit activities of self that we have to screen out.

The first evolutionary breakthrough was when matter became matter became able to handle abstracts and thus the abstract was born into the universe where it had never been before and we did not know how to handle this unique creative faculty of ours. The second breakthrough will come when having decided to evolve on purpose, by putting the habitat first, we try to build up in the unique problem solving potential of the human mind, new attitude.

So far, our attitude has always been quite simple - p.b.i. - which equals greed, called by euphemisms like ambition - the Protestant Work Ethic etc.

How can we evolve a new attitude? It is often said you can't change human nature. On the contrary. It changes all the time. The primal urge does not change. But it drives the mindless. Then there will come a point where it will drive it in the pursuit of its best interests, its survival more powerfully than it has so far driven us towards catastrophe. The question is, when? How?

The question of how we can come to see things differently is recondite. Let's glance at four examples.

Slavery affords a good comparison to the exploitation of the planet. It has always been, and still is, endemic to human society - in a sense to nature. Suddenly the Industrial Revolution triggered the need for cheap, unskilled labour and slavery became O.K. because it helped certain people and cultures pursue their own best interests better by getting rich and prosperous. Quite soon in the year X, Y people were enslaved - mostly black people or else bred black/white for extra stamina and greater profit. Needless to say, the studs were white. And free.

But then, various members of the slave owning class, notably - in this country - William Wilberforce, whose untiring efforts (backed by others in high places) - for 20 years (1787-1807) ended in his forcing through a Bill which abolished the slave trade, followed, in 1833/37 by the abolition of slavery itself in Britain and the Empire and in America in 1863. At which latter date, 6.5 million slaves were released. Nowadays the idea of slavery is unacceptable to our mores.

A different example is in the fact that, since time immemorial, fashion was set by the upper echelons of society and the rest did their best to follow. Then came the Teddy Boys in the fifties where flash East End kids set their euphonious style and this progressed until grunge and eclecticism are accepted.

An example more relevant to our theme is, of course, the fact that since Clytemnestra, women have striven for political power and been anathematised, chastised and forbidden it. Then came the suffragettes and now the idea of women not having the vote seems impossible to most of us in the First World.

I know that these are inconsiderable examples of a change of human nature, but we have already recognised that nothing will ever change the primal urge of p.b.i. But the way it is pursued will change. And it will always start small - it will never be apocalyptic - unless, some say, the polar ice caps fall into the sea and we have thirty foot floods all round the world. As a matter of fact, I personally don't think that would make much difference, because I think we would be so obsessively busy trying to prop-up the system which served our best interests that we wouldn't have time to be thinking about anything else.

How, then, could the unique problem solving potential of the human mind be coaxed, enviegelled, led, inspired to start wanting to do something different. It can't. Wanting is the same as the primal urge. All it can do is to want something else. Something chosen by the mind on purpose. That benefits the mind. I mentioned the paradyme shifts - as they are sometimes called - of slavery, fashion and suffrage because it would be perfectly possible to change our attitude to life and our aims and values if, for example, something different were to be discussed by people in all schools and I will refer to that in the last chapter.

I want to return to the way we evolved mind by screening out unwanted input i.e. input we could not handle with our Mark I minds because it, inevitably, set up standards by which to select from them which simply demanded that they should be of immediate practical use. As a consequence, we have never figured out how to appraise any other kinds of thinking. We are uncertain of the criteria by which that should be done. Let us consider the case of Einstein, Newton and Lovelock. In Einstein's case, his mind was full of ideas about the physical nature of matter. Then, one day, the random combination of ideas to the random combination of particles by which all evolution happened produced the idea that Energy is equal to Mass times the square of the Speed of Light ($E=mc^2$) and there already existed, in the analogue of reality in Einstein's mind, the criteria necessary to perceive how it could serve best interests i.e. how it made sense and so it persisted. He and his colleagues spent the next half-century or more in testing the full validity and implication of it in terms of the Special and General Theory of Relativity which has transformed our understanding of the very large universe in which we live just as much as Quantum Theory has changed our understanding of the very tiny elements and forces that operate the microcosmic levels of us and our environment. We will have to wait another half-century or so to get to grips with how this theory can be incorporated into our everyday reaction to and behaviour in everyday reality.

Now the thing that is so interesting is that, in that one flash, Einstein perceived a 'set up' that it took him and many others and computers, as I said, half a century to go through and figure out meticulously on 'the blackboard'. And that was because we had, so long ago, screened out the validity of the way of perceiving that Einstein and many others experience in that kind of a flash. That is the kind of potential of mind life of the fourth stage of evolution that awaits us if we can learn to evolve on purpose and so save ourselves.

Newton's equivalent perception triggered traditionally by the falling apple resulted not merely in his colleagues taking fifty years to figure it out, but resulted in the birth of modern science over a period of 300 years in pursuit of the implications of the reductionism which his vision initiated. Again we are talking about different attitudes of mind and the way in which one of our potentials has been inhibited by its having been censored, in the first instance, by our primitive emerging mind.

Darwin perceived that god had not created mankind separately from all other life and the validity and implications of this was worked through painfully until the Pope told Stephen Hawking, in 1981, that 'It was all right to study the evolution of the universe after the Big Bang but we should not enquire into the Big Bang itself because that was the moment of creation and was therefore the work of God'.

The fact that, in just the same way that Einstein's mind was filled with the facts that made his particular inspiration possible, equally Newton's mind (and therefore put Newton first) was full of the religious doctrine of the 1600's in which he would have accepted as a given truth the idea of a first cause and of causality. As a consequence, therefore, the inspiration occurred to a mind conditioned to the idea of a first cause and it resulted in its producing, indeed reinforcing, the orthodoxy of the age old screen powered by discipline and causality which we had inherited and is one of the reasons why Quantum Theory is so difficult for scientists to get their mind round and why those who work with it find it difficult to relate its findings to everyday life and those who try to do this are seen as rather maverick by the scientific establishment, as is the case with David Bohm.

CHAPTER FOUR

About 2 million years ago we had begun using flint tools for cutting food. By 1« million years ago, we had made a stone axe. After that, we went on making things to help us eat. Finally, we began to make things to help us think. They stopped being bashing, cutting or fightings aids - they were thinking aids to help us in the development of consciousness. Since that is the significance of the universe, that is how they should be considered. Not as representing some lost learning - some oneness with nature or with God or some golden age back to which any guru can teach us the esoteric way.

What, then, was the first thing that we began to think about? Not unnaturally it was ourselves. Just as a baby discovers itself - its toes, fingers etc. This is a crucial event. Animals are deemed not to have this awareness of self. It is the precursor and also the concomitant of the very long, tortuous, many faceted recognition for the first time that we and animals were different. Until now, we had always been animals. We had responded to the unconscious I have described instinctively as animals do, by reflex. One of the main functions of consciousness was to 'notice' these promptings so eventually to conceptualise them and respond to them 'on purpose' or not. This led us through a long period in which we first thought of the source of the promptings as being in the animals, which is an idea fused with our unconscious sense of being animals ourselves. Disentangling ourselves from this twin ambiguous and perplexing thrall of the animals took tens of thousands of years. It is made manifest in scores of ways that we are going to look at because its progress left much evidence which we can use to measure how this entanglement was getting along, how consciousness was progressing. We are, of course, not free of the subtle entanglement yet. Totem animals and totemism is the way of life of millions of people and there is no clear dividing line between it and the 'developed world'. It is merely a matter of gradation, of the British lion totem being part of the Colour trooped every year on the sovereign's birthday - the eagle iconography of Hitler's Germany - the terrible revenge wrought upon his country by 'lion-hearted' Britons for Hitler having dared to try to 'twist the lion's tail' - to the Hindus' sacred cow or the man in the California pet cemetery saying, through his tears to a t.v. camera, "I'm telling you, that dog was people". There are as many and as subtle different examples of the presence and influence of animals in our ideas and attitudes as there are of the influence of our consciousness. We may think we do everything 'on purpose'. It is not even 50/50.

So, when did we make the first thinking aid? Indeed, it can in no way be thought of as a clear cut percentage. Instead, the progress from unconscious animalhood is partial and uneven and the roll of consciousness is like leaven - unevenly mixed with it, both as regards individuals and communities. I do, however, think that, like seeding a cloud so as to precipitate rain, a new sprinkling of ideas can cause a new attitude to coalesce around them so that if it catches on, a *vaux fas* can occur and suddenly we will all start to see things clearly and differently so that consciousness is sharply raised. And I believe that however grim and unpromising the scenario described in Chapter One may seem to be, it is towards that situation that the storm clouds of the demise of one era in our civilisation is tempestuously now proceeding.

So when did we make the first thinking aid to give birth to the staggering, first time ever, self-awareness and consequently the idea that we were different from the animals?

About 60,000 years ago the earth suffered a particularly heavy and sustained bombardment of cosmic rays. These cause ionising radiation in the organic tissues through which they pass and it is thought possible that they may have triggered mutations in brain tissue. It is thought by some that evolution was helped or caused by mutations of this kind. Those lifeforms which were able to exploit these mutations acquired an evolutionary advantage. At all events it seems that around 50,000 years ago our hands were attracted by a lump of moist clay. The first things that those sensitive fingers of our free and important hands ever touched in our lives was our mother's breast - probably moist - certainly important. A lump of moist clay feels like a mother's moist breast (very poetic, Henry). We were the only creatures who had ever stroked skin like that. We started unconsciously to mould it into the shape that its feel suggested to us - the breast of the mother; then a figure with breasts and thighs and buttocks. Some times the breasts were bursting with fullness, sometimes they were empty. But a figurines like that, dug up on the Golan Heights dated 50,000 years ago, was found to be exactly the same in style as about 120 other figures which have been found in sites from the Dordogne to the Caspian Sea and dated to about 25,000 years ago. They all show a female form with large, even grotesque, breasts, thighs, hips and belly. Sometimes the breasts are full and bursting, sometimes empty and pendant. The figures generally run to a point at the bottom which would make it possible to stand them up in soil. The faces are usually rather uniform by comparison with the intensity of craftsmanship lavished on the bodies. Sometimes they are quite vaguely indicated or even left blank. In the later ones, seven circlets of notches are sometimes to be found at the top of the head. Sometimes there are holes, as though flowers or such like, might have been stuck in them. By then, they were made of clay or clay and mammoth bone ground fine into a paste and baked.

What was the preoccupation in the unconscious of the person holding this lump of soft clay in the hand? It did not suggest anything until the fingers touched it and began to squidge it about, then it was the perfect Rorschach occurrence, powered directly by our unconscious. We felt our way into the first objective identification of something - namely the mother - and, from it, we began to identify ourselves in terms of being different from animals.

'Adam' means 'red clay'. His form was also moulded by a primal force that grew up in our unconscious. Is his story, his image, a folk memory of the moment when we first became conscious of ourselves for the first time - conscious of 'people' for the first time and as people, being us. We stuck the figurines in our dwellings and held in mind the idea of the first people. as being something separate from animals for thousands of years. The idea of Adam was, it is known, an oral tradition for thousands of years before it was written down around 2,000 or 1500 B.C. Does the finger of God, touching that of Adam on the Sistine Ceiling, epitomise this epoch-making

moment when consciousness was awoken in humanity? The knowledge of good and evil is a perfect description of consciousness. It is called by believers the moment when the Spirit entered man. Other kinds of believers call it the clay figurines fertility goddesses 49,900 years after they were made. We have no evidence for God nor, therefore, for any spirit of his having entered us. Everybody is perfectly willing to accept that we invented the 20,000 gods mentioned by Hesiod, why not one more? And we do have abundant evidence of our having become conscious.

Our efforts to disentangle ourselves from the animals involved all kinds of ambiguities. We were animals and yet we were trying to recognise and accept that we were not. How better can you describe the dawning of objectivity which was a new and unknown quality in the universe? Contradictoriness was its very essence. And contradictions are disturbing and painful, so was the emergence of consciousness and it went on for a very long time.

We began to notice objectively how very much we and the animals were alike, and both quite different from other life forms. We could both move about, eat, fight, copulate, whelp, suckle our young and play with them. They snuggled up to each other and to their mother for comfort and so did we. We were startled by the same things, responded in the same way. But animals were vastly more numerous and various than us and very dangerous and we needed them for meat as they needed each other. But all the same, animals were mysterious. They communicated with each other and were somehow 'in the know' with nature. Later, we began to wonder if, perhaps, the promptings came from them. This idea has been widely studied and the evidence shows that this was very much the case. Thus, paradoxically, the period when we began to see ourselves as separate from the animals was also the one when we began to perceive them as the source of mystery and of promptings, which we failed to identify as coming from our own unconscious.

Starting around this period, 30,000 years ago, we were not only modelling, but also drawing. Examples on bone, reindeer horn and stone have survived. Many of them are done in what is called the x-ray style because it shows the bones of the skeleton of the person or animal. It also, particularly in the case of animals, shows bowels and hearts and other less identifiable organs. The style is found in many parts of the world and in Northern Europe some of the drawings show a man sitting with a small drum of special shape, about two feet high and eighteen inches across, held between his knees. This is the Quadba, the special drum of the Lapps which continued in use until the Eighteenth Century when it was made illegal because its magic was deemed a threat to Christianity. The very long tradition of these drums show them with figures in the x-ray style drawn in elder juice on the skin of the drum head. So it is probable that they were being made at the time of the rock drawing, though a drum couldn't have survived that long.

The drum is shown between the knees of the shaman or witch doctor, one of whose archetypal roles in most cultures was to act as a go-between for us to the 'spirit world of the animals'. This is a constantly recurring phrase and idea. There is good evidence for the role and it is common among primitive people studied in the last two centuries and surviving today.

Now one of the first things a child - particularly a boy - does when confronted with something it wishes to get to know about, is to take it to pieces. As a race with our infant, emergent, consciousnesses, we had had a long experience of taking animals, and probably people, to pieces. And what a spectacle had confronted us. What an experience we were afforded to mull over in our hands and minds. Bowels, we discovered, move like serpents; hearts beat; blood pulses; muscles twitch under your very fingertips. How is it that all that complicated stuff is churning around inside an animal and also inside a person. No wonder the feeling of terror, rage, lust or hunger could be

felt boiling-up inside you. But what made them happen? The fact that such things were happening on such a huge and powerful scale in the mysterious animals was of enormous significance.

And then there was the mystery of bones. They were of major interest. They were quite different from all the rest for they continued after death. When all else had stopped rotting and stinking and had passed mysteriously away, bones remained, cool and inviolate, couldn't be otherwise than how they were: powerfully personal, aloof, knowing, grinning at time.

Here, then, on the drum head was a picture of a phenomenon that we were trying to experience more fully. I use the word 'experience' for two reasons. First because to say 'trying to think' about it is too sophisticated and formal and second because our way of getting closer to, and understanding, was indeed to experience the phenomenon. And that is where the drum comes into it.

The inner life going on inside animals and us that evidently linked us, so that the promptings perhaps came from them and happened to us, could be aroused by the beating of the drum. The skin was, as it were, the screen - the screen which we used to screen out the promptings from our unconscious into our nascent consciousnesses. If you made it vibrate, the inner life of us and them was stirred, the screen became permeable, experience flooded us so that we were possessed by it and hallucinated directly from the source that we believed to exist in the animals. In this way, we were inspired by a state of awareness that was actually coming from our consciousness that we were at pains to filter, lest it overwhelm us.

This hypnotic drumming for possession, for hallucination, for an experience of SOMETHING MORE BESIDES, continued as a tradition of Lapp magic until the Eighteenth Century and is thought to continue in secret to this day.

Imagine, then, our earliest ancestors sitting round the shaman in his tent. The framework upon which Lapp tents are still built - to the same dimensions and with the same, carefully shaped and used wooden members - have been excavated, well preserved, from about 15,000 years ago so there is no reason to suppose that the ones found were not already part of an older tradition. They resemble tents in which Ice Age people lived in the valley of the Dordogne and the rare blood group of the Basques is, in many ways, similar to that of the Lapps [LOOK THIS UP IN THE BRITANNICA] Pockets of people having it have been found marooned in mountain regions of the Pyrenees, the Alps and the mountains around Strasbourg. It is assumed they remained there while the main body of the Lappish people moved north following the retreating ice at the end of the Ice Age.

The wooden members have traditional names, as do the sections into which the floor of the tent is divided, so that the living area is nowadays called 'losivo'. It is covered deep in fragrant pine branches. On it the group were seated with a fire burning in the midst. The shaman takes up the Quadba and settles it between his knees. With a vetjer, a little t-shaped hammer of reindeer horn, he starts to drum lightly on the skin as the group sits staring silently at the x-ray figures which are drawn there in elder juice. They are alert for what promptings they may receive, what ideas may be triggered in their minds. These figures might be of a man or a woman or both, plus one or more animals, probably a bear or ungulate of some kind. The shaman senses with his fingers the resonance of the drum, feeling for the rhythm of its response. It is agreeable, as though there was something there of which they were both aware. The others sense this too and, after a time, feel the fruitlessness of the screen erected between the limitless unconscious and the struggling conscious. You are just wanting to be 'sent' or drawn into the fountain of propositions bubbling-up in the

drumming of the mind on the skin of the screen. The shaman holds up a little ring, a section of reindeer horn called Arpa, and drops it on the drum head. It begins to dance about lightly, supported on the drummed-up vibrations. The eyes all follow the micro-vibration on which it seems to hover around the figures painted in elder juice. These vibrations are like the myriad, micro impulses in the cells of the brain and resonate with them, yet its journeyings around the figures are large, like the wonderings of the mind. The people are drawn together as the hypnotic drumming and the life it gives to the Arpa becomes a bridge to the analogue of reality in the mind.

That was, I am suggesting, one aspect of this particular thinking aid whereby we unconsciously pursued what we now called consciousness. We tried to expand our identification of ourselves, our recognition of our affinity with, yet difference from, the animals, our fearful desire to know the source from which came these myriad promptings into a mind now beginning to evolve the physical, cellular propensity to record and handle them there at the brain's interface between the material and the abstract, into the analogue of reality that is the mind.

The other aspect of this same thing, concerning our identification of ourselves, is to be found in the two figures traditionally depicted in the x-ray style in rock drawings that can be dated to about 30,000 years ago and which one can fairly assume were therefore the ones drawn on the parchment of the drumheads then, as they were on the drumheads that have survived. They are called 'Mada Akka' and 'Mada Achta'. There is a peninsula in Syberia called Mordy Akka, the home of the Samoyed Lapps and Mada Akka and Mada Achta are known in their mythology as The First People. It is as simple and obvious as that. It means we had recognised ourselves as people for the first time and therefore as The First People in that sense. Adam and Eve are perceived as the first people for the same reasons and in the same way. As ideas of Something More Besides evolved into variously defined ideas of God, these folk remains acquired a new meaning - that of The First People created by God. Such figures are to be found in most mythologies.

Dualism, in many of its forms, starts as we began to be self-aware, to see things objectively, to realise we were not alone in the world while, at the same time, we registered the promptings and did not realise that their source was the unconscious that is intrinsic to us and so, by screening out, were making mysterious. This made the stage ready to be peopled during the coming millennia by every kind of representative of that source. It started with the animals - as we shall follow up in a moment - but also, of course, included nature cults, sky gods, sea gods, chthonic gods etc, the copious pantheons of personalised gods and then monogods like Jehovah, Allah and Jesus, even, wrongly, Buddha, Brahma and so on. For dualism lies at the core of the idea of Something More Besides and the various metaphysical and philosophical propositions that have been erected to describe it, right down to teleology in terms of which quite a lot of modern science is still taught. It also inspires 30% of the people who write to James Lovelock about the geophysical hypothesis that he called Gaia to proclaim their belief that Gaia is the controlling half of this dualistic existence - some kind of planetary intelligence or another name for God.

One of the principal threads running through the whole story of the evolution of consciousness, which means anthropology and history, is our bewildered attempts to come to terms with that very faculty itself. We kept trying to explain it to ourselves in our religions, metaphysics, philosophies etc - the blind alleys I mentioned earlier. And it is the attempts made by scholars and historians to examine and interpret these forays, as though they were the valuable, even revered building blocks of civilisation, or steps in the ascent of man that has, over the millennia, led to so much strife under the headings 'My God' of 'My Way' or 'My Anything Is Righter Than Yours'. There exists no criteria to give meaning to 'right'.

They had missed the point, which is the sufficient development of consciousness - of mind - for us to be able to evolve a meaning into the cosmos by first learning to evolve on purpose instead of in selfish, destabilising pursuit of best interests. The way this might work and the philosophical implications will be discussed in the last chapter.

To return to the theme, then, of the unconscious pursuit of consciousness. The evidence for in our history and contemporary behaviour is plentiful. If we could have realised objectively that it was the goal of existence we could have profited from it. We may still be able to. Instead, we do it in many ways, all the time, without realising that that is what we are doing. Indeed, we think we are doing something else. But it is characterised by the countless ways we have devised of trying to dissolve and pass through the screen we have erected into the full potential of mind. In these attempts, we have tried to pursue what is called an altered state of consciousness - through trance, or vision, ecstasy or in seeking inspiration enlightenment or illumination using fantasy, illusion, clairvoyance or awaiting revelation in innumerable ways. Yogis do it, suffis and ascetics of every discipline do it. The promptings recorded by those who have done it are compendious. It's done by dancers, like the whirling dervishes who seek it, in the disassociation that comes with giddiness; by staring unthinking at mandelas, cloud shapes or crystal balls. It's done by hyperventilation, self-hypnosis or corporate rituals; by sex, drugs, music and, since the days of the Quadba, by drumming. The entire effort is always to dissolve the screen and make contact with the unconscious that is part of the particulate existence of our cells to which we have erroneously given so many outside names. Music, and particularly drumming, has, since the days of the Quadba, figured importantly in this enterprise.

Voodoo drums of today, using for the occasion the great sacred drum, the Assotor, with its associated tomtoms, drum intentionally for possession. It is called meditation of the body - that is, of the cells of the whole body. It is thus specifically and knowingly concerned with cellular memory and the cellular activity of the brain which is precisely the activity we have, since time immemorial, screened out. In Africa and oriental systems it is stated that only when every cell in the metabolism is involved, can the physical principle be apprehended. Some sources refer to the physical and cosmic principle, but this is a part of the dualism we spoke of and in the case of the voodoo tradition, may be a concession to Catholic influence.

It is the intention of this book to suggest that it is the cellular activity of the body and brain and thus the behaviour of the mind that we are concerned with. 'Meditation of the body', is a real state and as it is described as involving every cell in the body, it means every cell in the brain. It is, as we have seen, the random firing of neurons, the 'background noise' of cerebral activity that swamped our minds and caused us to screen it out. When the rhythm of the drum at last vibrates those cells into unison and calm in 'the meditation of the body', a state of being is achieved which we have, also in advertently, screened out the ability to understand or describe. For this reason, drumming and the dance that accompanies it has come, as always, to be seen as sacred i.e. as coming from an outside or supernatural force. There has always been a religious explanation for everything that comes from within. It is so much easier to personalise and project, than to look inside and accept responsibility for oneself. But in primitive, non-theistic religion, the rhythm, and therefore the drumming, is itself 'sacred' because seen as representing the 'cosmic heart'. Unity with this principle makes possible unity with certain archetypes of the human condition called, by voodoo dancers, the Loa. In dancing together, you explore ever more perfect combinations between rhythm and movement as the hypnotic voodoo drums go on and on. Cellular understanding links you so that you participate in each other and this is an idiom for the dissolution of the screen.

The drums will go on all night, the absolute integrity of the rhythm never faltering for an instant. In the morning, other drummers will take over and that night, others again. It is in the nature of the ecstatic experience as some potentialities of the brain and mind are called, that it cannot be described. Powers of description grew up out of what was left after screening had taken place. And yet, when it is heard, it is recognised. In this sense, it compares with the words of a contemporary meditator, that 'A good meditation is like coming home'. It is for this reason that the idea of a goal to be reached - a state of being to be entered into - is universal to all people. It is a real, potential condition that we have no real words for, so it gets to sound kind of mystical but it isn't. This, too, will come up again in the last chapter.

A study of voodoo and of entranced conditions achieved by other means common to tall times and places are all important in the terms of the culture in which they happen. And yet, it is equally difficult to get to grips with what the experiences are all about. This becomes less surprising when you realise that the techniques can be so severe as to actually affect the cell tissue of the brain and nervous system. Indeed, bodily processes are drastically modified not only by drumming, as we saw, but by whirling, rolling of eyes, head lolling, extremes of privation, flagellation, intimidation, by hyperventilation and use of drugs. Some of these have been induced and measured in controlled conditions. In short, it is not merely a psychological or hypnotic effect one is dealing with. The screen we started to build up from the very beginning, I would like to suggest, did influence the pathways upon which the mind developed. I think this is as defensible as that the promptings from our emerging, cerebral abilities caused the growth of the receptors and response network that developed into consciousness (like kicking things caused the fern to develop the characteristics of an ear) and the techniques in modifying brain and nervous tissue are actually able to affect the cells of the screen and open up avenues of experience we know little about, rather in the same way that an ear has evolved to respond to sounds in a range that concerns our ability to pursue best interests and screens out those that don't, so that most people can't hear the sound made by bats. In the same way, we could consciously or unconsciously develop, now that our understanding is so much more sophisticated and our knowledge very much more diverse and profound, means to penetrate the screen and come to terms with a whole range of possibilities. The everyday barrier to this is that normality causes us to be suspicious of these possibilities. We are afraid they are merely 'imaginings'. We fear that they might relate to the paranormal or miraculous or unscientific or unrealistic, like Independent Action at a Distance - like the anomalies of Quantum Mechanics. I do not deny the dangers, one would expect nothing else when entering into the era of mind in which evolution ceases to be random for the first time in 15 billion year and becomes purposive.

I remark upon this because if all the work done and hypotheses put forward about this were based on the acceptance of this proposition that during the evolution of consciousness we screened and selected for mental prowess that served our best interests as primitives, then our understanding of our opinions today about what is 'normal' would be different. What would also be different would be the way in which we asked why the people who indulge in these practices do it? 'These people' include everyone from yogis via saints to junkies and everything inbetween, which is a lot of people.

So what are they after?

Because of the wrong way we have come, they are looking to be taken over by, or to encounter, an outside source of some kind whereas what I am suggesting is that we should be trying to dissolve the screen so as to liberate the potential of mind, both unconscious and conscious, that is the whole significance of evolution. It is so difficult that it is therefore called mysterious.

[DON'T FORGET that at the end of the piece on particulate theory, and the history of the unconscious which must be run together, say 'We are just another permutation of both potentials that, together are as nearly infinite as not to matter. Dualism is absurd and there is no need for it. We blundered off in a primitive direction and have only ever tried to interpret that - never gone back to the beginning to think it through again].

Indeed, as one goes around the world, taking in the mind-boggling shrines, philosophies, statues or icons in all our wonderfully diverse and rich cultures, there is one factor common to them all. It is even spoken of and described as the jewel in the crown of wisdom - the eye of Horus - the sacred talisman - the Open Sesame - it is like some beautiful thing one turns over and over in the fingers of the mind and its name is mystery. Mystery is the knowledge that cannot be used, that is there but cannot be apprehended. Exactly. For it is what we screened out so as to get a bigger slice of the survival cake. And now the cake no longer offers survival - the mystery does - the era of mind - of wholeness of mind - does offer survival.

[EMPHASISE THIS FACT at the beginning of the chapter on women.]

Very well then. Let us return to 30,000 years ago and consider what other steps we were taking in the first realisation of consciousness. What other thinking aids were we using? What else were we doing to mull over this terrifying experience of the activity of mind? The evidence to which we now turn has only been available for about 100 years and you may be sure that the pundits, coming at the end of the long process of The Sum being done wrong, have seen it and interpreted it accordingly. We are returning again to about 25,000 years ago - the era of the figurines and the Quabba when, at the same time, the interiors of hundreds of caves were being painted. Some, as at Altamira and Lascaux and now, as of Christmas Day 1994, at the Combe d'Arc in the Rhone Alps, are very famous and reproductions of their paintings are easily available.

The period included what is known as The Ice Age and the ice-caps covered Britain and Europe as far south as Strasbourg, where the ice-sheet, between 300 to 50 feet high, turned north, went past Moscow to Siberia. It also covered a great part of North America and New Zealand and the southern oceans. Great glaciers spread out from all the main mountain ranges - the Alps, Pyrenees, Rockies, Andes, Himalayas, Kilimanjaro etc. The Ice Ages of the Pleistocene epoch came and went and between them were warm periods called pluvials, which would have provided copious surface water for lakes and rivers making Elaine Morgan's scenario of our having spent a million years in water learning to walk upright more plausible. The icy periods, by contrast, locked-up great masses of water so that the sea bed was 300 feet lower than now. Hence, roughly speaking, the Continental Shelf and the fact that Britain was joined to France and Spain to Africa at this time.

People living 30,000 years ago are often called cavemen and it might be supposed that meant they lived in these hundreds of caves in the area of the Pyrenees, Southern France and Northern Spain, and the Alps across to the Caspian in which the wall paintings are found. The evidence, however, shows that they did not live in the caves. The summers, even during the Glacial Period, averaged 60C and the plains supported a large number and a wide variety of game. The evidence also shows that while they did not live in the caves, they visited them often and continued to do so on a regular basis and continuously for 15,000 years. Since the only evidence that they left behind are the famous graffiti, it is also supposed that the actual purpose of their visits was to draw and paint and therefore, of course, it is presumed that this was done in the interests of hunting magic or religion. As to hunting magic, most of the animals depicted are horses, then aurochs, ibex and bison which were scarcely ever eaten. Reindeer, which provided 88% of the meat in the remains left by these people, were scarcely ever depicted. Mammoth and rhinoceros are equally rare. This huge preponderance of pictures of animals not eaten thus to a large extent disposes of the 'hunting magic'

idea. The art goes a mile deep into the cave where, in the uttermost end and involving very uncomfortable positions for the artist, the few and very savage felines are drawn. The remainder comprise effigies and statues and reliefs, as well as etchings and drawings and paintings. The colours were brought from a long way away and carefully mixed. Moss sponges were used to put it on, as also brushes made of bristle. Scores of lamps have been found, with the remains of tallow which had been rendered from the thews of animals, with wicks made of moss which together burn with a clear flame. These lamps had handles and a spoon-like place for the tallow. Scaffolding was used to paint high on the walls and the ceiling. The artist must have had assistance to help to build the scaffold, mix the paints, pass them up to him and to hold the lamps. Their art achieved a pronounced style and it, like the choice of subjects, changed very little in 28,000 years except that they got better at it. But why didn't it change? How did it start? When? One can't suppose that suddenly, 30,000 years ago, everybody could make delicately formed figurines and beautiful cave drawings. The earlier and clumsier figurines being made of clay would have dissolved and fallen to bits but one feels there ought to be some relics of people starting to draw on walls and drawing very badly. But this doesn't seem to be the case. They got better at it, but they weren't bad in the first place. So how did the idea evolve? Where did it come from and how did they get started?

One of the most interesting aspects of the whole subject is that the caves were used long before any art started. Not, as we have seen, to live in. This is shown by the absence in the caves of the bones and detritus found at the sites where they did live. It is research into these remains that gives us the statistics of which animals they lived on. And there is no such detritus in the caves. Yet a great quantity of charcoal is found spread out all over the floors and archaeologists can show that it got there a very long time before the painting started. So what were they doing, lighting fires in all parts of the cave? What was the attraction? Well, what happens if you light a fire in a cave? It will throw shadows on the walls and ceilings - it will throw shadows of you. I can't think of a better way for the unconscious to project its images. It is freer than any 'art form' - it is instantaneous - it is mobile - it projects mood and feeling and what is much more, it reciprocates something that turns the affair into a colloquy. The shadows become the go-between - they also become the dark thing inside you that is bursting up out of time to turn into consciousness. One can sit and meditate about the relationship between primitive unconscious and the shadows that we made in the caves and found an inexhaustible repertoire for the whole staggering business of just beginning to glimpse the uncharted idea of self-awareness.

I N S E R T.
(Last chapter??)

The therianthropes and, in a sense, the shamans were projections of our unconscious selves as were the animal-headed man/gods of the Egyptians and the many-headed and limbed gods of the Indian pantheon. All are projections of our confusion as we became aware of ourselves as people. We had no guide. We blindly registered any image of ourselves that disturbed or terrified us. The therianthropes went on to become totem animals, pursuing the role of go-between to the gods, so that this primitive confusion has been handed down to millions of people living today and vestiges of it are evident in our many emblems - the German eagle, the British lion, the sacred cow of the Hindus. The other shamanistic branch developed into the long hierarchy of priests and priestesses of every kind, again continuing the role of go-between or intercessor etc; the very word 'vicar' meaning representative, of god.

The cults, rituals and beliefs of such terrible barbarity as that of the Mayas, who conducted 24 hour long orgies at the tops of their pyramids which had steps specially built, down which the blood could flow, as they cut out the hearts of thousands of teenagers, holding them up to god, preferably still beating, in hysterical entreaty for his interest and mercy, with the same sort of thing continued in the Reformation, the Inquisition, Islamic fundamentalism or the Crusades - all of which express this hysterical need for my god to be righter than your god because no words have ever, or can ever, define what is meant by 'right'.

And so the history of evolution, from the therianthropes of the cave through all the forms and cultures - some of which we will look at - is the history of how, in our first stumblings, we were inevitably just plain stupid and wrong. But because there were, and are, no standards of right and because of our terror and our blind, obedience to discipline and to the pursuit of best interest, we have gone on, millennia after millennia, to revere them. So that now we are taught to suppose that there was some kind of a mystic union - a lost learning or archaic wisdom - a rule of the goddesses etc etc - but, anyway, a golden age of closer contact with Something More Besides that has passed away and we should revere and seek to learn enough about in order to be able to emulate. This attitude has been shaped and nurtured by our ubiquitous idea that we were superior to animals and to creation because a first reaction of that difference between us and animals was that we could think and they couldn't, the idea was inevitable and, of course, true. But, from it, flowed the idea that a first cause - the demi-urge - had made it so. And from that the idea came that the ascent of man was real and noble without anyone ever having had the least idea of where it was ascending to, nor of any scale of values that we could be shown to be ascending in order to get there - or why 'there' was a valuable place to be. The only exception to this is, of course, that we were heading for God's approval. But God's approval was the final, infinite version of the pursuit of best interest. Thus we have made a philosophy, a religion, a civilisation out of the glorification of the sanctification of selfishness to the inevitable point of destabilisation. To get over this, religion proposed that we should in fact be doing God's will and not ours. But why? In the pursuit of best interests, whose ultimate reward would be in Heaven.

My own argument that we should learn to evolve on purpose so as to survive has the same ingredients but it suggests that when you have put the idea of survival on purpose by recognising the perfection of equilibrium and trying to tailor your behaviour to fit into this perfection, then you will have evolved your mind to the point where it can, with a whole new set of values, in practice, start to actually think in a new way - a way I can't think in at present. It would involve the accepted certainty that we - mind - are the only intentionally discriminatingly, self-consciously creative force in the universe capable of creating new ideas and combinations and playing them back into reality

and that everything concerning our origins and response to the world and evaluation of gods and ideas stems from the unlimited potential of mind, and nowhere else, and we will, by then, be getting used to the idea that we are thus the embodiment and enablement of mind which is the whole significance of the universe and we will continue forever to evolve its greater meaning.

END OF INSERT.

It is known that we could drum at this time and dance and the remains of flutes have been found. What hypnotic, intoxicating experiences we must have had. This important and moving experience was related to the state of our mind, in which exotic promptings of consciousness were beginning to leap up from we knew not where, suggesting things we could not understand, fleetingly, like the shadows whose origin we did not understand. Were they the product of the flames? Or of the wood? Or perhaps from the bones of animals regularly burned in those fires as 'fuel'?

So perhaps that's what it was about. The shadows were those of the animals whose bones were burned. Was the whole thing to do with our ambivalent relationship with the animals that we were trying to enter into and yet, at the same time, disentangle ourselves from them. My whole question is what were we 'thinking' about as we made the shadows leap and live and roar and cry, in and out of the smoke and as they rippled over the protuberances and round the angles of the walls and ceilings? But this went on for thousands of years and obviously the shadows would have had more than one use or one significance. As I said, it is impossible to -- all of the subtle and complex potentialities of thus being able to make your very unconscious dance upon the ceiling. It is thought that, at about this time, we were beginning to communicate. It is a vexed question. There is a certain amount of evidence that we could speak. But speech is not difficult - verbert monkeys have 'words' or cries for different kinds of danger - snake, hawk, feline. Here in the caves we could make our shadows touch those of others, then we could make them interact together if the person understood what we were trying to achieve. So we began to consort with those with whom we could communicate best in this way and here in the shadows we had instant visual 'vocabulary' for communicating, for playing or for experimenting. It was a means of instantaneous communication. We have all experienced the sudden joy of establishing this with a foreigner with whom we have not a word in common: a look, a gesture, a sign, a drawing - and then the glance of shared wonder. For people at this time, travel was difficult and consanguinity extreme. This can lead to extreme empathy as well as producing brilliance and originality as well as the dark side of interbreeding. It is part of the equation. So, too, is the fact of having an audio-visual thinking aid giving instant playback and readout from the shadows of our almost unconscious, unintentional cavortings. This shadow show in the cave is an extremely important beginning for our perception of, and our speculations about, ourselves.

A person's shadow is his shade, his alterego, his soul, his spirit. The nether world of every mythology is full of them, by whatever names they may be called. They also live beside you, visit you, prompt you; your shadow is your ka. The role of the ka in Egyptian mythology/religion is enormous. It is variously perceived as your spirit or soul - your double - your protecting spirit - the sum of physical and intellectual qualities - like coenesthesia - or perhaps like ones unconscious which we have seen is an integral part of the whole living creation, or certainly the half-animal figures in Egyptian mythology had their own Ka. It survived a person's death, was concerned with mummification and afterlife but could, or might not, be present in a picture, statue or mummy.

Sir James Fraser, in 'The Golden Bough', says of a primitive person:

'Often he regards his shadow or reflection as his soul or at all events as a vital part of himself and as such it is necessarily a source of danger to him. For if it is trampled upon, struck or stabbed he will feel the injury as if it were done to his person; and if it is detached from him entirely, as he believes that it may be, he will die. In the island of Wetar, there are magicians who can make a man ill by stabbing his shadow with a pike, or hacking it with a sword. After Sankara had destroyed the Buddhists in India, it is said that he journeyed to Nepal where he had some difference of opinion with the Grand Lama. To prove his supernatural powers, he soared into the air. But as he mounted up, the Grand Lama, perceiving his shadow swaying and wavering on the ground,

struck his knife into it and down fell Sankara and broke his neck. In the Babar Islands, the demons get power over a man's soul by holding fast his shadow or by striking and wounding it. Among the Tolindos of Central Celebes, to tread on a man's shadow is an offence because it is supposed to make the owner sick and for the same reason the Tobonngaoos of that region forbid their children to play with their shadows. The Ottawa Indians thought they could kill a man by making certain figures on his shadow. The Baganda of Central Africa regarded a man's shadow as his ghost, hence they used to kill or injure their enemies by stabbing or treading on their shadows.'

And so on for several paragraphs. Even Peter Pan lost his shadow and was rather like Samson with his hair cut. He tried ineffectively to stick it on with soap and it was only the wonderful wisdom and ability of the female Wendy who came to his rescue by sewing it back onto his feet for him. In Japan, there is a large and elaborate branch of theatre called 'X' that gives shadow shows with puppets which can cost up to œX.

The role of the shadows in the caves in the growth of our self-awareness would be impossible either to understand or to exaggerate.

They also, as I said, provided a form of instant communication whose subtlety and impact were of significance, particularly because it had the added mysterious quality of representing ourselves in many various ways with which we were experimenting in trying to come to terms with our own identity. Communication is the great forcing agent of the development of consciousness and it is impossible, I think, even now, for us to communicate in vacua. We have to communicate about something. The audio-visual shadow show was the best yet because you could manipulate it so readily. Human beings are very suggestible and primitive ones enter very readily into an altered state of consciousness. The cave dwellers capering their shadows all over the ceilings and walls with the singing and stamping and shouting were 'sent'; they were on a high. They were possessed and hallucinating and they continued in this way for thousands of years in the process of acquiring consciousness. And I suggest it was this addictive experience that drew them back and back to the caves for so long.

We have seen, in the example of the Quadba, that we had recognised how animals were made like us, with all the goings on inside our bodies. But they were so very much more numerous and powerful than we were. They represented the huge bulk of the reality of the animal world, whereas we only represented a tiny fraction of it. They understood each other; moved together; birds turned simultaneously in the air; flocks and herds responded to unknown instincts and stimuli in a way that we did not.

When I was a child, I used to sit in a special tree where I could look out on a lake and watch the moorhens treading carefully from one waterlily leaf to another. I used to listen to the sounds of the wood and the sounds of the lake and let the flies crawl over my face and eyes because I wanted to get into a way of understanding with it all. I had heard the grown-ups say that somebody or other was very much 'In the know' about something. I felt that the animals, birds and insects were 'in the know' about the natural order of things in a way that I was not and into which I wanted to enter. I therefore found it easy to empathise with a possible attitude of mind of primitive people towards these vast herds of animal as sensing them to be 'in the know' about the mysterious Rorschach image of nature which they themselves were prey to. And then, I suggest, that at about this time we began to realise the important fact that they, too, had shadows like us. The shadows moved about everywhere with them, attached to their feet, as were ours. The shadows fought when they fought, copulated when they did, slept when they slept. Moreover, they rippled over the shapes and surfaces of rocks, as ours did over the shapes and surfaces of the inside of the cave. If we could

capture these shadows and take them into the caves with us, then they could become part of our experiences in there that meant so much to us. And so, perhaps, that was why we tried to portray on the walls the shapes of the ones whose bones we were burning. We wanted to involve them in whatever it was we were working out on the walls of the caves in the same way that they were involved in our real lives.

One part of this may well have been the idea of hunting magic which was suggested by the Abbey Bribul [SPELLING?]. If you could spear and capture the shadow, or the effigy of the prey, you had in the dualistic sense wounded or gained power over an essential aspect of him. This has been and is done all over the world. Modern soldiers draw or model a battlefield. Their own people are blue markers; the enemy are red. The leader takes a wand. He touches a red strongpoint:- 'The gunners will clobber that - boom!' He knocks it over with his wand. 'Billy will lead his commandos up here. There he is.' and he nudges the blue marker. 'Good luck Billy.' He waves his wand again, impressing the plan, the shape, the design of the attack, the lines of firepower pouring in their destructive potential, the casualties caused. 'I think we've all got the idea pretty clearly in mind, eh?' And that's it. We are linked and motivated by the web of an abstract plan, existing only in our minds with ourselves as an integral part of it. In that attack, we will be able to feel ourselves as moving along, made potent, invincible, sensing that we comprise a pattern of intent of being part of something shared in the minds of us all, and thus made real. It works. It works like magic. To those who evolved it twenty thousand years ago it was not called magic nor perceived as magic. To name it and perceive it thus, comes of doing The Sum wrong and the doing and the consequences of having done it are so inextricably wound into the orthodoxies our teachers have, over thousands of years, taught us that no one person can in one book disentangle the normality built up.

Very well then. We wanted, as I said, to take the animals into the caves with us so that we could light fires and cast their shadows on the walls as we cast our own. But this was not feasible. I want, therefore, to suggest that this was one of the inspirations that led us to draw and paint them instead on the walls and ceilings where the shadows had so easily cavorted. The evidence of the paintings bears out this proposition in a very striking manner which does not seem to be mentioned in the literature on the caves so, before coming to that, let's look at what those who have studied them have had to say. Their research and their knowledge of comparative material, the detail and expertise of their study, are impressive, it was just that, it seems to me, they gave it the wrong name and made it important by tracing its evolution into religion. Religion is the unconscious search for that source of authority we screened out which is as deep as primary particles and the first propensity, as we will consider again in the last chapter.

John Halverson, of the University of California at Santa Cruz, says of the drawings that 'at this early stage of mental development, percept and concept may have been undifferentiated', not produced by any 'cognitive reflection'. And then adds revealingly that they show 'nothing that can be attributed with any solid assurance to religious motivations'.

Leroy Gourhan said the drawings were very structured around the idea of horses representing the male and bison the female and he built a system of interpretation upon those propositions. Annette Laming Emperaise also developed a male-female duality theory, but perceived the gender represented by horse and bison the other way round. Dennis Vialou sees order in the art but thinks each chamber should be analysed separately. Henri Delporte, *Musée des Antiquités Nationales*, is concerned with the differences in pattern of the wall art compared with that on bones, antlers, stones etc. Conkey (American) is concerned with the social background and system that produced the art. What this amounts to is that none of the theories produced by The Sum leads to an

understanding of what this record of an experience we were undergoing for 25,000 years has to tell us. I do not find this particularly surprising. The experts were trying to fit the evidence into theories developed thousands of years after the experiences they concerned according to systems invented by Christians and, to a large extent, in the last hundred years heavily influenced by Freud and Jung. These specialists had earned their degrees by showing how well they had learned the teaching passed to them from these and associated sources.

Very well then. We wanted to involve the animals in the shadow play on the walls. So what did we do? As we painted them, we made their images ripple fluidly over the bumps and hollows in the rock that sometimes distorted them, as they had done the shadows. We gave them a curious quality of not belonging in any context, a special style that is so hard to lay our finger on that lasted for thousands of years and nobody has ever been able to define. Although the drawing and painting is often meticulous, although the perspectives, though partial, were not rediscovered or improved upon until the Renaissance. There is one point of such crucial importance it changes our understanding of the figures entirely. They were deliberately drawn as not bearing their weight upon their feet. The artists were easily skilled enough and observant enough to have done this had they chosen. They clearly were not drawing animals that were standing or walking on the ground. Nor is there any indication of any ground upon which they might be thought to be standing or walking. Nor are there any trees or flowers or background to such a land of any kind. It seems as though they were not conceived like that. They are images cast up on the high walls or ceiling, often at preposterous angles and unrelated to each other. Space crews have a similar, disturbing arbitrariness because they are weightless. They lack the accepted common denominator of gravity. In the same way, shadows are independent of any such common denominator - independent of each other in their curious positionings. And that tells us why we drew them in that way. We were working something out in our heads that concerned shadows and images in both cases created by us. We were painting, as it were, the shadows of the animals on the walls and then, by firelight, we could make our shadows, that inner aspect of ourselves we were beginning to feel and to wonder about, move up and around the animals, being part of them and yet also separate from them. We could disentangle ourselves from their mystery as well. Perhaps one of the roles of the therianthropes is evident here. We dressed up with skins and antlers as an animal - we still do, in various parts of the world - and then in this guise cast our shadows on the walls where they could mix with the world of the animals thus being ourselves the go-between.

The evolution of consciousness took a long time and at no time have we known what it was for or been objective about it.

I want to enlarge, for a moment, on the experience of communal drawing, of learning to communicate by having something to communicate about. The caves were a forcing house of closely interbred, small groups intensely familiar with one another who stood at their walls and drew. It was the first objective means of communication about ideas. One of us would perhaps see a protrusion that resembled an eye. We would embellish it, turn and share the new idea with a neighbour. It is a function of colossal importance and it was an experience we shared, like sharing a 'joint' or a bottle of wine or copulation. All the time, the bubbling problem we were mulling over was the paradox that we and the animals were so alike: 'We are of one blood ye and I' and yet we were not, for we were separate and different, sharing ideas and promptings the animals did not have, even though paradoxically perhaps they originated with animals who were 'in the know' with nature, whose massive, immeasurable mystery was their source. It was into this situation that there appears, for the first time, in all the evidence, a phenomenon that still exists today in various forms. We developed a new and conscious attitude to the animals which the evidence tells us caused us to

seek their pardon or forgiveness for killing them for meat. The practice occurs in all cultures existing today - see 'Maps and Dreams' by Brody.

In my opinion, it is a benchmark of self-awareness of the utmost possible significance.

Animals kill and maim and eat each other while still alive, attacking the genitals, throat or eyes and, so far as we can tell, are unaware of the other's pain or of the other's death.

For us to have sought their pardons mean we had some kind of awareness of what we were doing to them. To have adopted any attitude to death shows what I mean by our unique human unconscious having developed in many ways that much of the work we ascribed to consciousness without quite making those final sporadic and still partial sallies into full objective consciousness. But since we sought forgiveness for their death, we must have been aware, in however an uncertain a manner, that we had caused it and this at a time when specialists say we did not perceive the connection between copulation and birth. Not even women. And I think they say this because they are drawing too clear and sharp a distinction between consciousness and unconsciousness which is a very grey area.

So what had we stumbled upon?

We had realised death and that we could deal it out and we had to do it to live and we too were animals. We loved and revered them - perhaps they were the source of our ideas - and we killed them and we were moved, touched. What we had not discovered, but begun the means of creating, was compassion and responsibility. But the point is, we were not conscious of this.

The evidence for this is in the way we began to portray the animals we killed. A bear grievously wounded, vomiting out his life's blood, is drawn so that every contour of his body tells you of an agony shared. It is not redolent even of triumph, far less glee or satisfaction. It is the same with other pictures. It is remarked that rather few of the animals are shown with a spear sticking in them. It is also noticed that some of them have a great many spears in them, or seem to have a great many spear wounds.

Children and delinquent people overcome by mob response will start by being aware of the enormity of killing an animal or a person and end in an orgy of over-doing it horrifically. If you have only just discovered death and your ability to wield it, your responsibility, your compassion, the agony of sharing the pain and the consequence of your action, then it is likely that you would be impelled to rub your nose in it, as it were.

Robert Oppenheimer, when the atomic bomb he had successfully designed, was dropped on Hiroshima at 8.15 on August 6th 1945, said 'I am become death, the slayer of worlds'. He was quoting the words of Vishnu which reflect the mulling over in the history of consciousness of our awareness of our potential to deal out death. For this is very much one of the tacit, unconscious, preoccupations of the dialogue of Krishna (Avatar of Vishnu) and Arjuna in the epic battle described in the 'Song of God', the Bhagavada Gita. It was true for Oppenheimer, since the U.S.A., with its monopoly of The Bomb, could, at that time, have slain the world. It is interesting that, in the next fifty years, humanity acquired a potential of about 600% overkill and has not yet used it. This is, perhaps, an aspect of the rise in the race's consciousness which was reflected at the World Summit in Rio. The difference being that because of terror, we said little and didn't use the bomb whereas at Rio we uttered 8 billion words and did almost nothing because we weren't scared out of our pursuit of best interests.

For the moment, we are still in the caves, having taken this important step of beginning to be able to recognise death, killing, compassion, responsibility as being things that flickered up in our minds - baffling - sporadic - not understood - just felt, but hugely significant because they were something we could recognise and that animals appeared not to share. Their importance, therefore, in helping us objectify the fact of our being different from animals is enormous as a lever in our disentanglement from animals which is concomitant with, indeed a part of, and also a means of considering and tracing the evolution of consciousness.

A reflection of this going on in our unconscious and flickering up so ambivalently into consciousness is the half-human, half-animal figures I mentioned, darting about amongst the animals on the walls.

They began there and can be followed through to studies of primitive people living today, like the San People in South Africa. These figures are called therianthropes, or sometimes, though the meaning is a little different, Shamans, and they are perceived as being able to enter into the 'spirit world' of the animals and thus to act as a go-between for us to them. From this figure, there obviously descends the enormous and continuing role of the totem animal and totemism, which persists everywhere. There are endless examples of our attitude to animals inspiring or being the source of ideas and potentialities. 'Quiet as a mouse', 'Sly as a fox', 'Kill a lion, eat its heart and you'll be lion-hearted'. Grind up and drink a rhinoceros horn and you'll be sexually potent. Milk. Bushy-tailed, eyes like a hawk. Churchill, in one of his books, said that when Herr Hitler decided to twist the lion's tail he was fortunate enough to have been called upon to give the roar. The interesting thing about that remark is that although it was not published until after the war, everyone felt it exactly described an experience that they had all known about, but had not called up into consciousness to utter. T.V. the other day brought home to millions the way in which bears are worshipped, sacrificed, honourifically buried, prayed to, perceived as father figures or figures of wisdom.

From the Shaman derives, in much confusion, the very large, extensive and continuous role of priest, hereditary priesthood, hereditary ruling priesthood, temple virgin, sacred copulation, a representative of the god (vicar = representative) and this includes the whole history of animal sacrifice where the ancient connection with animals is revered and also destroyed. And this goes right down to the eating of the god himself in the Mass so as to acquire his characteristics as with eating a lion's heart.

The cave art has been much studied by anthropologists, psychologists, mythologists. There is really very little agreement about what it actually signifies, but there is some congruence of ideas about the abstract signs drawn in special places in the caves. The grids, zig-zags, dots, spirals and curves and, especially, the vortex are symbols that occur regularly in a study of schizophrenia. Also, many authorities acknowledge that a degree of hallucination or possession, as well as schizophrenia, can be inferred from the evidence. I perceive the caves as a forcing house of our painful and paradoxical separation from our animal origins, while, at the same time, we were being racked with the terrifying promptings that came from we knew not where, that caused those internal organs we knew of to convulse, or throb or race or churn so that from them our reactions of rage, terror or grief or adoption of a certain cause of action came violently to obsess us and cause us to act as though in the grip of some force we did not know how to control. It was so traumatic, this business of turning from animal to human, that we passed through long periods of hallucination, madness and schizophrenia.

As one looks through the lavishly illustrated pages of encyclopaedias and books on mythology, one finds in the monstrous figures from all cultures, ample confirmation of this contortion of mind.

Within about 2,000 years of the last evidence of our inhabitation of the caves, we were burying mummies and weaving cloth and making elaborately plaited garments as is evident from archaeological digs in South America. Between 8-5,000 years ago, we were making sun-dried bricks for houses, pottery, polished stones and we were domesticating pigs, draining swamps and starting agriculture. By then, the Sumarian language existed and, in about 3,400 B.C., it produced the first writing - Cuneiform. This is inscribed by pressing wedge-shaped forms into wax or clay. It persisted until the Christian era and be easily read. In 1952, a great number of tablets from the earliest dates were found and everybody got very excited at the prospect of finding out what our ancestors were thinking about so long ago. It was assumed that the big shots, who would be the ones to use this new-fangled, scholarly technique, would write about the things which had always meant most to people like this and because of the way I have described that we have been persuaded to think about and revere ancient civilisations and rituals, we thought we might be on the brink of uncovering one of these archaic wisdoms or some 'lost learning slipped down out of the minds of men'. So the actual contents of the inscriptions are very relevant to the theme of this book. It will be remembered that I suggested that when we first began to be over-whelmed by the promptings, we selected those which were useful for the pursuit of best interests because that was our means of understanding them - 'What use is it to me?' The same cry is heard in today's schools. By that selection we had, I said, begun to programme ourselves to understand in terms of our own advantage: anything else was screened out, it didn't count, just as today hard headed tribal leaders don't like funding pure research.
just as today, hard-headed tribal leaders don't like funding pure research.

What, then, would you expect the Sumarians to be thinking and writing about and the answer is tenure of land from the god - the portion held in the writer's hands in relation to someone with whom he is doing a deal - notes on debts - transactions - inventories of stores, of grain etc. As one researcher disgustedly remarked, 'Little better than laundry lists'. The same subjects come up on Minoan script, linear B, in about 1500 B.C. In Sumaria, a little before this time, around 3800 b.C., there lived the prototype of the folk hero Gilgarmish, whose story is the subject of an epic poem. It was written down in 700 B.C. in Cuneiform and can be read in English [footnote for reference]. But it dates from the king of that name who lived at that time. There are many parts of the poem which are helpful if read as the unconscious account of the evolution of consciousness. I will mention two of the most important aspects and themes in it.

First of all, the name Gilgarmish means 'He who discovered the source'. This means the source of everything: of ourselves, our promptings and of our search for ourselves towards which we had been struggling. It is significant therefore, that the Great King - already part god, for we had begun to invent gods as tentative sources - was yet still entangled in the role of animals. And this dominant theme is expressed in the fact that Gilgarmish, the mighty king, chose for his best friend a kind of alter ego called Enkidu, who was covered in hair, who ran wild with the animals and ate grass. He became Gilgarmish's revered and faithful friend so that they loved each other like brothers. As the story develops, it is of course the therianthrope figure of Enkidu who leads Gilgarmish to the discovery of the source.

Overlapping the Sumarian civilisation comes the more familiar Egyptian story. Don't forget that there are hundreds of sites of caves all around the north and east of the Mediterranean. The entrances tend to be well concealed and there is no reason to believe that there are not many more. The intense experience in the caves for about 20,000 years that we have looked at cannot fail to

have left a potent folk memory. Did this influence the Egyptians in building for the first time the huge cavernous temples - the veritable mountains of stone that we call pyramids - also to carve out tombs in the underground rock? And then, upon the walls of all of them, they elaborated the wall painting techniques of the caves to a brilliant and blazing standard which were, at any rate to start with, dominated by the figure of the therianthrope. This figure appears with the head of jackal, falcon, baboon, lion, serpent, scarab and bodies of people. The role of the therianthrope was to act as go-between from us to 'the spirit worlds of the animals' and the other world and yet, at the same time, we were trying to disentangle ourselves from our fusion with the animals. So, quite soon, the human figures with animal heads became synonymous with gods - they were gods - and they continued as such throughout the Egyptian era. Thoth was the universal demi-urge, the Ibis who had hatched the world egg. All the gods were represented as partly animal and sometimes took a wholly animal or bird form. Thus the rise of consciousness, seen as concomitant with the disentanglement from the animal origins and the perception of animals as the source, did not, in Egypt, ever proceed further than this half and half position. Which is probably why the Egyptian civilisation produced so little except the glorification of death in its amazing tombs and tomb furniture.

During the cave period we seemed to have 'noticed' death and had misgivings about it. This was a very important step in the rise of consciousness for the self-awareness it infers and the objective attitude towards the distinction between us and the animals. The Egyptian civilisation picked up on this new fangled notion and worried it to death. They worried about death. They were obsessed with death. They went down the cul de sac of death to its deadend and thus their civilisation produced little except monuments to death and the obsessive rituals and spells associated with it. Scholars study and try to understand this as though it shrouds some deep wisdom, some mystical and mysterious empathy with the unknown forces that gave them 'magical' powers and are now lost. At the same time, this guilt about killing that we had stumbled upon in the caves and the veneration of animals and the attitude to death that it had started to engender in us turned, among the Egyptians, into feelings that were so strong in respect of certain chosen animals, that there are entire cemeteries of mummified crocodiles which have been excavated and tens of thousands of mummified cats which have been found in underground pigeon-hole systems. Wars were fought between tribes when a member of one tribe killed the totem animal of another. Thus anyone who killed a sacred cat might be, and often was, set upon and lynched or tortured to death. The First Century writer Diodorus Siculus reports having seen a Roman Soldier, who killed a cat by mistake, being killed in this way in spite of the wrath of Rome that it would certainly incur.

The superstitious and almost hysterical importance attached thus to the totem animal reflects the power and the agony of the way in which our unconscious was imbedded in our animal origin and the fear and pain that we experienced in trying to figure out what this meant so as to disentangle ourselves from it.

There are, of course, a great many books written about the worldwide significance of totem animals which spreads into the furthest reaches and subtleties of our cultures and personalities in a way which swamps the imagination when you come to read them.

This brings us to the Egyptians but what they did was suddenly so enormous in materials and duration that we should remind ourselves of the perspective in which we are trying to look again at our history. The significance of the evolution of all our cultures and civilisations is in the testimony they bear to the development of consciousness which is the sole significance of the universe. It is mistaken to search them for any intrinsic meaning or for relics or examples of some arcane or mysterious wisdom or lost learning. Consciousness is what makes thinking possible and

the artefacts and accomplishments of cultures and civilisations are the thinking aids we stumbled upon and elaborated and invented to help us in developing our conscious understanding of ourselves, our environment and our place and role in it.

I have argued that, at the Big Bang, a particle occurred with the propensity to persist, to a connection or chain to enable coherence. Only matter containing such a particle or a variation of it could survive. I don't mean anything mysterious. I mean something self-evident. If this propensity didn't exist, nothing would. Thus all matter has primary particles with this propensity and, from them, the infinite variety of cosmic matter evolved. About 4.5 billion years ago, here on earth, a form of this matter occurred which came to be called organic. From its primary occurrence, the infinite variety of organic matter evolved that comprises our living environment and us and all of the cells in this matter contain particles having the primary propensity to persist i.e. survive, and their influences causes what we call our unconscious survival instinct, or, more commonly, simply our unconscious, which drives all living things to pursue their own best interests.

This unconscious became, in the hominid branch, that moved away from its Simian cousins, more and more sophisticated. It led to the development of behaviour and tools millions of years ago and very slowly and gradually evolved a partial consciousness. To ask whether our behaviour today is influenced more by our unconscious or our conscious is not a real question chiefly because our unconscious influences our conscious thinking, even as we try to think about the question, also because our unconscious influences our behaviour in a way that bypasses our conscious, and also of course because the balance between the two influences depends upon mood, circumstances, individuals etc.

Thus the unconscious has gradually and partially turned into the conscious. And it is the way that this has happened (and is happening) and is, I suggest, the proper study of anthropology, mythology and psychology. From time to time, we come upon evidence left by our ancestors which tells us about how this 'turning into' happened. And that is the only significance of the evidence - what it tells us about how we stumbled upon, developed and used a thinking aid i.e. an aid to thinking so that we can learn more about the ambivalent area of unconscious 'turning into' consciousness.

The process for it is too long to be called an event - is stupendous - cosmic - and motivates everything that humans have ever done. Nowhere is the evidence more striking and monumental than that left by a small number of Eypgtians who left behind the huge number of monumental buildings, the tens of thousands of mummies, the vast number of papyri and walls covered in hieroglyphs and pictures and astonishing tombs and funerally art, all bearing testimony to the obsession which drove and motivated their behaviour for nearly five thousand years.

Before examining the significance of this as evidence of the development of consciousness, let us look at what it comprised.

We have seen that all cultures went through the long - still unended - process in which humanity tried to disentangle itself from its animal origins; to perceive and recognise itself as fully human and that, of course, means fully conscious and self-aware, for that is what distinguishes the human animal from the others. This produced the artistic representation of creatures that were part animal, part human. Some of these were gods - some were Therianthropes - and both of these images proliferate everywhere in the paintings on the walls of the huge monuments, palaces and tombs that the Eypgtians built. The figure appears with the head of jackal, falcon, baboon, lion, serpent, scarab and bodies of people. Since the role of the Therianthrope and the shaman was to act as go-between to the 'spirit world of the animals', these figures soon became synonomous with the gods -

they were gods and remained thus throughout the Egyptian civilisation. Thoth was the universal demi-urge, the Ibis who hatched the world egg. All the gods were represented as partly animal and sometimes took a wholly animal or bird form. This brings us to a mirror reflection of the idea which had first appeared in the caves, and in other evidence concerning burial, where we first became consciously aware of death as being something that we could deliberately and objectively occasion and be responsible for. It was a weak, rather flickering idea then. The Egyptians got hold of the idea of death and became obsessed with it for 3,000 years. They turned it over and over as a thinking aid, trying to come to conscious terms with what it signified. The 518 Utterances written on the walls of the Pyramid of Unas at Saqqara in 2350 B.C. became the basis upon which The Egyptian Book of the Dead was written that goes on for page after page, giving the rites, spells and rituals to be observed in connection with the mummy to ensure its safe transport to paradise and resurrection there.

There are chapters on the opening of the mouth, opening of the eyes and on the heart etc. On coming forth by day i.e. the arrival of the corpse in paradise by day; on coming forth by night. Let's glance at one or two Utterances concerning the mouth, considered of so much importance, as is emphasised in Utterance 599: 'The King (the deceased) is a clevermouth, all the gods are pleased with the things he says.' And then, on page 268 of The Book of the Dead, we find:

'I have pressed for thee thy mouth, even as thy father pressed it in the name of Secker. Hail Horus hath pressed thy mouth for thee. He hath opened thine eyes for thee; Horus hath opened thy mouth for thee, he hath opened for thee thine eyes; they are firmly stabilised. Thy mouth was closed. I have ordered thy mouth and thy teeth for the true order. Thou hast again opened thy mouth; Horus hath opened thy mouth. I have stabilised thy mouth firm. Horus hath opened for thee thy mouth. Horus hath opened for thee thy two eyes'.

And it goes on and on like this in the chapter for opening the eyes, the chapter for securing the eyes, the chapter on the opening of the mouth and so on, chapter after chapter. They were obsessed with death and pursued the issue, as I said, to its uttermost limits, not merely in their incantations, rituals and mummifications but also, and very much more importantly and with far more spectacular results, by trying to use their growing mental prowess to reach up into the heavens where death, they thought, was overcome and eternal paradise was to be found. Their obsessions with this was so overwhelming that, having identified the constellation of Orion as representing the sire of the gods in their pantheon, they laid out the three pyramids of Giza, 2650 B.C., as a representation of the three stars in his belt. That's why two of them are almost the same size, one is smaller and slightly off-set and they are placed in relation to each other in a scale representation of their proximity in the sky. They also perceived what we nowadays call his sword, hanging from this belt, as being the divine phallus. All this was done in conjunction with the laying out of the sites of the stars representing his two feet, shoulders and head. Here they intended to build other pyramids and remains of the two, representing his feet, are to be found exactly in the appropriate place for the scale representation that they were constructing. The orientation of the figure of Orion to the Milky Way - perceived in their mythology as the source of life and nourishment - was faithfully copied in the orientation of the pyramids intended to depict his figure on earth in its relationship to the Nile, which was also seen as the source of life and nourishment here on earth.

Thus the idea that dawned, perhaps in the caves, that we could control and be responsible for death by our becoming aware of the objective act of killing, had been mulled over, enriched, expanded and elaborated into the fantastic funerary rites, rituals and artistic expressions we are familiar with. That's what happened to ideas when they got born into consciousness at a time when we could not distinguish between idea and reality and still have difficulty in doing this. But at that time, it

accounts for sympathetic magic - the bizarre rites performed with the mummy where there were spells to deal with defecation and urination, also, of course, eating and drinking during its long voyage to paradise among the stars while it remained obdurately there in its tomb for all to see. But it was a true obsession and the problem of the sense of responsibility and guilt connected with death resulted in the mummification and ceremonial burial in cemeteries of thousands of mummified crocodiles, tens of thousands of mummified cats, which were put in vast underground pigeonhole systems. This sanctification of animals resulted in wars being fought between tribes where members of one tribe killed the totem animal of another. Thus anyone who killed a cat might be, and often was, set upon and lynched or tortured to death. The First Century writer Diodorus Siculus reports having seen a Roman soldier who killed a cat by mistake being killed himself in this way in spite of the wrath of Rome, which it would certainly incur.

And yet this preoccupation with death and afterlife was, together with yet one more important matter, worked out amazingly in stone. The Egyptians more or less discovered building. As the cave dwellers in 20,000 years learned to imitate the shapes of shadows by drawing and painting them to mull over certain aspects of their emergent self-awareness, so the Egyptians did the same in stone. Their invention and elaboration of the techniques that enabled them to build with such fantastic accuracy in their attempt to bring down that section of the sky they called the Duat and build a scale model of it by the Nile involved them in the evolution of much thinking - that is much increase in conscious thought so that naturally they felt that the calculations themselves, and the techniques for performing them, came from outside promptings and were sacred and the consequences were deep and subtle. For example, at Pe there was founded the School of Observers, or watchers, i.e. those who watched the sky. They became so good at this that a modern analysis of the disciplines whereby the pyramids were orientated show that they must have found out about the precession of the stars. At the rate of half a degree per century, the Egyptian watchers would have had plenty of opportunity, in the thousands of years of their civilisation, to notice it. Usually its discovery is attributed to Hipparchus of Alexandria in 180-125 B.C. But many scholars agree that the ancient Egyptians had figured it out even before the pyramid age. Imhotep, who is credited with the design and construction of the Great Pyramid was a Watcher from Pe. A person's pyramid e.g. that of Cheops, or Khufu, that Imhotep built was called the pharaoh's Horizon. It was the monumental route designed to an accuracy of less than an inch whereby his Ka could be projected into spiritual procreation in the stars, that is into a new, higher level of enlightenment - the next step in the evolution of mind. The Horizon is thus a threshold and the title 'The Watcher At The Threshold' (of enlightenment) is of unknown antiquity and significance and it lies about as a folk memory in a variety of forms. Perhaps this is its origin.

The association of hand and mind is, I have suggested, the feedback system whereby humanity felt its way forward into consciousness in a way which was possibly inaugurated by our standing up to free our hands to do this. The use to which this feedback system was put by the Egyptians is in the use of stone and building in stone as a thinking aid with which to mull over, toy with and examine and elaborate the idea of death and is the first and most mind boggling example of its kind. The scale is unbelievable. Only the cosmic impetus of the evolution of mind could have driven such an enormous thing. The stone of the Great Pyramid comprises a greater quantity than that used in all the churches and cathedrals in Britain. It would build a wall round France. Napoleon worked that one out. Given all the other pyramids, the idea of Festung Europa becomes a real possibility for any paranoid, dictatorial mentality. They built them rather quickly, probably in about twenty years, without the help of wheel or iron and they cut and fitted together 2« million blocks weighing between 2«-70 tons. The Great Pyramid covers thirteen acres and is 481 feet high. About the same as St. Paul's. It was originally faced with limestone blocks, all of which were cut so accurately that you can't get a knifeblade between any of those remaining. They taught themselves the maths

necessary to do this. What was the motive? What was the urge? Merely to understand and elaborate death? With which the obsession with mummification has popularly led us to suppose? Of course not. What they had got hold of was something much more potent. But first let us look at what this obsession had led them to accomplish. What is fascinating and what, as we shall see when we come to the Greeks, is so important is that they weren't trying to be mathematicians, builders or thinkers; they were using stone to figure out a way of pursuing their obsession with death and with something more important. The mathematic and geometrical accomplishment described in such awestruck terms by modern scholars was completely incidental - indeed, as we shall see, they scarcely even noticed it. Instead, it would be the Greeks that were to do that. The Great Pyramid is the largest single building on earth and it seems to have been built to the scale of an inch. Because of this, Piazzi Smythe, who was the Astronomer Royal for Scotland 1845-88, decided that it had a special meaning for the people of the inch, namely the Britons and Americans, and it prophesied world leadership for America because, as he pointed out, the great American seal shows a pyramid with its famous missing apex - the Ben Ben Stone - just going into place and quotes the Bible as saying: 'The stone that the builders rejected has become the head of the corner'.

However, there is so much more to this spectacular example of the attempts to discover readymade in antiquity, a wisdom we have lost and can regain to our benefit instead of realising that we are the only phenomenon that can create wisdom sufficient to evolve on purpose a reason for doing so that I will precise some of it in all its bizarre splendour.

Piazzi Smythe had been succeeded first by Sir John Herschall, who discovered that the polar diameter of the earth is 500 million inches, if only the inch were 1.001 of the British inch, which is exactly what the pyramid inch is. Thus, he said, the world and the pyramid are both built to the scale of an inch and he went on as follows:

'The sides at the base are not perfectly straight but curved just so slightly as to describe the arc of a circle having the same radius as the earth. Half of the diagonal of the base bears a ratio to the vertical height of 1:9 and, if the height of the pyramid is multiplied by 109, it equals 91837484.....'

which, he said, is the earth's mean distance from the sun in miles. The mean height of the land of the world above sea level is 418 feet, and this is the height of the pyramid. The average depth of the sea is included and the best temperature for man, namely 62°F is the constant temperature of the king's chamber (until the tourists got there) - the biggest within the pyramid. The density of the earth, the g-force it exerts and its weight were included, the last being a thousand million times that of the pyramid. There was a great deal more information including, for example, the value of pi and of phi and other formulii. Indeed, a follower of Piazzi and Herschall, called Davidson, was quoted in the book by P. Thomkins ('The Secrets of the Great Pyramid', by Peter Tompkins, published by Alan Lane, 1971) as saying to have arrived at the solid figure incorporating so many and such subtle formulii infers the performance of literally millions of calculations, and he went on: 'Having thus been given the weight of the earth, its distance from the sun, the length of the sidereal year in seconds, you could compute the rate at which the earth is falling towards the sun. This in turn would lead to finding the specific gravity of the earth, of the sun, of earth and moon combined, the solar parallax and the speed of light'. All that data was found accurate to several places of decimals in the proportions, angles and measurements of the pyramid, inside and out. Davidson also: 'It has taken man thousands of years to discover by experiment what he originally knew by a surer, simpler method. It means the whole imperial basis of modern civilisation is a makeshift collection of hypotheses compared with the natural-law basis of the past'. This is an interesting example of our propensity for inferring mysterious, lost learning through our continuous search for clues to the 'source'.

It is not surprising that in our 4« billion year long evolution from a unicellular lifeform to the first self-conscious phenomenon in the universe we should have used, as stepping stones and thinking aids, anything from a figurine to Piazzzi Smythe and Davidson. Even this says nothing about the obsessive observations of the stars and the incredible fact that the whole, enormous edifice was built in such a way as to be orientated to them with pinpoint accuracy.

What, then, was it that drove us to this intense preoccupation for century after century. It was, as we have seen, to do with our discovery of death but, as I said, with something much more important namely with the reciprocal discovery of our responsibility for life. For the discovery that we could procreate on purpose.

This realisation marks an important point in the evolution of consciousness, or rather an important period because it didn't happen quickly or completely or in any one place. (Don't forget to say that they therefore thought that it might have an implication for arranging for life to overcome death).

All mythologies tell stories of children born for example from the forehead or thigh of the god (Zeus) or from a sunbeam or from experiments when Zeus and a woman's husband copulated with her on the same night whereby she bore twins, one from each father. The excesses to which this led for example in Japanese mythology were so ribald, translators for a long time rendered them in Latin. But such tales, as well as the plethora of fertility rituals, tales of gods having given or withheld progeny, of the endless propitiations performed to ensure pregnancy etc, all testify to our long, drawn-out uncertainty about exactly how the birth process worked. There are tribes today who don't associate copulation with birth and the function is perceived by, for example, Catholics, as sacred and in god's domain.

The evidence of The Illiad for the gods stirring-up, for example, our respiratory systems thus producing enraged shortness of breath goes on to make it clear that we thought all our emotions came from their intervention in the behaviour of our organs and we were not responsible for them. This shows that, by that time, our conscious self-awareness had not yet got very far. And the role of gods in the birth context reflects the same situation as is also reflected to a different degree and a different way in the implicit concern and direction of Jehovah in giving a child to a woman and approving, or not approving, the pregnancy.

The Eypgtians, however, knew about the connection between semen, ejaculation, copulation and birth from very early times because their creation myth concerns the original god, Atum Ra, the Unmanifest, who masturbated and thus created Shu, the God of Air, and Tefnut, the Goddess of Moisture. This sibling pair begat the earth god, Geb, and the sky goddess Nut, who mated, as subsequent pharaohs were to mate with their sisters. In spite of their act being interrupted, Nut gave birth to four anthropomorphic gods who lived on earth.

From very early times, the roll of copulation and of the sky, notably the figure of Orion, was associated with the birth of gods and people. One of The Pyramid Texts says 'Your sister (and wife) Isis comes to you rejoicing for love of you. You have placed her upon your phallus and your seed issues into her, she being ready, as Sirius, and Horus-Soped has come forth from you as Horus who is Sirius'.

If you are sufficiently consciously self-aware as to feel guilt for having taken the decision to kill animals which are partly sacred because perhaps the source of the promptings and you are now also able to consciously chose to copulate, either as a man or a woman so as to beget or bear a new life,

then your sense of yourself as a powerful and self-determining conscious person sets you in a new place quite apart from your animal origins. It is a matter of great significance. But what is more important is the idea that follows, namely that with this authority over life and death can you not, perhaps, use your knowledge to become death by ensuring eternal life? And it is, of course, precisely this that obsessed the Eypgtians and drove them to work out the possibilities, the implications, and to try to actualise the idea through the medium in which they thought, namely stone, and also the obsessive use of their new fangled writing to repeat, over and over again, in every imaginable way, the rites and spells which would help to ensure the efficacy of the rituals they performed to ensure that if they could control corporial life and death, they could, through the daunting baffling power of the emergent mind also control its abstract analogue in ensuring spiritual and everlasting life as well.

The exact relationship between two sides of the intention seems confused. They thought, like most of us still do, that the promptings, ideas, (or nowadays at any rate some of them) come from a source separate from our corporial selves. This source - the spiritual self - the Ka - left the body at death and went up into the sky where it can be seen twinkling forever in the form of a star. For this reason, the mummy was placed in a birth chamber where it could spiritualise itself into a star soul with the help of the aforementioned rites.

The growth of consciousness always involved confusion between idea and reality. It still does, of course. And this accounts for all the myriad practises of sympathetic and imitative magic from the bizarre rites relating to the mummy in the birth chamber where there were spells to deal with its defecation and urination during its long voyage to paradise among the stars while it remained obdurately in its own tomb where it could be perfectly well seen. Symbolic behaviour like this is with us today but the complexity and extent and duration of the whole enterprise is telling us perfectly clearly of how the Eypgtians were wrestling with the birth of consciousness, struggling to come to terms with the material reality of their mummies and monumental tombs as against the abstract analogue of the idea of spiritual rebirth and life that hovered so tantalisingly and frightheningly both in their minds and over their heads in the sky. We have seen just a few lines exemplifying the vast store of repetitive spells concerning the resurrection of the mummy - the coming forth by day - where it should so ambivalently traverse space and arrive in paradise.

The mummy was placed in the rebirth chamber, or sepulchre, where, with the help of the rites performed by members of its family, it could be spiritualised into a star soul.

In the case of the great pharaoh Cheops, the whole pyramid was orientated around the alignment of a certain star in the Duat of a shaft leading from each of the two sepulchre chambers. In the case of the shaft leading from the Queen's chamber, this was the star Sirius identified with Isis. Up this shaft the spiritual semen was to be ejaculated that would inseminate the Sirius/Isis womb and the chief spiritual rebirth and eternal life.

As can be seen from the works of Piazzi Smythe, Herchall, Davidson and the books of Tompkins and Beauvals, there are a great many meanings that can be read into The Pyramid Texts, The Book of the Dead and the monumental thinking aids of Eypgtisns funerary buildings and practises and the meticulous mathematic exactitude of the construction of the great pyramid.

I am not trying to make much of any of them. I am saying that once we were unconscious animals. Consciousness came to exist in us. It took a long time. We did all kinds of strange things in the course of evolving it and trying to come to terms with it. The undertakings of the Eypgtian culture are some of them. Since the birth and growth of consciousness must necessarily involve our

recognition of ourselves as discrete entities capable of conscious purpose and acting on it, it seems likely that artefacts relating to this in the primal connection of life and death reflect some part of the process and should be studied from that point of view of their perhaps concealing some occult secrets concerning a supernatural power - Something More Besides - with which our forebears were more closely in touch than we and whose esoteric knowledge we might seek to emulate with profit.

So now let's pursue the vast and fabulously illustrated story of the precipitation of mind up out of unconsciousness as it is told in the fables and myths of the world and in their lavish art forms. All cultures had creatures which could act as go-betweens from us to the gods. The Jews and Christians have angels - the Greeks had messengers, like Hermes, but in fact the gods themselves came amongst us, invisible or disguised as an animal or person. The Indians had Avatars.

'Avatars' means literally 'descent' i.e. the form in which the outside force or attribute descended to influence the affairs of humans.

Vishnu, for example, is but one of the many Indian gods and has ten Avatars - ten forms in which to influence the lives of people - ten images under which we can personalise the attributes which we feel are coming to us from outside and they offer us a positive calibration of our step by step disentanglement through the ages from our preconscious animal existence. The first is Matsya, The Fish, and the second Kurma The Turtle; then (3) Varaha The Wild Boar; (4) Narasimha The Man Lion; (5) Vamana The Dwarf; (6) Rama with his bow (a weapon); (7) Parasurama, Rama-with-the-Axe to break the power of the warrior; (8) Balarama, Krishna's fair-skinned brother; (9) Buddha called an Avatar of Vishnu by the Hindu Brahmans; and (10) Kalki, who will eventually destroy the present age of degeneration; and finally Krishna - the most famous Avatar of Vishnu who has become a separate divinity. Indeed, 'the Lord Krishna said "to whatsoever god thou prayest it is I who answer thy prayer" '. He is indeed the most sophisticated and emancipated God of Gods.

The sea is assumed still to be the primordial womb of life and the first animal form to inhabit it was the fish and thus he represents the first Avatar when the distance that we had disentangled ourselves from our animal origins is at its least. From then on, our slow disentanglement is pictured for us in more elevated animals until we reach the half-man, half-animal of Narasimha and so on through the ages as we rise further and further from our animal unconscious until we reach the notion of the supremacy of mind - the mind that has pressed itself into the fractal of reality metamorphosing both and can peak with the voice of Krishna or with that of Shakespeare: 'The mind of man is bounded only by the universe', or of Hawkins: 'The boundary condition of the universe is that there is no boundary - its function is simply to be'.

But so far as the Indian mythology is concerned it contains another confirmation of the trauma of becoming human. That is the writhing, sensual passionately human question 'Who am I? What am I? What can I, should I, must I, do or be?' And so we find the figures with half a dozen arms searching in the air for their proper use, or with several heads looking frantically in all directions with an alert bafflement we shared with the animals - 'Should I be like this or this or that?' And, again, with Lingam and Yoni exploring every copulative potential imaginable as symbolising the idea 'Is this or this or this the way to self-awareness, to wholeness of mind, to ecstatic enlightenment?' It does not matter that scholars can - truthfully - point to other significances which were consciously elaborated over the millennia. My point is that it was the primal Rorschach experience that first produced these images which symbolise and tell us of the only significant thread in our history. I am interested in only one thing: the unconscious development of mind as

reflected in pre-literate images whose significance may later be attributed by priests trying to defend a consciously chosen orthodoxy that is also an aspect of The Sum done wrong and keeps them in their jobs.

Ten thousand routes they followed with the subtleties of the Indian mind, - the most gifted in the world. And now there is the route of Quantum Mechanics which suits these subtleties, as though they were waiting, like lovers, for each other.

At about this time, the stories and events in other cultures show how the evolution of mind involved the same disentanglement.

First let's look at the Jews in this context. Around 1400 B.C. they had been suffering for generations slavery, cruelty and exploitation of absolute ruthlessness under the heel of the Egyptians that inculcated in them a passionate sense of persecution. It made them a united people who grew-up, bred and indoctrinated to survive by obedience to a strict code of self-reliance and a sense of their own tribal identity and loyalty to one another. This discipline was what made it possible for Moses to lead them into the wilderness and to survive successfully there.

As we have seen, hallucination was a common part of our response to this 'other world', whence our ideas and emotions came to terrify and upset us to the point of schizophrenic madness.

Moses was not properly part of the Egyptian culture, being a Jew. He was a very special person as his history and eternal reputation attest. As a loner belonging neither to the Egyptian nor the Jewish culture, his feelings were acute, particularly those of pain and suffering for the people to whom he truly belonged. He therefore killed an Egyptian who was maltreating a Jew and had to flee into the Wilderness in order to escape reprisal. There, in fear and trembling in utter loneliness of mind that exacerbated intolerably his sense of belonging to neither camp, he heard a voice speaking to him out of a burning bush. This was a prompting of epic proportions. Perhaps the greatest ever recorded. Wrung, through the extremity of tribal suffering, out of an individual who passionately wanted to tear himself free of the ambiguity of being half Egyptian and half Jew, as also the Thread urged him to tear himself free from the attributes of being partly unconscious, partly conscious, by responding to The Word - the very quintessential vehicle of mind.

Nearly the whole of Exodus III describes the encounter and, of course, we know that the Thread has led to the point where, for the first time in time, the question is brought up into consciousness and conceptualised and asked:- 'Who are you?' asks Moses, and the question is out. We now know that there is an identifiable 'you' - with a voice - so a person, who gives orders. Monotheism has been invented as a clear step, breaking forever our entanglement with the animals (even though there may have been some back-sliding). 'Who are you - what is your name?' Accepting that all gods are projections of the unconscious and that we are talking about the dawn of self-awareness, there is only one possible answer:- 'I am that I am' and its appositeness to my theme gives me goosepimples. Nowhere can there possibly exist a more wonderful description by the conscious of its unconscious. It exhorts the tortured Moses, suffering for his people, to set them free and lead them out of Egypt, out of the bondage of a society turned in upon itself and obsessed by incest and death. It promises the reward of a land flowing with milk and honey. It promises the huge mental sophistication of one single god. The first in the history of the world. A great and wonderful conceptualisation of the power and potential of consciousness that it should create a spiritual counterpart, a spiritual version of itself, as a single, male, self-determining, omniscient and omnipotent god. And, sure enough, He ends his exhortation by expressing the primal urge of this billions of years old unconscious to pursue best interests in the words '...when ye go' (out of Egypt)

'ye shall not go empty. But every woman shall borrow of her neighbour, and of her that sojourneth in her house, jewels of silver and jewels of gold and raiment and ye shall put them upon your owns and upon your daughters; and ye shall spoil the Egyptians'. So that is what Moses did. But the people he led into the Wilderness had, looked at from the point of view of the Thread, some important characteristics. Not only were they united by suffering and loyalty to each other, but they were 'aware' of this. The abstract idea of it was shared between them. They constantly spoke of it. And it was what united them in their wondering. This wondering resembles the multiple arms and heads of Indian mythological symbology searching for The Way - the Thread - the further evolution of consciousness. The Way is the core of Taoism, Tao means 'way'. 'I am the way, the truth and the light' - the essence of Christianity. It is always the same thing that I refer to as the Thread. In the Wilderness, it was borne by the Word that spoke the idea that united them with the ruthless authority and discipline for which Jehovah is noted, as all leaders of successful tribes are programmed and conditioned to be. The Jews uniquely achieved the idea of a single god 5,000 years ago at a time when the influence of our unconscious was so great it will be shown to have governed our actions in a profound manner. The God it evoked was the personification of the hard discipline of the mammals that was such an important survival and success factor for anthropoid and human tribes. The idea of loyalty and discipline that they carried with them in order to survive the long period of wandering with their idea of a stern god, started to influence the growth of the Jewish consciousness in a unique way. We have seen how we had initially selected from our primitive promptings those which we could understand - and that we could only understand what we could use to further our best interests. Now, having suffered the trauma of being freed from bondage and being lost in the Wilderness, our unconscious projected a god who embodied this pursuit, demanded that for His glorification - in obedience to His almighty will - we should take the Promised Land, smite any enemy hip and thigh, and prosper under his ferocious disciplines of fitness, diet and orderly behaviour etc. We had taken a new step in selecting from the overwhelming avalanche of promptings those which were of use to us. Perhaps even now the true, most powerful aspect of the Jewish character is to be an achiever. Being a 'clever Jew' had at least a thousand year start on any other culture that revered intelligence as such, namely the Greek, and that it was part of the Will of God, projected out of the unconscious, to sustain this in their wonderings, which made it and their religion a survival factor. It is a potent combination which has resulted in the Jewish people being perhaps the most conscious of all. The question, of what that means, of using consciousness as a goal/yardstick, is on the way to survival by evolution on purpose, will be discussed in the last chapter.

But it seems likely that anti-semitism starts here. Nobody likes to the thought thick. Witness the book by X and Y who, after four years, produced evidence that black Americans aren't as bright as whites. They are never quoted and X gets death threats. Let me put in a word here about being quoted (ask Jim Lovelock about the index of articles). The Jews survived by consciously and deliberately pursuing best interests in the Wilderness and ever since. They do it by making sure they carry the means of doing it in their learning and their skills. In Greece, with Plato and Aristotle, consciousness broke free and invented the rational deduction principles of thinking. 2,500 years later, came Freud's contribution. He popularised the idea of thinking objectively about human motivations as coming from the unconscious and as not being 'done on purpose'. It became cultural knowledge by the happy accident of being attached to the sex label so that everyone talked about it incessantly. From it, flows a popular adumbration of what might be involved in the attitude of mind of evolving on purpose. For the Jews the traumatic experience of escape and wondering was so intense it lives on in their ethnic consciousness today. There was a period 2,000 years long when the birth of consciousness was at its most powerful and upsetting, causing madness, schizophrenia, hallucination and the hearing of voices, as happened in other cultures. I will go into the evidence for this in much more detail in relation to the experience of the Greek

heros that happened at about the same time and was passed down to the Jews in The Old Testament and to the Greeks as ballads for a very long time before being formalised in Homer's writings of The Iliad and The Odyssey. It is an interesting and detailed story.

For the moment, we are concerned with the voice speaking to Moses and what he said. One of the first things the voice made clear was that he was never to be seen nor questioned. Secondly that it was forbidden to make a graven image of him (for that was included in the earliest meaning of the Second Commandment) and then that it was forbidden to make an image of any kind of animal or anything else to worship it. This led to the celebrated occasion when Moses came down out of the mountain where he had been getting instructions from Jehovah and found that his followers had made a golden image of a calf and were worshipping it. According to the Bible, he ordered that it should be broken down, ground up and put into the water which the people drank, found bitter, and didn't like it so as to teach them a lesson.

This, therefore, brings us to the point in the pursuit of our disentanglement from our animal past being concomitant with the emergence of consciousness where, for the first time, our association with that animal past is officially symbolically destroyed and fed as a bitter draught to the blacksliders.

From then on a whole people's survival depended upon them believing in an idea, a conception of their lonely, introspective selves - an idea dawning as a particle only in their minds the incipient analogue of reality and evidently nowhere else - of there being one god whose Word was law. And the Word, of course, is the way in which ideas are made manifest.

This is important in the evolution of consciousness - which goes on in the Bible, of course, to be told in the story of the evolution of monotheism as an aspect of the fact that there is, after all, only one phenomenon of consciousness. The idea of one god whose law they obeyed made them realise how effective an idea could be. It became an idea around which others could accrete in that analogue of reality that was beginning to grow into mind. They began to experience the way in which this could be played back into the material world as a set of observances that had a practical outcome so real it ensured survival. This would play a big role when, during the centuries to come, it got mixed with Greek thought and the gentler philosophies of the East to sire the Judao-Christianity that had so much influence upon the attitude of mind that Europe was later to export to the world.

At the same time, around 1500 B.C., the process of disentanglement from animal origins burst into an exultant ritual of wonderful symbolism in Minoan Crete. I am particularly fond of it because it celebrates youth kicking over the stuffy, establishment conventions of reverencing the influence of animals in our lives. No wonder today we call our leaders dinosaurs. Our inner perceptions are powerful indeed.

Crete, at this time, was ruled by King Minos, whose wife, being exactly one of this stuffy establishment women, copulated with a bull and produced a bull-man called the Minotaur. He actually fed on teenagers. Symbolically, thus, devouring the growth of mind away from those origins. But the Minoan youth found a brilliant way to proclaim their exuberant freedom from this. On the days of the great festas, they evolved a ritual which demonstrated this in a wonderfully wreckers and sportive way, typical of 'the young idea' of all ages. I am particularly fond of it because I stumbled upon it while on holiday when, on one sun-beamed day in the Museum at Heraklion, a few years ago, I found myself standing alongside a towering, 4,000 year old brightly painted scene of a young man in the puissant pride of his lissom youth, leaping over a bull, sleek with power. He did it by racing straight at the bull to dive or vault headfirst over its horns, land on

his hands on its back or withers, flick into a somersault and land behind it on his feet. What a way to show off your freedom, your supremacy over, a power symbol that threatened you in all the ways described. It was a picture of such joy in agility - it was a cavorting celebration of something larger than life, something elementary and joyful. I could recognise this from every line in the way that the boy hurled himself unfettered through the air; while behind the bull the girls waited - athletic - alert - to catch him.

I thought to myself, going at it like that his hands will slip off the bull's withers or back when he lands from his flying leap. Circus horses are called 'rosin backs' by those who stand on them to do their tricks because they put rosin on their rumps and on their own shoes. I had a go, once, when I went to interview, for the B.B.C., somebody at Bertrand Mill's Circus. Also, I used to try to stand on my hands on my pony's back and I couldn't. My hands slipped unless I hung onto his mane. So I looked more carefully at the Cretian bull leapers. All team members had a thong, about 18 inches long, tied from one wrist to the other. It seemed to me obvious that instead of putting his hands on the bull's back, the leaper would grasp the thong, tied to his wrists, and put his hands down each side of the bull's withers and thus make sure of not slipping and of being able to do the hand-spring which would land him safely behind the bull on his feet for the girls to catch, as does a Physical Training Instructor. And, indeed, it is in that position that his hands are shown. The thong can't be seen in the largest and most famous fresco but his hands, which are half-way down the bull's flanks, could never have supported him without it. The thong can be seen loosely hanging between the hands of the girl as she stands behind the bull ready to catch him. The whole thing seemed to me a crowning symbol of the function of the unconscious pursuit of the Thread in its repudiation of animal supremacy.

This brings us to the Greek epoch which, of course, overlaps with the Indian, Jewish, Egyptian Minoan for a period of at least 1500 years. It can be assumed that what came to be true of the Greek situation obtained, *mutatis mutandis*, in the others.

The Greek mythological pantheon is the one we know best. The picture galleries of Europe and beyond are stuffed with scenes from its stories. Indeed, the Renaissance is not only a rebirth of the culture of Greece but also of its mythology by which we can trace the thread of the evolution of consciousness and see how much its symbolism has in common with historical mythologies we know about like The Old Testament and the Mahabharata, so we will move on now to the mythology of Greece. This will lead to studies of The Iliad that show how the heroes in their celebrated relationships with and dependence upon the gods as the source of the promptings which caused their feelings, motives and decisions were still in the throes of evolving consciousness in a way that is echoed in The Old Testament stories and the great Indian epic.

CHAPTER FIVE

Turning to the aspect of disentanglement from our preconscious, animal existence, you would expect to find a sense of it in our unconscious that links us to that long evolution. And you do.

In India, Avatar means literally 'a descent' - the form in which the god descended to move amongst us and ordain and direct our attitude of mind - our way of thinking or behaviour. I would say the form in which The Source represented itself from our unconscious so as to cause us to perceive it in certain forms.

Just to describe the eleven Avatars of Vishnu shows how our unconscious awareness of this Source goes from something very primitive and wholly animal via something partly animal to a primitive type of human and on to, eventually, a fully enlightened person. The first Avatar of Vishnu is Matsya, The Fish; the second Kurma, The Turtle; 3rd). Varha, The Wild Boar; 4th). Nara Simha, The Man Lion; 5th). Vamana, The Dwarf; 6th). Rama, with his bow - a weapon at last; 7th). Parasurama, Rama-with-the-Axe, to break the power of the warrior; 8th). Balarama, Krishna's fair-skinned brother; 9th) Buddha, called an Avatar of Vishnu by the Hindu Brahman's; and 10th). Kolkar, who will eventually destroy the present age of degeneration; and finally the eleventh is Krishna, the most famous Avatar of Vishnu who has become a separate deity.

To my way of thinking, our in-dwelling sense of the Source which, by screening off we made mysterious, can legitimately have all the names of god that fill the mythologies and pantheons of the world. Hesiod alone said there were 30,000. We seek them here or there in this or that form or guise while, at the same time, we are looking and feeling in all directions for our place and function as nearly-aware humans. The Indian figures, with six arms, searching in the air for their proper use or with several heads searching in all directions, seem to be saying 'Who am I?' or 'What am I?', 'What can I, should I, must I do or be?'. The exploration of the potent sexual potentials in the search for self-awareness, wholeness of mind and ecstatic enlightenment through exploring them in the KamaSutra is not wholly unlike the Egyptian exploration of the human identity in the image of the Therianthrope, the half-animal, half-person, half-god or, as in The Book of the Dead, the attempt by trying all combinations to chance upon the 'right' one. Except, of course, we never in any of these contexts knew which the right one was nor had any standard by which to make that judgement, so that we always ended up by saying (in whatever vernacular) 'My god is righter than your god - fight you for it', as we do today.

We could feel the Source and the thread of consciousness brokenly connecting us to it in a thousand different guises. But we were also sometimes prompted to feel it was but one - our inner self, the 'all' condensed into the 'one'. And it was this that Krishna so exquisitely expresses with the phrase that pulls all the prayer mats from under the knees of Islam and the hassocks from those of the Christians by saying, 'To whatsoever god thou prayest it is I who answer thy prayer'. There can't be two omnipotent gods, anymore than there can be two infinities.

* * * * *

Let us now turn to the Jews and the absolutely unique and unprecedented contribution which they made to the evolution of consciousness.

Around 1400 B.C. they had gone into Egypt to escape famine, but they came to be exploited and made bondage. This inculcated in them a strong sense of persecution so that they grew-up indoctrinated to survive by obedience to a strict code of self-reliance and a sense of tribal identity and loyalty.

Moses, a Jewish baby found and adopted by Pharaoh's daughter, grew up to become a considerable official in Egypt. But because he belonged neither to the Egyptian nor Jewish culture, he was isolated and lonely and he acutely felt the suffering of the people to whom he truly belonged. As a result, finding an Egyptian maltreating a Jew, he came to the help of the Jew, killed the Egyptian and had to flee into the wilderness to escape reprisal. There, in fear and trembling, belonging nowhere, as symbolically humanity was in limbo between unconsciousness and consciousness, he heard a voice speaking to him out of a burning bush. This was a Prompting of epic proportions; perhaps the greatest ever recorded. To this voice of the Source within himself, he put the question consciousness must eventually put, asking who it was who spoke to him. To that question there can be only one answer and the voice gave it: 'I AM that I AM', it said. There can't be a more wonderful description by the conscious of its unconscious.

It would not be until 1637 that the next step was taken, and this time entirely by consciousness:- 'I think therefore I AM'.

In a way, that moment in the desert was the one at which monotheism was invented. It marked the concept of a single source - a clear break from the multiplicity of ideas in the great pantheons of the world and also an unequivocal break from our connection with animals. There would be back-sliding from this, for example in the worshipping of The Golden Calf, which is why it is such a significant occurrence, and the frequent references to other similar kinds of idolatry - all of them being of such tremendous importance because they marked a failure to pursue our conscious self-awareness as different from our animal origins. But a single point of origin, of enlightenment and for meditation, had been established. The first in the world.

It is interesting that this projection out of the dawning mind of Moses should also faithfully continue the primal aspect I have emphasised of the pursuit of best interests. This is evident in the fact that "God's" immediate injunction to Moses, in promising to free his people from bondage in Egypt, was that Moses should ensure that when they left 'they shall not go empty but every woman shall borrow of her neighbour, and of her that sojourneth in her house, jewels of silver, jewels of gold and raiment shall ye put them upon your sons and upon your daughters; and ye shall spoil the Egyptians'. So that is what Moses did.

But the people he led forth into the wilderness had some very important characteristics in which their austere monotheism was to grow. Compared with the other animistic religions, sprawling in conflicting superstitions and contradictory edicts, it was simple, demanding and highly disciplined, based upon ten easily understood commandments and requiring a code of unwavering obedience to all that the one and only god should clearly and explicitly require.

Moreover, the people were united by suffering and loyalty to each other and what is more important is that they were aware of this. The abstract idea of it was shared amongst them and they constantly spoke of it. This abstract idea of unity and belonging together in obedience to the Lord united them in their wanderings, unconsciously looking for The Way to consciousness. And this is

what all cultures were doing. The Egyptians, as we have seen - the Indian in the reaching arms and questing heads - the Hindu in the idea of the Divine Ground - the Buddhist image of the Eightfold Path - the Taoist idea of the Tao, which means 'The Way' - and then, in the words of Jesus, 'I am the way, the truth and the light'. But the discipline and monotheism of Judaism helped to evolve and raise consciousness in a way that accounts for the very slight difference that sets Jews apart from others and, of course, incurs the otherwise unaccountable urge to persecute or hate them.

So now, having suffered the trauma of being freed from bondage and being lost in the Wilderness, our unconscious projected a god who demanded that for his glorification and in obedience to his almighty will, we should take the Promised Land, smite any enemy hip and thigh and prosper under a ferocious discipline of fitness, diet and orderly behaviour. We had taken a new step in selecting, from the overwhelming avalanche of promptings, those which were of use to us. Perhaps, even now, the most truly powerful aspect of the Jewish character is to be an achiever. Being a 'clever Jew' had at least a thousand years start on any other culture that revered intelligence as such, namely the Greek. And because the Jews have remained an ethnic and cultural entity, which the Greeks didn't, it has resulted in them being perhaps the most 'conscious' of us all.

For the moment, we are concerned with the voice speaking to Moses and what it said. One of the first things God's voice made clear was that He was never to be seen nor questioned. Secondly, it was forbidden to make a graven image of Him, for that was to be included in the earliest meaning of the Second Commandment. This makes the Jews different from all other peoples, who made many images of their gods. We will be looking at the role of divinities, their appearances and voices in Chapter Six. It was also, of course, forbidden to make an image of any kind of animal so as to worship it. This led to the celebrated occasion that I spoke of when Moses came down out of the mountains where he had been receiving instructions from Jehovah and found that his followers had made a golden image of a calf and were worshipping it. According to the Bible, he ordered that, to teach them a lesson, the image should be broken down, ground-up and put into the water which the people drank, and they found it very bitter and unpleasant. It is a powerful example of our symbolic disentanglement from our animal past because here the association is officially fiercely destroyed and fed as a bitter draught to the back-sliders.

From then on a whole people's survival depended upon them believing in an idea dawning in their minds that The Word was law. And The Word is, of course, the carrier of consciousness. It is one of the routes of the concept of Logos, whose meaning is always rendered ambiguously because different people, of different disciplines, at different times are always trying to attach it to their own philosophical system or their god. The Stoics, following Zeno of Citium, 3rd-4th Century B.C., defined it as : 'An active, rational and spiritual principle that permeated all reality'. They also called it providence. Nature. God. The soul of the universe. In my claim that the whole significance of the universe is in the evolution of consciousness, we are talking about the same idea. Philo of Alexandria taught that it was the intermediary between God and the cosmos, being the agent through which the human mind can comprehend God or, as I would say, comprehend The Source. Plato said it was immanent in the world and, at the same time, the transcendent mind. Jesus is later defined in, for example, St. John's Gospel as 'The Word'. This identification of Jesus with the logos is based on Old Testament concepts of revelation such as occur in the frequent phrase 'The word of the Lord' and the Jewish view that wisdom is the divine agent that draws man to god and is identified with the word of god. All of this relates to the inner sense of there being a source - a Something More Besides - a single entity, like Krishna, who answers, as God answered Moses for the first time from the burning bush. It is a thread we follow as Theseus followed Ariadne's thread out of the labyrinth.

It would be impossible to pursue The Thread through the tangle of world mythology, though a computer, suitably programmed and re-programmed, like Richard Dawkins' consecutive sievings, would eventually reveal how all the aspects of our cultural development that we study under so many headings are cryptic accounts of our unintentional evolution of consciousness.

An extraordinary example of this thread as a folk memory linking the culture of the caves to the period of dynastic Egypt, surfaces in Plato's (627 B.C.) famous analogy of the cave. Here, he describes a group of people who cannot yet think properly for themselves, being bound so that they can't turn their heads. Behind them, in the cave, is a blazing fire. In front of them is a wall upon which their shadows are cast: 'So that they see only their own shadows or the shadows of one another' and they carry 'all sorts of vessels and statues and figures of animals made of wood and stone and various materials' whose shadows are also cast upon the walls and some of the people 'are talking' and some are silent. Inevitably, he says, they regard the shadows as real, discounting the objects that cast them. Finally, of course, someone escapes into the sunlight and, for the first time, sees things properly. But, when he goes back to lead his friends out into the enlightenment of a wider consciousness, what happens? And this is the point of the parable written by Plato, who, together with his peers like Aristotle, were rejected by the establishment and demos to a much greater extent than is popularly realised. These friends will not listen to him, and the man who has been out has much difficulty in persuading them because he has grown accustomed to the daylight and he can't see the shadows - the problems - in the way that they see them, so that they think him stupider than themselves and than he was before he went out. It is a familiar situation encapsulated in the Bible by Jesus in Matthew 13, v 57: 'A prophet is not without honour save in his own country and in his own house.' And this is, all the time, a record of the unknowing rise of consciousness which is still so familiar.

We have seen that the evolution of consciousness has never been deliberate or intentional. The way into such a process as has at last begun to happen under the heading of 'consciousness raising' is incredibly tortuous. It begins in the first written accounts of mythology - importantly Greek and Jewish - and, to a lesser extent Egyptian, which began to crystallise in writing during the two or three millennia before our era. Extraordinariness of this epoch as I mentioned in Chapter Two is so even and universal we have accepted it as the norm without noticing how peculiar it was. It is the subject of the next chapter. But the attitude of mind it engendered, together with the stories of Greek myth and heroes so powerfully and beautifully represented in their art, re-surfaced in the Renaissance to become the dominant influence in European culture. The important consequence of this was that a hundred years ago a new lease of life was given to more or less pre-conscious influences through psychology and psychiatry being so heavily influenced by their idiom, images and archetypes. This influence is important because psychology is the closest we come to thinking about consciousness and it is not at all objective. It is concerned with an individual's ability to function better - i.e. to serve his best interests better - in life. It is therefore distorted by the ways and values of that life, that is to say by our understanding of ourselves, our role and place here and our conscious apprehension of this is distorted precisely by the way - the lethal way - we have done The Sum so wrong in making us see ourselves as separate from, superior to, nature and as its legitimate exploiters, conquerors and rulers and thus, because it doesn't work, as its destroyers. And 25% of Britons are given help of this kind as they are, roughly speaking, in most of the advanced countries of the world.

It would be helpful to go back to the beginning - for example, Greek mythology - to encompass how broad is the spectrum which governs this. But the subject is too big. So we will just look at a few examples of the points I am making.

According to Hesiod in his *Theogony*, 735 B.C., the earliest of the gods was a universal mother - the Earth Mother, Gaia - 'the deep breasted earth'. And the earliest figures of her resemble the ones discovered from 20,000 B.C. Interestingly, the phrase 'the deep breasted earth', is common to the Vidantic Mythologies also. It is from her that all the other gods descend, and she is stated to have existed long before them. As always, a 'former time', a Te Zepi, a Dream Time, a time of the patriarchs and the various Hindu former ages, is inferred and will be discussed in Chapter Six.

When the gods swore an oath, it was by Gaia that they swore it. It is a beautiful thought that the whole of our unconscious as represented in all of mythology knew itself, from time immemorial, as the spawn of the earth - that even the gods that made us were the earth's spawn and did not have any supernatural origin and it is a hideous fact that we are ignorant of this. It was also always known that Gaia could foretell the future, which is of obvious importance in the sense that it means the future survival and wellbeing of herself. It is not, therefore, surprising that the Oracle at Delphi was first Gaia's, long before it became Apollo's.

When, at last, there comes the first conceptualisation of the grandiose, primordial male Zeus himself, who turns into the megalomaniacal fornicator, the strutter and fretter double-died, even he acknowledges with grace Gaia as his mother and does not dispute her wisdom.

The thread of consciousness is always cryptically there and so often we are unconsciously aware of it. The story of the mythological Prometheus illustrates this. When myth arose can't be described but it included the period when the ice sheets melted and flooding ensued. Prometheus warned his son, Deucalion (the Greek flood hero, like Noah) advising him to put his family and livestock into a ship. Now the name 'Prometheus' means 'Foresight' and it had survival value for the race - all but the Deucalion family being drowned. So the importance of this conscious conceptualisation of danger and the rational, prudent response was recognised and lies implicit in the tale, assuming you know the meaning of the name. Orthodoxy has no more powerful hold upon what we learn than the bottleneck of translation. Armed with this information, it is easier to see why Zeus' punishing of Prometheus (he chained him to a rock where an eagle ate his liver every day, which grew again at night, for 30,000 years) was so sadistic. The idea that our destiny was in our own hands and, through the rationality of our own consciousness, foresight was antithetic to the acceptance of a pre-conscious, divine source. The way our history is presented to us, in other words, the way *The Sum* has been done, has always been in the hands of a rather special hierarchy who seek not a subjective, growing understanding of the way that we are microcosmically a part of a whole, but are concerned, instead, to proclaim a conceptualised account of regnant man, whom they, the proclaimers, are the role models. This has come about in their pursuit of best interests, survival, in ways that we now see threaten us. The very trivial example of not knowing the meaning of names is offered merely as an illustration of this. For example, the names of the three Cyclopes - Brontes, Steropes and Arges - mean something quite different if you know that they are Greek for Thunder, Lightning and Thunderbolt.

Think how readily more subtle and useful interpretations would occur to us if the names of people and places were as straightforward as in *Pilgrim's Progress*, where the hero is Christian, his friends, Mr. Greatheart, Hopeful and Faithful and his enemy the giant named Despair, who presides over Doubting Castle. He travels with his burden - his sin - on his back, which nearly drowns him in the Slough of Despond.

The way in which *The Sum* has been done wrong is infinitely various.

We will consider Apollo (The Sun) and Hermes (The Messenger). Apollo's most powerful attribute was ambiguity. He symbolises night and light. But even the light means that which searches you out to the point of destruction. He is a healer, but a bringer of sudden death. These are the hallmarks of a tyro-consciousness, an attempt to master a new subject or technique and, in this case, consciousness - the tool of thinking. He had many oracles, all giving quixotic, cryptic advice; just as our first stumbling attempt to use this new faculty of consciousness and thinking did to us every time it popped into our heads.

He thus symbolises all that was bafflingly oxy-moronic in our attempts to come to terms with our new-fangled ability and its unknown worth, or purpose. He was the conceptualisation of the promptings that stirred up in our organs an ambivalent response, produced uncertain reaction, blew hot and cold, was changeable and quixotic, exactly as were the gods in their dealings with men as described in the *The Iliad* because the standards for making decisions had not yet been developed.

Hermes was the messenger of Zeus, coming to us from him 'to undertake the most delicate missions amongst us in bringing to our hearts the impressions and sentiments which Zeus had inspired' (Hesiod). How this was to be done is suggested by his attribute, but it is a suggestion that is so subtle and speculative we will not be able to evaluate it until we consider it in terms of quantum mechanics in Chapter Six. For the attribute of Hermes is the staff with a caduceus, the counter-entwined helix of the D.N.A. molecule which carries the blueprint of the hereditary personality of ourselves and thus the recipe whereby self-determination and consciousness will work.

Psycho-semantic influences are real and we can learn to control many of our automatic, metabolic functions. Whether we had some direct, fleeting intuition of the design of this genetic code of behaviour which was thrown up out of 'The Source' as a 'delicate mission' that brought to our hearts its 'impressions and sentiments', is the question we will consider in the light of what we know about the behaviour of primary particles of matter that propose a reality that is different from the orthodox reductionism.

In India, the same helix design is to be found in the Chakra, superimposed upon a person's seated body in such a way that the arms of the helix cross over on the principal, influential centres of the body where the disturbances from the promptings are often described as being chiefly felt.

The image is also to be found in the double screw-shaped scimitar in Chaldean iconography and in other parts of the world.

There are four other artefacts which are concerned with the way we conceptualised the experience of the promptings - of ideas coming, this time, into our heads or brains that concerned the dawn of mind:

1. The Phylactery - a small box containing passages of The Torah, worn strapped between the eyes and on the left arm, facing the heart, of Jews at prayer. It was ordained in Exodus 10: 9: 'And it shall be a sign unto thee upon thy head and a memorial between thine eyes that the Lord's law may be in thy mouth'. It communicates a lot about how we have felt for the last 4,000 years about invoking, by prayer, the promptings from the gods we were hallucinating.
2. The Egyptians wore, between their eyes, the famous Uraeus, a serpent, the symbol of knowledge, and it represents the same preoccupation with the reception of the promptings in the head.

3. In the same place - on the forehead - Indian statues have a lens-shaped mark called the Gurna, which is said to symbolise a 'tuft of radiant hair', whatever that may be felt to signify.

4. There is also the ubiquitous protuberance of the skull in the same place which, in the case of statues, is often an in-set jewel. This is called the Ushiska and is commonly to be found in the art of Japan, China, Sumaria, pre-Columbian and Scandinavian art; for example, in the forehead of Odin.

These are some of the artefacts that refer to our dependence upon the authority of the gods. We are dependent and wish to remain so because consciousness, which involves self-awareness and self-determination, seems a lonely and frightening prospect after our eternity of belonging in a mindless and instinctive existence. Our apprehension manifests itself in two ways. First we invented the gods so that we could make them shoulder this responsibility for determining our behaviour and secondly we invented system of punishment and reward for them to administer. It is an interesting and subtle point. If you are afraid of taking responsibility, you very easily invent a lot of dire consequences for doing so. We invented the idea that god would punish us if we exercised consciousness instead of submitting to ancient, comfortable, mindless, instinctive conformity.

The best example of the pantheon we invented to ensure such obedience and conformity, and therefore lift from our minds the difficult responsibility for new-fangled thinking for ourselves, was the Chinese pantheon, whose most important god was Wan.

Wan was a transcendental bureaucrat, with an army of bureaucrats under him who kept registries, entered sins in triplicate, issued directives and made annual reports on people's behaviour. Gods were promoted, even dismissed, but the offices remained i.e. our need was still there, but as time went on, had to be supplied in a modified, perhaps more sophisticated way, to satisfy a growing mind. But woebetide anyone whose mind grew too well, because the god, Lei Kung, 'punished those who had achieved personality' (Larousse). It is a startling revelation. Being conscious - being a free-thinker - was not only frightening but dangerous. The heretic was already being punished. The terrifying quality of the uncharted notions of self-determination made us crouch back into our primal experience of mindless belonging and obedience.

Every town or administrative district had its Commissioner and Wan would make tours of inspection. Also, as in other pantheons, there were the half-gods and junior district gods and partial gods, who even taught children to spy on their parents for not being sufficiently godly or for attempting to achieve the freedom of sovereign personality. For those who failed in obedience to the rules of the pantheon, there were eighteen hells similar to the different level in Dantes' Inferno, appropriate to different degrees of non-conformism and, on the other hand, there was the reward of Kun Lun, or paradise, which was offered to the conformist. If you failed at everything, you got the 'Broth of Oblivion' so that you forgot who you were and all about your life. That was the way the Chinese mind symbolised the hierarchical security of age-old belongingness that it hankered after and, lo and behold, what sort of a culture did the Chinese create? An exact replica: a celestial throne with a god-king on it; an army of exquisitely differentiated mandarins to pry into and control the lives of the people. Thus, they too tried to bring heaven down to earth, as the Eygptians had done in the desert, being unable to differentiate between the model and the real thing. So then, when all this ended in 1917, it was very soon replaced by the dictatorship of Mao Tze Tung, who gave the 'Broth of Oblivion' to several million dissenters by bumping them off and instituted his versions of the divine hierarchy, even to the point as reported in 'Commune', the organ of the

Communist Party that was widely read and much quoted in the Peking press: 'We can remake the mental outlook of the street dwellers to create an entirely new human being'.

It is interesting that this authority, offering Kun Lun, paradise, is always perceived by every pantheon as being 'up there'. It is a very powerful feeling in us all and it should be remarked that feelings precede ideas such as those of, for example, an ithy-phallic father in the sky, like Orion. So what is their origin?

Is it a relic of our dominant, male primate ancestor, occupying and maintaining for their use an optimum level in the arboreal territory, whence he could keep an eye on his minions, rushing down to chastise the undisciplined or copulate with a likely female? Or was 'good' always felt as up because, for a mammal - and certainly an anthropoid - reward and punishment always came from 'up there'. Reward, in the form of milk, is always above an infant's face as is also the benign smile of mum. In the Elaine Morgan watery scenario, up means air itself - survival; also mum's hair to reach for and hang on to. But also an anthropoid punishing hand is raised above an infant and descends in a blow. In the Morgan scenario, you can't slap anybody underwater but you could on dry land where suckling took place. So our mythologies are universally filled with a power and reward system that come from on high and our languages are full of its images. We kneel, or raise hands, in supplication. We 'look up' to our 'superiors'; 'go to the top of the class'; we 'drop on' miscreants; and 'crack down on them'. Heaven, paradise and gods are universally known to be up in the sky.

Religions are based on the idea of bad and good - sin and virtue. Virtue is obedience to god's will i.e. the renunciation of conscious, self-determination - sin is its exercise. Our unconscious fear of this causes us to invent punishment as I described as an 'excuse' for not doing the difficult and scary thing, and we are rewarded for obedience, punished for disobedience, ultimately, in heaven or hell. But inbetween are all kinds of weapons and ways of coercion and punishment to keep us on 'the straight and narrow path', which we invented for the gods to use against anybody who did not agree that he was the rightest god of all Zeus and Indra had their thunderbolts but also, for example, Chan Quo Mao had the flying sword called Ting Pin; Shiva had the flaming disc; Krishna Rama had the 'winged weapon with the point of fire that went and destroyed and returned humbly to its master'; there was the beam from the finger of god and his heavenly sickle and the divine flame that licked-up houses and huts. There are also references to devices whose description makes them sound as though they reacted directly upon the metabolism, causing people to stand as though 'astonished', or to 'rush in terror from the field' to suffer 'paralysing panic' like that caused by Odin's Hertoffrr.

Today, in war, we are, as we have always been, easily able to convince ourselves that our enemies are evil because not like us. We think our god is on our side and our god is, by definition, righter than your god - we are only doing god's will when killing Muslims or Serbs, or vice versa. The belt of every German soldier in The Second World War had 'Gott mit uns' enscribed on its buckle and an American Padre, during the Battle of Wake Island, said "Praise the Lord and pass the ammunition and we'll all stay free" i.e. free to obey our god in our way. To raise our consciousness we must know ourselves. Which does not mean hiding behind remarks like 'All life is sacred'. The evolution of mind is a great deal more difficult and important than that.

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This brings us pretty much to the period of Classical Greece. We have seen that Egyptians used building as their thinking aid. They expressed evolution of consciousness in the technique of building that they pioneered. As always, they thought with their hands - feeling their way forward, upwards and outwards- exploring the new concept of three dimensional shapes, relationships of shapes and of angles, so that mathematical and geometrical concepts evolved materially as their abstract analogue evolved in their mind. These combined to produce a spatial awareness that led them to a new way for considering the juxtaposition of the stars above them and of interpreting their shapes and their inter-relationships. It went on for 3,000 years and set a stamp upon the kind of consciousness that would evolve, just as surely as the first promptings caused us to think in terms of "What's in it for me?" as an ear grew in response to sound. It thus prepared the way that the Greeks followed when they began their own style of building and then stumbled from the logical causality implicit in those masonic disciplines into the abstractions of rational deduction as a general principle and which lay at the root of the astonishing achievements of Classical Greek thinking. This step in the evolution of consciousness is encapsulated in the well known, rough and ready observation that the Egyptians knew that a triangle, whose sides were in the proportion of 3:4:5 units would always give a right-angle; but that Pythagoras produced an abstract theorem to prove that the square on the hypotenuse will always be equal to the sum of the squares on the other two sides of a right-angled triangle or, conversely, any triangle where the sum of the squares of any two sides is equal to the square on the third side will embrace a right-angle.

The emergence of Greek thought is, of course, the biggest single step in the development of consciousness and it was taken in only a few hundred years. It should be judged as the moment when the abstract analogue of reality uniquely existing in the human mind blundered suddenly into awareness of its own abstract self, and its own ability to think in abstract terms and to then deliberately play them back into two forms: one into material reality, so as to modify it on purpose, and secondly into the technique of thinking about thinking. The first was immediately taken on board and had remarkable results. For example, Aristotle - the first abstract thinker in the new hypothetical, logical style - was the teacher of Alexander. Alexander at once applied Aristotle's principles to the problems of strategy, tactics and, above all, logistics in war. As a result, he went on to conquer most of the known world. His methods were copied immediately by the Romans who became invincible because they, too, had figured out the battle plan beforehand in their minds. They initiated the doctrine of 'seize and hold' used in the Second World War when an armoured division, had tanks to seize an objective - and lorried infantry, bundle out and hold it by digging-in. Equally, the Roman assault units seized the objective and was re-enforced by those bearing the fasces - root of the word 'fascist'. This was a bundle of palings tied with a long cord to the spear carried on the shoulder, as can be seen in contemporary illustrations. Each man carried an 'entrenching tool' of some kind (as did every German infantryman) and, with this, he dug three feet of trench, throwing the spoil back inwards towards his own side, making a bank with a ditch in front of it. On this, he stuck up the palings and lashed them together with the cord, securing them to those similarly erected by his two neighbours. Then each man defended that three feet of front line. No wonder the barbarians, who only fought between meals and on days deemed propitious by their holy men, got licked.

The second way that Greek thought was used is about how to think about thinking, which got rather lost until it was reborn in the Renaissance. Even then, it had a slow start with the old tribal patterns of discipline and obedience, the acceptance of reverence for the rules and conventions asserting themselves to hold the development of this kind of thinking about ourselves and our role and place here in retard. Copernicus had trouble daring to speak of his ideas of heliocentricity and Galileo was put under house-arrest for speaking about them. But the pattern continues to repeat itself, so that some scientists have become as bigoted as priests or religions. They do not, as Max Planck

observed, change their minds, they merely die and a new generation grows-up into a way of thinking that they die repudiating.

Recently scientists have suddenly had to face the fact that the word 'atom', coined by Democritus in 400 B.C. as meaning 'that which cannot be split', was the wrong word. The atom can be split and, when you split it into its quantum parts, the evolution of consciousness is confronted with a great wave of facts showing that logic and causality, upon which the perception of reality, brain and mind has been built-up since the Greeks into a statement of normality and formed into the basic laws of science, is inadequate. The intense anomaly is that it is adequate to poison the environment, but not to understand ourselves or the way the matter of our bodies and brains causes us to think and behave, or to understand each other or the environment, which is made in the same way.

This influence to slavish loyalty to ancient orthodoxies has gone on playing its ever more important role in the wrong way that The Sum has been done until we have reached the situation I have described in the first chapter, where the New Knowledge fills a new room every day, and nobody takes it on board to modify their attitude to life or to understanding our role and place here. Instead, as I described in Chapter Two, we continue in conditioned obedience to our paradoxical, neurotic dualisms and our exploitative relationship with our environment and the indoctrinated rectitude of pursuing our best interests, which are founded upon them.

For all the reasons which we have been looking at the stupendous Greek breakthrough was thus gradually reduced to today's deadly orthodoxy.

We can't look at all aspects of the New Knowledge in the way it might be taken-up or explored. So we will concentrate on the aspect of it that is most closely connected with the growth of consciousness, since that is the significance of the universe. I have explained that that does not make humanity the supreme goal of evolution or the jewel in its crown. We are an accident. We did not evolve consciousness: consciousness evolved us. No decisions to evolve consciousness have ever been taken, no aims acknowledged. We are a combination of the same ingredients as comprise microcosmically and macrocosmically the whole of the rest of the environment, of which we are a dependent and influential part. We have never, as a race or culture, proclaimed, agreed or accepted that it is our goal, our driving motive, to evolve consciousness. It is only in doing that that progress lies and that evolution on purpose can happen and we can survive. It is only by the evolution of mind that meaning to the universe can be evolved and it is only women who have so far introduced the idea of raising consciousness on purpose. By achieving that, the mind of humanity can stop firing on one male cylinder, as it has so far lethally done, and achieve a wholeness and balance. We will look at the first part of this paragraph in Chapter Seven under the heading of Quantum Mechanics and the second part in Chapter Eight, on the subject of women. But, before either of this, which are issues of today, I want to take one more look at that period of our history that occupied the few millenia leading up to the beginning of our era. I remarked that the way it is described in all the sources around the world is uniform and similar and we are so completely accustomed to it that we have failed to ask why or how it came about, so we will now look at it in Chapter Seven.

CHAPTER SIX

In Chapter Four, I remarked upon the fact that we are accustomed to read about the way gods and goddesses moved amongst us and told us what to do; how we perceived our good fortune and successes as being the rewards for having obeyed them, and our failures and disasters as being their punishment for our having failed or disobeyed them. Greek mythology and the Bible are store houses of such tales and, during the Renaissance, formed the principal subjects of the arts which became the idiom of Europe and First World civilisation and latterly provided most of the structure and idiom in which we have been taught for a hundred years about our psyches by Freud (1856-1939) and Jung (1875-1961) and their many disciples.

India and its adjacent countries, has, instead, the Mahabharata which, at 100,000 verses, is several times as long as the Bible and was written between 3,000 and 1,500 B.C. It is a mixture of myth, legend, folklore, fable, religion and history. It has provided a source of endless themes in Indian literature, art, drama, philosophy and religion. Indeed, the Bhagavada Gita, which it contains, is one of the central scriptures of Hinduism and consists of a dialogue between the human, Arjuna, and the god, Krishna.

The myths of Japan, China, America, Oceania, Africa, Egypt, the Phoenicians, the Romans, the Celts, Slavs, Persians, Babylonians, Finns, etc. fill many volumes. One of the interesting aspects of these, for example the Larousse Encyclopedia of Mythology, is the way in which all the writers talk about the gods as 'people' familiar to their human disciples, moving amongst them, interacting with them, travelling from one place to another having foibles and tastes, idiosyncrasies and whims to which the disciples had to respond in an obliging manner. The more you read of it the more every day and acceptable and ordinary their presence amongst us gets to feel. Nowadays a billion journeys are taken every year by tourists who go to look at the tens of thousands of statues and portraits of these gods, and the temples and shrines built for them to function in and the vast amount of ruins, known and unknown, that are to be found in every country relating to their exploits.

At Aphrodisia, in Turkey, you simply walk about on top of acres of ruins that haven't even been dug-up - you can see them just under the grass. If you pause to consider how many people were living in those areas at that time when the cult for setting-up godly shrines and statues flourished, it would seem that almost every household had some kind of image or another, however rudimentary. Indeed, a ground plan of Catal Hüyük in Turkey about 6,000 B.C. there is a shrine in nearly every household (ibid page 152).

It is, I think, an extraordinary state of affairs that every time we see a travel brochure we accept, without a moment's difficulty, that in the past gods and goddesses walked amongst us and told us what to do, just as we accept that our holy books are full of the things they said and did, and that every time we open a newspaper we will read how these commands cause us to daily kill one another, or one another's children, savagely and in large numbers - in India, Tibet, the Far East, Near East or Ireland or anywhere else.

I have talked about the promptings and how we felt them to be assailing us from some source. I have suggested that, in truth, the source was within us and has been, and still is, emanating into consciousness out of the unconscious and that we screened it off, because we could not reconcile ourselves to it and that, in this way, made it mysterious and searched about for an outside, objective

origin to account for it. Some of us, at some period, in a confused manner, tried to identify this source as being in the animals from which we had evolved. [?? Do I want this in here or somewhere else??] Then we went on to ascribe it to various aspects of nature which we gradually personalised as, for example, Zeus, whose name derives from a Sanskrit root 'Dyans' - hence Latin 'dies', a day - and then the many derivatives such as deus and theos, which have their origin in the idea of the luminous sky. In a similar way, the names and attributes of the other gods, their whims and behaviour, words and deeds and the symbols connected with them, got woven into the fabric of our cultures so subtly and deeply that we have lost sight of the fact that they provide the terms in which we think and understand. We seem to have passed through a period when our lives were totally preoccupied with and ruled by the voice of gods or goddesses telling us what to do. The most familiar version of this is The Old Testament and it could not possibly be so consistent in style, mannerism, omissions and commissions unless it was describing a series of real experiences. So, what was happening to us?]]

The transition from instinctive animal to conscious human took a long time. It was an uneven and hellish period of agonising trauma and is incomplete. The evolution of the source of the promptings that would lead to consciousness working against the influence of instinct tore us in two - half-animal, half-human - so that we became, for thousands of years, schizophrenic. The evolution of the source of the promptings working against the influence of instinct tore us to pieces - made us mad - and we became, for thousands of years, schizophrenic in the process of passing from one to the other. There is an important body of opinion that thinks our early awareness of this schizophrenic madness is preserved in the countless stories which have become part of the fabric of our cultures which concern those creatures that were half-human, half-beast - the satyrs - the god Pan - the centaurs - the elephant god - the tiger god - the animal forms in which certain aspects of a partial humanity was couched, and then the therianthropes - the shaman - the monsters, werewolves etc and that this is preserved in the present day in the 'perfectly normal' fear of a modern woman that her baby may be born in some form that is not fully human. Even our slang language retains our ageless preoccupation with the idea of a monstrous, talking animal in the phrase 'barking mad'. And I have suggested that the way the Indian avatars as representing our rise to human-ness, progressed from the humblest reptile through a series of ever higher animals to creatures that were half-animal, half-human until a purely human form and then a human on a higher plane is achieved, thus representing this transition. I have also suggested that the transition can be followed in all cultures as the worship of animals, like the Golden Calf of the Israelites and the animal-headed gods like Thoth gradually gave way to a more purely human form.

So the idea of physical half-and-half-ness fills our myths and religions and their accompanying stories, pictures and sculptures.

What evidence have we, for, as it were, a clinical schizophrenia which, it has been suggested, we suffered for about 9,000 years, ending slowly during the two millennia preceding the Christian era? It would have begun during the end of the Ice Age in Europe and elsewhere, and extreme cold is known to be causally connected with schizophrenia.

It is this situation that we are going to examine and to do so we will first consider what consciousness is and what it is not in order to understand what was happening in those times.

There are a great many ideas of what is meant by consciousness, as is shown in the conference on consciousness in Tucson, Arizona in April 1996 where it was acknowledged that 'it remains the first and last of the great human mysteries' as, I would say, is fitting for the whole significance of the universe and the species that is in the course of evolving it. Some, like Francis Crick, seeks an

understanding of it in how the brain works, others, like Daniel Dennet, thinks that 'mental states do not become conscious by entering some special chamber in the brain, nor by being transduced into some privileged and mysterious medium but by winning the competition against the mental states for domination in the control of behaviour'. As we have already seen, that is to say, in the competition between the new promptings and the old instinct where the winner was that which offered us the most immediate advantages, so that they became the idiom in which we developed ideas of normality and reality.

A great deal of time was spent in discussing consciousness in animals and I have never wanted to deny any of that. It is very hard to know how conscious one's dog is. But I would argue that in animals and, more particularly, in us as animals during the long and difficult to chart transition into humans, we find traces of many of those attributes which eventually coalesce into consciousness 'proper'. This apparatus manifests itself in many ways in our evolution, as we will see, but eventually there comes a time and a level where we are self-aware - where we are aware of being self-aware - where we can think out a plan with justifying reasons of the utmost abstract complexity concerning its right and wrongs and then put it into action, modifying it as it proceeds and finally draw conclusions from the action taken so as to play them back into reality, alter the lives of others and now also of our descendants.

It is this proclivity that I call consciousness. Animals, so far as we know, do not have it. Neither, so far as we can understand from careful reading, did most of the characters in The Old Testament or The Iliad. By studying the former in search of this proclivity, we can fairly readily discern occurrences where it was certainly absent and others where it was partially present or where its presence was more distinct. That is what I meant by saying that consciousness entered this final stage sporadically during the two or three thousand years preceding the Christian era.

My own suggestion is that since consciousness evolved (like everything else) as part of the first propensity and is a rather new, but non the less intrinsic, aspect of the reality of the universe, it offers a new way of persisting, as I have already suggested i.e. by the above mentioned ability to make plans for objective abstract reasoning and to evolve by putting the needs of the environment in front of its own.

This, as we have seen, raises the evolution of mind to a new and unknown area. Could it be that in just as much as conscious tension to a quantum state collapses it, so also the newly evolved presence of consciousness within the universe will gradually influence the nature of reality in this new and unknown area. This would seem to be in accordance with the proposition that consciousness, evolved as the significance of the universe, could eventually do for it something akin to what it is beginning to do for us, namely make us self-aware. What would be the nature of a self-aware universe? My mind is not yet sufficiently evolved to imagine.

To return, then to consideration of the evolution of consciousness here on earth during the ten or twenty thousand years that there is any sort of evidence that makes such a consideration possible. In doing this, having described the kind of consciousness of which we are ultimately talking, it is necessary to consider much more closely what this faculty is and what it is not.

It is possible to show that consciousness is not necessary to perform many tasks that are superficially associated with it. For example, if you draw a circle, then a triangle and then a circle, then a triangle and tell somebody to put in the next one in the sequence, no conscious thought is necessary for him to draw a circle. If you lift two objects, no conscious thought is necessary to appreciate which is the heavier. You don't have to think about these things. Consciousness is not

necessarily for learning. Sit opposite someone and ask them to say words to you at random, giving you a few seconds to write each one down. Each time she says a plural (or a pronoun, or abstract word, or whatever you have chosen) you say, "Good", or nod or smile or whatever. The frequency of such words will increase. The example of the girls in the laboratory who all wore red at the end of the week has already been cited.

Our responses work much faster than conscious reasoning could keep up with so that we learn from experience between, let us say, one half of a chicane and the other, taken at maximum speed, and, in the highly complex associations of personal relationships.

Thus, though the argument is long and hard - it can be demonstrated that consciousness need not be involved with most skills, responses or even speaking, writing or reading. You can drive a car and carry on a conversation, just as you can reach a certain landmark without any consciousness of how you got there. Nor is consciousness always necessary for solving questions or performing tasks. A great deal of farming consists of doing a thing the way it has always been done, without knowing or wondering or thinking about why.

That consciousness is not necessary for building, either for domestic or ceremonial purposes, is evident from the fact that beavers build lodges - weaver birds their amazing nests - birds of paradise clear a stage on which to perform elaborate dances - all manner of courtship and other rituals are undertaken by animals. Even the humble wasp will clasp a sharp piece of grit in its forelegs and then up-end and vibrate its body to make the grit act as a pneumatic drill whereby to start a hole in baked sand. This it will enlarge to a very certain measurement, hollow out the inside to an exact size and then, eggs having been laid, it will have the foresight to realise that they could be at risk and accordingly select a tiny pebble to precisely fit the hole, surrounded with dust and saliva to make a smooth join and finally and delicately brush dust over the whole job so that it can't be seen, while it goes off to find some insect appropriate as food for the grubs. It will have the foresight and skill to sting in such a way as to paralyse, not to kill, so that the insect remains fresh for the grubs to eat. Then it will go back to the invisible spot, open it up, drag the insect in where the emerging larvae can eat it alive and fresh. All that can be done by a creature with a very low level of unconscious behaviour. We have already considered the 'apparatus of consciousness' and how it is present in various forms and to various degrees in our forbears, long before they became conscious in the way I have described.

It is not surprising that humans developed even more elaborate techniques and rituals without achieving true consciousness. Nor is it intended that this scenario should preclude sudden individual flashes of 'insight' or originality, which then get passed into the repertoire of unconscious imitation. A pianist's ability to play faultlessly a long, complicated classic piece on the piano is often referred to as 'muscle memory'. What it acknowledges is that his fingering of the keyboard is not a meticulously conscious set of individual actions, which means that he is in fact not actually, consciously playing the piano; he is doing it by the same unconscious function whereby one drives a car, has a conversation and, after a time, cannot remember how one got to where one is. The route to consciousness was, as I said, long and rough. There is no clear dividing line between it and preconsciousness which comprises a whole apparatus of complimentary proclivities and all sorts of existences, animal and human, which lie, as we have just seen, between its origins and us. But now, as I said, we are going to look at the matter during the period mentioned when, in a sudden burst, we built tens of thousands of shrines and statues that we now make millions of journeys to look at every year.

We will, however, begin by remarking upon the fact that because our skeletons are the same as those of Cro Magnon/Mousterian - because of the fineness of his artefacts and the evidence of the way he lived and the proposition that he could, suitably clothed, walk amongst us unremarked, is therefore Homo Sapiens, wise man or knowing man, much like those of us who are still living in a Stone Age culture.

I have proposed that such knowingness/wisdom i.e. consciousness, is unnecessary for doing the things done by him and his descendants right down to the period we are going to look at - around 2-3,000 B.C. The kind of person who had used the Quadba to drum for experience of the promptings - who had hallucinogenic experiences of the source of these promptings as being, perhaps, the animals whose burning bones cast the fantasmagorical shadows on the walls of the caves for thousands of years - these people were not to achieve consciousness for a long time yet. They may have looked like us, been able to do things like us - as can beavers and wasps - but they were still caught, 40, 30 and 20,000 years ago in a condition of being that is quite different from the one that we are going to examine. It was the fact of our animalhood being so close to us at that time as being so much of the 'self' upon which the first fragments of the promptings were gradually to start falling that caused us to feel that animalness was their source. And, to certain extent, that was true. If you consider the subjective sense of belonging in which all animals exist that Erich Neumann has described, and remember that we, as animals, responded via our instincts just as all the others, then it will be clear that those responses were indeed instinctive and immediate. They were the conditioned reflexes whereby we had survived. It was this inheritance of instant response that had programmed us to obedience and discipline which we developed as animals and as emergent humans, about which we have spoken. They had been built up, as already suggested, through all the permutations for the first propensity working throughout organic evolution that resulted in survival, which we have called the unconscious. There is, in my proposal, no other outside source for them to have come from. But gradually, with the onset of the promptings, they began to come in a different form.

I have proposed how in the forcing house of the caves, speech which emerged in unknowable antiquity from animal cries, often quite complex and subtle, grew into language in this interbred community possessed, and obsessed, for so long in self-expressive co-operation - in examining, with one another, the possible permutations of the common feelings with the help of the thinking tool of shadowplay or art, where they naturally drew the animals from which they believed the promptings to be coming.

There were many caves and new ones are still being found. They stretch from the area of the Basques across Southern Europe and into the Middle East. When the last paintings were made, about 10,000 B.C., just after the end of the Ice Age, what happened to the people? Were they the progenitors of the civilisations of the Near East, whose cultures we are about to examine? The tomb of the King of Eynan, 9,000 B.C., is laid out in such a way as to suggest he was also perceived as a god and archaeological evidence for agriculture and a more settled culture appear quite quickly at this time, so that during the next few millennia, all the Near East societies were forming and the evidence suggests that they had language.

It was not long, therefore, before the absolutely crucial point was reached where they began to think of the promptings as coming in words. As a consequence, animals therefore became very slowly a less likely source for these promptings and we had to invent the half-animals, the therianthropes etc, that we have spoken of to bridge the gap. But the programming to obey the promptings that vied with, and gradually replaced, instinct remained effective. Where, then, did the promptings, that were increasingly brought to us upon the carrier-wave of language, come from?

We had been split between animal and human, causing such terrible stress that it had evoked a kind of madness, a kind of schizophrenia, and one of the symptoms that this schizophrenia had brought into the world - and this is still with us - is to hear voices. But we were the only creatures who could talk. We were all hearing the voices, though we could not hear each others. So what sort of a source was it that uniquely resembled ourselves and told us, in our unique language in voices like our own unique voices, things that we must do that must not be questioned or disobeyed any more than should instinct. All these are the exact qualities of the voices heard by schizophrenics, plus the fact that we then, and they now, are persuaded by them to regard it as a great honour to be chosen to hear and to obey them.

And so we projected all these desiderata into hypothetical characters like ourselves. The route had, in a way, been already prepared in our having personalised the function of natural phenomena imagining a man like Thaw who caused thunder, a person who symbolised the wide, open day like Zeus - as we have already seen. So it was not difficult for us to evolve names and personalisations, attributes, characteristics, requirements, demands, moods or tastes to the voices we were now beginning to hear. Because we had not stumbled upon the idea of consciousness, which had never existed in the universe before, we used the gods as a first step towards its development. They became organisations of the central nervous system and we heard them just as surely and loudly as Joan of Arc heard her voices, or schizophrenics hear theirs; as one in nine people living today will hear a voice in their lifetimes. And these voices that we heard admonished, commanded, mocked or simply announced all that was happening. They shout, whisper, sneer, cajole and often in rhyming or scanning rhythms. The person is certain that they came from this corner or that object. Sometimes two voices will argue about the person and what will happen to him or her and what he or she should do. The voices often lie in wait for them. Thus, in The Old Testament, we often find that God speaks to a person at a described point on a journey or round a corner or among rocks. This is even more eloquently described in Greek mythology, where it is specifically stated of Pan that 'in the mountains of Arcadia he amused himself by giving the lonely traveller sudden frights called, for this reason, panics' (Larousse, page 161). But, in most pantheons, shrines or icons are to be found along the wayside by means of which the voices hallucinated by the people nervously travelling in the unknown could be authorised and bring comfort and direction. Sometimes, a schizophrenic may 'enjoy or fear his voices, laugh or weep with them, talk to them and obey them. But they are never, even slightly, under his conscious control. They are extremely susceptible to even the most innocuous suggestion from the total social circumstance of which the individual is a part' (J.J., page 409). They are influenced by 'a collective, cognitive imperative'. The voices also depend upon what the individual has been taught in infancy. We can't go into a full clinical description of all the experiences of schizophrenia, but, if you bear in mind the pattern of, and characteristics of, the way the gods - notably Jehovah, for those of us born and raised in Christendom or Jewry - cheated their peoples, you will find them faithfully paralleled in the experience of schizophrenics. The voices - the gods - were, and are, often authoritative and often indifferent to the recipient's interests: 'Does the road wind uphill all the way? Yes, my son, to the bitter end.' AND they were often wrong. Consider Moral Rearmament, where the believer prays and has his Quiet Time in which he receives Guidance. Here you may find that God's instructions to, let us say, a woman proposing to buy or sell a car, includes the assumption of the woman herself that her car is rear-wheel drive when it is not; or of a man praying for guidance about how to cook a surprise dish for his wife and being guided to whip the white of eggs into the souffle mixture when it should be folded.

Very soon, the god whose voices we were now certain we could hear became the statute that we had constructed to him. A great many of the earliest writings, for example from the Minoan

civilisation in Linear B and also from the Sumerian civilisation in Cuneiform, tell us about the terms in which a man held rites to land from the gods, whose subordinate, or even slave, he was. 'Throughout Mesopotamia all lands were owned by gods and men were their slaves. Of this, the Cuneiform Texts leave no doubt whatsoever' (J.J., page 178. See also the notes giving many substantiating sources). They also tell of the things the gods liked: 'music, dancing, beds to sleep in, sex with other gods or goddess statues...' They had to be taken out for little excursions, as indeed happens in many countries today; even in Italy images of saints and Jesus are paraded round the streets. Indeed, most of their activities became the focus of ceremonial events. In this way, they laid the foundations for thousands of years of behaviour, not only in churches and cathedrals, but also in the ceremonies of putting kings, like Louis XIV, to bed where there was a procession for the nightly couchement at which it was a great honour for a foreign diplomat, for example, to be asked to carry a candle.

When one recalls the many stories of the origins of this or that, how this or that came into the world, it is interesting to reflect that we were the world's first schizophrenics and that that was where schizophrenia started - in the split between our unconscious, instinctive animal existence and the dawning influence of the apparatus of consciousness with which came directivity and doubt. But we could then no more disobey the gods' commands than a modern schizophrenic can disobey his voices. But, as a result, the ambivalence of schizophrenia came into the world as part of the human condition and that has universal consequences which we will follow up towards the end of this chapter. What's more, the idea of choice or of the possibility of wrongness were, for a long time, entirely absent. Having no conscious ability to question or demur, we simply obeyed as we had evolved to obey our instincts. Indeed, hearing was obeying, like a reflex. It causes obedience.

From the texts we are about to examine, it is evident that the voices were always close by: 'God spoke unto Moses saying....' and this is always written in a casual, colloquial manner, often several times on a page and not in terms such as Abraham could hear God's voice from afar, or booming in the heavens, but just as a perfectly ordinary, familiar phenomenon.

There are a few exceptions, as when God, or a God, is described as inhabiting a mountain or as having come down and settled on a mountain top. From this comes, in Psalms, the much repeated line 'I will lift up mine eyes unto the hills from whence cometh my strength'. We will deal with the visual hallucination of the origin of the hallucinated voices later on.

These gods we started by conceiving and depicting as half-animal, half-human, like the therianthrope gods of Egypt showing people with heads of baboons, ibis etc, as we sought to build a bridge between the idea of animals being the origin of the promptings and then changing this concept to the idea that the promptings were carried on the wave of language. And so, in other pantheons, one finds other kinds of half-animal, half-man creature such as satires and centaurs, harpies etc. Another thread of our developing ideas which we will consider, concern the role of the dead. Here the connection would appear to go as follows. The gods speak to us from there - that point - then from this or that statue, though later, and in many complicated ways, the god became the effigy or took some other form. But, nevertheless, he or she was deemed able to reside somewhere else e.g. the Olympian Heights; the duat - the part of the sky which Orion dominates; in Heaven, often conceived as moveable and notably so in Japan and China, which could be reached by a ladder, like that in Jacob's dream, or in paradise. Thither the dead would go to join the god in the everlasting happiness we had hallucinated to voices in order to offset our dread of the obvious frightfulness of death. What more likely, then, but that the voice of the dead departed should be the one we heard speaking to us from 'the other side'. This was made more likely in some cultures where the idea of the god king prevailed, where ancestor worship existed, where reverence for the

elderly, the ancient sage and respect for parents and grandparents held sway as, for example, in the teachings of Confucius which took on from there. In this way, it is possible to understand the way people of so many cultures behaved towards their dead. They gave them food and water, servants and animals which were often killed or buried alive with them. All this is familiar and puzzling since the corpse of mummy was self-evidently there and rotting and motionless. If, however, you were still hallucinating its voice telling you what to do, he clearly wasn't dead. In the 5,000 year old tombs of Malta, the present guide will tell you that the bereaved would come out to the niche in the catacomb where the departed lay and spend the afternoon with a picnic talking to him. Gradually, over very widely varying periods of time, the bereaved began to forget the departed and did not hallucinate the voice so much until, at length, it was heard no more and he was deemed finally absorbed into the here-after. In the case of the Egyptians, this meant that his Ka - his voice - was now to be seen in the sky as a twinkling star, whose myriad presences represented the myriad deceased.

The meaning of Ka has been rendered in many ways but none of them definitive:- double, eland vital, alter ego, essence, ghost, spirit, nature, fortune, destiny, the life or spirit of the Greek and Jews or the 'genius' offered in Latin. Many of these are familiar to us in various languages, cultures and sources in Europe and its history. It is often stated, in the Cuneiform Texts, that a person lived under the aegis of his 'ili', which seems to be the same as the Egyptian Ka and is often depicted as sitting upon the two ears of the person to whom it belongs, indicating that the authority is heard as voice. It is too big a subject to go into here, but since a theme of this book is that we have imposed upon our translations of ancient and marginally understood writing systems and languages, the prejudices of our own cultures that we are conditioned to perceive, and a virtue to obey, since these produce total uncertainty, might it not be that if the sources were re-assessed we would find that Ka as the voice would emerge as the single meaning that fits.

To get back to the unquestioned authority of the gods we heard. This - it will be seen later - has the most extraordinarily important influence upon our attitude of mind and our behaviour which have existed ever since and is with us today. So let us now turn to consider the evidence for this state of affairs where we hallucinated gods as the source of our promptings and heard their voices distinctly telling us at all times what to do and how to behave in a system that operated in a rising, and then falling, curve of intensification from before 9,000 B.C. to after A.D.1. I suggest that we cannot know when it began but that it took off when we emerged into the sunlight after the dark, cold years of the Ice Age that peaked, and then fell away, during the last 3,000 years before the present era. This falling away started as the written form of language began to replace the authority of the voices. Of course the written form was deemed to come from the voice of God, but it was amongst the reasons we will look at for the voices being less and less heard for the diminution of their authority and its replacement by Holy Writ on which we swear every time we give evidence in Court because it was itself the first example of the first testimony to the truth of what had been spoken by God.

We will start by looking at The Iliad and The Odyssey.

In the first place, no one in these epic poems knew how to read or write and the poems themselves were, for many centuries, chanted by the Aoidoi in such sacred places as The Parthenon before large audiences. They were written in hexameters composed of dactyl (-□□) and spondee (--) in which the latter derives from the verb to make a libation. The effect is hypnotic and involved possession, both of the performer and the audience, and comprised the "expressions of a peoples' communal imagination" and had about it an aura of being associated with the gods. [Footnote1: The Rig Veda, which is reputed to be largely the utterances of the gods, is

also written in verse, as was much of the relevant material in Messopotania e.g. the long poem about Gilgarmish]

To go in further back:

What this amounts to is that one part of our mind was prompting as to how we should behave and another part was obeying these promptings and the 'part' inbetween did not yet exist. I think this is another way of saying that consciousness involves being conscious of awareness i.e. being conscious of our promptings and recognising them, their origin, and evaluating them before, as a consequence of that evaluation, putting them into action - or not - or in a modified form.

Assuming that the mind exists largely in the brain, then it could be said, perhaps, that these two sections of the mind infer two sections of the brain and that these were not yet satisfactorily linked. We remained in that split mind situation for around 9,000 years before speech gave way to writing - the written word could be held up for examination, became the fountain of the possibility of objective memory and thus of objectification and awareness of a stream of promptings - comparisons of them - promptings about promptings gradually, over 2,500 years, began to emerge as consciousness.

Of course, the fact of there being two parts of the mind is still with us. We call it 'the unconscious' and 'the conscious' though, as we have seen, the names and the categories are very unsatisfactory and I would propose X,Y,Z.

(Remember to say something about the genes in this context)]

So what is The Illiad like? The Homeric epithets are well known:- the 'wine dark sea' - the 'staid housekeeper' - Athene, the 'goddess of the flashing eye' - Zeus the 'great thunderer' - Agamemnon 'Lord of Men' - 'Wide Ruling' Achilles, who is 'brilliant', 'god-like', 'swift-footed'; the Achians are 'bronze cloaked' or strong greaved'. Hera is always 'white armed'. But it goes much further than that because whole phrases, even sentences or paragraphs, were repeated verbatim. Indeed the poem was constructed in such a way [see the Introduction by Bernard Knox to the translation, by Robert Fagels, page 91, Penguin 1991] that new words and phrases could be inserted into them to give them relevance. In this and other respects, the poem becomes a function of communal memory and experience. That it was originally chanted by Aiodio is clear from meticulous and painstaking examination of the text, which shows how word associations were changed because of the sound, or because they were clearer or better to say e.g. in certain lines, the meter would cause 'strong greaved' not to scan, so the Achians became 'long haired' instead, and so on. It was also found that cliches, idioms, time honoured phrases, even whole sentences, are used to set scenes or describe gods and their proclivities; they are the pieces in which the poem was passed down and can be shown, by the periodic references to local customs or verbal usages or new developments of weapons or artefacts, to have sources in former times and in widespread provinces. This bears witness to its age and evolution out of the communal imagination. No words are used signifying consciousness or self-awareness or the function of the mind. Indeed there is, in general, no self-awareness or self-determination in The Illiad or Odyssey. For example, on page 73 of The Odyssey (translation E.V. Rieu, Penguin Classic 1946), were Odysseus was telling his story to Menelaus, he says, "I had been anxious for some time to get home..." (as we will see in a moment, the original describes that he had a feeling in his thomas such as a lost dog might have) "...but the gods kept me dawdling there". It is never his fault; he doesn't stay there; somebody kept him. Examples can be taken from anywhere: on page 149, "As for my ship, I answered, it was wrecked by the earth shaker Poseidon on the confines of your land. The wind had carried us onto a lee shore..." (any proper sailor would have been ashamed of allowing himself to be beached on a lee shore) "...he drove this ship up onto a headland and hurled it onto the rocks". As I said, one gets accustomed to

this, accepting that it is merely a way of telling a story, just as the way of telling The Old Testament story is to give an account of our response to the words of god that we could evidently hear:- "Then God spake unto him saying.....' This happens continuously and the instructions given by God are sometimes extremely long, practical and precise. For example, Exodus 25, verse 8: 'God said Let them make me a sanctuary; that I may dwell among them. Thou shalt make boards for the tabernacle of shittim wood; two cubits and a half shall be the length thereof, and a cubit and a half the breadth thereof, and a cubit and a half the height thereof. And thou shalt overlay it with pure gold, within and without shalt thou overlay it, and shalt make upon it a crown of gold round about. And thou shalt cast four rings of gold for it, and put them in the four corners thereof; and two rings shall be in the one side of it, and two rings in the other side of it. And thou shalt make staves of shittim wood, and overlay them with gold'. And it goes on like that for about five chapters - but not just in Exodus. This bit, on how he wanted to be waited on, comes from Ezekiel 44, verse 16: 'They shall come near to my table to minister to me and they shall keep my charge and they shall come near to my table, to minister unto me, and they shall keep my charge... they shall be clothed with linen garments; and no wool shall come upon them, whiles they minister in the gates of the inner courts, and within. They shall have linen bonnets upon their heads, and shall have linen breeches upon their loins; they shall not gird themselves with any thing that causeth sweat'. Again, this goes on at length in this way, which is so typical of the schizophrenic voice demanding to be pampered, indulged and obeyed.

Back, then, to The Illiad. The words that in later times came to mean mental phenomena have quite different meanings and connotations. 'Psyche' which has come to mean soul or mind, is generally, in The Iliad, a life substance like blood or breath so that a person who is dying will be described as bleeding out his psyche into the soil, or that it pours out in his last breath. The thumos, which later comes to mean something like emotional soul, is simply motion or agitation. When a man stops moving, the thumos leaves his limbs. But it is also, somehow, like an organ itself for when Glaucous 'prays to Apollo to alleviate his pain and to give him strength to help his friend, Sarpedon, Apollo hears his prayer and 'casts strength in his thumos' (Iliad: 16: 529). A thumos can tell a man to eat, drink or fight. Diomedes says in one place that Achilles will fight 'when the thumos in his chest tells him to and a god rouses him'. A word of somewhat similar use is phren, which is always localised anatomically as the midriff, or sensations in the midriff, and is usually used in the plural. It is the phrenes of Hector that recognised his brother is not near him (22: 296). This means what we mean by 'catching one's breath in surprise'. It is only centuries later that it comes to mean mind or 'heart' in its figurative sense. The most important is the word noose which, spelt as 'nous' in later Greek comes to mean conscious mind. It comes from the word 'noein', to see. Its proper translation would be something like perception or recognition or field of vision. Zeus 'holds Odysseus in his noose' meaning he keeps watch over him.

Thus, Illiadic men do not have freewill, nor any idea of it. They feel stirrings such as animals feel, caused by surges of adrenalin resulting in physiological responses such as pounding heart, shortening of breath, contraction of stomach, rise in blood pressure or dilation of eyes. And they believe that they are caused by the demands or suggestions of the voices of the gods they can so distinctly hear. To these feelings, and their location in the various organs or areas of the body they give the names we have seen. An aspect of the way in which consciousness evolved from this can be traced in the way, during the ensuing centuries, the meaning attached to these terms changes in the way described.

Translators of ancient works, like The Illiad, often explain that they have set out to write a poem in English that will give the reader the same inspiration and wonder as they experienced in reading the original Greek. As a result, it is their own subjective reaction to the tale that is passed onto us. The

effect upon the culture and the literature and art of Europe and the self-knowledge and self-image of Europeans as a result of having the passionate heroism, the whole gamete, of the behaviour of these epic heroes and heroines both for good and evil, thrust upon us for 2,000 years, is incalculable. If we had perceived that the people in The Iliad or The Old Testament had no free will or self-determination and obeyed voices they heard clearly, ascribing them to God, things would have been totally different.

Students of the people of former times assumed they were self-determining, consciously appraising, wondering, doubting, deciding folk like us. Julian Jaynes' book assembles scores of pages of research to show at many levels something quite different. But a typical example of the way it has been done at the etymological level helps to make the point clear. Consider the word 'mermera' meaning 'in two parts'. This was made into a verb by adding 'iso', thus 'mermerizein' - 'to be put into two parts about something'. But translators wrongly interpret it as to be of a divided mind, or 'trying to decide' whereas it is always used in a behaviouristic context where a person is in conflict between two actions, each urged upon him by the promptings of a god or the stirring-up of conflict within a person's thumos or phrenes (Jaynes, page 72: 'The characters of The Iliad do not sit down and think out what to do. They have no conscious minds such as we say we have and certainly no introspections. It is impossible for us, with our subjectivity, to appreciate what it was like. When Agamemnon, King of Men, robs Achilles of his mistress, it is a god that grasps Achilles by his yellow hair and warns him not to strike Agamemnon (1:197 f.f). It is a god who then rises out of a grey sea and consoles him in his tears of wrath on the beach by his black ships, a god who whispers low to Helen to sweep her heart with homesick longing, a god who hides Paris in a mist in front of the attacking Menelaus, a god who tells Glaucous to take bronze for gold (6:234), a god who leads the armies into battle and so on' (page 72). In this way, the gods take the place of consciousness.

The same sort of situation is present in most of The Old Testament. Let's look at a very familiar incident - the story of Abraham and Isaac, in which God tests the obedience of Abraham to His word in Genesis 22, verses 1-14: 'And it came to pass, after these things, that God did tempt Abraham and said unto him Abraham and he said Behold here I am and he said take now thy son thine only son Isaac whom thou lovest and get thee into the land of Moriah and offer him there for a burnt offering upon one of the mountains which I will tell thee of. And Abraham rose up early in the morning and saddled his ass and took two of his young men with him and Isaac his son and clave the wood for the burnt offering and rose up and went unto the place of which God had told him. And on the third day Abraham lifted up his eyes and saw the place afar off. And Abraham said unto his young men abide ye here with the ass and I and the lad will go yonder and worship and come again to you. And Abraham took the wood of the burnt offering and laid it upon Isaac his son and he took the fire in his hand and a knife and they went both of them together. And Isaac spake unto Abraham his father and said My father, and he said Here am I my son and he said behold the fire and the wood, but where is the lamb for a burnt offering and Abraham said My son God will provide himself a lamb for a burnt offering and so they went both of them together. And when they came to the place which God had told him of and Abraham built an altar there and laid the wood in order and bound Isaac his son and laid him on the altar top upon the wood and Abraham stretched forth his hand and took the knife to slay his son. And the Angel of the Lord called unto him out of Heaven and said Abraham, Abraham and he said Here am I and he said Lay not thy hand upon the lad neither do thou anything unto him for now I know that thou fearest God seeing that thou hast not withheld thy son thine only son from me. And Abraham lifted up his eyes and looked and behold a ram caught in a thicket by his horns and Abraham went and took the ram and offered him up for a burnt offering instead of his son. And Abraham called the name of that place Jehovah-Girge: as it is said to this day, in the Mount of the Lord it shall be seen.'

Now the interesting thing is that at no point is it even hinted that Abraham had any conceptual idea in mind nor that he made up his mind nor made a decision of his own nor that he was conscious of any feelings, misgivings, consternation or doubt. In short, he was no more objectively aware of what he was doing than an animal when we say that an animal is cruel. When, for example, it eats another one alive or when a cat 'plays' with a mouse. The Old Testament is simply not written from the point of view of conscious people. But entirely from the point of view of their life being ordained by God - which, via His voice, which we heard, it was. Indeed, conscious decisions refer to people 'murmuring together' and they were, on the whole, punished for that.

Now the purpose of quoting from The Iliad and The Old Testament is because they are the first material evidence of the situation I have mentioned throughout our consideration of the dawn of consciousness that we felt it was something that happened to us and we tried to identify its source as something external to ourselves. The ultimate consequence of this was that the gods came to take the place of - to be - our consciousness.

In many incidents in The Old Testament, people are, however, described as 'murmuring together' and in this we can detect the stirrings in the apparatus of consciousness of an incipient proclivity to question the voices. People, during the period under consideration, were, by no means, all the same in this respect. But because there was no objective recognition or understanding of what consciousness was - it was, after all, unprecedented and was to afford the very means of such recognition - it was hard for those who might individually have stumbled upon it to decide to practice it. Instead it was only perceived in many confused ways, as also was its opposite - the slavish 'herd mentality' of strict obedience to the law, the god, the voices.

This is evident in several places in The Old Testament where groups of such people are often referred to as 'Sons of Nabiim'. The use of the words 'Sons of' indicates that there was a genetic basis for their behaviour. And, by implication, therefore, that the inheritance of a newer, more enlightened, attitude of mind was also recognised as running in families and, as we will see, particularly in the Noah Story, noted and cherished.

The Sons of Nabiim were, it may be deduced, from various passages in Amos 7, vv. 14-15; Exodus 3, v. 11; Isaiah Chapters 6 and 7; Jeremiah 16, v. 20, Ch. 17, v. 10, Ch. 20, v. 9 to have been those in whom the voices rose up 'like a torrent' or 'coals of fire in the mouth' in ways 'that cannot be contained'. The impression is that they were latterly seen as a bunch of people possessed - as wild, unruly madmen of whom Ahab rounds up 400 of them to listen to their ravings when his own experience of dawning consciousness casts him into such demoralising uncertainty about what he should do. It is possible to follow the way in which such 'prophesying' was originally much respected as being the Word of God - the prophets as much revered as vicars and spokesmen of God's will and how this declined, as described, until the last of the Nabiim were massacred and totally suppressed in the Fourth Century B.C.

Evidence for the recognition, by more enlightened prophets, of this throw-back propensity to a type of person we were trying to develop away from, comes in Zechariah 13, vv. 3-4:- 'And it shall come to pass, that when any shall yet prophesy,' (that is, speak what their voices tell them - speak as the Lord bidden - to prophesy the Word of God) 'then his father and his mother that begat him shall say unto him, Thou shalt not live; for thou sparest lies in the name of the Lord; and his father and his mother that begat him shall thrust him through' (with a sword) 'when he prophesieth. And it shall come to pass in that day, that the prophets shall be ashamed every one of his vision, when he hath prophesied; neither shall they wear a rough garment, a garment of hair, to deceive: to lie'.

From these scant examples of the great amount of evidence, it is clear that the role of a prophet, or of one who prophesied, was to speak the words of the voice which he had heard clearly in his head, like everyone else, and which they had all agreed, for thousands of years, was the Word of God and were now, in this period largely chronicled by the Bible, were beginning to distance themselves from. Recognising this and its fullest and deepest implications, gives the key to understanding what had become of the prime tenets of Christianity and Jewry in the perfectly matter-of-fact anthropological data for the study of the evolution of consciousness in our development from animal into man.

The constant repetition in the Pentateuch, one constantly finds passages where some instruction from God is followed by the phrase 'for I am the Lord'. We all know that the only boss who has to keep reforming his authority by saying '.....because I am the boss around here', is the one who, maybe even unconsciously, feels his authority is waning or doubted, just as was the case in the attitude of those who were hallucinating the reformation. In Numbers, for example, there is talk of 'the soul doing any presumptuous' or despising the Word of God. All references, and they are endless, to rebelliousness, can therefore now be seen to mean rebelliousness against the unbending cacophony of the Word of God towards development of a new attitude of objectivity. Deuteronomy has pages about 'the several rebellions of Israel' and more on 'exhortation to obedience'.

It is obvious that faith in the authority of the spoken word of the voices should begin to be usurped by the written word. This could be carried about; always the same. It could be offered as proof of instruction given and copied down, as was the Koran a thousand years later. It could become a record of such instructions or judgements or of transgressions or failures and therefore the beginning of law and of justice and thus of a literary, and objectively deliberate, administration. And all of this is reflected in the fact that writing began around 3,000 B.C. and it was in the last 3,000 years before Christ that the complete authority of the voices started to weaken. This explains why so much of The Old Testament is written from the, at times, hysterical point of view of a people whose gods were forsaking them and entreaties to Him to look favourably upon his people, not to turn away his face from them, not to cut them off from his voice. And all of this was written so that we can understand it between 1,500 and 800/400 B.C.; mostly in the latter period.

The consequences of the gradual departure of the gods and the end of their commanding voices are abundant, familiar and ubiquitous and we will look at a selection of them and point to their effects in a moment [when you do this, begin by saying that I said we would look at this and it began with the Biblical references to this morphosis, which is the leit motif of the gods going away - the great departure - and our hysterical response and attempts to fill the gap].

But first of all, I want to look at the other side of the coin, with emphasis upon those who had achieved some enlightenment, who recognised that it ran in families and jealously wanted to guard it.

The families of the Jews were well aware of their pedigrees, as is clear in the fact that at the beginning of the first chapter of Numbers, God tells Moses to tell them to produce these pedigrees. They were proud of them in the way which is nowadays understood as snobbish. But what had they got to be snobbish about? They were nomads, so they could not have had estates. None is described as having money. Great leaders, like Saul and Jonathan, were revered for having slain their thousands or their ten thousands, but the Israelites were not an overtly warrior people; they preferred to enter a land as promised by God, to take over cities that they had not built, harvest land they had not tilled and use wells that they had not dug.

The most remarkable example of the recitation of a pedigree to show how it led up to the birth of a man having inherited outstanding qualities is the story of Noah and the absorbing question is, what were the qualities which he was supposed to have inherited? It is confused tale because whereas on the one hand it celebrates Noah as a godly hero - otherwise he wouldn't be celebrated in the Bible as having survived - he is not a rebel hero - at the same time it is - unwittingly, as it were - his very enlightenment - the fact of his being different - brilliant, of superior intelligence, that is being celebrated.

So let's look at the Flood Story, of which there are versions from all over the world.

Just as Noah is the hero of ours, so Ducaliam, with his father Prometheus ('Foresight', though Ducaliam has that meaning also) is, as we have seen, the Greek hero. Uta Napishtim, the Babylonian; Manu, the Indian; Cox Coxtli, the Aztec with his wife Xochiquetzal; to name but a few.

What is common to them all is the fact that mankind had sinned against God and had to be wiped-out so that a fresh start could be made. But what was the nature of this sin? On the whole, it was the sin of disobedience, of free-thinking in any of its forms. In China, it was referred to as 'achieving personality', which was often punished by the 'Broth of Oblivion', i.e. an attack upon the seat of the sense of self-awareness. In Greece, Prometheus took the side of humanity against the Gods in protesting that they should not give so much of the best cuts of the animals in sacrifice, but keep these nourishing bits for themselves. Probably they had new-found, sneaking doubt about the fact that nobody evidently ate them, though would have been, for a very long time, an unspeakable heresy, like King Davit eating the 'shew bread' in the Tabernacle. Prometheus also had the independence of mind to steal knowledge - the knowledge of fire - from the gods and to exercise the conscious faculty of foresight about The Flood. In the Babylonian mythology, the hero was Uta Napishtim. What is interesting here is that the story of the rise of consciousness was, as I have said, always there, like a thread growing through our history, that makes a wonderful, factual sense of it instead of its being obscured by an infinitude of beliefs and superstitions. But, as can be expected, there are endless versions of this theme. For example, in the Babylonian myth it was those who hallucinated the God Bel, whose voices cried out against people who were showing signs of moving away from them and from their god. Like all zealots, fundamentalists and reactionaries, these people proclaimed that the backsliders should be drowned. But it was the God of Knowledge, Ea (which means 'knowledge') who was against this and warned Napishtim so that he built a boat, 120 cubits high, and loaded it with his family, animals etc. The interesting thing, however, is that when The Flood did come it was so appalling the reactionaries panicked and repented. Afterwards, they 'cowered upon the ramparts, shaking with fear' or 'cowered like dogs'. And then they repented and afterwards made the new man, the more conscious man - Napishtim - one of themselves. Thus, symbolically the tale could be told of how consciousness came into the world. And this was necessary because it had to be accounted for somehow.

The way that this happened around the world is wonderfully diverse and we will be looking at examples of this in different cultures later on.

This is not the place to go into the historical evidence for The Flood, but it is a known geological fact that in the complex of volcanic sources, including what is now called the Island of Santorini, not far from Cyprus, a colossal eruption occurred between 1180 and 1170 B.C. Geologists say that the cloud of pumice and ejector darkened the sky for days and, afterwards, the atmosphere for years. The shock waves of an eruption, whose scale has been carefully measured in the crater left

behind, would have equalled the detonation of about 350 H-bombs. A tidal wave followed, which left signs showing it to have been about 750 feet high, travelling at 350 miles an hour. It was caused by the gigantic caldera formed by the explosion filling with several cubic miles of sea water and being instantly boiled by contact with magma and spewing up into air. Babylonian sources tell how 'the brilliance lights up the land, tumult reaches the sky. A rain of filth and mud fell; the deluge descended.' The tidal wave swamped Crete and totally altered the coastline of the lands of the Aegean. There are no doubts whatsoever that this was a real event and that it had been preceded by other smaller, volcanic events so that the people could reasonably have some idea of what was in store for them, though it is evident that the accounts of it were written several hundreds of years later and the reason and explanations invented for the survival of anyone at all when such terrible destruction, and so many casualties, had been caused. It is not surprising that the same source of the Babylonian story, as already quoted, refers to the fact that the heavens rained mud and filth, covering people in mud so much that at one point it is suggested that humanity was reconstituted in the form of people made of mud.

Let us turn, therefore, to our own flood hero, Noah, because here we will find that the most extraordinary response to the need to recognise and accept the new enlightenment of man as reflected in the fact that Napishtim, Prometheus and others had been warned by foresight and knowledge, which ended with them making Napishtim into a God. But the Noah account is extraordinary, because it meant recognising precisely the qualities that God wanted to destroy us for, namely disobedience to his voice, i.e. independence of mind, freewill and consciousness. Genesis 6, v. 5 says: 'And God saw that the wickedness of man was great in the earth...' and describes that wickedness in the next sentence as being '...and that every imagination of the thoughts of his heart was only evil continually.' and that 'their whole imagination' was filled 'with the purposes and desires of their hearts'. Note the word 'purposes'. Purpose is the product of the conscious, almost the epitome of it. It goes on to say that man did what he pleased, did it more and more, and ignored God.

The confusion arises, to some extent, from the unconsciousness of the chronicler coming through when he wrote the story, which is around 800 B.C., urging him to depict Noah as he himself perceived him to be; a symbol of enlightenment that survived from the dark ages of slavish obedience to the voices i.e. preserving the way of illumination and the proclivities of the mind. As a result, the story was written in such a way that the forces of Jewish orthodoxy broke it up and hid it in various ways and places which have only been rediscovered in the last fifty years.

The first evidence of this comes in the Apocrypha. There, in Enoch, fragment of the Book of Noah CVI and CVII, we find that Lamech, Noah's father, upon seeing his newborn child, rushed in alarm to his own father, Methuselah saying 'I have begotten a son unlike other children. He is not human but resembles the offspring of the angels of Heaven. He is of a different nature to ours being altogether different to us'. But in what way is not disclosed. Indeed, it is hidden and buried in The Dead Sea Scrolls and buried between 22 B.C. (about the true date of the birth of Christ) and 100 A.D. It was not rediscovered until 1947. Now, however, we can read that Lamech goes on (Qumran I) to assume his wife's infidelity saying 'Then I thought in my heart that the conception had been from the Watchers,'. Who are these Watchers? You will remember, from the last chapter, the Academy at Pe, where the Egyptians trained those who observed and watched the Heavens and referred to them as The Watchers. It is legitimate to suppose that these were a group of people who had a special, inborn talent for the rigours of stellar observation. We know that they kept up their observations for centuries because, as we have seen, the Egyptians figured out the rules of precession, which occur at the rate of half a degree per year, though it could easily have been true that these Watchers were a hereditary cult. We already know what obsessive attention was given to

genealogies and it rather seems as though this was because the difference between the backward, unconscious automaton, like the Nabiim were reviled and despised while enlightened people, like the favourite of Ea the God of Knowledge, or Prometheus (foresight), of Noah or the Watchers, were much revered. Many of the thousands of Cuneiform and other sources are filled with genealogical tables chronicling, in effect, the gradual rise of consciousness in humanity. This is, incidentally, also true of the great Quipu Libraries of South America destroyed by the Catholic Conquistadores under Cortes because they believed them to contain pagan or blasphemous secrets. A Quipu consisted of a single string from which depended a series of many other strings of different lengths into which knots were tied at various intervals. They contained information of all kinds: historical, commercial, tenure of property etc but especially genealogical details of families.

These Watchers have left their name to posterity for references to the Watcher at the Threshold of Enlightenment can be found throughout the literature of all countries of Europe ever since. It is an important phrase, and very difficult to find any reliable commentary about its origin. It is important, therefore, to note that the pyramid, or tomb, of a pharaoh was called his 'horizon' or his 'threshold' over which he passed into the enlightenment of death, celebrated by his re-unification with his Ka in the eternal twinkling of a star.

The Dead Sea Scrolls in Qumran 1, then go on: 'I thought in my heart that the conception had been from the Watchers, from the holy ones, the fallen angels'. 'Fallen' simply means descended, as 'avatar' means 'a descent'. So it is clear here, as it is in The Book of the Dead, that the emergent wisdom of these people so carefully chosen and taught at Pe, was thought - inevitably, as always - to come from on high. So that the need to find a subject onto which to project it tells the Noah story in such an ambiguous way that it was suppressed. But why did Lamech think that the conception had come from The Watchers? And so carefully were his reasons for this hidden that you have to leave Qumran I and go back to the Apocrypha, The Book of Enoch, to read: 'My wife has brought forth a child the flesh of which is as white as snow and as red as a rose; the hair of whose head is white like wool and long, and whose eyes are beautiful. When he opened them he illuminated the whole house, like the sun.'

So Noah was an albino, and albinism is the result of interbreeding, which confirms the proposition that consciousness was unconsciously recognised and bred for and that children not having it were killed, as in Zechariah. I think it explains the great emphasis upon choice of spouse in all the interbred, strongly hierarchic cultures, particularly the Jewish one. I have said that true consciousness has to be conscious of itself and, at that time, people were not. So it didn't get any objective comment. But it is what is driving the unconscious impulse behind the emphasis upon obedience, or non-obedience, to God just as it causes the sporadic predictions in The Old Testament of a great leader, or king or teacher in the future. For example, Isaiah 7, v 14: '...."Behold a virgin shall conceive, and bear a son, and shall call his name Immanuel"...'. 'For unto us a son is born, unto us a child is given; and the government shall be upon his shoulder: and his name shall be called Wonderful, Counsellor, The Mighty of God, The Everlasting Father, Prince of Peace' Isaiah 9, v.6.

But the story is confused because, on the one hand, Noah is a freak, a strange symbol of the enlightenment that might be expected to follow the destruction of sinners yet, at the same time, by the very enlightenment, perpetuating and increasing the enlightenment of self-determination viewed as the sin for which God had punished the world. And yet, at the same time, was chosen by God to be his most obedient servant and father of the new race. So no wonder such a confusion, so typical of the period of the emergence of consciousness, should have been pushed under the mat of the Apocrypha and The Dead Sea Scrolls. An added confusion arises from the fact that in

scripture, all enlightenment is referred to as coming from God. It was the only source we have ever universally acknowledged.

There are a great many examples of the attitude to the backwardness of certain people like the Nabiim. The style of the books of The Old Testament varies enormously. Trying reading Amos and you can recognise at once how it fits the idea of having been written down verbatim from the ragings of a hallucinating voice by someone who does not understand what it's all about. Compare it with Ezekiel. Read Job and consider the way the 'voice of God' goes on and on abusing him and railing at him, just as one has come to expect from a schizophrenic voice.

There is a great deal of corroborating evidence which can be found so soon as you start to look for it, and Jaynes discusses it in one of his chapters.

But now it is time to look at the scene from a different point of view. We have seen that the advent of writing pushed aside the total importance hitherto given to the voices. Thus all accounts of this period that came to be written down were so done at a time when the power and influence of the voices was weakening - when they were heard less. Let's look at what was happening. We had first felt the original promptings that had begun to supplant and compete with the instincts which we were conditioned to obey by reflex in order to survive. They used, as it were, the same route of conditioned reflexual response that brooked no question or demur. We had selected, as easier to understand and therefore to readily and swiftly obey, those promptings which were to our advantage, that served our best interests. Then, as language developed, it became the carrier of the promptings and we heard them as speech and hallucinated gods as their source. But we obeyed them without question. We were simply not equipped to question them. The apparatus of consciousness was not yet sufficiently developed for them to do this, as I described in saying that there were two halves of the mind - one which ordered and the other which obeyed - and that the bridge of discrimination, which grew later into consciousness between them, was not yet formed. Then came writing and with it the possibility of considering the promptings. Two things were happening. One that the voices often told us things which were false, or not in our best interests, and we were conditioned to obey them and now had a record of this. This stream of thought continued in the evolution of religion in the ideas of obedience. As it was questioned, so it had to spawn a carrot-and-stick encouragement. The 'stick' was - is - the threat of Hell and the 'carrot' the promise of Heaven. It takes, after all, a very long time to overcome conditioning and the idea of obedience, which is pretty well as old as life.

The other stream was the advantages that come from the evolution of consciousness. One of them was the power to concentrate, to hold in the mind a conscious resolve to do a certain job which you needed to perceive the logical steps of and pursue deliberately. To this extent the monumental buildings of, for example, the Egyptians reflect the fact that someone, some rare person gifted with more consciousness than others, could have had this mental grasp and by the hierarchy of the god king become the source of hallucinating voices telling the workers to obey. This explains why those who toiled to build the pyramids were not slaves - they did not need to be - they were still conditioned to obey the voice of their god king who designed the pyramids and believed to be a god. The broken bones and crippled skeletons of those labourers bear testimony to their slavish response to their voices.

I made the point that so soon as you accept the idea that the passage from unconsciousness to consciousness led through the period of 3,000 years in which all the statues and temples that we mentioned at the beginning of the chapter and also much of the Holy Writ upon which we place our understanding of the past was produced, we can come to a new understanding of the history of the

various cultures. We will consider two of them: the Egyptian and the Jewish, which were coeval. But the important difference between them is that the Egyptian can stand to represent all the other cultures of the world which were polytheistic, while the Jews represent monotheism which, at that time, was unique to them. We will begin with the more representative polytheism of the Egyptians.

Little is known for certain about the origin of the Egyptian people, nor where they came from. Their earliest records - the fragments of which are pre-dynastic - refer to them as entering the Nile Valley with their Totem animals carried importantly at the Van. So the significance of animals, for them, was paramount, as it had been for the cave people. We will see to what extraordinary lengths this eventually led.

Like the cave people, they were interbred. The pharaohs and upperclasses married their sisters. One of the Utterances from The Pyramid Texts says:- "Your sister - and wife - Isis comes to you rejoicing for love of you. You have placed her upon your phallus and your seed issues into her, she being ready as Sirius, Horus-Soped has come forth from you as Horus who is Sirius'.

They lived, as the cave people had done, in isolation, cut off from the world by the desert on three sides and by the sea on the fourth. As time went on, they became a closed kingdom, brooding introspectively over its obsessions and rituals. Their language was unique and its writing, which was developed especially to communicate it, could not be used for intercourse with the rest of the world, so Cuneiform was used for this purpose instead.

But they brought with them the certainty of there having been a 'first time', Tep Zepi. It is, I think, significant as a record of the first idea of time - an objectification of our experience - just as the idea of the first man had been the attempt at an objectification of ourselves. The same sort of thing is present in Greek culture in their idea of Mythological Time - in the Jewish culture with the idea of the Time of the Patriarchs and, of course, in Australia as The Dream Time.

All these things are the puzzling example of what I have referred to as the apparatus of consciousness, which lay about as potentialities unconnected and unrealised in ourselves.

But, if this Tep Zepi is a folk memory of a 15,000 year-long First Time spent, at any rate, by some elements of the tribal population in the caves, it would provide a background for much of what was to happen. Because they started building cavernous temples and also tombs and very soon were building pyramids - still the largest buildings on earth. Now the whole concept of building like this for the first time does not just spring into the mind from nowhere. Was there, perhaps, an urge to recreate the womb-like environment in which our strange, cloudy proto-consciousness had been born i.e. the caves, whose environment had been the forcing house for the evolution of language. After all, to have evolved language, to have made the figurines and the Quadba, to have invented the x-ray style and painted on the walls of caves puts us so far beyond the scope of a true animal origin that it must be accepted that abilities and potentialities, which I have called the 'apparatus' of consciousness, were flickering and flaring sporadically and not understood within ourselves. Did our cave experience cause us now to begin making surrogate caves of immense size with huge walls on which to draw and now to write? We will see how obsessively and repetitiously we wrote down the words spoken to us by our hallucinated voices.

So what did we draw? Among the very first things were Therianthropes. As we have seen, we first thought of the animals as The Source, and then, gradually, particularly as language developed, we evolved the idea of gods who could speak like us, as being The Source - and yet, they were perhaps half-animal also and so everywhere in Egypt we drew human figures, which are part baboon,

falcon, jackal, lion, serpent, scarab, ram, dog, ichneumon, cat, goose, cow, crocodile, greyhound or dwarf with bushy tail. All cultures went through this period as we tried to disentangle ourselves from the connection with animals. The Egyptians did it by gradually turning the animals into gods so that it was the gods who were half-animal. The Indians show a very much more economical method by which they exemplify the same sense of the course of this evolution, which had lain in our unconscious for untold thousands of years. They represented it in the way that the Avatars led up to the final representation of the human being.

In India, Avatar means literally 'a descent' - the form in which the god descended to move amongst us and ordain and direct our attitude of mind - our way of thinking or behaviour. I would say the form in which The Source represented itself from our unconscious so as to cause us to perceive it in certain forms.

Just to describe the eleven Avatars of Vishnu shows how our unconscious awareness of this Source goes from something very primitive and wholly animal via something partly animal to a primitive type of human and on to, eventually, a fully enlightened person. The first Avatar of Vishnu is Matsya, The Fish; the second Kurma, The Turtle; 3rd). Varha, The Wild Boar; 4th). Nara Simha, The Man Lion; 5th). Vamana, The Dwarf; 6th). Rama, with his bow - a weapon at last; 7th). Parasurama, Rama-with-the-Axe, to break the power of the warrior; 8th). Balarama, Krishna's fair-skinned brother; 9th) Buddha, called an Avatar of Vishnu by the Hindu Brahman's; and 10th). Kalkar, who will eventually destroy the present age of degeneration; and finally the eleventh is Krishna, the most famous Avatar of Vishnu who has become a separate deity.

To my way of thinking, our in-dwelling sense of the Source which, by screening off we made mysterious, can legitimately have all the names of god that fill the mythologies and pantheons of the world. Hesiod alone said there were 30,000. We seek them here or there in this or that form or guise while, at the same time, we are looking and feeling in all directions for our place and function as nearly-aware humans. The Indian figures, with six arms, searching in the air for their proper use or with several heads searching in all directions, seem to be saying 'Who am I?' or 'What am I?', 'What can I, should I, must I do or be?'. The exploration of the potent sexual potentials in the search for self-awareness, wholeness of mind and ecstatic enlightenment through exploring them in the KamaSutra is not wholly unlike the Egyptian exploration of the human identity in the image of the Therianthrope, the half-animal, half-person, half-god or, as in The Book of the Dead, the attempt of the voices by trying all combinations to chance upon the 'right' one. Except, of course, we never in any of these contexts knew which the right one was nor had any standard by which to make that judgement, so that we always ended up by saying (in whatever vernacular) 'My god is righter than your god - fight you for it', as we do today.

We could feel the Source and the thread of consciousness brokenly connecting us to it in a thousand different guises. But we were also sometimes prompted to feel it was but one - our inner self, the 'all' condensed into the 'one'. And it was this that Krishna so exquisitely expresses with the phrase that pulls all the prayer mats from under the knees of Islam and the hassocks from those of the Christians by saying, 'To whatsoever god thou prayest it is I who answer thy prayer'. There can't be two omnipotent gods, anymore than there can be two infinities. There is but one source and its evolution in us from the unconscious of all organic life as suggested in Chapter Two towards ultimate consciousness as the whole significance of the universe is what we all sense and call by all the names of God.

* * * * *

The extraordinary importance of the Egyptians having invented building in cut stone - Imhotep, who designed the Great Pyramid, is perceived as the semi-divine originator of this skill - cannot be exaggerated any more than can the likelihood that the caves had been the forcing house of the evolution of language. So how did it begin?

The people had come out of the caves when the weather began to warm. It did this rather suddenly - ice caps retreated northwards at about 50 feet per day - about 1,000 miles in 500 years. The people were soon lying out at night, looking at the roof of the cave i.e. the sky, in which their conditioning easily caused them to recognise shapes of animals and people involved in some extraordinary and mysterious intercourse as they had been accustomed to portray them on the ceilings of their caves. I say 'easily enabled them' because I am always amazed at the ancient star maps where just a few stars have suggested figures and tableaux of great detail, which are then drawn around in such baroque complexity. It is not surprising, then, that when they found themselves looking at the immense figure of Orion hanging above them with an obvious erection - nowadays called his 'sword' - that they named him as the father god of all and later, as we shall see, went on to make such amazing experiments in an attempt to draw down onto the earth at Egypt the very fabric of the idealised First Time over which he could preside.

At Pe, there was, as we have seen, an academy that trained The Watchers of the sky and this was where they worked. By 4241 B.C., they had a year of 365 days, a calendar regulated by the sun and moon, with 12 months of 30 days each with 5 feast days at the end. They had created and established the first 'year' in history. The precession of the stars at about a half a degree per annum takes a long time to observe and measure, but The Watchers can be seen to have had that amount of time and they also used it to design and construct the buildings that they did to orientate them, their passages and parts with meticulous accuracy onto various stars and in relation to various constellations. And yet, as we have seen, you do not have to be conscious of being conscious to do this; you can do it in obedience to your voices. And we will consider the torrent of these voices as they were poured forth and written down in all their numbing, repetitive combinations in thousands of sources. In the caves, we seemed to have had some stirrings about the fact of death, even to feel a kind of responsibility or remorse, about inflicting it. Now, in Egypt, with the invention of writing, what did we first start to write about? And the answer is death. The thousands of papyri - The Pyramid Texts - even the pyramids themselves and other lavish tombs, and The Book of the Dead all reflect the hit and miss babel of our voices about what was in store for us. A schizophrenic's voice is often indifferent to causing pain to the person - but the idea of death is different - it is feared. The unequivocal aspect of consciousness that distinguishes us from animals is the recognition of our own mortality and part of the apparatus of emergent consciousness lies, obviously, in the unconscious that is the source of the voices.

We have seen already the significance of the Ka upon which the obsession with mummification and afterlife is centred and pointed out that the half-dozen or so scholarly contradictions as to what the Ka signifies fall away when it is identified as the voice which utters the promptings, the directions from the gods - sometimes via the parent or ruler - which we perceived as The Source of what was our emergent consciousness. The Ka survived death in that the voice of the person from whom it was thought to emanate: parent - king - leader etc, continued to be heard after death until it faded away. It is why some of the earliest inscriptions, written on the wall of The Pyramid of King Wenis in 2,300 B.C. are described as 'Utterances' and why they have the bright immediacy of the spoken word. I spent 12 years as a B.B.C. radio talks producer. At that time, talks were written and then read, mostly by literary or scholarly people or alternatively by people who were neither of those and self-conscious about their writing ability with the result that they manifested all sorts of contrivances to try to make it sound grander. I used to meet the speakers, decide if they had

anything interesting to say and then ask them to write it down and send it to me. I spent many hours trying to get them to produce a version with the same immediacy and vibrance as had first attracted me in our discussion, so I've had a bit of experience about what sounds or looks like impromptu speech. Even across the thousands of years and fog of translation, there remains a clear difference between the style of the Utterances and the prayers, incantations, rituals or spells and the inter-stylistic explanatory parts of The Book of the Dead.

There are 518 Utterances in the Wenis Pyramid (see 'The Ancient Pyramid Texts', by R.O. Faulkner, O.U.P. 1969) and upon them is founded The Egyptian Book of the Dead. In this, there are whole chapters concerned with the sealing of the mouth - the fountain of the precious voice - and then even more upon its opening in paradise. Let's look at one or two Utterances concerning the mouth, because the voice was of such great importance. For example, Utterance 599: 'The King is a clevermouth...all the gods are pleased with everything which the King says, by means of which it goes well with him forever and ever...see the clevermouth who is among us; he summons; let us go and join him'. This veneration for the person who gave orders well we also found in the Rig Veda and then on page 268 of The Book of the Dead we find: 'I have pressed for thee thy mouth, even as thy father pressed it in the name of Seccker. Hail Horus hath pressed thy mouth for thee. He hath opened thine eyes for thee: Horus hath opened thy mouth for thee, he hath opened for thee thine eyes: they are firmly stabilised. Thy mouth was closed. I have ordered thy mouth and thy teeth for the true order. Thou hast again opened thy mouth: Horus hath opened thy mouth. I have stabilised thy mouth firm. Horus has opened for thee thy mouth.' And it goes on and on like this in the chapter for opening the eyes, securing the eyes, opening the mouth and so on, chapter after chapter, and much longer in the other versions of the Book. The emphasis upon the eyes is significant because the pre-conscious person listening to the words he identifies as coming from the statue of the god would stare eye-ball to eye-ball at the statue while it was speaking. This can be seen in many statues where the person has a special, glazed look perfectly recognisable and distinct from the look on the god's face or on the face of humans doing other things. It also gave rise to the range of statues with enormous eye-sockets that once contained eye-balls of precious stones or bright, hypnotic colours.

We have seen that the voices of the gods were often wrong. They could make decisions, give orders or make demands but they could not tell you things your own unconscious had no possible means of knowing. I described our ancestors as blundering about on the savannah of evolution and coming, by chance, upon some acquisition or combination that offered them something that they could recognise as advantageous which they then used, or learned or went along with. In the endlessly repetitive speech of the funerary rites, we can actually hear this happening as our own voices go on saying things over and over again in slightly different ways, trying to utter, by chance, the solution to this or that problem; the explanation of how to achieve the desired aim i.e. the life of the voice - of the Ka - after death.

Utterance 575 celebrates the arrival of the King in paradise and it provides an example of the way the voices typically all clamour to take credit for this:

'Behold he has come; behold he has come' says Zhpw.

'Behold the son of Re has come; behold the beloved of Re has come' says Zhpw.

Then 'I caused him to come; I caused him to come.' says Horus.

'Behold he has come, behold he has come,' says Zhpw.

'Behold the son of Re has come; behold the beloved of Re has come,' says Zhpw.

'I caused him to come; I caused him to come,' says Seth.

'Behold he has come, behold he has come,' says Zhpw.

'Behold the son of Re has come, behold the beloved of Re has come,' says Zhpw.

'I caused him to come; I caused him to come; I caused him to come', says Geb.

'Behold he has come, behold he has come,' says Zhpw.

'Behold the son of Re has come, behold the beloved of Re has come,' says Zhpw.

'I caused him to come; I caused him to come; I caused him to come,' say the souls of Om and the souls of Pe.

Utterance 599:

'The King is Geb the Clevermouth, the chiefest of Gods whom Atum placed at the head of the Ennead with those Utterances the Gods were pleased. All the Gods are pleased with everything which this King says, by means of which it goes well with him forever and ever. Atum said of the King "See the Clevermouth who is amongst us. He summons us; let us go and join him.'

In other Utterances [Henry, please don't quote anymore of these - they're driving me mad!!!!!!] Thoth and Horus are the ones who open the mouth - split open the mouth etc for the departed.

The rites also offer an example of the operation of consciousness not being able to distinguish what was and what was not reality. As a result, bizarre things happened. To help the person making the voyage from the tomb to the stars, provision was made for the mummy to urinate and defaecate and food and drink were provided. To study the words and rituals so as to understand the implications of how the voices of our hallucinated gods very slowly took on board new understanding etc., and would teach us how consciousness evolved - how it was moulded by the more or less random steps it took etc. But it is not studied in this way.

Our ambivalent attitude to animals, as being partly gods, and the home of The Source, made them so sacred to the Egyptians that if anyone killed one of them he was often set upon and lynched or tortured to death. The first century writer Diodorus Siculus reports having seen a Roman soldier who had killed a cat by mistake being set upon and killed, in spite of the wrath of Rome that that would certainly incur.

Mummification and the sanctity of mummies resulted in such an enormous number building up that when, nearly 2,000 years after the end of dynastic Egypt, the Suez Canal was opened in 1869, steamers taking P.O.S.H. people to and from India bought mummies as fuel for the ship's boilers.

In the last chapter, I suggested that from the clay breast, we evolved the mother figure as a representation of us as ourselves - as people. Such things represent the long, long fumbling towards self-awareness, carried out in so many different ways, as we have seen, without any objectification of what we were doing. But, in this and other ways, the apparatus of consciousness which was being formed and which later assembled itself into one or more of the idioms in which self-awareness could become manifest.

A few thousands years later we find the Egyptians toying with, mulling over, changing, learning from and getting better at, words, sentences and ideas that could be manipulated, studied or developed in the hieroglyphs, rituals and funerary practises, all of which were worked out in the gigantic edifices and statues of this cut stone, mathematical and astronomical culture which they developed as the monumental Thinking Aid - an unquickened apparatus of consciousness - that endured for 4,000 years.

The Great Pyramid is still the largest building in the world. It covers 13 acres and is 481 feet high, comprising 2« million stones, weighing 2« tons each - more than all the stone in the cathedrals of Britain, with an outer casing of white limestone, whose stones fitted so closely you can't get a

knifeblade between the ones that remain and the whole massive thing was orientated exactly to chosen stars. They built them in about 20 years without the help of wheel or iron and without slaves. The workforce being part of the will, experienced by the voices of the god-king they all obeyed. It was, in fact, only the impetus of the unconscious evolution of mind - the significance of the universe - that could, when still in its infancy, have achieved such a thing - and look what it has gone on to do.

The power of the mind is the object of all awe, as it is of all creativity and the story of its development in the only important thread of the whole of evolution. And yet, as I have remarked, we are always looking to discover, ready made in antiquity, a wisdom we have lost and can perhaps regain if we dig deeply enough. This idea is still with us and I will give a precis of one its most bizarre examples from modern times.

During the dynastic period, the Great Pyramid had been sealed and the entrance lost. In 800 B.C., Mamoun broke in and looted it. Nothing is known of its contents. It then remained silent for 2,700 years until Piazzi Smythe, Astronomer ROyal of Scotland, 1845-88 having discovered that it was built to the scale of an inch, decided it has a special significance for the people of the inch, namely Britain and America, and decided to investigate it.

The relevance of America is fascinating because of the unconscious influences at work. The American Great Seal of State shows a cap, or ben-ben stone, just going into position on the top of a pyramid. The Bible says 'The stone that the builders rejected is become the head of the corner' and America's greatest poet, Stephen Vincent Ben,t, encapsulates an unconscious, self-portrait of America in the lines which help to introduce his epic poem, "John Brown's Body", when he describes those who settled this great country as:

'Step-child of every exile from content
And all the disavouched hard-bitten pack
Shipped overseas to steal a continent -
With neither shirts nor honour to their back.'

It is these rejects who have now indeed made their country the head of the corner of the world.

Piazzi Smythe's investigations had led to Sir John Herschall discovering that the polar diameter of the earth is 500 million inches, if only the inch were 1.001 of the British Inch. Which is exactly what Piazzi Smythe had shown the pyramid inch to be. Thus, said Sir John, the world and the pyramid are both built to the scale of an inch and he went on as follows:

'The sides at the base are not perfectly straight, but curve just so slightly as to describe the arc of a circle having the same radius as the earth. Half of the diagonal of the base bears a ratio to the vertical height of 1:9 and, if the height of the pyramid is multiplied 109 it equals 91837484 which is the earth's mean distance from the sun in miles. The mean height of the land of the world above sea level is 418 feet and this is the height of the pyramid. The average depth of the sea is included and the best temperature for man, namely 62of is the constant temperature of the King's chamber (until the tourists got there) - the biggest within the pyramid. The density of the earth, the G-force it exerts and its weight were included, the last being a thousand million times that of the pyramid.'

There was a great deal more information including, for example the value of Pi and of Phi and other formulae. Indeed, a follower of Piazzi and Herschall called Davidson was quoted in the book

by P. Thomkins ('The Secrets of the Great Pyramid', by Peter Thomkins, pub: Alan Lane 1971), as saying that to have arrived at the solid figure incorporating so many and such subtle formulae infers the performance of literally millions of calculations, and he went on:

'Having thus been given the weight of the earth, its distance from the sun, the length of the sidereal year in seconds, you could compute the rate at which the earth is falling towards the sun. This, in turn, would lead to finding the specific gravity of the earth, of the sun, of earth and moon combined, the solar parallax and the speed of light'.

All that data was found accurate to several places of decimals in the proportions, angles and measurements of the pyramid inside and out, from which Davidson summed-up the point I am making:-

'It has taken man thousands of years to discover by experiment what he originally knew by a surer, simpler method. It means the whole empirical basis of modern civilisation is a makeshift collection of hypotheses, compared with the natural law basis of the past'.

It is, as I said, a continuing example of our propensity for inferring a mysterious, lost learning through our having screened off The Source.

In reading through the Egyptian material, which is so very difficult and opaque, I tried to feel as they felt.

An unconscious sense of ourselves had begun around the figurines. It had been flung as a shadowy essence on the ceilings of the caves and then into the vastness of the sky. There it - the Ka - twinkled forever, filling us with terror and exaltation. All the confused myriads of images; of sex, insemination, of death and life, or eternal life, sanctity, the role of the animal, Therianthrope and god drove us in ways we were quite unable to think about. Although we made overwhelming attempts, in stone and hieroglyph, we could only experience. It was just the experience, the thing itself, we marvelled at and celebrated and worshipped. We failed to become objective about the experience, about thinking, because we were all the time pushing off the promptings that were rising and rising in us, onto the voices of the gods we hallucinated as being the source of these promptings so that, for thousands of years, they took the place of consciousness and we continued the habit of obedience to instructions and never questioned their authority.

At the same time, the magnificent pantheons of the Greeks was providing us with all manner of gods who spoke to us about different aspects of our personalities - who ruled over us, ordaining our behaviour or stirring-up rage, lust or fear and all our actions. Let us look at one or two of the best known of these gods to see how the ways in which they did this are reflected in the attributes or behaviour ascribed to them.

According to Hesiod in his Theogony, 735 B.C., the earliest of the gods was a universal mother - the Earth Mother, Gaia - 'the deep breasted earth'. And the earliest figures of her resemble the ones discovered from 20,000 B.C. Interestingly, the phrase 'the deep breasted earth', is common to the Vidantic Mythologies also. It is from her that all the other gods descend, and she is stated to have existed long before them. As always, a 'former time', a Tep Zepi, a Dream Time, a time of the patriarchs and the various Hindu former ages, is inferred and will be discussed in Chapter Six.

When the gods swore an oath, it was by Gaia that they swore it. It is a beautiful thought that the whole of our unconscious as represented in all of mythology knew itself, from time immemorial, as

the spawn of the earth - that even the gods that made us were the earth's spawn and did not have any supernatural origin and it is a hideous fact that we are ignorant of this. It was also always known that Gaia could foretell the future, which means she had a sense of whether the present was leading her own survival and wellbeing. It is not, therefore, surprising that the Oracle at Delphi was first Gaia's, long before it became Apollo's.

When, at last, there comes the first conceptualisation of the grandiose, primordial male Zeus himself, who turns into the megalomaniacal fornicator, the strutter and fretter double-dyed, even he acknowledges with grace Gaia as his mother and does not dispute her wisdom.

The thread of consciousness is always cryptically there and so often we are unconsciously aware of it. The story of the mythological Prometheus illustrates this in that it records our first dawning sense of a faculty, albeit unconscious, like a sense of smell or foresight.

As I have, all pantheons are different and they take up the thread of the evolution of consciousness and present it quite unwittingly in different ways.

We had this feeling of considering the future - of foresight. So, also, we had feelings about The Source and how messages were brought to us by the voices. Indeed, that is the very essence of our having hallucinated them. So some of us - the Greeks - felt that there was a god in charge of those messages, who had special responsibilities in the bringing of messages from the head of all the voices, all the gods, namely Zeus. He is named as 'Hermes' and he is described by Hesiod as coming to us from him 'to undertake the most delicate missions amongst us in bringing to our hearts the impressions and sentiments which Zeus had inspired'. How this was to be done is suggested by his attribute, but it is a suggestion that is so subtle and speculative we will not be able to evaluate it until we consider it in terms of quantum mechanics in Chapter Six. For the attribute of Hermes is the staff with a caduceus, the counter-entwined helix of the D.N.A. molecule which carries the blueprint of the hereditary personality of ourselves and thus the recipe whereby self-determination and consciousness will work.

Psycho-semantic influences are real and we can learn to control many of our automatic, metabolic functions. Whether we had some direct, fleeting intuition of the design of this genetic code of behaviour which was thrown up out of The Source as a 'delicate mission' that brought to our hearts its 'impressions and sentiments', is the question we will consider in the light of what we know about the behaviour of primary particles of matter that propose a reality that is different from the orthodox reductionism.

In India, the same helix design is to be found in the Chakra, superimposed upon a person's seated body in such a way that the arms of the helix cross over on the principal, influential centres of the body where the disturbances from the promptings are often described as being chiefly felt.

The image is also to be found in the double screw-shaped scimitar in Chaldean iconography and in other parts of the world.

There are four other artefacts which are concerned with the way we conceptualised the experience of the promptings - of ideas coming, this time, into our heads or brains that concerned the dawn of mind artefacts which I will describe as the real material apparatus of consciousness - thinking aids - that our unconscious needed to help in its groping towards an objective understanding of what was subjectively happening:

1. The Phylactery - a small box containing passages of The Torah, worn strapped between the eyes and on the left arm, facing the heart, of Jews at prayer. It was ordained in Exodus 10: 9: 'And it shall be a sign unto thee upon thy head and a memorial between thine eyes that the Lord's law may be in thy mouth'. It encapsulated our obligation to be obedient to the word - the voice - of our authority and to speak accordingly the promptings from the gods we were hallucinating.
2. The Egyptians wore, between their eyes, the famous Uraeus, a serpent, the symbol of knowledge, and it represents the same preoccupation with the reception of the promptings from the voices in the head.
3. In the same place - on the forehead - Indian statues have a lens-shaped mark called the Gurna, which is said to symbolise a 'tuft of radiant hair', which would seem to symbolise knowledge or inspiration from the voices in some way.
4. There is also the ubiquitous protuberance of the skull in the same place which, in the case of statues, is often an in-set jewel. This is called the Ushiska and is commonly to be found in the art of Japan, China, Sumaria, pre-Columbian and Scandinavian art; for example, in the forehead of Odin, and again symbolises the fact that we received and obeyed orders in our heads from our voices.

These are some of the artefacts that refer to our dependence upon the authority of the gods. We are dependent and wish to remain so because consciousness, which involves self-awareness and self-determination, seems a lonely and frightening prospect after our eternity of belonging in a mindless and instinctive existence. Our apprehension manifests itself in two ways. First we invented the gods so that we could make them shoulder this responsibility for determining our behaviour and secondly we invented a system of punishment and reward for them to administer. It is an interesting and subtle point. If you are afraid of taking responsibility, you very easily invent a lot of dire consequences for doing so. We invented the idea that god would punish us if we exercised consciousness instead of submitting to ancient, comfortable, mindless, instinctive conformity.

The best example of the pantheon we invented to ensure such obedience and conformity, and therefore lift from our minds the difficult responsibility for new-fangled thinking for ourselves, was the Chinese pantheon, whose most important god was Wan.

Wan was a transcendental bureaucrat, with an army of bureaucrats under him who kept registries, entered sins in triplicate, issued directives and made annual reports on people's behaviour. Gods were promoted, even dismissed, but the offices remained i.e. our need was still there, but as time went on, had to be supplied in a modified, perhaps more sophisticated way, to satisfy a growing mind. But woebetide anyone whose mind grew too well, because the god, Lei Kung, 'punished those who had achieved personality' (Larousse). It is a startling revelation. Being conscious - being a free-thinker - was not only frightening but dangerous. The heretic was already being punished. The terrifying quality of the uncharted notions of self-determination made us crouch back into our primal experience of mindless belonging and obedience.

Every town or administrative district had its Commissioner and Wan would make tours of inspection. Also, as in other pantheons, there were the half-gods and junior district gods and partial gods, who even taught children to spy on their parents for not being sufficiently godly or for attempting to achieve the freedom of sovereign personality. For those who failed in obedience to the rules of the pantheon, there were eighteen hells similar to the different level in Dantes' Inferno,

appropriate to different degrees of non-conformism and, on the other hand, there was the reward of Kun Lun, or paradise, which was offered to the conformist. If you failed at everything, you got the 'Broth of Oblivion' so that you forgot who you were and all about your life. That was the way the Chinese mind symbolised the hierarchical security of age-old belongingness that it hankered after and, lo and behold, what sort of a culture did the Chinese create? An exact replica: a celestial throne with a god-king on it; an army of exquisitely differentiated mandarins to pry into and control the lives of the people. Thus, they too tried to bring heaven down to earth, as the Egyptians had done in the desert, being unable to differentiate between the model and the real thing. So then, when all this ended in 1917, it was very soon replaced by the dictatorship of Mao Tze Tung, who gave the 'Broth of Oblivion' to several million dissenters by bumping them off and instituted his versions of the divine hierarchy, even to the point as reported in 'Commune', the organ of the Communist Party that was widely read and much quoted in the Peking press: 'We can remake the mental outlook of the street dwellers to create an entirely new human being'.

It is interesting that this authority, offering Kun Lun, paradise, is always perceived by every pantheon as being 'up there'. It is a very powerful feeling in us all and it should be remarked that feelings precede ideas such as those of, for example, an ithy-phallic father in the sky, like Orion. So what is their origin?

Is it a relic of our dominant, male primate ancestor, occupying and maintaining for their use an optimum level in the arboreal territory, whence he could keep an eye on his minions, rushing down to chastise the undisciplined or copulate with a likely female? Or was 'good' always felt as up because, for a mammal - and certainly an anthropoid - reward and punishment always came from 'up there'. Reward, in the form of milk, is always above an infant's face as is also the benign smile of mum. In the Elaine Morgan watery scenario, up means air itself - survival; also mum's hair to reach for and hang on to. But also an anthropoid punishing hand is raised above an infant and descends in a blow. In the Morgan scenario, you can't slap anybody underwater but you could on dry land where suckling took place. So our mythologies are universally filled with a power and reward system that come from on high and our languages are full of its images. We kneel, or raise hands, in supplication. We 'look up' to our 'superiors'; 'go to the top of the class'; we 'drop on' miscreants; and 'crack down on them'. Heaven, paradise and gods are universally known to be up in the sky.

Religions are based on the idea of bad and good - sin and virtue. Virtue is obedience to god's will i.e. the renunciation of conscious, self-determination - sin is its exercise. Our unconscious fear of this causes us to invent punishment as I described as an 'excuse' for not doing the difficult and scary thing, and we are rewarded for obedience, punished for disobedience, ultimately, in heaven or hell. But inbetween are all kinds of weapons and ways of coercion and punishment to keep us on 'the straight and narrow path', which we invented for the gods to use against anybody who did not agree that he was the rightest god of all Zeus and Indra had their thunderbolts but also, for example, Chan Quo Mao had the flying sword called Ting Pin; Shiva had the flaming disc; Krishna Rama had the 'winged weapon with the point of fire that went and destroyed and returned humbly to its master'; there was the beam from the finger of god and his heavenly sickle and the divine flame that licked-up houses and huts. There are also references to devices whose description makes them sound as though they reacted directly upon the metabolism, causing people to stand as though 'astonished', or to 'rush in terror from the field' to suffer 'paralysing panic' like that caused by Odin's Heretofore.

Today, in war, we are, as we have always been, easily able to convince ourselves that our enemies are evil because not like us. We think our god is on our side and our god is, by definition, righter

than your god - we are only doing god's will when killing Muslims or Serbs, or vice versa. The belt of every German soldier in The Second World War had 'Gott mit uns' enscribed on its buckle and an American Padre, during the Battle of Wake Island, said "Praise the Lord and pass the ammunition and we'll all stay free" i.e. free to obey our god in our way. To raise our consciousness we must know ourselves. Which does not mean hiding behind remarks like 'All life is sacred'. The evolution of mind is a great deal more difficult and important than that.

This brings us back to a consideration of the Jews, because, in the present context, they are unique.

All the other cultures had more or less vast pantheons - were, and are, polytheistic, like Hinduism. They also built all those statues and images and painted pictures, first of the animals they worshipped, then of the therianthropes which became half-animal, half-god like those exemplified in the ascending range of avatars, and finally palaces and temples of gods and goddesses.

By contrast, the Jews had The Ten Commandments; words spoken by God and written down with his finger on tablets of stone. And the second of this says: 'Thou shalt not make unto thee any graven image of any likeness of anything that is in Heaven above or that is in the earth beneath, that is in the waters under the earth; Thou shalt not bow down to them nor serve them'. He thus forbade them to make an image of himself or of any animal, or to worship them. He was insisting that there was but one god and it was his word and his voice alone that mattered and should be heard and obeyed. It was the unconscious voice of the Israelites united by bondage and suffering that caused them to throw-up the image of one god uniting them all. But it is the origin of monotheism and we will trace its course and draw conclusions from it at the end of this section i.e. that the Jews heard the same voice - others heard many. This gave, to Judaism and Christianity, the power, authority, coherence and drive that dove-tailed so neatly into the Greek enlightenment which we will consider in a moment, and which they spread across Europe and which was exported, with the enlightenment of the Renaissance it inspired, to the world. It also, of course, created the bigotry and intolerance to be seen when the next monotheistic religion came along in 600 A.D., which resulted in the terrible cruelty of the Crusades and later, so far as Christianity was concerned, to the Inquisition and the Reformation and, now that Islam is so well financed, to the tragic misinterpretation of the teaching of Allah by the Fundamentalists.

So let us consider this origin of monotheism in the way that it arose and what it means in terms of the words of gods we hallucinated and obeyed and finally, until, as we shall see at the end of this chapter, it was outgrown in the centuries before Christ.

It began in 1400 B.C. they had gone into Egypt to escape famine, but they came to be exploited and made bondage. This inculcated in them a strong sense of persecution so that they grew-up indoctrinated to survive by obedience to a strict code of self-reliance and a sense of tribal identity and loyalty. Leading up to this time, they had, like all the others, been hearing their hallucinated voices. Then came the traumatic experience of being made bondage and being exploited by the Egyptians who, thinking themselves many degrees superior by their wealth, art and building to everybody on earth, gave the Jews a hard time. Their voices had failed them - they needed one voice, a strong and powerful one, which would unite them and lead them out of bondage. And it so happened that, at this time, Moses, a Jewish baby found and adopted by Pharaoh's daughter, grew up to become a considerable official in Egypt. But because he belonged neither to the Egyptian nor Jewish culture, he was isolated and lonely and he acutely felt the suffering of the people to whom he truly belonged. As a result, finding an Egyptian maltreating a Jew, he came to the help of the Jew, killed the Egyptian and had to flee into the wilderness to escape reprisal. There, in fear and trembling, belonging nowhere, as symbolically humanity was in limbo between

unconsciousness and consciousness, he heard a voice speaking to him out of a burning bush. This was a Prompting of epic proportions; perhaps the greatest ever recorded. To this voice of the Source within himself, he put the question consciousness must eventually put, asking who it was who spoke to him. To that question there can be only one answer and the voice gave it: 'I AM that I AM', it said. There can't be a more wonderful description by the conscious of its unconscious and here again we have an example of unconsciousness fumbling towards an idea of self-awareness.

It would not be until 1637 that the next step was taken, and this time entirely by consciousness:- 'I think therefore I AM'.

It is interesting that this projection out of the dawning mind of Moses should also faithfully continue the primal aspect I have emphasised of the pursuit of best interests. This is evident in the fact that "God's" immediate injunction to Moses, in promising to free his people from bondage in Egypt, was that Moses should ensure that when they left 'they shall not go empty but every woman shall borrow of her neighbour, and of her that so journeth in her house, jewels of silver, jewels of gold and raiment shall ye put them upon your sons and upon your daughters; and ye shall spoil the Egyptians'. So that is what Moses did.

But the people he led forth into the wilderness were united by the paranoia of their persecution in Egypt to hallucinate a god who spoke to them all about the idea that they deserved a land of their own; cities they had not built, wells they had not dug - and they should go forth and smite the enemy hip and thigh for their sin of disobedience to the Jews' god. They would succeed if their own obedience was unwaivering. So forth they went upon their wandering, looking for their destiny, looking, unconsciously, for The Way to consciousness. Which is what all cultures would, during the next thousand years or so, be doing. And the Egyptians, as we have seen - The Egyptians, as we have seen - the Indian in the reaching arms and questing heads - and in the idea of the Divine Ground - the Buddhist image of the Eightfold Path - the Taoist idea of the Tao, which means 'The Way' - and then, later, Jesus would say, 'I am the way, the truth and the light'. The thread and the quest are always unwittingly the same. But the discipline and monotheism of Judaism helped to evolve and raise consciousness in a way that accounts for the very slight difference that sets Jews apart from others and, of course, incurs the otherwise unaccountable urge to persecute or hate them.

For the moment, we are concerned with the voice speaking to Moses and what it said. One of the first things God's voice made clear was that He was never to be seen nor questioned, nor any image of any kind made or worshipped.

This led to the celebrated occasion that I spoke of when the Israelites did make a golden image of a calf and worshipped it. God at once ordered that, to teach them a lesson, the image should be broken down, ground-up and put into the water which the people drank, and they found it very bitter and unpleasant. It is a powerful example of our symbolic disentanglement from our animal past because here the association is officially fiercely destroyed and fed as a bitter draught to the back-sliders.

From then on a whole people's survival depended upon them believing in an idea dawning in their minds that The Word was law. And The Word is, of course, the carrier of consciousness. It is one of the routes of the concept of Logos, whose meaning is always rendered ambiguously because different people, of different disciplines, at different times are always trying to attach it to their own philosophical system or their god. The Stoics, following Zeno of Citium, 3rd-4th Century B.C., defined it as: 'An active, rational and spiritual principle that permeated all reality'. They also called it providence. Nature. God. The soul of the universe. In my claim that the whole significance of the universe is in the evolution of consciousness, we are talking about the same idea. Philo of

Alexandria taught that it was the intermediary between God and the cosmos, being the agent through which the human mind can comprehend God or, as I would say, comprehend The Source. Plato said it was immanent in the world and, at the same time, the transcendent mind. Jesus is later defined in, for example, St. John's Gospel as 'The Word'. This identification of Jesus with the logos is based on Old Testament concepts of revelation such as occur in the frequent phrase 'The word of the Lord' and the Jewish view that wisdom is the divine agent that draws man to god and is identified with the word of god. And now, at about this time, the word was being written down - the carrier-wave of consciousness was becoming less ephemeral - less something that each individual heard privately in his head - more something that could be seen in the written word and thereby objectified. And the moment you begin to objectify The Word of God - the Word of Truth - the more you can begin to think about it and that was what was now beginning to happen everywhere that that writing was being used to pass messages and information instead of relying upon the priests, who prophesied.

It would be impossible to pursue The Thread through the tangle of world mythology, though a computer, suitably programmed and re-programmed, like Richard Dawkins' consecutive sievings, would eventually reveal how all the aspects of our cultural development that we study under so many headings are cryptic accounts of our unintentional evolution of consciousness.

An extraordinary example of this thread as a folk memory linking the culture of the caves to the period of dynastic Egypt, surfaces in Plato's (627 B.C.) famous analogy of the cave. Here, he describes a group of people who cannot yet think properly for themselves, being bound so that they can't turn their heads. Behind them, in the cave, is a blazing fire. In front of them is a wall upon which their shadows are cast: 'So that they see only their own shadows or the shadows of one another' and they carry 'all sorts of vessels and statues and figures of animals made of wood and stone and various materials' whose shadows are also cast upon the walls and some of the people 'are talking' and some are silent. Inevitably, he says, they regard the shadows as real, discounting the objects that cast them. Finally, of course, someone escapes into the sunlight and, for the first time, sees things properly. But, when he goes back to lead his friends out into the enlightenment of a wider consciousness, what happens? And this is the point of the parable written by Plato, who, together with his peers like Aristotle, were rejected by the establishment and demos to a much greater extent than is popularly realised. These one-time friends will not listen to him, and the man who has been out has much difficulty in persuading them because he has grown accustomed to the daylight and he can't see the shadows - the problems - in the way that they see them, so that they think him stupider than themselves and than he was before he went out. It is a familiar situation encapsulated in the Bible by Jesus in Matthew 13, v 57: 'A prophet is not without honour save in his own country and in his own house.' And this is, all the time, a record of the unknowing rise of consciousness which is still so familiar as it is dismissed, abused or ignored by the conventional wisdom of all establishments.

So this brings us to examine the phenomenon we have so often referred to where, for the various reasons mentioned, mindless obedience to the voices began to diminish, their strength to waiver, so that we had trouble in hearing them so much and so often.

It is of prime importance to the purport of this book that we should understand what happened and what it was like.

Eversince life began, we had been animals programmed to obey our instincts by reflex. This had prepared the way for a similar obedience to the promptings, which had begun to compete with instinct. So we obeyed voices without at first the existence of any means of questioning them.

When, with language and, importantly, writing that means began creeping into existence, we misdoubted it and tried to pretend that both were divine. But as writing nourished objectivity, the power of the voice diminished and left us bereft, which had been certain was failing. There had never been doubt or choice. There had always been certainty without our ever having had the faculty to suppose that anything else could exist and now our gods were deserting us. And that is why so much of The Old Testament, written during this period, is in the style of fear and trembling about a god who may desert us. We feel this is because we are failing him, we are guilty, he is punishing us. That is why he is angry, reproofing and tests us as he did Abraham, why we test him, as in the story of The Fleece: will he make it wet with dew and the ground dry and then, when he does, the next night will he make the fleece dry and the ground wet? The entire concept of original sin is in this situation and encapsulated in the story of Eden - we ate of the Tree of Knowledge, of good and evil - that was the sin for which The Flood was sent upon us; we were learning to think for ourselves, we could make judgements requiring consciousness and we were being punished for that by God moving himself from us. We were sick with terror and the pages of The Old Testament are also therefore filled with our attempts to placate him, to entreat him and find a way of pleasing him.

It is the fundamental terror of having to face up to the consequences, responsibilities and potentialities of self-determination. The loneliness of command of the self- the fact of being conscious of consciousness being the significance of the universe that has bred its influence through the last three or four thousand years of our evolution causing us to have done The Sum - during the exponential curve of our development - so lethally wrong; and not to have realised this until now.

So let's look at the evidence for this - at what happened. Let's start with the idea of how totally we were in awe of our god.

For the Inca people, the King was divine, a descendant of the sun(son). In his presence, his heightest nobility quaked with fear so violently that they were shaken off their feet (Pedro Pizarro, a relative of the conqueror of Mexico, quoted by Von Hagen 'Realm of the Inca'). No conscious person is physically capable of reacting like that. The many references to idles that spoke carried on into the present times where people hear the voice of God or Mary coming from an icon, or see it weeping or drinking.

The most obvious consequence of the departure of the gods in the face of consciousness (a struggle still going on in the rival camps of Christian -v- scientist the bridge between which is the bizarre and paradoxical Christian Science) was that we sought for some kind of authority to fill the gap. Accordingly, we turned to oracles and omens, sortilege, divination and prediction. The Cuneiform libraries have many thousands of tablets concerning omens and their interpretation. It is an enormous subject. The source of our promptings had not been perceived as being within ourselves but in the gods we had hallucinated. Now that they were failing us, we began to invent other source sin which to seek it and the terrified, hysterical response to being deserted by the authority which had, since the beginning, made decisions and judgements for us, resulted in the creation of all these phenomena with which we have become so familiar.

There sprang-up, in answer to our need, not only oracles in every town but soothsayers, clairvoyants, seers, augurs, fortune-tellers, tellers of runes or entrails, of cloudshapes; geomancers, sybils, syphinx, pythonesses or sorcerers or witches. We turned to the zodiac and astrology, palmistry, phrenology, crystal-gazing and later tea-leaves. Now we see good or bad luck in the random patterns on the screen of the computer as we surf the Net.

The whole wide-ranging quest for a replacement authority developed gradually into a tightly woven system of many kinds that intruded into our lives at every level. In a mind fully under the control of the gods' voice before this started to become weakened by writing, the moment any person came under stress or novelty a voice told him what to do. Thus there was no reason to ask it for help or advice. The voice was produced from the unconscious of the person and the unconscious felt the stress just as much as the person did, and the voice responded accordingly without being asked. But as the voice weakened, we did start to ask it. We asked it more and more often, more urgently and desperately. We began to beg and entreat it hysterically to speak to us and tell us what to do. They became at first formal means of addressing the god and acquired a ritual formula beginning with fulsome praise to induce a response. This was followed by self-abandonment and then the description of the supplicant's condition; his uncertainty or weariness; how upset he was; and then came the request. From this grew the habit of humbly muttering rituals and also beseeching the gods to help with aches or pains or difficulties ascribed to demons etc that had taken the place of the departed god. These formulii were lerned and practised by countless 'medicinemen'. This led onto the development of well defined systems of divination which can be grouped under four headings: omens, sortilege, augery and spontaneous divination.

Omens are a means of determining the will of the absent gods through noticing any important or odd event. As animals, we had evolved within a sense of cause and effect and it was this inherent, unconscious ability that now started to be articulated into thousands of rubrics that are supposed to fill the gaps left by the gods. About 30% of the 20-30,000 Cuneiform Tablets collected by King Ashurbanipal at Nine in 650 B.C. are concerned with such omens. ANYbody who studied the classics will remember how the life of the Caesars was ruled by omens by, for example. In the Cuneiform collections, most of them follow this sequence: 'If a fox runs into the public square, then the town will be devastated'; there is always an 'If and then' clause (pg. 237, J.J.) and they are still with us: 'If you see a new moon through glass, you will have bad luck'. They abound around such functions as copulation and birth: 'If you and your wife come together under a certain star, she will have a boy', an elderly aunt of mine told me when I was young.

Certain kinds of facial expression and idiosyncracies of gesture or gait were, and are, deemed indicative of a person's character and likely intentions. And this goes so far, and comes so close, that in Osbert Sitwell's autobiography he says: 'My father told me never to trust a man in a brown suit and, to my shame, I never have'. The syntax of the omen so deeply engrained in us that a friend of man, who was a copywriter for J. Walter Thompson, asked me to help him invent more in a series of asininent prohibitions such as 'Never punch a munching luncher'. When producing 'Today' for B.B.C. Radio, a colleague and I wrote a series of proverbs for Jack Demanio use in moments of stress or perplexity. The one I liked best was "The bear won't thank you for dancing on your wife's hat". My only purpose in recounting these is to show how much a natural part of our mentality these formula for thinking still are.

Sortilege, the casting of lots or objects so as to deduce meaning from the way they fall, was or is a way of offering the gods an opportunity of communicating their will. This is important because it helps to reaffirm that this was not a method of invoking chance. The fully controlled, pre-conscious mind had no conception of chance. The apple peel cut in one curly piece and tossed over the left shoulder, making the initial of the one who secretly loves you or of one who will bring you bad luck because god ordained these things and controlled the peel as a means of telling you something. Indeed, the idea of chance disentangled itself from our religios indoctrination only very, very recently and, even now, scientists cannot bring themselves to accept that, as Tarquin and I realised by the pond, the whole infinitude of chance occurrences manifested in the sky is what is

required to get to him, me and you. The Theory of Evolution is based upon chance until you accept the unconscious impulse of survival - the first propensity - the selfish gene, none of which is objectively purposeful, but requires a new framework of understanding in which to consider the problem. Sortilege, like casting the sticks of the I Ching or swirling the tea leaves, is a thinking aid whereby we bumbled with the apparatus of consciousness to cope with our unconscious grasping after a sense of our own possible intrusion into the decision-making process by the fact of its being we who threw the sticks, we who, therefore, imposed upon the pattern in which they fell something which, in turn, is part and parcel of what that pattern means. It's a very difficult question, as is assembling the apparatus of consciousness over a period of many thousands of years.

Sortilege merges into augury. As the mind is the abstract analogue of reality, so auguries offer analogies of events that may be read. The analogue can be cloud-shapes, smoke rising from a fire in which sacred or significant fuel is burned e.g. the bones in the cave or anything that is deemed holy. Any variation on a Rorschach Test i.e. where we make a random pattern and then interpret its shapes, for example pouring or smearing blood is a good example. In many places, a class of person grew-up, and sometimes founded hereditary clans who had the power to read these auguries and tell you what was what. Witch-doctors do it, some by reading the shapes made by the bowels of sacrificed animals, others by the pattern or colour of faeces or the lines on a hand, derive (Jnougayrol 'Pr, sage M, dicaux de L'Haruspicine Babylonienne', Simitica, 1956, pages 5-15, and Jaynes, page 243) from the gods Shamash and Adad first being asked to write their intentions in the organs of animals. There is a large corpus of material giving precise rules and methods of this interpretation that may be translated.

Finally, there is the whole universal propensity of everyday divination. People do it all the time. Switch on the radio, hear a few words, relate them to a problem in your mind and draw conclusions from their coincidental appositeness: 'If I let the 'phone ring seven times it will bring good news'. Many detective stories on t.v. work on the principle that the hero detective with a 'nose' for the job will walk around someone's flat, flipping at this and that, and turn up some wholly innocuous and relevant object that later turns out to have triggered, at hap-hazard, a train of thought that led to something very useful.

In our agony of being deserted, we turned also to flagellation, self-mortification and humiliation, abasement, humbling - to all the punitive customs of the hair shirt, holy poverty, the idea that dirtiness to mortify the flesh is holy, with the result that, for example, the clothes of St. Francis had to be cut off his putrefying body after his death. It lies at the root of every kind of superstition and propitiation, all the rites and ritual of sometimes hysterical prayer, of obsession with the longing to get back into touch with the voices that have passed out of hearing of the idea of possession by these voices that are sometimes so terrible and self-destructive they have to be exorcised in popular films and literature. The evidence of our hysterical entreaty to the gods is present in all ages and places, showing how consciousness grows at different periods around the world. Consider the Maya civilisation in Mexico, which flourished from about 500 to 1,000 A.D. They built temples with steep steps down which the sacrificial blood could flow in torrents. And it did. They tell, in their sacred book, 'The Popul Vuh' how they cut out the living hearts of 9,600 teenagers in one single, 24 hour orgy, holding them up still beating in supplication to the gods to hear their entreaties. They invented the ball game, whose descendant is Pelote, where the winner was sacrificially killed. And people tried hard, and felt it a great honour, to win. I only mention that as an example of the perverted madness of our agony of mind. The writings about sacrificial cults are compendious and come from all parts of the world, describe the exquisitely painful ways in which a sacrifice could be made - the greater the pain, the greater the efficacy.

The ways in which this kind of behaviour has dominated human behaviour since the departure of the gods have been researched and reported in such book as 'The Golden Bough' and others. Studies of psychology, superstition, religion, witchcraft, demonology, clairvoyance, spiritualism, pre-cognition, magic etc etc have described the role in our history played by seers, soothsayers, wizards, cults or rituals, all seeking an experience of some cryptic authority - SOMething More Besides - whether by drumming, dancing or flagellating for possession; whether by seeking the ecstasy of orgasm or of pain - of masochism or from drugs; the object is ultimately the same in all times and places and among all people for 4« thousand years has always been an unconscious and uncomprehended urge to re-establish contact with the primal authority of the voices of the promptings which replaced the ageless authority of instinct so as to fill the terrible emptiness in our whole metabolism and coenesthesia which we first filled as we struggled out of animalhood with the absolute authority of the voice of god and which we have never been able to reconcile ourselves to living without or to in any way realise that that is what we have always been and are still doing in all our churches and cults today.

And so we came to spend great parts of our lifetime in ritual, prayer, propitiation or sacrifice, in reciting runes, chants, liturgies and performing disciplines and observances and in trying, as the Egyptians had tried, by saying things over and over again, to weave the right spell. One of the side effects of this was that our programmed sense of discipline and obedience now became the driving force in our desperate respect for conformity; for getting back to God by the right route; back to basics. The subtle and pervasive force of this is the way The Sum has been done in the way of persuading us that success lies in conforming to the imaginary rings of the establishment in what we call normality. The false credentials of this idea of progress - to an indefinable goal - grew up in this way. Approved political/economic theory is based on the idea of expansionism which, in any finite system such as a planet, is self-evidently non-sensical. Normality, as I said, is lethal.

It is only within the last few years that the role of consciousness has become a topic of conversation among those who are not academically involved in the subject. And, statistically, the number, even of these, is tiny. (Read Sandy's supplement). This means that acknowledgement and recognition of the idea that the only possible thread of significance upon which our history and understanding of our place and role on earth is the evolution of consciousness - that the measure of its development is the only possible yardstick of progress and that this affords the only route to survival in the creation (instead of the slavish, primitive, search to discover) meaning, is very far away. To that extent, although upon a different rung, our position now is comparable to our position then. This is reflected in the situation described in the first chapter. We keep telling each other that we are losing our way and are looking for something new. Just as 4,000 years ago we lost our gods and looked for something 'new'. The new thing we can discover is a conscious recognition of our own consciousness and the role it must play - also The Source, which is part of the unconscious as it struggles into consciousness.

And, so far, we are not making much progress, except in two directions which we look at in the next two chapters (I mean Laski, Zohar and women) . Instead, we are raising the old ghosts of the old voices in evangelism, drumming and dancing for possession, in the speaking with tongues - in every kind of regard for omen, augery, sortilege; by ritual and bliss-ninnies; by recourse to the longed-for, absolute authority such as so many cults demand - and get; even unto death.

A common feature of many tyrannies is obedience and compliance. Those of the dictators of this century are a good example. That of Russia is the latest because now about half of them are longing to creep back under its protection from the rigours of self-determination. One of the phenomena revealed in studies of the holocaust and Hitler's oppression was the records of infamey

tht were so meticulously kept. They tell us that the authority, to which the keeper was so willingly, proudly and slavishly obedient, was the authority of the State. The moral judgements of the authority of his own personal, moral judgement - that of a fully conscious, self-determining human being - would have appeared as a heresy or as a lesser, more ignoble thing than obedience to the voice of authority. It reaffirms my point that we are not free of the conditioning and genetic programming of the ten thousand years in which we obeyed the voices, and that, if we don't realise this and evolve on purpose, our civilisation will destroy itself and most of us.

At the time of the departure of the gods, the priests and priestesses were those most gifted in hearing the voices and had been promoted accordingly. Now we turned to them more urgently and their importance, power and authority grew and has been zealously guarded to this day, being largely responsible for the over-throw of the Irish Government in 1994 because God's will, as interpreted by Rome, forbade abortion and contraception. [LOOK IT UP]. Girls came to be offered as temple virgins to help the priests who could hallucinate to do so better. Priestesses with the gift would use it in return for sexual favours from supplicants. Ritual copulation in all its variations was pursued for centuries fuelled by this desire to find a way, any way - a sexual or ecstatic way - to contact the gods which had deserted us. The procurement of every kind of ecstatic state offering an alternative state of consciousness was thought likely to offer a route back to the obsessively desired re-union with God, and so sex and drugs, as in the Karma Sutra and Peyote, and all the rites associated with hallucogens around the world, reflect this original, desperate certainty that the reality we had always grown up in could be regained - if not here, than in Heaven. And so, all the funerary rituals stem from this also. The influence upon the micro-cosmic parts of our metabolism and coenesthesia that had grown up in what I have described as the unconscious, is so influential in every aspect of our being that it is no exaggeration to show how its sudden ending has caused the knock-on effects in all those examples of behaviour I am describing that are still with us.

If the effect is so deeply seated in our personalities, you may ask how is it that we can question it at all? The answer, as I have tried to expound, is that the threat to our survival is itself so fundamental, though largely unconscious, tht it has thrown-up a whole plethora of attempts to question orthodoxy on every hand. I think that one of the things it has not done is to throw-up a consciousness of what it is doing, and that's one of the reasons why this book has been written - because, as we have seen, consciousness needs to be conscious of itself; we need to be aware of the fact that if we do not raise consciousness to take our own destiny deliberately in hand and evolve on purpose, then we will fail.

To return to the many searches for enlightenment through ecstasy, some of which had sexual connotations. It is interesting to note that the actual denial of sex in holy celibacy and the ideas of the spiritual Brides of Christ is an aspect of this, accompanied by the dedicatory masturbation in monasteries and convents, which caused so much tragic confusion.

At the same time, of course, the other obvious alternatives to the withdrawing voices of god - namely those of demons, devils, djinns; the whole elaborate, fantasmagoria of evil spirits right down to our involvement with the incubus and succubus - can clearly be seen as another side of the coin where we looked for a replacement authority and influence in our lives.

Meanwhile, the effect upon the rulers as the voices and presences of the gods grew dim, was also important. Hitherto, they had ruled according to the words spoken to them i.e. their own hallucinated utterances. Now they felt bereft, afraid, weak and vulnerable but still possessed of almost unquestioned power, which they wanted to keep. So they, too, developed ways of getting into touch with the god and as they had the appropriate resources, their ways became the most

powerful and their courts became full of soothsayers, seers and clairvoyants. These, like the gods themselves who had never answered our prayers clearly and unequivocally produced every kind of ambiguity so that a new class grew-up who were deemed gifted at unravelling their meaning. In this way a coterie of spiritual advisors accumulated around the ruler who claimed to be specially instructed in the mysteries. For example, The Elusion Mysteries - The Pythagorean Mysteries - and there are scores of such cults. There still are and their activities are luridly reported in the daily press.

Heroditus describes the courts of these tyrants in every place he visited. They became the prototypes upon which all courts grew up with the secretive, conniving, scheming, lying, manipulating, concentric rings, by which the courtiers tried to get closer to the centre, as C.S. Lewis described. It is so important for the ruler that the power of the high priest should be on his side that the priesthood was able to demand protection from the monarch who became, therefore, defender of the faith and the rituals became established. Soon the ruler, in his desperate attempt to show that he was closer to the god who had deserted him, gradually claimed to have a unique connection with him and soon, therefore, that he was himself partly divine if not in fact a god, like the pharaohs and others, as was the case with the Caesars. Indeed, the longing of the common people caused them to proclaim this of their own accord and, out of this longing, grew the idea of the divine right of kings, their healing touch, the Royal Courts and the Monastocracy which followed. In Europe, the Pope became the very powerful head of The Holy Roman Empire which was not ended until Napoleon. Iran is still ruled by a hereditary, land-owning priesthood and the same is true, mutatis mutandis, of many other places - the last and most important example, I suppose, is the fact that Hirohito was, until his death, perceived as being literally a god.

Today, as always, education consists of teaching the approved establishment view. You learn it, you are examined in it, you pass, you succeed and therefore you survive. You are praised and rewarded for learning the approved attitude. Obedience, genetically inherited, which had been so conducive to our obeying our voices for 9,000 years, makes us see orthodoxy as the right yardstick. The text book mentality reaps rewards. We revere excellence in established wisdom. 'He is sound', we say. 'He is a brilliant scholar, he has got a double First'.

If one pursues this line of thinking in relation to the explanation of examples I have given in Chapter One of how our institutions, politics, industry and conventions are programmed and locked-into the exploitation and destabilisation of the environment that supports us, and then holds in mind the degree to which we have seen that our behaviour is partly unconscious and only partly conscious (50-50%?), then it is easy to understand how much of our response to our predicament is a kneejerk response - we can't help it - it is the conventional, acceptable, normal way. What percentage of those whom you know would you describe as a 'thinking person'? What percentage of the media would you describe as expressing the thoughts of a thinking person? Consider the Brains Trust - chaired by a woman described as 'the most intelligent in Britain'. Mostly, the speakers differ only in their exposition of conventional points of view with which we are already so familiar we know what we think about them. When they do present a totally new alternative, the most usual response from a random group of watchers would be, 'What the hell is he on about?' and the new idea is rejected because The Sum had not equipped anybody to evaluate it any more than it enables us to respond to our present unprecedented predicament. The well known unsatisfactoriness of the whole idea of I.Q.: what it signifies and how to measure it probably arrived because what we should be trying to do is to measure consciousness and its significance. As is often the case with consciousness, we are already unconsciously moving in that direction in that a level of I.Q. is recognised at which a person is thought to be capable of doing 'original work'. [DO A PIECE HERE ON emotional intelligence from The New Scientist Supplement 'Emotions']. Doing 'original

work' means having new, relevant and workable ideas or insights into old, established orthodoxies. This level is much higher than that for entry into a university or MENSA, of which latter 1% of the population are deemed capable - about 10,000 people in each year group - so those capable of original work are rare. Democracy, on the other hand, which is actually intended to elect a government in its own image, will indeed produce one that is indoctrinated to respect an orthodoxy that can be easily understood and shared by the rest of us without much thought and is enshrined in the degrees, titles, certificates etc that guarantee it and they will turn up their noses at alternatives. That would be the normal thing to do - and normality is lethal.

We have always yearned for a release from the need to be self-reliant. The Pax Britannica supplied it on a world-wide scale from the Battle of Waterloo (1815) to the beginning of the First War (1914) and into the gap that followed when all contestants had been so weakened there appeared the dictatorships of the century, the Second World War and then the wars and abominations which have followed in an unbroken chain ever since.

The interesting thing about them all is the appeal that they made to obey: 'Obedi combattere, vincere' proclaimed Mussolini's slogans painted in hundreds of yards of lettering along the walls of the terraces of Italy's vineyards. 'We do not want higher bread prices, we do not want lower bread prices, we want National Socialist bread prices' thundered Goering. 'Obedience until death' swore every S.S. recruit. The longing for authority, for compliance, for being part of something where decisions are made for you is still deeply influential in our lives, as is seen by the acceptance of all parliamentarians of the three line whip, which makes them about as fully conscious a human being as a glove puppet.

And the situation is even more interesting than this. When we struggled from animalhood towards humanity, we began to experience the promptings and hallucinated the voices and invented the gods to account for them. Neither the promptings nor the voices nor the gods had existed in the world before, anymore than had consciousness nor the tiniest seeds from which it grew. By the same token, when we invented and evolved speech and writing so that consciousness grew and the gods slunk away, we invented all those things that we have been looking at which can be grouped under the headings of 'Beliefs' or 'Superstitions'. We did not believe in the gods; we hallucinated them. They were the reality of our existence. Thus, through the evolution of consciousness, the whole significance of the universe has developed all our beliefs and ideas, superstitions about the forces which we needed to fill the terrifying void of uncertainty - after the gods had gone - of being left the absolute need for self-determination. So what happened? We have just looked at one huge group of things that happened and very rich and various it was. So, too, are the ways in which we responded, other avenues we explored, other paths and grounds and theories we evolved and pursued. And they all began to happen at about the same time. What I am trying to emphasise is that only one thing has happened in the universe - upon earth - to us - and that is the evolution of consciousness. Everything else stems from that; everything else is the story and history of that - the ascent of man and all his wondrous feats have no measurable significance except as thinking aids in the raising of our consciousness. The same is true of all philosophies. Progress is meaningless except as it leads towards that point in the evolution of consciousness where we can recognise and proclaim that we are evolving on purpose and know why so as to put something, namely the environment, before ourselves so that we can survive and thereby survive on purpose and then, having achieved that discipline, develop a reason for doing so, perhaps a meaning for doing so, that is beyond us now to imagine - that has yet to be evolved.

So which way did we first go? The way of Lao Tzu.

Having looked at the negative side, the empty side, the traumatised and bereft side of the consequences of the voices fading away, let us now look at the positive aspects and examples of this, born of a new era i.e. the glory that was Greece. It can be, has been and still is described and marvelled at in torrents of particular and perceptive praise. Nothing could be more appropriate because what happened was that the Greeks stumbled upon consciousness - that's what happened.

This brings us pretty much to the period of Classical Greece. We have seen that Egyptians used building as their thinking aid. They expressed evolution of consciousness in the technique of building that they pioneered. As always, they thought with their hands - feeling their way forward, upwards and outwards- exploring the new concept of three dimensional shapes, relationships of shapes and of angles, so that mathematical and geometrical concepts evolved materially as their abstract analogue evolved in their mind. These combined to produce a spatial awareness that led them to a new way for considering the juxtaposition of the stars above them and of interpreting their shapes and their inter-relationships. It went on for 3,000 years and set a stamp upon the kind of consciousness that would evolve, just as surely as the first promptings caused us to think in terms of "What's in it for me?" as surely as an ear grew in response to sound. It thus prepared the way that the Greeks followed when they began their own style of building and then stumbled from the logical causality implicit in those masonic disciplines into the abstractions of rational deduction as a general principle and which lay at the root of the astonishing achievements of Classical Greek thinking. This step in the evolution of consciousness is encapsulated in the well known, rough and ready observation that the Egyptians knew that a triangle, whose sides were in the proportion of 3:4:5 units would always give a right-angle; but that Pythagoras produced an abstract theorem to prove that the square on the hypotenuse will always be equal to the sum of the squares on the other two sides of a right-angled triangle or, conversely, any triangle where the sum of the squares of any two sides is equal to the square on the third side will embrace a right-angle.

The emergence of Greek thought is, of course, the biggest single step in the development of consciousness and it was taken in only a few hundred years. It should be judged as the moment when the abstract analogue of reality uniquely existing in the human mind blundered suddenly into awareness of its own abstract self, and its own ability to think in abstract terms and to then deliberately play them back into two forms: one into material reality, so as to modify it on purpose, and secondly into the technique of thinking about thinking. The first was immediately taken on board and had remarkable results. For example, Aristotle - the first abstract thinker in the new hypothetical, logical style - was the teacher of Alexander. Alexander at once applied Aristotle's principles to the problems of strategy, tactics and, above all, logistics in war. As a result, he went on to conquer most of the known world. His methods were copied immediately by the Romans who became invincible because they, too, had figured out the battle plan beforehand in their minds. They initiated the doctrine of 'seize and hold' used in the Second World War when an armoured division, had tanks to seize an objective - and lorried infantry, bundle out and hold it by digging-in. Equally, the Roman assault units seized the objective and was re-enforced by those bearing the *faeces*- root of the word 'fascist'. This was a bundle of palings tied with a long cord to the spear carried on the shoulder, as can be seen in contemporary illustrations. Each man carried an 'entrenching tool' of some kind (as did every German infantryman) and, with this, he dug three feet of trench, throwing the spoil back inwards towards his own side, making a bank with a ditch in front of it. On this, he stuck up the palings and lashed them together with the cord, securing them to those similarly erected by his two neighbours. Then each man defended that three feet of front line. No wonder the barbarians, who only fought between meals and on days deemed propitious by their holy men, got licked.

The second way that Greek thought was used is about how to think about thinking, which got rather lost until it was reborn in the Renaissance. Even then, it had a slow start with the old tribal patterns of discipline and obedience, the acceptance of reverence for the rules and conventions asserting themselves to hold the development of this kind of thinking about ourselves and our role and place here in retard. Copernicus had trouble daring to speak of his ideas of heliocentricity and Galileo was put under house-arrest for speaking about them. But the pattern continues to repeat itself, so that some scientists have become as bigoted as priests or religions. They do not, as Max Planck observed, change their minds, they merely die and a new generation grows-up into a way of thinking that they die repudiating.

Recently scientists have suddenly had to face the fact that the word 'atom', coined by Democritus in 400 B.C. as meaning 'that which cannot be split', was the wrong word. The atom can be split and, when you split it into its quantum parts, the evolution of consciousness is confronted with a great wave of facts showing that logic and causality, upon which the perception of reality, brain and mind has been built-up since the Greeks into a statement of normality and formed into the basic laws of science, is inadequate. The intense anomaly is that it is adequate to poison the environment, but not to understand ourselves or the way the matter of our bodies and brains causes us to think and behave, or to understand each other or the environment, which is made in the same way.

This influence to slavish loyalty to ancient orthodoxies has gone on playing its ever more important role in the wrong way that The Sum has been done until we have reached the situation I have described in the first chapter, where the New Knowledge fills a new room every day, and nobody takes it on board to modify their attitude to life or to understanding our role and place here. Instead, as I described in Chapter Two, we continue in conditioned obedience to our paradoxical, neurotic dualisms and our exploitive relationship with our environment and the indoctrinated rectitude of pursuing our best interests, which are founded upon them.

For all the reasons which we have been looking at the stupendous Greek breakthrough was thus gradually reduced to today's deadly orthodoxy.

We can't look at all aspects of the New Knowledge in the way it might be taken-up or explored. So we will concentrate on the aspect of it that is most closely connected with the growth of consciousness, since that is the significance of the universe. I have explained that that does not make humanity the supreme goal of evolution or the jewel in its crown. We are an accident. We did not evolve consciousness: consciousness evolved us. No decisions to evolve consciousness have ever been taken, no aims acknowledged. We are a combination of the same ingredients as comprise microcosmically and macrocosmically the whole of the rest of the environment, of which we are a dependent and influential part. We have never, as a race or culture, proclaimed, agreed or accepted that it is our goal, our driving motive, to evolve consciousness. It is only in doing that that progress lies and that evolution on purpose can happen and we can survive. It is only by the evolution of mind that meaning to the universe can be evolved and it is only women who have so far introduced the idea of raising consciousness on purpose. By achieving that, the mind of humanity can stop firing on one male cylinder, as it has so far lethally done, and achieve a wholeness and balance. We will look at the first part of this paragraph in Chapter Seven under the heading of Quantum Mechanics and the second part in Chapter Eight, on the subject of women. But, before either of this, which are issues of today, I want to take one more look at that period of our history that occupied the few millennia leading up to the beginning of our era. I remarked that the way it is described in all the sources around the world is uniform and similar and we are so

completely accustomed to it that we have failed to ask why or how it came about, so we will now look at it in the next chapter, Chapter Seven.

Returning, then, to the millenium before the beginning of our era when, as we have seen, our schizoid voices were growing weaker and consciousness was discovered by the Greeks and crowned by being put into the language of logical deduction and the idea of thinking about thinking. At around this time, there lived the following people: Lao Tzu and Buddha were born in 560 B.C.: Confucius -550; Plato and Socrates -429; Mencius -371; Aristotle -367; followed by many of the great Greek thinkers at about this time and by King Asoka, in India, in -250.

We will begin with Lao Tzu, the father of Taoism because it is always stressed that Taoistic ideas started as a popular feeling, something 'in the air' - as yet undefined - a popular inclination to break away from the stultifying demands of the Chinese pantheon and develop a new Way - 'Tao', of course, means way - and Lao Tzu became the voice and teacher of it. It was a social phenomenon, specially opposed to interest in, and worship of, those gods whose departure was upsetting us so much and they were referred to as 'the gods of the profane' (Su Shin) i.e. the body of religion and folklore with which we had been struggling. Specifically, Taoism derided the various demonic characters that had grown up in this way and the exorcists that had grown up with them and, of course, particularly the mediums i.e. the go-betweens, whether therianthropes or Shamen. It renounced the frenzied techniques we were now more and more employing in our attempts to re-contact the departing gods. The whole traditional pantheon and humanity's involvement with it, was seen as deluded and leading to perdition and insanity. As indeed the frantic efforts to bring back the gods often did and still do in flagellation and fundamentalism.

Taoism, by contrast, epitomises the feeling of the integral unity of humanity with the natural order and thus actually reflects the functioning of consciousness as it tries and tries and tries to come to terms with the abstract analogue of reality forming in the mind. Indeed, it is in creating the terms to do this that we witness the evolution of the technical vocabularies of mysticism which became such an important part of Sanskrit. 'One can', says the Tao, 'search for our divine teacher in all the mountains and find him', says the Tao, 'in our own head'. In Taoism, we were trying to come to terms with a sense of being mindfully part of the whole - we were rejecting the idea of being the mindless puppets of an omniscient, outside, separate source. And Iso Wang, which means sitting in forgetfulness, or meditation, was recommended as the only way to understanding and the control of self.

It is interesting that this latent step up in consciousness so exploratory and uncertain caused Taoism to reject intelligence 'Vomit your intelligence' said Chuang Tzu - and 'all kinds of dialectical argumentation and abstract realism'. It is interesting because the route thus being taken in Asia was trying to choose between the dialectical Greek and the direct knowledge, stream of consciousness, approach to further understanding we recognised in the words of the Rig Veda. It is a dichotomy still not resolved.

The Tao cannot be grasped, but it can be received. Neither speech nor silence can convey the Tao. 'Let us banish speech and silence' and rely upon 'teaching without words'. Such paradoxes, such a teaching - are part of the traditional route down which humanity, in the East, went in the use of its growing consciousness to understand better and differently now that the gods of the pantheon no longer told us what to do and think but were deserting us and leaving us to our own devices.

The thinking aid of Asia lies in its mystical tradition and it is like a wave that coiled back so many centuries ago and now comes foaming and sluicing forward again as we stand on the brink of the

era of mind, confronted with the baffling paradoxes of quantum reality. The evolution of mind is very slow, most particularly because we have never conceptualised its evolution, nor tried to evolve it on purpose.

So we don't know what we are trying to do. It is always spread out, like questing hands, feeling the way forward in different directions. For example, at the same time as Lao Tzu, there lived Confucius, Pythagoras and Anaximander. What Confucius was exploring was a more homely and practical attitude for us to adopt in sloughing off the thrall of the unconscious we had personified in the didactic authority of the gods which, in China, we have seen poked its nose so deeply into our lives that children were expected to inform the gods of the sins of their parents.

Confucianism, like Taoism, wanted to think things out for itself. It became and remained synonymous with learning as a norm according to which all should live and its values came to serve as a court of appeal for human relations of all kinds.

Its key concept was Jen, or human-heartedness. This recognised 'humanity as the seat of understanding and discrimination', which is a very good definition of consciousness and the 'character' for Jen in Chinese writing suggests a common denominator for humanity and a demarcation between man and animal. To cultivate this quality into full flowering is the proper devotion of human life. The opposite of Jen is paralysis i.e. stultifying orthodoxy.

Confucius' basic injunction, like Jesus', was to love on another and no three words could more totally define the difference between unconsciousness and consciousness; between animal and human. By contrast, at this time, Anaximander was naming the twelve signs of the zodiac and determining the solstice seas and equinoxes.

We saw earlier on that the very first promptings to consciousness were understood to the extent that they were profitable. If there was nothing in it for you, it was incomprehensible. By now, Confucius was implicitly recognising the truth of this by saying: 'The superior man understands what is right. The inferior man understands what is profitable'. Although more obliquely, Buddha was referring to the same thing when he perceived the connection between suffering caused by desire (Dukkha caused by Tanha) i.e. the pursuit of best interests as a basic rule of life which causes separateness and is antithetical to the feeling of the integral unity of humanity that afforded the terms in which both Taoism and Buddhism respond to the growing pains of consciousness. These pains are deep and laborious as the apparatus of consciousness creeps together in a haphazard, fortuitous way. Understanding of suffering, desire and separateness so very much a part of its initial stirrings that I described as understanding only in terms of 'What's in it for me?', and how to exploit all else for one's own benefit, are three of the four noble truths upon which Buddhism is founded, the fourth being the Eightfold Path of Buddha, namely the means whereby we can learn to overcome these problems.

The Noble Eightfold Path consists of Right Views (or knowledge); Right Thought; Right Speech; Right Means of Livelihood; Right Effort; Right Mind Control; Right Meditation. The Path is a means, never an end, and because of the climate of the mind at that time it offered a spiritual reward in release from the cycle of rebirth into this suffering world and the attainment of Nirvana.

What I find so interesting in our pursuit of the rise of consciousness as the only significance of the universe, which chances to be happening, uniquely, so far as we know, in us, is that this coming together of perceptions about the nature of reality and our place and role in it turned into a religion when Buddha had specifically said it wasn't and that he was not a god. He did not want to be

worshipped. His was a philosophy. He said 'Walk on along the Eightfold Path and learn', but we could not do this. We were not ready. After all, since the first propensity, since the beginning of organic life, since we became animals, we had survived by being obedient to fundamental instincts. Accordingly, when the promptings began the first stirrings of consciousness we, in the schizophrenic madness of our metamorphosis, started to hallucinate a replacement authority, just as absolute and demanding, in the form of voices and gods, which effectively became the first form of our consciousness. Now we could not put it aside to pursue the noble Eightfold Path to enlightenment in the way that the Buddha has prescribed. So, instead, we called the Buddha a god and we prayed to him. We pray to him now by writing the prayers on bits of paper, chewing them up and spitting them onto a holy bell in the expectation that the prayer will be uttered every time the bell is struck; or we hang paper prayers on wheels and set them in the wind so that every time the wheel turns the prayer is spoken.

We are, however, looking at the story of the rise of consciousness in terms of some of the special people and events that are landmarks in its progress and, in keeping with the rest of book, have not been perceived as such. So let us now turn to the period leading up to our own era when we felt so desperately bereft and forsaken by the gods whose presence was growing weaker all the time.

Our sense of loss and our longing and our desire for their return would have been easily powerful enough to evoke a response - a saviour, whom we would adore and who would adore us, even unto death - and of course it did.

We had been heading for this for a long time and, in the Jesus story, there are two elements. One concerns the agonised longing for a return of the corporeal god as adumbrated in the prophets who had already, long ago, begun to notice the weakening of the hallucinated presences and voices. In the Eight Century B.C., Izhiah wrote: 'Behold a virgin shall conceive and bear a son and shall call his name Immanuel'. Immanuel means 'God is with us'. What could be more exactly appropriate to the mental condition of those who prophesied it and those who, in Matthew 1:23 claimed Jesus's birth as a fulfilment of it. Chapter 10 (?), verses 2 and 6: 'The people that walked in darkness have seen a great light; they that dwell in the land the shadow of death upon them the light has shined' and later, 'Unto us a child is born, a son is given, and his name shall be called wonderful counsellor etc'. It is always as an image of light and mental enlightenment that the Messiah is perceived.

Thus the prophecy and the contemporary crisis of abandonment which was so much a part of the climate of the mind in the advanced cultures the world over created a niche and also inspired a teacher to fill it and offered him a fervent welcome. This was augmented by the desire of the rising consciousness that the new Man should, like Noah, be a bright, effulgent trend-setter. And so the teacher from Nazareth was welcomed with ecstatic joy, especially because Jehovahism had always been full of revenge, which is an aspect of the unconscious, whereas Jesus taught forgiveness, which is an attribute of mind, of recollectedness and of objective consciousness; very much in rapport with the Oriental and Greek developments we have looked at. His teaching was permissive compared with that of Judaism. It was gentle, loving, subtle and full of hope and the doctrine of self-awareness, self-determination being the route to salvation and enlightenment had an enormous influence.

And now we must consider the other point. The account of the abstract thing that was happening here in Palestine, in the sudden leap forward in the quality of consciousness which we have seen was bubbling up erratically around the world.

The issue is this: unconscious or pre-conscious man is animal i.e. flesh. Consciousness is abstract from the source, at that time called 'Spirit'. Just think of the number of allusions in the scriptures to this division, particularly in the New Testament. For example, in the familiar words with which St. Paul begins his letter to the Romans: 'There is therefore now no condemnation for them which are in Christ Jesus, who walk not after the flesh but after the spirit'. Or that to the Galatians, (5:17): 'For the flesh lusteth against the spirit and they are contrary, one to the other'. What is of fundamental importance are the innumerable references to the Holy Ghost - the infinite spirit of omniscient God being made manifest in man, which is the way that the unconscious would, in the idiom of the time, express its awareness of consciousness - the whole significance of the universe - evolving, becoming manifest, in humanity. And this actual occurrence of mind taking over from matter, spirit from flesh, could not be more clearly stated than in the beautiful allegory of the flesh being inseminated by the spirit, as was Mary by the Holy Ghost.

Since, for 9,000 years, we had projected the promptings and emergent consciousness onto the gods so that they became our consciousness, it follows inevitably that we should speak of its ever clearer emergence in these terms. As I have said, we are not conscious until we realise and remark upon the fact. But, instead, we have always had a religious explanation for it that prevented this from happening.

It is because we have always had a religious explanation for everything abstract that the evolution of mind has been held so long in retard because it only happens in the moment when you realise it is happening - we are not conscious until we realise and remark and meditate upon the fact. The effect of telling ourselves the wrong story has produced endless neuroses. Any close study of mores of any community in history always shows the serious student that if he is to get inside the people so as to understand their motives and attitudes, he must get inside their neuroses, as must a therapist to see a patient's problems and behaviour as he sees them.

The well known paroxysms of history are neurotic paroxysms, like witchcraft and witch-hunting, the Inquisition and Reformation and suppression of alchemy, the burning of books or burying of scholars alive, as was done in China. The repressions, cruelty and mad convolutions of mind that produced theories like the Perfectibility of Man and the bigotry of the experiments carried out by people like Rousseau, in pursuit of his idea of the perfectibility of man and his disciples, like Thomas Day, is a step - albeit a short one - in the direction of eugenics and ethnic cleansing. Today, we find ourselves in a society where one in four will visit a psychiatrist during his life. At the present moment, we have a situation where, stoked by the media, every issue is perceived as a party political issue, whether it may be an issue of morals or duty, compassion, magnanimity or above all, self-reliance, self-knowledge or awareness i.e. consciousness. To this extent, the media i.e. the mirror image held up of ourselves, is that of the reactionary forces which have always been so attractive to our unconscious in the past that they have put a break upon the evolution of consciousness. The crisis of consciousness, on the threshold of which we now stand, is something we are, reluctant to face because The Sum has programmed us to feel that there is a 'greater authority'. The result is that as ecotastrophe looms and the pressure to respond by evolving on purpose increases, we respond, as is so often remarked, by pushing off responsibility onto the Government, social services, the church, doctor, the law, the economy or a mysterious 'they'; indeed, anything but ourselves and the environment we are part of, because the fact of being conscious, with the responsibility that ensues, the attitude it involves, are still not a part of communal, acknowledged awareness.

Evolving consciousness is extremely difficult if you have never known that that was what you were doing, but instead been taught that you were doing something else, like getting closer to god, or

ensuring a happy afterlife, or being a good citizen or a good national or a good soldier, a successful go-getter etc etc or even a good parent licking your kids into shape as decent, upstanding Britons who won't be a traitor to their class - working, middle or upper.

Because of this objective unawareness of evolving consciousness, any steps which we have taken in that direction have always been followed by periods of equally unaware, and bitter and frenzied reaction as between the classical period and that of the Renaissance called the Dark Ages. This is even true of the hiatus between Newtonian enlightenment and the present day. So that we are now in the grip of various, bigoted orthodoxies proclaiming the sanctity of the norm which we have seen already is lethal. This is why, as I said in Chapter Two, although the extent of the New Knowledge is millions of times greater than all of the knowledge previously gained in the history of man, we use none of it in a cultural sense to determine how we should live our lives but have recourse to the indoctrinations and conditionings handed down to us.

The consciousness of Jesus that he did not recognise any more than any of us do, is clearly implicit in the extent to which he taught us to choose, rather than as of old to slavishly obey. He offered us terms in which to discriminate and so choose to do right. He himself evinces the agony of this choice and the non-understanding of it in the Garden of Gethsemane. We understand his schizoid dilemma because we still suffer and share it. The flesh, i.e. the unconscious urge to the pursuit of best interests and survival, makes him say 'Oh lord let this cup pass from me' and his rising consciousness, knowing/believing that he must suffer and die adds 'Yet not as I will but as thou wilt oh lord' i.e. as my own higher, mental abstract self demands. The question whether the story is apocryphal is irrelevant. It expresses the dilemma, if not in the mind of Jesus, than in the climate of the contemporary mind as uttered by the chronicler and, then again, on the cross the same thing happens. The appalling horror of what he has consciously, mentally undertaken to do - the conscious decision he has taken - suddenly strikes him and he instinctively cries out in horror 'My god, my god why hast thou forsaken me?', as a schizophrenic's voice always does.

The difficulty Christianity itself has always had with the section described is because it does indeed concern the evolution of consciousness of which we were and are unaware. The other person who was struggling with the self same problem is St. John and there was no one to suggest or discuss the idea of consciousness as against religious orthodoxy; he simply did not objectively know what it was. But it can clearly be seen struggling to be born.

It is in the nature of a permitted truth that it can never be fully stated, and the words 'In the beginning was the word and the word was with God and the word was God....' are the essence of poetry. The word is the carrier-wave of consciousness which cannot, and at any rate does not, meaningfully exist among people without it. St. John knew that, in the beginning the earth was without form and void and that darkness prevailed so that God then said 'Let there be light'. Enlightenment was the intrinsic and unique property of language. He knew that The Word had been spoken to Moses out of the burning bush, declaring its own identity as 'I am that I am', and he knew that The Word had been written on stone as the Commandments. Though John was a Jew and thought as a Jew, yet he chose Greek, the language in which consciousness was evolving, to write about the Logos - word or reason - because he knew that it lay at the origin of all that was eternally new and illuminating and that it was carried in words and writing so important they could be graven into stone with a forefinger. And John wrote saying that Jesus spoke words of new illumination describing ideas in his mind which were the analogue of love and forgiveness, compassion and wisdom whereby they could be shaped, adapted and played back into reality in forms of human behaviour that had not been offered as goals and standards to any people before. He described the Christ as The Light of the World and The Way, The Truth and The Light. And all

this instead of the return to the ancient gods we had hallucinated. Our desperate longing had, as I said, evolved the Christ, called Him up and made him what he was by 'public demand'. But the climate of the mind, evinced in himself and in John and others, broke away from this narrow tradition and began teaching things they felt in their hearts; things by which their minds were inspired and thus the word 'logos' went on, for so many years, to be the fountain of so much mystical inspiration. The very symbol of our attempt to disentangle consciousness, the things of the mind, from the traditional form of things of the spirit. With the result that, in a way, it turns up in the concept of the quest for the grail for 'the thing that the mind cannot conceive nor the tongue relate'. As has been stated, consciousness takes a long time to come fitfully and sporadically into existence and who can know that it is fully grown; how would they know that this was so?

We can't end this chapter without a glance at the role of Saul, the zealous Jew who persecuted the Light of the World, the teacher of the new enlightenment, until that agony of spirit he shared with those who felt themselves bereft by the gods departing out of their hallucinations, burst out and he did hallucinate him, as of old, on the road to Damascus. And in what form did he hallucinate him? In the form of a blinding light and of words from Acts 9, verse 3: '...and suddenly there shined round about him a light from Heaven: And he fell to the earth and heard a voice saying unto him Saul, Saul, why persecutest thou me? And he said Who art thou, Lord? And the Lord said, I am Jesus whom thou persecutest: it is hard for thee to kick against the pricks. And he, trembling and astonished, said, Lord what wilt thou have me to do? And the Lord said unto him Arise and go into the city, and it shall be told thee what thou must do'. Saul was blind and went into the city where he remained for three days without eating or drinking. There then follows a wonderful example of how the hallucinated voices worked, for it goes as follows: 'And there was a certain disciple at Damascus named Ananias; and to him said the Lord in a vision, Ananias. And he said Behold I am here, Lord. And the Lord said unto him, Arise, and go into the street which is called Straight, and inquire in the house of Judas for one called Saul of Tarsus: for behold he prayeth. And hath seen in a vision a man named Ananias coming in and putting his hand on him that he might receive his sight....' and Ananias entered into the house and, putting his hands on him said 'Brother Saul the Lord, even Jesus, that appeared unto thee in the way as thou camest hath sent me, that thou mightest receive thou sight and be filled with the Holy Ghost. And immediately there fell from his eyes as it had been scales: and he received sight forthwith and arose and was baptised.'

So God sent the vision to Saul and then told Ananias to go and make it come true, which is a very practical, human and worldly thing to do.

The result of all this was that Saul, the champion of the old, bigoted orthodoxy, who had persecuted all Christians, was converted into Paul, the apostle of Jesus. Nevertheless, after Jesus's death, he taught a much more militant and authoritarian version of Christianity than his master had offered. It led, via the power of Rome and the Jesuits, to the betrayal of Jesus and his teaching of loving kindness.

Finally, it is noteworthy that it was of St. Peter that Jesus had said: 'Tu es Petrus and upon this rock I found my faith', not Paul.

SUMMARY saying again our whole existence is all a part of one piece, namely the evolution of consciousness, for that alone can invent and create. It is the only creative force in the universe - creative of abstract ideas - which can then be played back to modified, physical reality on purpose.

CHAPTER SEVEN

Women.

In pursuit of The Sum humanity has done so wrong, we have traced the course of the evolution of the consciousness that in its emergence from unconsciousness did it in this way. We have looked at the Ascent of Man as being the spoor that it left and we have acknowledged that this was indeed left mostly by men and their works or by behaviour directed by men.

The question that we must now ask is whether the primary unconscious, and then the consciousness that evolved slowly from it, is any different in women. And, if so, what effect this can have upon the human need to raise consciousness sufficiently to evolve on purpose so as to survive. And we will come to recognise, at the end of the chapter, the crucial relevance of this to the situation we are facing at the present time.

The behaviour of most female animals, particularly mammals and especially the anthropoids, is different from males in that, biologically, they must wait to have one precious seed fertilised by the profligacy of the male as random as the thousands of ways seed is scattered in the animal and vegetable kingdom. This means that the female unconscious is already different from the male. It is disposed to be responsive in ways and to a profound extent that the male is not. It is disposed to seek sex in order to satisfy a biological and metabolic urge to become pregnant. And then it is programmed to nurture the seed within it and the babe without in ways that alter its behaviour patterns affecting its assessment of situations etc. For example, by putting the needs of the babe in a position males would never put them. Thus, the unconscious out of which its consciousness evolved was already different from males. Because of the different priorities and instincts and 'attitudes' inherent in the female unconscious, the way females evolved consciousness from it was thus certainly different.

We have spoken of two phenomena in the evolution of unconscious into consciousness. First we considered Screening and secondly the Promptings. I proposed that males 'understood' i.e. were able to accept into their dawning consciousness a Prompting from their unconscious that 'had something in it for them'. They understood in terms of what helped them in their pursuit of their best interests. This is of fundamental importance in that it caused our earliest appreciation of our place and role in the world as its being there for our benefit as something we could and - to survive - must exploit in pursuit of our best interests, which was the expression of the first propensity - the primal urge - the survival instinct. Of course, all accounts that have come down to us concerning our place and role were conceived in the minds of men and all the behaviour whose traces we can perceive in the anthropology, archaeology or mythology were predominantly made by, or under the direction or influence of, men.

An important aspect of this criteria - "What's in it for me?" - was whether the Prompting gave any advantage in the man's competition with his peers. Early men, like the animals they were emerging from, were enmeshed in a pecking order - a hierarchy - in which they competed for advancement: access to females - territory - power - prestige - food - water etc. Through it, they and their genes survived. It was the living, pulsating construct of reality. Today, all its infinite trappings, honours, decorations, uniforms, titles, perks and, above all, the reputation for having climbed to the top of the Establishment Tree, up all the Establishment rungs in obedience to established discipline and

rules, are the very essence of a man's reality in a way that is not applicable to women for the reason that they do not actually compete for power, position or influence within that structured hierarchy. (Obviously this is now beginning to change). Indeed, women do not feel bound by the reality of conformity in this framework in the way that men do.

What, then, were the criteria by which women understood the Promptings? What sort of screen did they erect to hold back what was of no use to them?

It is extremely important that this screen would have been different. The most important characteristic of its importance was that it could be more permissively permeable - have, as it were, - a wider mesh. This was because men wanted to understand things for immediate use in their life and death struggle for supremacy and survival. Anything that was not relevant to this was screened out. In effect, it was not understood. Or later on rejected. As scientific research, which is thought to be of no benefit to the human race, is marginalised and underfunded.

Women, as we have seen, were predisposed to be responsive. To the extent that a man's screen was strongly exclusive of anything not of immediate use, a woman's wasn't. She responded to a wider variety of promptings at a lower key of urgency and selected for understanding those which were of use to her role in life where she was not involved in the hierarchical competition for power etc. Her role was to compete for males not, usually, by fighting but by being more pleasing and, very importantly, available - and then to guard and nourish, even unto death, her embryo and progeny. These were the realities relevant to which she selected for 'taking on board' the promptings bubbling up in the evolution of consciousness.

It was as early as this that a woman's way of understanding started to differ from a man's as being concerned with the inner activities with her own metabolism and, in tribes, with that of other pregnant women and mothers and their need to search, but not hunt, for sustenances and to obtain it in the form of meat from men, as we shall discuss in a moment.

On of the most important consequences of this is as follows. Consciousness, which for men was evolving in terms of their life and death struggle in the main hierarchy, had substantial survival benefits and the more exclusively you could develop it to serve them the better were the results. Thus, men put a premium on developing i.e. raising consciousness in their way. Within their reality, which was the dominant reality, the reality which led and directed the evolution of civilisation, it came to be seen as the right way so that from its terms men defined and defined the rules for defining, believed in and lived by the definitions and forced them upon the race. And women responded.

The latest and best researched trend in anthropology recognises that early man, like his anthropoid ancestors, did not naturally share the meat from the hunt with his females. The protein demands of a pregnant and lactating woman are large and her ability to obtain it for herself during this period reduced. So the necessity to get the men to deliver meat had a strong survival pressure behind it. Women, therefore, began to put pressure on the men (a) to go hunting regularly, which they were sometimes lazy or reluctant to do; and (b) to deliver a share of the meat to them. They did it by learning to control their own sexuality, refusing gratification to all males unless they behaved in this way. But it was no good one woman doing this. It had to be a collective effort. Women timed their ban on sex to the period of infertility i.e. when they were menstruating. As the effect had to be collective, so that the males could not just go to another female for gratification, this led to the synchronisation of the periods of the woman's group and they came to be synchronised with the rising and waning of the moon i.e. at that period of the moon when it was best for the hunt.

If we indeed spent a million years or so in an aquatic period by the shores of the sea, the rhythm of the tides would have had this effect. Thus when we left that situation, which had given women access to the protein-rich nutrients to be found in the sea and she became dependent for her protein upon the hunting of the males, the periodicity of menstruation was already established on a monthly basis in accordance with the tides' obedience to the pull of the moon.

The important thing is that women acted in a collective way to deny sex to men and thereby compel them to bring back food and share it out. Men were then rewarded with feasting and sexual licence. To the men, it was clear that women were lustful and enjoyed it, but controlled it, used it, used the thing they themselves wanted in a controlled way to make them obey the women's will, a thing that women otherwise were physically unable to do. But not only that, the women connived to do it. In some secret female way that men could not understand, they all connived to menstruate at the same time so as to 'wrap men round their little finger'. Now the way that women did this was certainly below the threshold of conscious decision. The unconscious influences upon a woman's reproductive system is still powerful and not understood. A woman can, for psychosomatic reasons, become impregnable or she can Perhaps the woman whose consciousness is fully raised would be able to do these things on purpose, as might a man be able to raise his penis or make his hair stand on end in the same way as he can presently doff his hat. The association between women and mysterious, collective decisions to control natural functions for their benefit at the expense of men was being laid down.

Women in this way made themselves into powerful sex objects and used the power that it gave them. Now the significant thing about this is that it happened at a time when men's and women's conscious perception of each other was just beginning. So men's first idea of women and their's of men was cast in this mould. Moreover, self-awareness was a crucial and large aspect of consciousness and women's first idea of themselves - and men's of themselves - was formed in these terms.

When you add this to the different ways in which women's consciousness has formed in relation to the screening and the promptings, it is clear that it offers us a basis for understanding all that is referred to in phrases like "A woman's way" - "Women's understanding" - what is called their secretive, dark, chthonic personality. [And woven through this, all the time, facilitating and typifying it, exemplifying it, is the fundamental, biological quality of the fact of a woman being responsive and fulfilling her survivalist role by being successfully imaginatively, creatively, ingeniously responsive.

As we shall see, individuals are dynamically assertive in the world, but hitherto no more than individuals. So how will they be assertive as a group - as a world group? By responding to the fix we are in - that they didn't create - by competing with men head on].

And this then developed as women endlessly sought the means to fulfil their biological and survivalist role in baring and caring for and raising children and using them also to manipulate men into making their living tolerable i.e. symbolically bringing in the meat. Women today working and living in groups e.g. will find their periods synchronise. If one falls pregnant, others are likely to follow.

Because this feminine rapport began and remains below the threshold of consciousness, it is not surprising that it has survived at a level where proficiency in men's highly structured version of language never became necessary for their mutual understanding and communication.

The larger mesh of the Screen humanity erected and filtered out the vast input of the unconscious into the tiny, and still very limited, arena of consciousness meant that women, at this special feminine level of rapport, already allowed themselves to be aware of a greater and more subtle variety of connections, implications or synchronicities than did men who rejected anything that did not offer him something of immediate and practical advantage in his competitive existence. The relic of this today is in the emphasis placed by the male establishment on knowledge, science, research, jobs or work which is '...of some use to somebody, for God's sake.'

We have described then the extraordinarily profound, subtle and creative way in which women responded to the need to make men give them the sustenances they needed for survival. And they have always found ways of doing this and this chapter is leading up to the latest and most remarkable example. But there is, of course, the dark side of the picture wherein men exploited and abused this characteristic in every way they could think of, short of sterilising them, and they came quite close to that in female circumcision. This would seem to have arisen from the male unconscious, where the primitive experience of collective menstruation, as described, left a deep resentment that women could give or withhold sex and yet all the same be able to enjoy it just as much as a man when they did decide to give it. So they should be mutilated so that they couldn't enjoy it. They must give it without enjoyment. Quickly the witch doctors and priests agreed that it was sinful for a woman to enjoy it. Hence all the folklore about women not enjoying sex - not admitting it - it not being seemly - with which topics so many books on the subject are filled.

But, at last, in our own times, this exploitation and abuse has caused a profound response. There have been previous responses but because of lack of communication they remained parochial and failed. Today, because we live amongst an ever increasing mass communication, the female response cannot, I think, this time fail.

The Decade For Women, 1975-85, sponsored by the United Nations, resulted in the publication of 'Women: A World Report' (Methuen, 1985). It was compiled largely from statistics gathered by government agencies and by diligent groups dedicated to women's welfare and tells us how ubiquitous is the recognition of the way in which women are abused and exploited and of what they are doing about it and can and will do about it. One of the facts that can be deduced from its tables is that 70% of all the work done in the world is done by women. Free. Whatever the percentage is in Britain, it is not part of the Chancellor's calculations and therefore invalidates them. It is also an excellent example of how a 'science' invented, developed and applied by men and latterly by women, who necessarily do it in the acceptable man's way, intrinsically distorts our understanding of the situation. Distortion is a common consequence of man's almost total supremacy and by abuse and exploitation it has distorted the relationship between the sexes. To the extent that women responded by evolving the technique described to manipulate men, they add to that distortion. And the way humanity, under the direction and control of men, deliberately abused and exploited the environment is causing such a gross destabilisation that it will end in catastrophe.

About this question of women being responsive. Obviously, individual women act with much independent initiative. But, as I have shown, women are biologically disposed to function and, moreover, to survive by response. But as we shall see, this is so deep, so unconscious its consequences are not only profound but begin to reveal the colossal importance of the roles of women in our predicament and our future that this chapter is leading up to.

It started with biological, sexual, material responses which caused them to coerce and manipulate men into providing the protein they needed for their functions. But in order to survive a little better

- to have a slightly better time - it behoved them to be pleasing to men, as is the obvious example of enthusiastic, orgiastic sex on return from the hunt. As time went on, she gave or promised sexual favours or made her favours more promising or agreeable than those of others. By flattering a man that he was good at it - good at other things - better than his competitors - she was rewarded with his protection and protection for her children.

Other ways of flattery were obedience, agreeing with him, telling him he was righter and better than others, obeying his standards and, as civilisation developed, wearing his gifts, jewels, coronets or badges of rank and reflecting credit and glory on him by her behaviour or looks. Later, she agreed to accept his standards of accomplishment, wrote novels in the way the male critics approved, sat for men's exams, accepted his titles of office, rank, position or power in business, the professions or academia. All of this is an extension of the basic and ageless fact that imitation is the sincerest form of flattery. This is the familiar, and therefore easily obeyed, unconscious motivation that actually drives women to pursue all the feminist goals of struggling for equal rights, equal shares, equal opportunities or equal rewards - right up to 'taking over from the men'.

It is important to recognise how profound and immutable the role of women is because in its obscure wisdom it is causing women to do what nothing else can do. The male global establishment, as we have seen, is programmed through mindless pursuit of best interests to lead us to catastrophe. This is perfectly well known by all the scientists in the world by the billion bits of information gleaned from satellites and other sources as described and warnings of one kind or another appear every day in the media, but nothing anyone says has had, or will have, any effect. There is only one way to oppose the controlling influence of men and that is to confront it, head-on, one for one in the market place, in politics, in academia, in the media etc. It is typical of women not to waste time with words, which men have traditionally made their metier, but to act. For example, eight billion words were uttered in the run-up to, and during the environmental conference at Rio de Janeiro and almost nothings has happened. And that is what women are doing while proclaiming to themselves and the rest of us that they are doing it in pursuit of their own best interests, in obedience to the First Propensity, the Primal Urge.

They have gone further than that. They have initiated Conscious Raising Groups. The object of these, so the feminist writers tell us, is to enable women to talk openly and freely - to acknowledge to each other - the ways in which they have been in the thrall of men, their definitions and standards - and also their victims and the miserable extent to which this has made them feel that they started life one down - that they were in the wrong - foolish - should be apologetic for being only a foolish woman etc etc etc.

But, again, something much more than that has happened. They are the first social group ever to have recognised that the raising of consciousness is a necessary part of human evolution. They have recognised this - albeit for a reason with too limited an aim - and they have brought up into the forum of public debate i.e. into the public consciousness all manner of aspects of the crippling dichotomy of men and women whose significance and consequences we do not yet really fully understand and have not yet fully examined.

They have caused men to have male Consciousness Raising Groups. There are just Consciousness Raising Groups. This book is about the history of the raising of consciousness from the first long epoch when it flickered sporadically in and out of existence and about the fact that unless we can raise it far enough now to evolve on purpose, we won't evolve very much further for a long time.

Women in this competition with men are, in their own way, easing this matter into public awareness. And it is a very excellent way, being the familiar route of man/woman relationships (bedevilled, for example, by the fact that I and most of us find it normal to write men and women, rather than the other way round).

They are also, by becoming effective in business etc, introducing a "woman's way" of arranging meetings, leave rotas and also business deals. It annoys men, except that it works so that more progressive men get in on the act and are thus changing their style. And although this is too big a subject to go into here, this itself has a great deal to do with the difference in response. Hierarchical men tend to resist change; those men who, as I have just described, don't resist it are therefore the interesting and useful ones. A woman tends to respond to things as they are - chiefly because they have always had to respond to the force majeure of being dated - being pregnant - of having thrust upon her a life which she must guard, as well as that of surviving in a man's world. A man tends to respond to things as they ought to be - chiefly because he made the rules and is allowed to dispute them as being a natural part of his continual role as contender, competitor. These two different roles, in as much as they are at odds with one another, are counter-productive and this is an important part in what comes next; which is the point to which this chapter has been leading.

Hitherto, the evolution of our species and, most particularly, of our civilisation, has been directed by the perception of reality, our response to it and by our idea of our role and place in it proceeding from the emergent consciousness of mainly one half of the only consciousness which - so far as we know - exists and which it is the whole significance of the universe to evolve. And we have reached the dangerously distorted and destabilising situation we are in because only one half of the phenomenon has been doing most of the thinking, defining and deciding.

The whole modern alternative movement has grown-up in unconscious understanding of this as it proclaims itself in search of holism.

At its root, lies the idea of wholeness of mind - just at the time when we stand at the threshold of the era of mind. What this is tacitly demanding is the evolution and liberation, i.e. the raising of, feminine consciousness to the point where the human mind can itself achieve that wholeness - balance - equilibrium: can start firing on both cylinders. This is the necessary condition in which we can, through the female influence, respond to the necessity to maintain the environmental equilibrium upon which we depend for survival so as to know how to evolve on purpose.

As stated earlier, balance (equilibrium) cannot be improved. That which cannot be improved is the definition of perfection. Perfection cannot be approached nor apprehended by something which is itself unbalanced. Thus equality of two halves of the human mind is a necessary human condition for us to be able to feel our way forward into that mysterious longing we have always obscurely had that there is some point, somewhere, of rest, of stillness and of balance. It will be remembered how all those descriptions of it collected by Laski relied so heavily on metaphors describing something being so obvious - like it all the time - inevitable - always known - as indeed is the acceptance of the other half. The longing for the other half - the very obsessive longing for that fusion of woman and man - mentally, emotionally or eternally - the metaphysical and spiritual realms developed to explore and express its potential are real. What else do you suppose they are about? More than that the whole eternal significance of the universe to evolve consciousness must involve the combination of both its halves? And would you not expect to find pervasive and eternal longing on the part of those two halves to be thus fulfilled?

It isn't really possible to speculate about the new point of view that can evolve from the full liberation and emancipation of female consciousness to join with that of the male half into a wholeness of the human mind for the simple reason that it will be new. Neither my one cylinder consciousness nor that of any woman's can, by definition, create it.

There are, however, two areas that I want to look at. One is what is popularly called the mysteriousness of women and the other the resulting benefits to us all of the fact that when we screened out the Promptings, women did it less rigorously for practical advantage than men who sought advantage in the male competitive world. I suggested that the mesh woven by the women had been a little larger.

First of all the mystery element. Women, as described, were forced, for survival reasons, to form a collectiveness around synchronous menstruation their own way of communication, survival needs and so on. Men often become angry when women leap, by their own methods, to a conclusion a man's proud logic has missed, or denied. It is called "women's intuition" because men, the definers, know no better way to think of it. Indeed, ever since Eve, women have been offering men an alternative way of looking at things. That's what the Eve and apple story signifies. But because men could not understand, for the reasons given, they vilified it - and denigrated the female propensity saying it is part of their dark side - their backward, primitive side where they are in closer touch with the mysterious - the occult - by which they mean the animal side of our origins which we perceived as connecting us to the promptings themselves. They quite forget that women are not mysterious to women; nor, for that matter, are men because women have had to survive by understanding what they were at. So this idea is the product of only one half of human consciousness. But consider (as a cautionary tale, with many other examples) the effect it has had. For one thing, to find beautiful and beguiling the aspect of human nature which your nascent mind strove to rise above shines through men's inclination to denigrate it by actually turning upon it and abusing and cruelly exploiting it.

Men claimed this 'different' way of hers was primitive etc but desired it - feared it - and to account for the fact that it made them weak and to feel humiliated by their weakness, they claimed its primitiveness made it occult, having an animal's contact with the world of spirits and magic. Thus at the time when our schizophrenic period ended and we were terrified because the gods were deserting us, men believed women could provide a link to that spiritual source we had always relied upon. She could provide a continuing security in their lives by her rapport with the mysterious, the 'other world', and we encouraged her to become the oracle, the diviner, seer, auger, clairvoyant, Sybil, pythoness, Pithia, sphinx, terisias, soothsayer, geomancer, aruspex, crystal gazer, medium, witch etc etc.

And she still has this role today in nearly all cultures, to a greater or lesser extent: "Ask Mum, she'll know." She has hunches, premonitions, feelings, she understands and is on 'that' wave-length, is the healer, the layer-on of hands:- "Kiss it better" - the caber - the prophet - the guardian of life - the oracle of the home.

Men are consulted and heeded for different reasons under different headings.

But the wider mesh in the origin screen woven by women to filter those promptings that could turn into consciousness has one final and overwhelming significance.

If women have always offered an alternative way of knowing we have now - all of us - reached the stage where an alternative way of understanding the nature of reality is being offered in the

uncertainty and probabilities of Quantum Mechanics. Here, things are obedient to man's proud logic. Here, things are influenced by our presence - the particles of reality do influence each other simultaneously and at a distance. A woman's consciousness dwells more nearly in a quantum state than does a man's, as some atoms exist in a quantum state and others don't.

It is certainly no coincidence that the two best books that describe the specialist study of Quantum Theory propounded by male physicists such as Heisenberg, Planck, Bohm etc, so that it passes over into and becomes cultural knowledge available for the layman to make effective in our lives and to the problem solving potentiality of the human mind working individually and collectively - are written by a woman. [Footnote: Danah Zohar, 'Quantum Society and Quantum Self' - details].

Though we could instantly, now, as an act of will, decide to evolve on purpose we will not be able to create the terms or the means of so doing, except as our mind begins to make itself whole and to thereby slip into a perception of quantum reality so as to evolve a new attitude of mind.

Quantum Mechanics makes necessary a whole new perception of the nature of reality, of ourselves and of how we can respond to each other and our environment. We need to become conscious of its implications as we attempt to evolve on purpose because its terms will be those by which we may enter into the new relationship with our environment that will preserve its equilibrium. We cannot do this except as our mind makes itself whole.

And this leads to the final point of this chapter.

As we have seen, consciousness has been evolving slowly - also by fits and starts - for an unknown, but enormous, period of time. It has not stopped evolving yet. We are not fully conscious now. Our ideas and behaviour are still prompted, to a large extent, by our unconscious.

There have been thinking aids in the past which we have used to help us evolve consciousness further. Quantum Theory is the latest of them. By the perception of the quantum self and quantum society, a kind of conscious awareness that we have of ourselves and reality will evolve.

The other great thinking aid, which seems to be so much in sympathy with the quality of quantum reality, is the liberation and raising of female consciousness. This is happening at a time when we are just beginning to become consciously aware of the fact that the haphazard way consciousness developed has led to the brink of its near destruction.

In the beginning, we did not know that what was happening to us was that we were evolving consciousness and therefore we did not have any sense of how or why or in what direction it should develop or lead.

The one single, over-whelming fact of today is that we now, for the first time, do know this. Some savants, in private, have realised but I am talking about its becoming common property and recognised as this throughout our culture. It, like the fact that we are not fully conscious but much influenced by our unconscious, has the same sine qua non of a good tale, namely that it should be 'surprising as it occurs, inevitable in retrospect'.

Because we do now know what is happening and what is at stake, all consciousness raising sessions can obviously be different.

Women started them - thank God - and though they undoubtedly will continue to discuss the essential issues of their ageless plight - their exploitation and abuse and the resultant feelings plus their own way, language and potentials - these can and will become the idiom in which they can examine the whole obtuse and priceless alternative they filtered through the screen and evolved cryptically without knowing what it was that they were about. Now, knowing it, they can use the C.R. sessions to probe and develop the whole subject, made enormous under the heading of Yin - of the great goddess - the whole mythology, metaphysics and mystery that the woman question has been elaborated into. And they can do this in the certain knowledge that it is an absolutely real alternative version of reality as specific, and also as limitless, as the potential significance of quantum reality.

Women, like the rest of us, now know that our ability to respond to our present predicament, depends upon the raising of the consciousness of us all to the point where the two halves of the only consciousness in the universe can join into forming the embryo of the whole mind which it is the significance of the universe to evolve so that it can further develop on purpose to a situation where it can invent a reason for doing so and, from that, create meaning into the cosmos where it has never before existed.

In so doing, it will supply what we have hankered after in the creation of all our gods, having realised that, instead of in them, the soul potential lay within this phenomenon of ourselves wherein evolved the unique ability to handle abstraction - namely the human mind - made, by its own efforts, whole and self-aware.

As I said by the pond with Tarquin, the chance combination that made this possible we have called anthropos. Reflect upon those infinite permutations of matter through all the time, since time began, that finally produced the combination that could think purposefully and we are it.

Finally, of course, there is the most beautiful thing of all to be discussed - the realms into which love between which these two halves of the human minds can offer to lead the whole significance of the universe. In just as much as it is true that once in everybody's life they will have this sensation that we discussed - that there is Something More Besides - so also once they will experience love and know that because it is inexpressible it is telling them something about themselves and the beloved that does not belong in, nor originate from nor lead towards anything outside themselves but that this climacteric of humanness is part of something within ourselves which is just around the corner of the wholeness of the human mind, waiting, perhaps longing, to be seen - it is something just upon the tip of the mind's tongue waiting for the poetry of the New Knowledge to express, secure in the certainty that it is in the nature of a poetic truth that it can never be fully stated - that the potential of the human mind is as boundless as the universe whose ultimate significance it was to evolve it.