

Life in a Living World

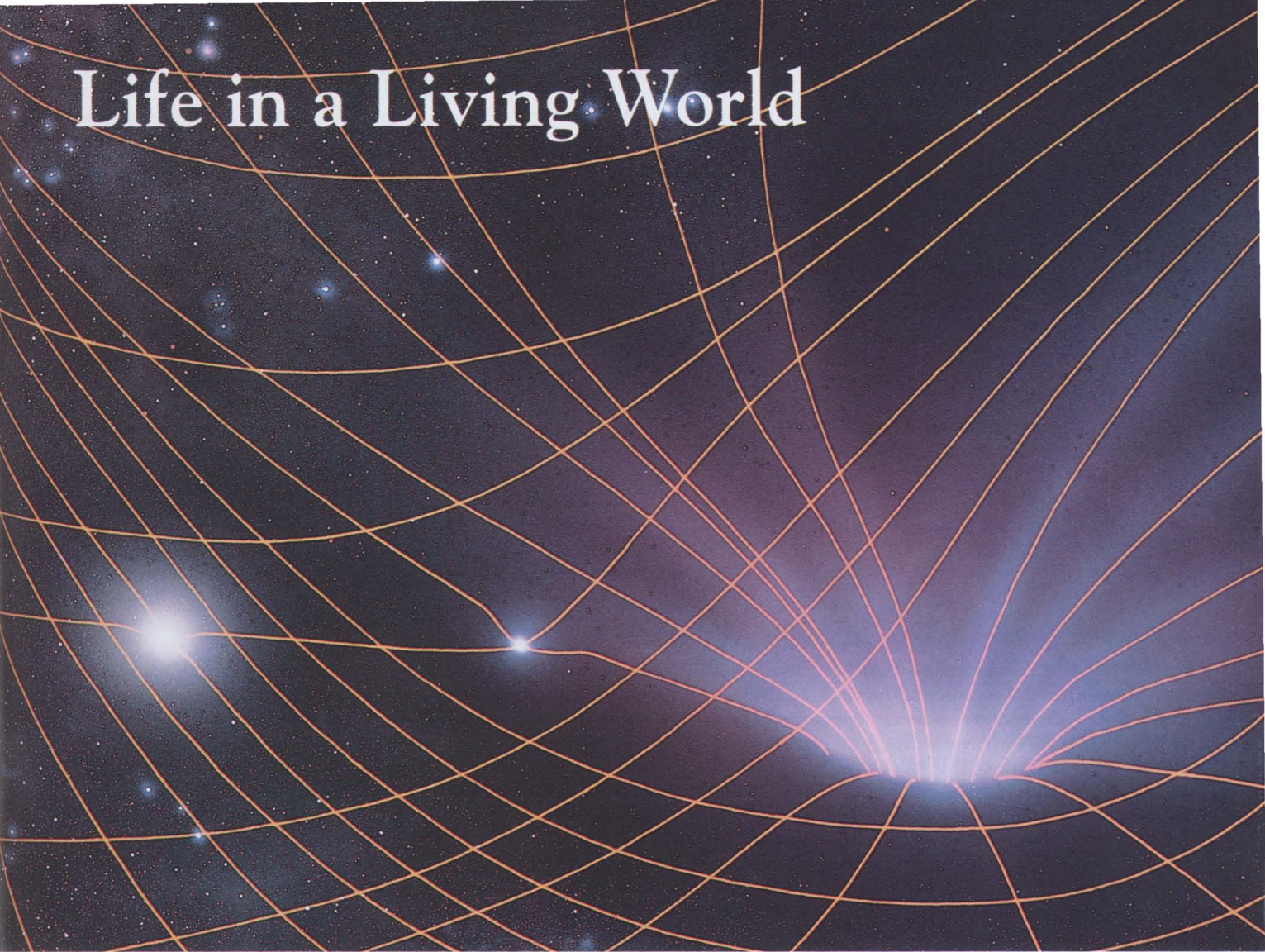


Fig. 1: The effect of mass upon the space/time continuum

The idea that space is effected by gravity is a consequence of Einstein's theory of relativity. In this, the grid of space is considered to be like a thin rubber sheet on which objects of varying weights produce smaller or larger dents.

The above shows a computer simulation in which the fabric of space is represented as a grid in which objects of increasing mass produce increasingly large distortions. Our sun, at bottom left, makes almost no impression. A small, but much denser and more massive neutron star (lower centre), creates a slight distortion. The enormous gravitational pull of a black hole (bottom right) creates a yawning chasm, warping the fabric of space for light years around.

Photograph by Julian Baum, Science Photo Library.

by Rupert Sheldrake

An extract from a seminar given at Beshara Frilford, July 1989

WHAT I WANT to explore in this article are some of the implications of an idea which is increasingly becoming accepted by science – that we inhabit a living world, that nature is alive; a concept which has been described by myself and others as the 're-animation' or the 're-birth' of nature.

Of course, practically everyone, everywhere in the world, has always believed that nature is alive, and that human life participates, in some sense, in the life of the cosmos. The very word 'nature' reflects these notions; it comes from the latin word *natura* which means birth; the same root gives us words such as native, nation, renaissance, and it originally implied that which is born, or which is inborn. It came to mean, in some contexts, the inborn powers or tendencies of things,

or the underlying power which gives rise to the tendencies of the natural world, or, even, the whole natural world itself.

For the Greeks, as for most ancient peoples, the cosmos was a living organism; they saw the planets as alive, each with an inherent soul or spirit, as were all plants and animals (the English word 'animal' comes from *anima* which means soul). And this idea was taken over in the West during the Middle Ages, in the official philosophy of Aristotelianism synthesised with Christianity which was brought about by St Thomas Aquinas. It was only with the 17th century scientific revolution that this old view gave way to the idea of nature as inanimate and essentially dead, and man was conceived of as being in charge, trying to dominate and control.

Our present view – that of modern, contemporary secular humanism which is the ‘orthodoxy’ of the academic world, our business affairs and other official contexts – is more or less derived from mechanistic science. It regards nature as essentially soul-less and purposeless and sees man (or woman) as being the only truly conscious being within the universe. We are meant to understand it with a mind which is somehow detached from the processes of the natural world, and control it ever more perfectly with a view to achieving human ends and goals. Human ends and goals are, of course, the only possible ones, as nature is not seen to have any ends or goals of its own.

But now we begin to understand that the vision behind the 17th century revolution – that first formulated by Descartes, of passive matter in motion moved only by external forces – was in fact unrealistic and untrue, and ever since the 17th century, science has itself, through its own researches, progressively broken free of this mechanistic view, has been progressively transcending it. Developments during this century, and especially recently, are returning us to a view of the cosmos as a living organism – only now it is seen as a developing organism rather than as a mature one. Our current theories encompass the development of the entire cosmos, growing from the ‘Big Bang’ like the cracking of the cosmic egg: they acknowledge creativity and spontaneity within nature through the growing understanding that physical determinism does not hold in most areas of the natural world; and recognise the existence of non-material organising agencies within nature, which used to be thought of as ‘souls’ and are now thought of as fields. I have described elsewhere (1) how I feel that there is a real sense in which field theories of nature have involved a re-animation of the world. Through my own developments of the field concept, starting from biology in the context of an evolutionary cosmology, I have come to feel also that it makes more sense to think of nature as being governed by habits, which build up and develop within the evolving natural world, than by eternal laws which were all there at the outset like a sort of cosmic Napoleonic code.

What sort of changes might this acceptance of the living universe bring about? An exploration is urgently needed, I feel, because of the ecological

crisis in which we find ourselves – a crisis created because of our existing attitudes, and which can perhaps be summarised by saying that in our official world view, nature is seen as just a series of natural resources to be exploited for human ends, preferably for a profit.

Oddly enough, I think most people in our society take it for granted that the universe is alive, but only in their ‘off-duty’ moments, at weekends or while they are on holiday. The extreme dissociation from natural processes which is engendered by the technological nature of our modern life has created, it seems, an imbalance in our attitudes towards nature, and many people live a kind of double-life. During working hours they accept a mechanistic world view, or at least go along with it, and in their free time they revert to a kind of Wordsworthian romanticism about natural beauty and unspoilt nature. But if we really begin to take the idea that nature is alive seriously, then we must adopt it not just at weekends when we are gardening or when we are with our pets and children, but in our official life, during working hours.

Qualities of Time and Place

Now in all traditional societies and cultures, people have related to the natural world not just in terms of exploiter to exploited, or of controller to controlled,

nised something in nature which goes beyond visible appearances, another dimension beyond the material. And the traditional way in which people have participated in nature and related not just the individual but collective human life to the natural world, is through a recognition of the particular qualities of time and place. It has been understood that certain places are special – sacred, beneficent or evil – and through rituals and festivals people have participated in the cycles of time and recognised the particular qualities of the moment.

This sense of the quality of a time or a place has no validity in the mechanistic world view. In the Newtonian universe, the framework of absolute space and absolute time provides the framework for all events, and places become things which do not have particular properties of their own, but are characterised by parameters within mathematical space/time. Of course, the very concept of ‘quality’ is left out of the picture altogether in mechanistic science; smells, colours, and tastes feature nowhere in the equations of physics and the only things that are taken into account are mathematical quantities.

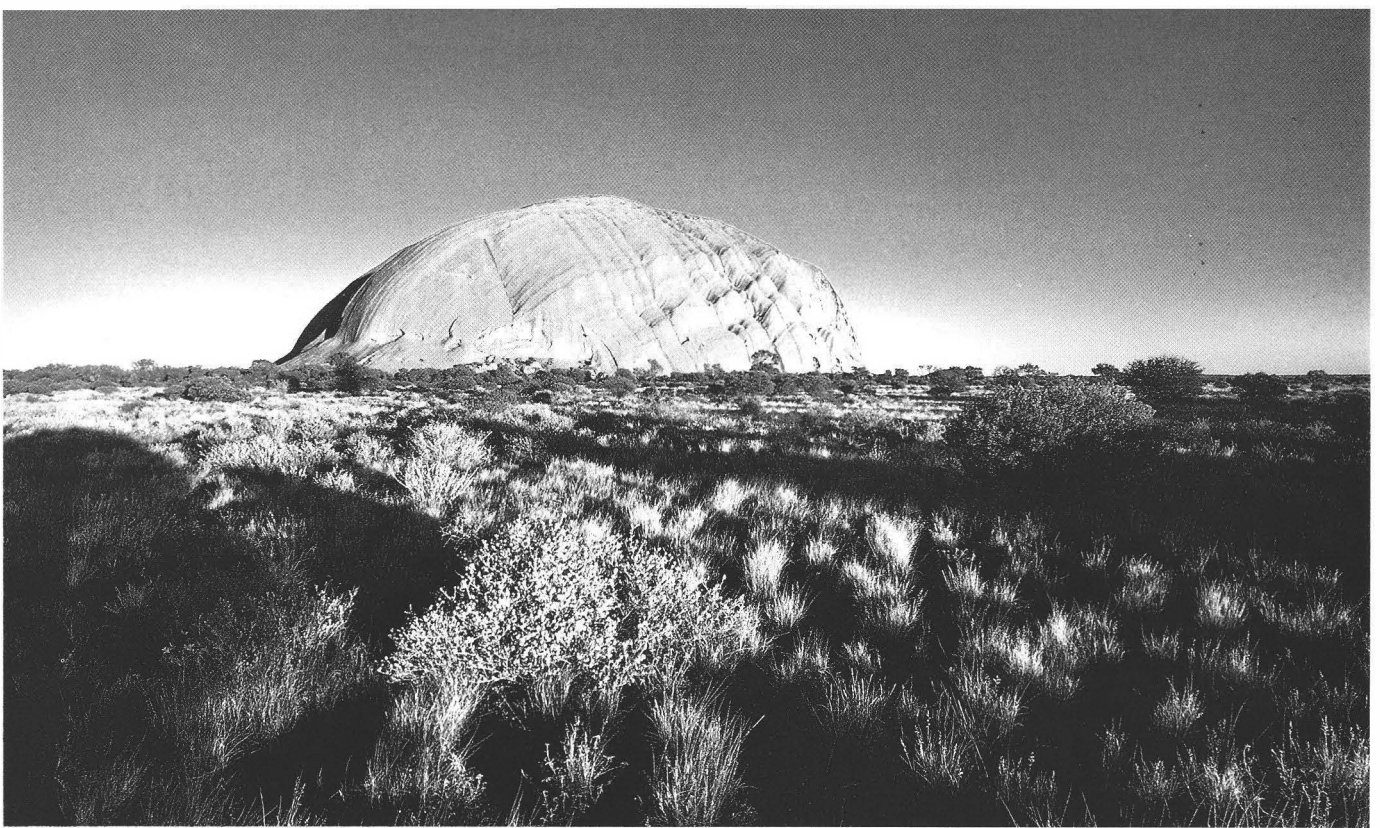
When the Newtonian view is applied to the natural world, as it was after the scientific revolution, it leads to a flattening and diminution of the qualities of particular places; anywhere is as good



Aerial View of California, 1933, showing how the land is divided on the planes to the East of the Rocky mountains. Courtesy of Hunting Aerofilms.

but the material world has been seen as something with a psychic dimension – that is, it has an inherent mind or a soul of its own – and also a spiritual dimension, in that they have recog-

as anywhere else, any time is as good as anywhere else in that kind of a world, and the laws of nature apply equally everywhere and always. When it is applied to the landscape, the map



Ayers Rock in Central Australia. This ancient rock has been a sacred site to the Pitjandira tribe for thousands of years, being the site of many mythological events in 'the dreamtime'. It has become a focus in modern Australia for aboriginal spirituality, and is increasingly also seen as a focus for all Australians. Photograph by Ron Watts.

becomes the territory, and this can be seen most clearly in the United States. If you fly over the United States, you are confronted by the depressing spectacle of the whole landscape divided into uniform one-mile squares, and within those squares sub-squares, and within those further squares. It is as if a piece of Cartesian graph paper has been pasted on the map of America in some office in Washington.

This system was not adopted by accident or as a convenience; it was done as a symbolic act. Jefferson, who was a typical Enlightenment intellectual, thought that it was a marvellous idea, because it imposed reason – by which he meant human reason – upon nature. The result is – and this is particularly evident as you fly over the West Coast where the plains meet the Rockies – that the boundary lines of people's property (because the squares usually denote private property) bear no relation at all to the natural features of the land like rivers or valleys.

By contrast, in New England or in the Old World, when people made maps and divided up territory they did it in accordance with natural features; English parish boundaries often follow rivers or prominent features or they move from one prominent feature to another. The map grows out of the territory; it is in human relationship to it. By contrast, in America the map is imposed on the territory, and this is a kind of symbol of man's relationship to the place in which he lives before and

after the scientific revolution.

Places as Fields

However, modern science would tend to support the traditional view of place, as it tells us that because of the developing universe, places within do indeed have a particular quality in relation to everything else. In Einstein's theory of general relativity, which in most respects supersedes Newton's model, the gravitational field is curved in the presence of matter. (See Fig.1). The gravitational field, according to Einstein, is space/time – it is not in space/time but is the very structure or framework within which all events can happen. In other words, place has a quality in the gravitational field, and space/time becomes not just an anonymous graph paper, a bland background, but is itself affected by what goes on within it.

When we consider the question of place on earth, it is obvious that the qualities of a place depend upon its relationship to all other places. For instance, the seasons, the temperatures, the climate, etc. all depend upon the latitude. In China, the science of geomancy is really a science of the quality of place, as it is an attempt to form a systematic understanding of what makes one place favourable for certain purposes and not for others. Geomancers take into account a lot of common-sense things like the orientation, which way the sun rises, the direction of the prevailing winds, and the way in

which water will flow. The Chinese word for it, Feng Shui, actually means 'wind and water'.

I would like to put forward the hypothesis that places can be thought of as having fields associated with them; therefore to describe the quality of a place is like describing its 'field'. When I first thought of this, I wondered whether it might be a bit far-fetched to extend the field concept in this way, but then I realised that the idea of scientific fields came about in the first place by analogy to physical fields. A field is the place within which things can happen – crops can grow or whatever. If we think that the science of geomancy can be understood like this, then it is just the return of the metaphor by a long and devious route to its origin.

If one accepts this hypothesis, and further accepts my theory of morphic fields, then it follows that places have a built-in memory. We all know as a matter of common-sense and ordinary, everyday discourse, that this is what most people believe to be the case. Common beliefs about haunted houses, for instance, usually involve explanations about someone being killed or murdered on the site; execution grounds and battlefields are still, even in Britain, which must be one of the most secular societies in the world, considered to be places of ill-omen. If the hypothesis is correct, then places of worship – cathedrals, chapels, stone-circles and longbarrows, etc. – might also

be expected to have some kind of memory associated with them. And indeed, most people would agree that in these places some atmosphere of sanctity can be detected. This may be because most of these places were built originally on sites which had special properties, or it may be because of what they have accumulated through the things which have happened there, and it would be difficult to disentangle, now, the two things.

One of the ideas that can be re-examined in the light of these new concepts of place, is the notion of pilgrimage. In the past, people would go to particular places because they felt that they had a special property. It was not so much that they expected to receive some standard response there, but rather, they believed that that place, or what happened at that place, would act upon them in some way – sometimes through healing, sometimes through inspiration, sometimes through conferring various benefits or blessings. People still go on pilgrimage in Catholic countries, and are increasingly returning to doing so in this country – the shrine of Our Lady at Walsingham in Norfolk has in recent years once again become a major centre. In contemporary India, the pilgrimages are vast events. At the Kumbha Mela, which happens every 14 years, 14 million people go as pilgrims. And more than 500,000 people every year visit the great Temple of Tirupatti in Southern Andhra Pradesh, near where I lived for a while. When they go, they shave their hair and walk barefoot for the last part of the journey, and return bearing offerings – consecrated food which they share in order that others should have some part in the blessings they have received.

The De-sacralisation of Nature

Pilgrimage was very much part of the life of medieval Europe; and here I want to make a digression and consider how it was that we lost this sense of the sacredness of place, and indeed, the sacredness of matter itself. Some people nowadays say that Christianity and the Judaic-Christian tradition is unique in sanctioning the exploitation of the natural world, but I think this is a false view. All religions and traditions had to have some sanction of the power of human beings over plants and animals – even in India, where cows are sacred, they are still under the dominion of people – and it does not seem to me that there was much difference between



Walsingham Pilgrims Badge. Virgin and child enthroned. Courtesy of Kings Lynn Museum.

Christianity and the other religions in this respect until the end of the middle ages.

What I feel did lead to a major break with the past was not Christianity itself, but the Protestant Reformation. This denied the sacred nature of places, and also reduced very greatly the sense of time which was so important in the medieval tradition and which is still important in the Catholic tradition today – the whole cycle of the liturgical year, of saints' days and liturgical offices at different hours of the day which embodied a relationship to the ongoing processes of the cosmos.

The Protestant Reformers for a variety of reasons wanted to overturn the

power of Rome. There were various ingredients in it. One was the humanistic, Renaissance attitude of returning to the original sources – which meant looking to the Bible as the primary source (and the people of the Bible did not know about European sacred sites). Another was a very strong incentive to remove magic from the natural world. The Protestants wanted to do everything they could to de-sacralise the world of nature and this was quite explicit in the writings of Luther, Calvin and other reformers. One of the reasons they had so many what to us seem arcane debates about the nature of the holy sacrament was because of this. If they admitted that there could be a

spiritual power present in the host, this would enable spirit to enter into non-human matter, and they believed that there was no spiritual dimension to the natural world – it was just matter. The only thing which had a spiritual dimension – except, of course, insofar as it had been made by God in the first place – was the human being. Consequently, the idea that a place could be sacred was to them a form of idolatry.

What happened, therefore at the Protestant Reformation in continental Europe, and in England, was that the ancient places of pilgrimage were destroyed. The ancient, pre-Christian traditions of sacred places had been synthesised with Christianity and many of them were taken over and turned into sites of cathedrals and churches. Medieval Europe was covered with the routes of pilgrimage – in England there was Walsingham, dedicated to Our Lady – the shrine of the black Madonna; the shrine of St Thomas à Becket at Canterbury (The Canterbury Tales by Chaucer were an account of a pilgrimage to this); in Gloucestershire, a famous shrine of the Holy Blood, and throughout the land numerous holy wells.

Between 1536 and 1540, all of this was suppressed. The shrines of the saints were desecrated, the relics were scattered, the statue of Our Lady was dragged from Walsingham and publicly burned in London, the wells were destroyed and pilgrimage was abolished. The monasteries and nunneries were closed down and the images of God and the angels were smashed by the iconoclasts. Many people nowadays think that all this was done by Oliver Cromwell, as there was a second wave of iconoclasm in England during the puritan period in the 17th century, but in fact most of it was done under Thomas Cromwell, the chancellor of Henry VIII. The idea was to destroy the very notion of sacred place. The reformers were well aware that if they destroyed them without trace, then within a few generations very few of them would be remembered.

This desecration of the landscape, the destruction of the sense of a spiritual psychic and mythical dimension to the places and times in which people lived, created a completely different attitude to nature in Protestant countries, to which we are the heirs. Once the reformation had occurred, the way was open for a new idea – that of nature's conquest by man. This was

expounded first of all by Francis Bacon in the early 17th century, before the vision of Descartes in 1619 which gave rise to the mechanistic view of the world. What is important about all this is the understanding that many of the features which most people attribute to mechanistic science *per se*, were actually developed and were in place, before its detailed development. So there is a sense in which science is not so much the originator as the culmination of this particular line of thought, giving it a particular quantitative form.

Pilgrimage

This idea of journeying to particular places in order to participate in their quality still survives in our culture, but now it has been secularised into tourism. People still go to all the ancient sacred places but they go as tourists, to take photos rather than to form a spiritual connection. I suspect that some people do secretly go in a spirit of pilgrimage, but they are rather furtive about it.

I think that one of the great changes we could have in our relation to the world would be a recovery of the sense of pilgrimage, and when we go to special places, to go in a spirit of pilgrimage. We need then to consider what the essences of pilgrimage are. I would suggest that one is going with a particular intention; another is seeing the journey itself as part of the pilgrimage. Then, one of the most common things that is done on arrival is to walk around the sacred place, to circumbulate it, usually clockwise, which makes it symbolically the centre of the universe, which you enter. As you approach the centre, you are then approaching the heart of the sacred place, and through opening to its spirit, and through prayer, then something can happen to you. An aspect of this is that one has to give something as well as take when you visit these places. Then, the return journey is again seen as part of the pilgrimage, and it is important that the benefits should be shared with others, as the Indians symbolically do by handing out the blessed food.

Sacred places are places where human beings are related in a special way to the natural and the spiritual worlds; they are often thought of as places of the marriage of heaven and earth; where heaven and earth come together. Church spires and towers symbolise this, as do obelisks in Egyptian temples. These places connect us both to our cultural traditions, to the earth itself and to the heaven; and when, in places like churches and temples, the seasonal festivals are observed there, they connect us to sacred time as well.

Resacralising the Elements

Another aspect of recovering our sense of participation in nature involves resacralising the elements of the natural world. I think a fairly good starting point is the traditional doctrine of the elements – earth, fire, air, water and what the Hindus call *Akasha*, what the Medievals called the 'quintessence', the etheric substance of the heavens which these days would best be thought of as space, or as the fields which are the structure of space. We still recognise these elements, but they are now thought of in more prosaic terms as the four states of matter – ie. the solid, the gaseous, the liquid and radiation.

We need to recognise that each of these elements has its own quality. Air, for instance, is not just a gas made up of a mixture of molecules; it is something which relates us to the whole life of the planet. The Gaia Hypothesis brings home to us the fact that we all breathe the same air. The whole planet's atmosphere is one, and we participate with all other life through the air we breath. More than this; throughout spiritual history, the air has been seen not just as the breath and the wind but as the spirit. The very word for spirit, *pneuma* in Greek, *ruah* in Hebrew, are words which mean breath and wind and air. One of the things we have done in the modern world is to separate off physical matter as it is explained in physics books – that air is just a mixture of gases which contains 21% oxygen and 1% argon, etc. – from the spiritual meaning, which we have come to see as belonging to the realm of religion, and there-

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fore metaphoric or symbolic and nothing to do with physical reality. We have created a split in ourselves which did not exist in other societies. For them, the air that was in the wind which was blowing the leaves in the trees was, in some sense, an epiphany, a manifestation of the spirit.

And so was fire. Fire was not just something useful for heating, which involves combustion of a combination of chemical elements with oxygen, resulting in a release of energy through heat. It was the flames of the holy spirit at Pentecost, it was God in the burning bush, it was the primal fire or light from which the whole universe was born. The Big Bang, which modern cosmology tells us is the creative source of everything, is a version of the great, primal fire myth of creation, in which the universe starts off as an incandescent fire-ball.

All the elements have these other dimensions, and one of the challenges we now face is to recover some of the psychic, imaginative, mythic dimensions of the elements we live in and within day by day. Water is not just a flowing liquid, the substance of the oceans and 90% of our bodies. It is the purifying element through which initiatory rites such as baptism are performed; it is the water of life, and the sacred element of wells and springs. Light is not just electro-magnetic radiation moving as waves in fields as quantised photons. It is also the light of consciousness, the light of the spirit, the light of God, the light of reason. All these metaphorical concepts are present even in our everyday language, and I feel that we have to begin to understand how these are not two types of things. There is not one light which is described in physics textbooks and another sort of light, symbolic light, which has no physical reality; they are the same thing.

Similarly with vision. Vision is not just seeing with our eyes; it is the vision which witnesses visionary states, that through which we see things in our dreams. What is the light of consciousness? We don't know. We have a science which deals very well with the physical aspects of our bodies and the electrical and chemical changes in our

brains, but tells us nothing at all about their relationship to consciousness. The so-called 'mind/body problem' is totally unsolved by science. Some people assume that consciousness must arise, in some mysterious way, from all this physical activity like a kind of phosphorescence around the nerve endings; others say that consciousness must be something totally different, totally outside the scope of physics which in some unexplained way interacts with the brain, but they cannot say how. Philosophers can go through their entire careers writing on the mind/body problem and never solve it because many of them assume that it cannot in fact be solved.

We have been in this position since the time of Descartes. We do not understand the first thing about ourselves, because we do not understand how we are conscious or in what way our consciousness relates to our bodies or the rest of the physical world. I feel that the only way we are likely to be able to solve the problem is by overcoming the division we have all become accustomed to between the spiritual and the material; and this

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means realising that the link between them is through our imagination. It is of course through imagination that we created science in the first place. The whole of science is a product of the imagination tested by experience, and reason and scientific theories are just one limited sub-set of what the imagination can do. Poetry is another, but we have separated these two, saying that one is about the 'real' world and the other is 'just' subjective.

The Greening of God

There are many other things that could be discussed – the whole matter of our relationship to time, for instance, and our relationship with plants and animals, and, practically, how we relate to the earth. This latter is something which concerns our patterns of waste, consumption and pollution, which are subjects which are very widely discussed at the moment. It involves the recognition, I feel, that our pollution of the earth is not just a physical process. The concept of pollution has very strong religious overtones, and every religion

has developed ways of dealing with it.

But I want to finish by considering something that I think that we may see a great deal of over the next couple of decades – the 'greening of God'. There is a sense in which post-mechanistic theology has accepted the mechanistic world view and thought of God as the God of the world machine; the God of Newton and Descartes who was constructed in the image of the engineer, designing and making the world – and, in Newton's view, repairing it from time to time. When Laplace perfected the celestial mechanics through his equations in the late 18th century, he said that there was no longer any need of God because he had created a perpetual motion machine of the universe. Through the discovery of thermodynamics, the universe then began to run out of steam, because the Second Law tells us that no perpetual motion machine is possible, and it was no longer possible to invoke God, who had been disposed of by Laplace, in order to stoke it up again! This created the notion of God which Darwin rebelled against – one in which God was the designer and creator, working from the outside like a mechanic, or like a designing intelligence. Modern images of God as the celestial computer programmer still retain this same idea.

So the image of God which we have got used to – and one which many theologians have actually adopted by trying to adapt theology to the prevailing world view of mechanistic science – is one which is totally inappropriate both for the theological traditions from which it has come, and also for a new conception of nature as alive. When we look back to the Bible itself, or to any religious tradition, or to the theology of the middle ages, we see that their conception of God was not that of a mechanic, but a living God of a living world, and there was a relationship between God and Mother Nature which was not at all that of a designer making things. If we look back, for instance to the first chapter of the book of Genesis where the creation of life is described, we find: "And God said: let the earth bring forth grass and herb yielding seed after his kind, whose seed is in itself, upon the earth: and it was so".(Genesis 1, 11). Here, God did not invent the grass and other vegetation – He said: "Let the earth bring forth grass", indicating a spontaneous creating process in nature which depended upon a kind of divine allowing, but

which was not in detail constructed or made by God.

Part of this greening of God, therefore, involves a rediscovery of these aspects of the tradition which have been neglected over the last few hundred years. One of the movements of modern theology is to return to concepts of God as process, and to the rediscovery of traditional Christian doctrine, which is not at all of God as a transcendent creator of the world, but

Imagining' and another 'The World as Imagination'. He developed the idea of an evolutionary God whose on-going imagination was the creative force of an evolutionary world. Some such notion is essential, I believe, for any new conception of God. The God of an evolutionary cosmos has at least to have an evolutionary 'pole', as the process theologians say, even if He is not totally evolutionary Himself; He must have at least some creative, evolution-

It amounts to a modern obsession, and one which is obviously self-fulfilling, and the more we are pre-occupied with creativity and change the more we get. One of the challenges in the greening of God, or indeed the greening of atheism if you don't want God, is to understand how there can be such on-going cosmic evolution. (Traditional atheism will not do any more than traditional theology will, because it was derived from traditional theism by getting rid of the mind of God and leaving the eternal laws of nature.)

WHETHER WE THINK of nature as the ultimate reality, or whether we see nature as a reflection of a yet greater reality which we call God, there is a sense in which, as participants in this, we can learn to relate to the greater reality in which we live. Unless we begin to recognise the other dimensions of the natural world which I have spoken of – the mythic and spiritual dimensions which have been traditionally expressed through ceremony, prayer and pilgrimage – and understand that our relationship with it involves more than just manipulation and exploitation of natural resources for private or collective profit, we do not have much future. But exactly how we are going to do this nobody knows, and we face a challenge which no society has faced before. Because traditional peoples have not started, as we do, from a position where the whole of society and the whole economic system is geared to endless change. The system we have created is careering into the future, with a built-in dynamic for endless change, and at the same time it is upsetting the balances of the whole world and pushing us into crisis. My contention in this article is that the recognition that the world is a living world is an important contribution to our solving this problem, and one essential ingredient in whatever new vision humanity comes to.

(1) See, for instance, *'The Presence of the Past'* (Collins, 1988).

(2) See *'The Creative Imagination in the Sufism of Ibn Arabi'* by Henry Corbin. Princeton University Press, 1969.

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Moses and the Burning Bush. Courtesy of the Warburg Institute.

as an organic being. The Holy Trinity is a system of organic interaction within unity, a model of organic process which can be understood in relation to a world of process or interaction.

Creative Imagination

One of the most important ways in which we can begin to think again about the relation of God to the world is through the Imagination. Now in the works of Ibn 'Arabi there is a most interesting development of this aspect of the Divine Mind, which is a much more dynamic and interesting way of seeing things than the old concept of the Platonic Ideas in the Mind of God.(2). There was also a philosopher at the beginning of this century, called E. Douglas-Fawcett, who was the brother of the great Colonel Fawcett who disappeared in the Amazon, who wrote several books. One was called 'Divine

ary relationship to the natural world.

Some people of course will say, well why bring God in at all? Why not just have an evolving mind of nature, or an evolving natural process? But this still requires a kind of thinking about the problem, and a way of understanding evolutionary creativity, which is not given to us by any of our traditional philosophies. Cosmic evolution is a new idea. It might be implicit in certain world views, but it is not part of the standard doctrine which has come down to us. This idea of on-going evolutionary creativity is a challenge for us today. It seems that we must find some way of making sense of it, because so much of our own sense of ourselves is to do with creativity. We are obsessed with it, with changing everything, with innovation and technology, changing and improving social institutions, bringing out creativity in our children.